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## The Roles of Job Stress and Collegial Support in the Effect of Nurses' Change Fatigue Level on Occupational Identification

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### Abstract

This study was conducted to determine the mediating role of job stress and the moderating role of colleague support in the effect of change fatigue levels of nurses on professional identification. The study was designed in descriptive-cross-sectional type. The population of the study consists of 389 people selected by the simple random sampling method among 2.482 employees working in a training and research hospital in Erzincan province. The data were collected from nurses and nurse assistants working in a university education and research hospital through a questionnaire. According to the results of the study, there were negative relationships between change fatigue levels and professional identification, positive relationships between change fatigue and job stress, negative relationships between change fatigue and collegial support, negative relationships between job stress and collegial support, negative relationships between job stress and professional identification and positive relationships between collegial support and professional identification. In addition, it was found that job stress has a mediating role in the effect of change fatigue on professional identification. Finally, it was also found that colleague support has a moderating role in the indirect effect of change fatigue on professional identification (through job stress).

**Keywords:** *Change Fatigue, Occupational Identification, Job Stress, Colleague Support*

**Jel Codes:** *I12, M10, M12*

## Hemşirelerin Değişim Yorgunluğu Düzeyinin Mesleki Özdeşleşmeye Etkisinde İş Stresi ve Meslektaş Desteğinin Rolü

### Öz

Bu çalışma, hemşirelerin değişim yorgunluğu düzeylerinin mesleki özdeşleşme üzerindeki etkisinde iş stresinin aracılık rolünü ve meslektaş desteğinin moderatör rolünü belirlemek amacıyla yapılmıştır. Araştırma tanımlayıcı-kesitsel türde dizayn edilmiştir. Araştırmanın evrenini Erzincan ilinde bir eğitim ve araştırma hastanesinde görev yapan 2.482 çalışan arasından basit tesadüfi örnekleme yöntemi ile seçilen 389 kişi oluşturmaktadır. Veriler bir üniversite eğitim ve araştırma hastanesinde çalışan hemşire ve hemşire yardımcılardan anket yoluyla toplanmıştır. Araştırma sonuçlarına göre, hemşirelerin değişim yorgunluğu düzeyleri ile mesleki özdeşleşmeleri arasında negatif yönlü, değişim yorgunluğu ile iş stresi arasında pozitif yönlü, değişim yorgunluğu ile meslektaş desteği arasında negatif yönlü, iş stresi ile meslektaş desteği arasında negatif yönlü, iş stresi ile mesleki özdeşleşmeleri arasında negatif yönlü ve meslektaş desteği ile mesleki özdeşleşmeleri arasında pozitif yönlü anlamlı ilişkiler tespit edilmiştir. Ayrıca değişim yorgunluğunun mesleki özdeşleşme üzerindeki etkisinde iş stresinin aracılık rolünün olduğu bulgulanmıştır. Son olarak değişim yorgunluğunun mesleki özdeşleşme üzerindeki dolaylı etkisinde (iş stresi aracılığıyla) meslektaş desteğinin ılımlaştırıcı rolünün olduğu da tespit edilmiştir.

**Anahtar Kelimeler:** *Değişim Yorgunluğu, Mesleki Özdeşleşme, İş Stresi, Meslektaş Desteği*

**Jel Kodu:** *I12, M10, M12*

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## INTRODUCTION

The change appears as a concept that many researchers have thought about throughout human history, and which tells us that we are in a constant renewal in today's world. In the broadest sense, change can be defined as a structure in which new possibilities emerge (new policy, new idea, new behavior, new management, etc.) and includes transformations based on change (D'ortenzio, 2012; Aydoğan, 2018). Today, organizational change or transformation is a vital tool for businesses to maintain their competitiveness and their ability to transform towards innovation (Brown et al., 2017). The frequency and continuity of the changes implemented by the central authority or the managers at the upper levels make it difficult for employees to adapt to such changes. New change movements, which are unrelated to each other and whose processes are not completed or whose results are not monitored, may cause some negative consequences, such as change fatigue in employees (Ekingen & Yıldız, 2021). These negative outcomes can be seen as an increase in job stress (Turunç & Çelik, 2010; Sökmen & Şimşek, 2016; Pekkan & Yeloğlu, 2021) or a decrease in the sense of occupational identification (Van Knippenberg et al., 2006). Organizational or occupational identification, which is explained within the framework of social identity theory (Van Dick, 2001), can be expressed as the individual using his/her organization or occupation to define himself/herself, the individual matching himself/herself with his/her occupational values or the individual feeling that he/she belongs to his/her organization (Ashforth & Mael, 1989). Social identity theory suggests that the social groups of which the individual is a member play an important role in determining the feelings, thoughts, and behaviors of the individual. In short, this theory states that the individual develops depending on the groups to which he/she belongs. In social identity theory, individuals see themselves not only as an individual but also as a part of the group to which they belong (Tajfel, 1982). In addition, social identity theory tries to explain the extent to which the characteristics, attitudes, and behaviors of the group in which the person is located are compatible with the attitudes and behaviors that the person has (Yuki, 2003). When the study model and hypotheses are evaluated within the framework of this theory, employees' change processes may have some effects on individuals' occupational identities. Social identity theory tries to explain how the individual reacts to the changes in the group to which he/she belongs and how these changes affect the occupational identity of the individual. In this context, social identity theory can be particularly utilised in explaining the effect of change fatigue on occupational identification. In addition, within the framework of social identity theory, establishing a strong social identity bond with colleagues and receiving support from colleagues can play a key role in reducing change fatigue and work stress caused by change. As a result, while job stress may strengthen the effect of change fatigue on occupational identification, at the same time, colleague support may protect and strengthen occupational identification by facilitating employees coping with change fatigue.

Within this scope and theoretical framework, the main purpose of this study is to examine the causes of possible change fatigue and the relationship between such fatigue and occupational identification, colleague support (moderating effect), and job stress (mediating effect) in healthcare professionals who are the main addressees of the rapid, continuous, intensive and complex scientific and technological changes in the health sector and who try to provide patient care services without interruption while keeping up with these changes.

In this study, the mediating role of job stress and the moderating role of colleague support in the indirect effect of nurses' change fatigue on professional identification were proposed. In exploring these relationships, our study contributes to the literature in several ways. First, in this study, we examined the effect of nurses' change fatigue on their professional identification. To the best of our knowledge, limited studies (Beaulieu et al., 2022) have focused on the effect of nurses' change fatigue on identification. Therefore, we aimed to expand the related literature by focusing on the results of the possible effects of change fatigue on nurses' identification.

Secondly, we propose that job stress plays a mediating role in the indirect relationship between nurses' change fatigue and their professional identification. Studies (Lee & Kim, 2011) indicating that general fatigue in nurses causes job stress are included in the relevant literature. Our aim is to determine in which direction the current job stress levels of nurses with change fatigue will affect professional identification. With this aim, it was aimed to examine the possible identification levels that change fatigue, which has not been examined much in the literature, may reveal together with job stress and to expand the literature.

Finally, it is proposed that job stress has a mediating role and colleague support has a moderating role in the indirect relationship between change fatigue and the professional identification of nurses. In the literature, it was observed that relationships such as colleague support and role stress (Chênevert et al., 2019; Loi et al., 2014). Considering that especially nurses work with intense and heavy workload in the health sector, it is aimed to determine the possible effects of change fatigue on their professional identification. In addition, it is aimed to determine the increasing role of job stress in this relationship and the positive role of colleague support in this relationship.

For this purpose, the study conducted on nurses working in a training and research hospital, the results of the study, and the suggestions developed especially for the health sector and employees within the framework of the results are given below.

## **1. THEORY AND HYPOTHESES**

In this part of the study, the hypotheses and the study model designed in line with the purpose are given and the theoretical dimension of the study is discussed.

### **1.1. Mediating Role of Job Stress**

Change fatigue is defined as the state of negativity or boredom caused by frequent changes and innovation movements in an organization. Change fatigue arising from these reasons may occur due to the implementation of related or unrelated, simultaneous, and overlapping change initiatives of organizations and the implementation of another change without even waiting for the results of the present change practices (Drasin, 2014; Kiefer, 2005). When these negativities or exhaustion in employees develop together with job stress, they may negatively affect organizational commitment, job satisfaction, or organizational identification. In addition, studies also show that change fatigue in individuals may negatively affect occupational identification. Van Knippenberg et al. (2006) concluded in their study on students that change fatigue negatively affects occupational identification when the target point is organizational commitment. Another important issue stated in the related study is that successive changes or transformations disrupt the existing stable environment, which leads to less identification in individuals. Further, job stress may play a mediating role in the strength or direction of this

relationship. In particular, job stress may negatively affect the level of occupational or organizational identification by increasing change fatigue in individuals. When the related literature is examined, there are many studies in which inversely significant relationships were found between job stress and organizational or occupational identification (Turuñ & Çelik, 2010; Sökmen & Şimşek, 2016; Pekkan & Yelođlu, 2021). It has also been observed that studies in which change fatigue is addressed and other variables are also included in the field. For example, Turan and Akçay (2023) found a significant positive relationship between change fatigue and resistance to change levels in their research on teachers. S. Sarıgöl and Uđurluođlu (2022) also found significant relationships between change fatigue and psychological resilience and job satisfaction in their research. As a result, considering the significant non-linear relationships between job stress, occupational identification and change fatigue, the first hypothesis developed is given below (H1).

*Hypothesis 1.* Job stress has a mediating role in the relationship between change fatigue and occupational identification.

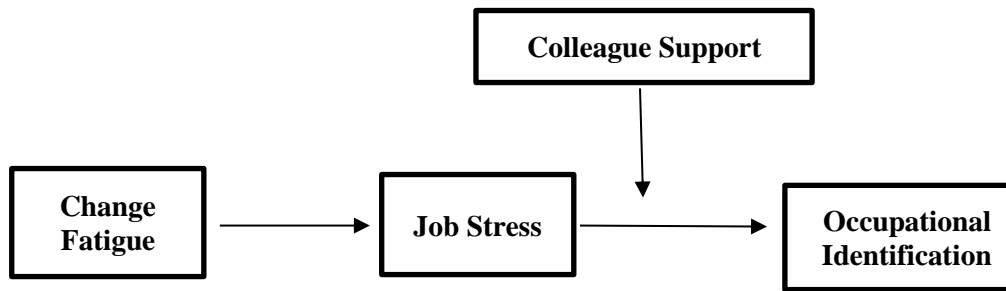
### **1.2. The Moderating Role of Colleague Support**

Colleague support refers to individuals receiving support or assistance from their colleagues in terms of professional knowledge, experience, skills, or work processes. Good colleague support enables employees to establish positive relationships with each other and positive work environments through the sharing of knowledge and experience. Employees' job stress levels can also be positively affected by this support. When the related literature is examined, it has been determined through some studies that there is a negative relationship between colleague support and job stress. For example, Yücel and Şirin (2020) found a negative relationship between colleague support and job stress among research assistants working in selected public universities. Similarly, in the study by Jenkins and Elliot (2004) on nurses, it was determined that healthcare workers who received support from their colleagues experienced less stress. Coffey and Coleman (2001), in their study on healthcare workers, concluded that the support employees receive from their managers or colleagues is an important factor in reducing job stress. In addition, when the relationship between job stress and occupational identification was analyzed, negative and significant relationships were found between the variables in general. Turuñ & Çelik (2010) found a negative relationship between job stress and identification in their study conducted on personnel working in defense industry enterprises. In their study on public employees, Sökmen and Şimşek (2016) also found a moderate negative relationship between job stress and identification. When the studies and related literature are examined, it is seen that employees who experience high levels of job stress have low levels of occupational identification. According to these results, it can be stated that employees who are exposed to intense job stress will weaken their commitment to their workplaces and organizations. In addition, job stress prevents employees from adopting the values of their organization and this situation may also prevent employees from identifying with their organization and occupation. It was finally observed that there is a positive relationship between colleague support and occupational identification within the framework of the related literature. For example, Apker et al. (2003) found that nurses' occupational identification was positively affected by managerial support, professional autonomy, and colleague support. In Özdemir's (2010) study on teachers, it was stated that giving importance to colleague support would have positive reflections on teachers' occupational identification, and teachers with a high level of identification would increase their occupational commitment and morale. It has also been observed that studies in which change fatigue is addressed and other variables are also included in the field.

For example, Kıraç and Uyar (2023) found a weak positive relationship between the change fatigue scale and techno stress and organizational commitment in their study in which they addressed change fatigue based on techno stress and organizational commitment. Arık, Öztürk and Yeşildal (2022) also found that change fatigue has an effect on work motivation. As a result, the hypotheses formed based on the aforementioned studies and the information in the literature are given below.

*Hypothesis 2.* Colleague support has a moderating role in the relationship between job stress and occupational identification.

*Hypothesis 3.* Colleague support has a moderating role in the effect of change fatigue on occupational identification (through job stress).



**Figure 1.** Displays the Theoretical Framework of the Presented Hypotheses as Follows

## 2. METHOD

### 2.1. Purpose and Importance of the Study

The study was conducted to determine the moderating role of job stress as a mediator and colleague support as a moderator in the effect of change fatigue levels of nurses on occupational identification. In line with this purpose, it was aimed to determine the relationships between change fatigue and occupational identification, change fatigue and work stress, and work stress and occupational identification. Change fatigue is a state of stress and burnout that occurs as a result of employees being exposed to constant change and innovation at work. Occupational identification, on the other hand, consists of feelings about how strongly employees feel connected to their jobs or professions. Based on the studies in the related literature, it can be stated that there is a non-linear relationship between these two variables in general (Van Knippenberg et al., 2006). In this non-linear relationship, the job stress levels of nurses and colleague support may have significant effects on the direction or strength of the relationship. For this purpose, the fact that there is no study in the related literature in which the mediating role of job stress and the moderating role of colleague support are examined is also important in terms of the contribution of the study to the field.

### 2.2. Study Population, Sample and Permissions

The study population consists of 2,482 employees working as nurses and nurse assistants in a university training and research hospital. A simple random sampling method was preferred, and it was determined that it was sufficient to collect data from 334 employees based on %95 confidence interval and %5 error rate. Before the data were collected, ethical approval was obtained from Erzincan Binali Yıldırım University Human Research Ethics Committee (Meeting protocol date 25.05.2023, protocol no: 05/09). With the positive decision of the ethics committee, 650 questionnaire forms were

distributed to the employees working in various units of the training and research hospital between 01.07.2023 and 01.09.2023. Of the distributed questionnaire forms, 410 were returned. Before the questionnaires were entered into the SPSS analysis programme, 21 questionnaires were excluded since they were incomplete, incorrect or all options were marked the same. As a result, the data were analyzed from the 389 completed questionnaires.

### 2.3. Data Collection Tools

The data collection tool of the study consists of five parts. The first part consists of five questions (gender, age, marital status, educational status, and years of service in the organization) developed to determine the demographic status of the employees. In the second part, the “Change Fatigue Scale” which constitutes the independent variable; in the third part “Occupational Identification Scale” which constitutes the dependent variable; in the fourth part the “Job Stress Scale” which constitutes the mediating variable; and in the fifth part, the “Colleague Support Scale” which constitutes the moderating variable were used.

**Change Fatigue Scale:** In the study, the “Change Fatigue Scale” developed by Bernerth, Walker and Harris (2011) and Turkish adaptation and validity and reliability studies conducted by Ekingen and Yıldız (2021), was used to measure the change fatigue level of the participants. The scale consists of six statements and one dimension. The 7-point Likert-type scale is organised as “1: Strongly disagree to 7: Strongly agree.” Depending on the score obtained from the scale items, comments can be made about the level of change fatigue. Accordingly, a high score obtained means that the level of fatigue due to change is also high. In addition, while the internal consistency coefficient of the scale was determined to be 0.88 in the original version of the scale, the Cronbach’s Alpha coefficient was determined to be 0.90 in the validation study.

**Occupational Identification Scale:** In the study, the “Occupational Identification Scale” developed by Mael and Ashforth (1992) and Turkish adaptation and validity and reliability studies conducted by Kırkbeşoğlu and Tüzün (2009) was used to measure the level of occupational identification. The original scale, known as organizational identification, was designed by Kırkbeşoğlu and Tüzün (2009) as occupational identification. The measurement tool consists of six items and one dimension. The 5-point Likert-type scale is organised as “1: Strongly disagree to 5: Strongly agree.” Further, according to the validity and reliability study of the scale, the internal consistency coefficient was determined to be 0.71.

**Job Stress Scale:** In the study, the job stress scale designed by Parasuraman, Greenhaus and Granrose (1992), and Turkish adaptation and validity and reliability studies conducted by Karabay (2015) was used. The scale, consisting of six items and one dimension, is graded on a 5-point Likert type. The scale is organised as “1: Strongly disagree” to “5: Strongly agree.” There is no reverse scored item in the scale. The general stress level can be determined with the total scale score. The scale mean can be calculated as a minimum of 6 and a maximum of 30 points. According to the averages, a high score is interpreted as a high level of job stress. Finally, while the internal consistency coefficient of the scale was determined to be 0.86 in the original version, Cronbach’s Alpha coefficient was determined as 0.91 in the validation study.

**Colleague Support Scale:** In the study, the “Colleague Support Scale,” which was first developed by Podsakoff, Ahearne, and MacKenzie (1997) and used in a study conducted by Zhou and George (2001), was used to determine colleague support. The scale, which consists of one dimension and four items, is graded on a 5-point Likert type. The scale is organised as “1:

Strongly disagree” to “5: Strongly agree.” Finally, the internal consistency coefficient of the scale in its original form was found to be 0.73.

## 2.4. Data Analysis

SPSS 27, AMOS 24, and SPSS PROCESS MACRO analysis programs were used to analyze the study data. Firstly, frequency analyzes were performed to analyze the demographic characteristics of the participants who voluntarily participated in the study. Then, Cronbach’s Alpha coefficient was calculated to determine the reliability coefficient of each scale before proceeding to the analysis of the variables. Then, confirmatory factor analyzes (CFA) were conducted to assess the validity of the scales. Finally, the mediating and moderating roles of the study were analyzed using SPSS MACRO model 14.

## 3. RESULTS

### 3.1. Control Variables

In previous studies (Kroon & Noorderhaven, 2018; Sloan, et.al., 2015; Gümüş, et.al., 2012; Inwood & Reid, 2001), demographic variables such as gender, age, marital status, and educational status were found to be significantly related to occupational identification behavior. Therefore, in our study, gender, age, marital status, and education variables of the employees were controlled in line with previous studies.

### 3.2. Correlation Analyzes

According to the data in Table 1, the reliability coefficients of the scales of the study are as follows: change fatigue ( $\alpha = 0.825$ ), occupational identification ( $\alpha = 0.710$ ), job stress ( $\alpha = 0.836$ ), and colleague support ( $\alpha = 0.935$ ). These findings show that the scales have high reliability (Karagöz, 2019).

**Table 1.** Intercorrelations for variables

Scales	1	2	3	4	5	6	7	8
1	-							
2	-.178*	-						
3	.317**	-.516*	-					
4	-.319**	.106*	-.196**	-				
5	-.097	.026	-.350**	.118*	-			
6	.333**	-.056	.216**	-.285**	-.264**	-		
7	-.194**	-.067	-.207**	.205**	.553**	-.395**	-	
8	.340**	.008	.248**	-.487**	-.248**	.463**	-.475*	-

N=389; \*\*p < .01; 1: Gender, 2: Age, 3: Marital Status, 4: Education Level, 5: Change Fatigue, 6: Occupational Identification, 7: Job Stress, 8: Colleague Support

When the correlation values between the scales in Table 1 are analyzed, various relationships are observed. Firstly, a significant and negative relationship was determined between change fatigue and occupational identification ( $r = -0.264$ ;  $p < 0.01$ ). Secondly, a significant and positive relationship was found between change fatigue and job stress ( $r = 0.553$ ;  $p < 0.01$ ). The third finding of the table reveals a significant and negative relationship between change fatigue and colleague support ( $r = -0.248$ ;  $p < 0.01$ ). Another finding shows that there is a significant and negative relationship between job stress and colleague support ( $r = -0.475$ ;  $p < 0.01$ ). Moreover, another result obtained from the table reveals a significant and negative relationship between job stress and occupational identification ( $r = -0.395$ ;  $p < 0.01$ ). Finally, another finding in the table indicates that there is a significant and positive relationship between colleague support and occupational identification ( $r = 0.463$ ;  $p < 0.01$ ).

### 3.3. Measurement Models

Before testing the hypotheses of the study, confirmatory factor analysis was applied to determine the construct validity of the scales. In this context, the presence of common method variance was also examined (Podsakoff et al., 2003; Lindell & Whitney, 2001). Common method variance refers to the systematic error variance that occurs in the same time period of multiple scales evaluated by the same participants in the same questionnaire (Özyılmaz & Eser, 2013). In the study, since the variables of change fatigue, job stress, colleague support, and occupational identification were evaluated by the same participants in the same questionnaire, the possibility of common method variance was taken into consideration. A frequently used method to determine the existence of this tendency is Harman's single factor test (Bolat, 2011). In Harman's single factor test, all variables in the study were subjected to explanatory factor analysis at the same time (Podsakoff et al., 2003; Malhotra et al., 2006). In this framework, confirmatory factor analysis (CFA) was used to evaluate the construct validity of the variables. In Table 2, goodness of fit values for the four-factor measurement model including all variables in the study and other alternative models (Model 1, Model 2, Model 3, and Model 4) are presented.

**Table 2.** Results of Confirmatory Factor Analyzes of Study Measures

Models	$X^2 / df$	RMSEA	CFI	TLI	NFI	SRMR
<b>Measurement model, four -factor model</b>	2.128	0.034	0.972	0.974	0.912	0.092
<b>Model 1, three-factor model</b>	4.772	0.071	0.904	0.901	0.862	0.073
<b>Model 2, three-factor model</b>	7.675	0.098	0.781	0.778	0.758	0.114
<b>Model 3, two-factor model</b>	8.957	0.130	0.679	0.673	0.672	0.128
<b>Model 4, one-factor model</b>	9.822	0.148	0.572	0.477	0.488	0.136

Note: N = 389. RMSEA= root mean square error of approximation; CFI= comparative fit index; TLI= tucker- levis index; NFI= normative fitting index; SRMR=standardized root mean square residual.

Table 2 shows that the goodness of fit values of the measurement model ( $X^2/df = 2.128$ , RMSEA = 0.034, CFI = 0.972, TLI = 0.974, NFI = 0.912, SRMR = 0.092) of the scales used in the study showed better fit than the goodness of fit values of other alternative models (Hu & Bentler, 1999; Mishra & Datta, 2011). According to this result, it can be expressed that the



scales used in the study have good discriminative properties. In this context, it can be claimed that the 4-factor measurement model of the study is the model that best explains the structural relationship between the scales.

### 3.4. Testing Hypotheses

In the study, variables including demographic information (gender, marital status, age, and education level) in which nurses participated were determined as control variables. These control variables were also taken into consideration and analyzed in the models used in hypothesis testing. The study includes a stage in which three different models are analyzed to test the hypotheses based on the results of correlation analysis between the scales and confirmatory factor analysis. In the study, three separate hypotheses were identified and tested. Firstly, it was examined whether job stress has a mediating role in the effect of change fatigue on occupational identification (Hypothesis 1). In the second stage, it was investigated whether colleague support plays a moderating role in the relationship between job stress and occupational identification (Hypothesis 2). In the last stage of the study, it was tested whether colleague support has a moderating role in the indirect effect of change fatigue on occupational identification (through job stress) (Hypothesis 3).

In the study, firstly, in order to test the mediation analysis, the analyzes were carried out by choosing the model number 4 and 500 sample options among the models in the Process Macro tab of the SPSS package programme. The results obtained are presented in Table 3.

**Table 3.** Regression results for mediation effect

	Work Stress					
	$\beta$	SE	<i>t</i>	<i>p</i>	LLCI	ULCI
<b>Gender</b>	-0.198	0.074	-2.664	.008	-.345	-.052
<b>Age</b>	-0.113	0.042	-2.658	.008	-.196	-.029
<b>Marital status</b>	-0.052	0.088	-0.593	.553	-.226	.121
<b>Educational level</b>	0.099	0.038	2.574	.010	.023	.174
<b>Change Fatigue</b>	0.464	0.040	11.567	.000	.385	.543
	Occupational identification					
	$\beta$	SE	<i>t</i>	<i>p</i>	LLCI	ULCI
<b>Gender</b>	0.310	0.072	4.335	.000	.170	.451
<b>Age</b>	0.002	0.041	0.039	.969	-.079	.082
<b>Marital status</b>	0.063	0.084	0.751	.453	-.102	.228
<b>Educational level</b>	-0.112	0.037	-3.027	.003	-.184	-.039
<b>Job Stress</b>	-0.253	0.049	-5.202	.000	-.349	-.158

<b>Direct effect of Change Fatigue</b>	-0.042	0.044	-0.942	.347	-.129	.046
<b>Total effect of Change Fatigue</b>	-0.159	0.040	-4.033	.001	-.237	-.082
<b>Indirect effect of Work Stress on Change Fatigue via Occupational identification</b>			<b>Effect</b>	<b>SE</b>	<b>LLCI</b>	<b>ULCI</b>
			-0.117	0.031	-.189	-.062

Note:  $N=389$ ; SD = Standard deviation; SE = Standard Error; Bootstrap Sample size = 5.000. LL = lower limit; CI = confidence interval; UL = upper limit

The analysis of the data in Table 3 shows that change fatigue has a significant and positive effect on job stress ( $\beta = 0.464$ ,  $t = 11.567$ , 95% CI [.385, .543]). Another finding in the table is that job stress significantly and negatively affects occupational identification ( $\beta = -0.253$ ,  $t = -5.202$ , 95% CI [-.349, -.158]). Table 3 shows the result of the mediation analysis, which is the H1 hypothesis of the study. The table shows that change fatigue has a mediating role on occupational identification ( $\beta = -0.117$ , 95% CI [-.189, -.062]). This result supported Hypothesis 1. Moreover, the Bootstrap confidence interval values shown in Table 3 also confirm that the indirect effect (mediating effect) is significant (CI [-.189, -.062]).

### 3.5. Test of Moderated Mediation

In this phase of the study, the moderator variable job stress, which is the focal point of the study, is to test the existence of a moderating role (Hypothesis 2) in the relationship between job stress and occupational identification. In this context, model number 14 was selected among the models available in SPSS Process Macro programme, and analyzes were performed.

**Table 4.** Regression results for moderator effect

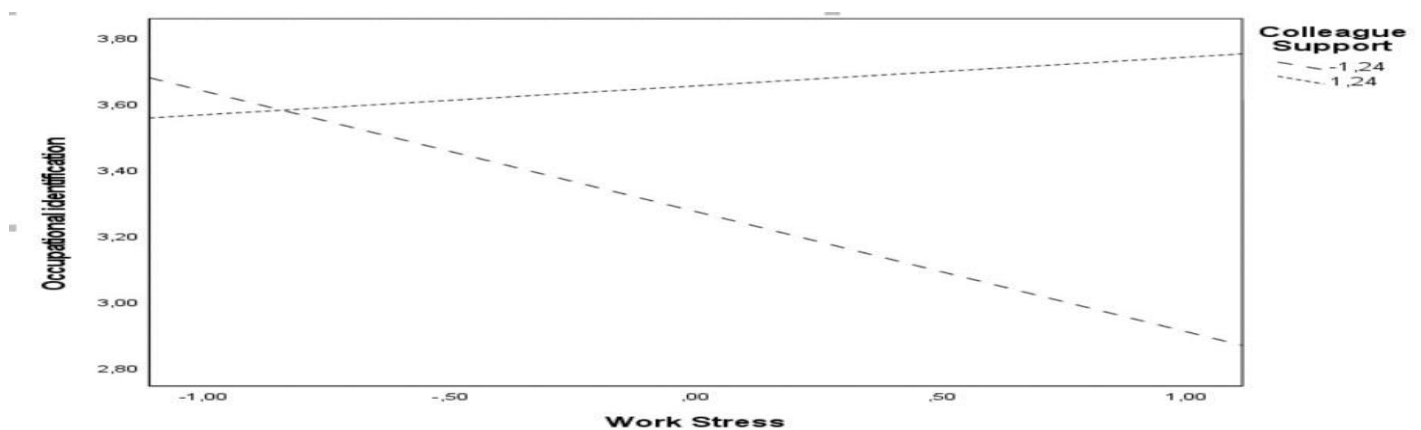
<b>Occupational identification</b>						
	$\beta$	SE	$t$	$p$	LLCI	ULCI
<b>Gender</b>	0.214	0.068	3.138	.002	.080	<b>.348</b>
<b>Marital status</b>	-0.084	0.081	-1.035	.301	-.243	<b>.075</b>
<b>Age</b>	-0.113	0.042	-2.658	.008	-.196	<b>-.029</b>
<b>Educational level</b>	0.099	0.038	2.574	.010	.023	<b>.174</b>
<b>Change Fatigue</b>	-0.049	0.040	-1.242	.215	-.127	<b>.029</b>
<b>Job Stress</b>	-0.139	0.049	-2.824	.005	-.235	<b>-.042</b>
<b>Colleague Support</b>	0.154	0.029	5.331	.000	.126	<b>.239</b>
<b>WS x OI</b>	<b>0.177</b>	<b>0.031</b>	<b>5.675</b>	<b>.000</b>	<b>.116</b>	<b>.238</b>

Note:  $N=389$

A moderator variable is a factor that affects the severity of the relationship between dependent and independent variables. The effect of the moderator variable shows how this variable influences the severity of the relationship as its severity increases or decreases (Gürbüz, 2019). The interaction between the independent variable and the moderator variable must

be significant to examine the moderator effect (Baron & Kenny, 1986; Edwards & Lambert, 2007; Gürbüz, 2019). It is needed to examine the interaction between job stress and occupational identification in order to determine the presence of a moderator effect in the study. Table 4 shows that the interaction between job stress and occupational identification is significant ( $\beta = 0.177$ , 95% CI [.116, .238]).

The slope analysis results presented in Table 4 show the effect of job stress on occupational identification when the moderator variable colleague support is low and high (Aiken & West, 1991). In order to determine whether the effects of job stress on occupational identification are significant in cases where colleague support is low and high, the confidence intervals (LLCI- ULCI) calculated with the bootstrap technique should be examined. These confidence interval values should not be 0 (zero) (Hayes, 2018; Gürbüz, 2019).



**Figure 2.** Moderating Model

The slope of the lines in Figure 2 shows how the indirect effect of change fatigue on occupational identification through job stress varies at different levels of colleague support. In Figure 2, since the moderator variable, colleague support, is centralized low values represent -1 standard deviation distance from the center high values represent +1 standard deviation distance from the center and medium values represent values close to 0 (Aiken & West, 1991; Zander et al., 2014; Gürbüz, 2019). The graph shows that the negative effect of job stress on occupational identification in employees with a high perception of colleague support is strong when colleague support is low and weak when colleague support is high. Hypothesis 2 is supported according to this result.

**Table 5.** Regression results for the conditional indirect effect

Colleague Support	Boot indirect	BootSE	BootLLCI	BootULCI
-1 SD (-.92)	-0.164	0.048	-.258	-.070
M (.00)	-0.068	0.029	-.127	-.014
+1 SD (.92)	0.039	0.032	-.024	.099
<b>Index of Moderated Mediation</b>	<b>0.082</b>	<b>0.024</b>	<b>.034</b>	<b>.129</b>

Note:  $N=389$

In the last hypothesis of the study, it was questioned whether colleague support has a moderating role in the indirect effect of change fatigue on occupational identification (through job stress). According to these results obtained in Table 5, it was found that the indirect effects of job stress on occupational identification were significant at low ( $\beta = -.164$ , 95% CI [-.258, -.070]) and medium ( $\beta = -.068$ , 95% CI [-.127, -.014]) levels of colleague support, but these effects were insignificant at high ( $\beta = .039$ , 95% CI [-.024, .099]) levels of colleague support. The situational mediation index value presented in Table 5 showed that this mediation effect was significant ( $\beta = .082$ , 95% CI [.034, .129]). In this context, the last hypothesis of the study, Hypothesis 3, was supported.

#### 4. DISCUSSION

In this study, the mediating role of job stress and the moderating role of colleague support in the effect of change fatigue levels of nurses on their occupational identification were examined. The main aim of the study was to determine the moderating role of colleague support in the effect of change fatigue on occupational identification (through job stress). For this purpose, three different hypotheses of the study were tested through the data collected from 389 nurses working in a university-affiliated training and research hospital. In line with the hypotheses tested in the light of the data obtained, the study results and the various studies carried out in different fields within the framework of the relevant literature, suggestion regarding nurses' change fatigue, occupational identification, job stress, and colleague support are given below.

When the first hypothesis developed within the scope of the study, "Job stress has a mediating role in the relationship between change fatigue and occupational identification", was tested, it was determined that job stress had a mediating role in the significant relationship between nurses' change fatigue levels and occupational identification. H1 hypothesis was accepted according to this result. As a result, nurses' high level of change fatigue negatively affect their occupational identification when taken together with their job stress. When the related literature is examined, it is found that the high change fatigue observed in employees causes increased tension, burnout, job stress, turnover intention, decreased commitment, low job satisfaction, and decreased performance and productivity (Cox et al., 2022; Bernerth et al., 2011; Brown et al., 2018). Further, Van Knippenberg et al. (2006) found that change fatigue negatively affects occupational identification in cases where organizational commitment decreases. In addition to these findings, there are many studies in the literature, including study results that job stress reduces organizational identification (Pekkan & Yeloğlu, 2021; Pretorius & Padmanabhanunni, 2022). Based on the results of our study and the other studies in the literature, it can be stated that the stress and stress factors caused by change fatigue increase the general job stress of employees. Increased job stress negatively affects occupational identification. For this reason, managers should pay attention to ensure that the changes they will realise in health institutions do not develop in a way that will increase the stress level of nurses and other employees. In particular, it is necessary to follow the results of the change movements to be made and new change activities should not be initiated before the current change results are monitored. In this way, the job stress levels of nurses working under intense stress can be kept under control and their occupational identification can be positively affected. In addition, resistance to change and fatigue can be reduced by healthcare managers communicating effectively with nurses during change processes, planning workloads in a more balanced way, providing training and development opportunities, and

increasing job satisfaction and motivation by creating supportive work environments. This situation may also lead to a higher level of occupational identification behavior by reducing job stress.

When the second hypothesis “Colleague support has a moderating role in the relationship between job stress and occupational identification” was tested, it was found that colleague support plays a moderating role in the significant relationship between nurses’ job stress levels and occupational identification. H2 hypothesis was accepted according to this result. In other words, as nurses’ job stress levels increase, their occupational identification may be positively affected by high colleague support. On the contrary, as job stress levels increase, occupational identification may be negatively affected by low colleague support. When the literature is examined, Kokoroko and Sanda (2019) concluded in their study on Ghanaian nurses that high levels of workload cause job stress and nurses’ job stress can be reduced by the buffering effect of high levels of colleague support in this process. Leyin and Wakerly (2007) stated that informal colleague support is an important factor in reducing job stress in their study on individuals working in accommodation facilities. Similar results were also found in the study of Yang and colleagues (2015). In addition, in the literature, many studies have found that there are significant negative relationships between job stress and occupational identification of employees (Turunç & Çelik, 2010:183; Sökmen & Şimşek, 2016). In conclusion, in the light of the results supporting hypothesis H2 of our study and the studies in the related literature, it can be stated that colleague support has a moderating role in the significant relationship between nurses’ job stress and occupational identification and colleague support acts as a buffer in this relationship. Based on these results, colleague support among nurses and helping behaviors of colleagues against workplace problems may alleviate nurses’ stress levels and facilitate their coping with negative situations. In addition, since the emotional needs of the employees can be met through colleague support, it may be easier for them to cope with job stress and their occupational identification increases. At this stage, healthcare managers should especially give importance to mentoring activities within the institution, increase training and career opportunities, encourage organizational environments that support cooperation and teamwork, increase social activities within the organization, and enable colleagues to come together and get to know each other outside the work environment. Thus, an environment can be prepared for the strengthening of the relations between nurses and the development of colleague support within the organization.

When the third hypothesis developed within the scope of the study “There is a moderating role of colleague support (through job stress) in the effect of change fatigue on occupational identification” was tested, it was determined that there is a moderating role of colleague support through job stress in the significant relationship between change fatigue levels of nurses and their occupational identification. Hypothesis H3 was accepted according to this result. In other words, while nurses’ high levels of change fatigue reduce the level of occupational identification with their job stress, colleague support may act as a buffer for greater identification by taking a supportive role in this relationship. At this stage, healthcare managers should reduce the factors that may cause change fatigue and job stress and support practices that can improve colleague support in order to increase the occupational identification of nurses and increase their commitment to the organization.

## CONCLUSION

In this study, we proposed and tested a mediation and moderating model to determine the mediating role of job stress and moderating role of colleague support in the effect of change fatigue levels of nurses on professional identification. The results of the research a) we determined that job stress has a mediating role in the effect of change fatigue on professional identification. b) we also determined that colleague support has a moderating role in the indirect effect of change fatigue (through job stress) on professional identification. Taken as a whole, this study provides new insights into the relationship between change fatigue and professional identification among nurses and highlights the moderating role of colleague support as a mediator of job stress. Using these results, hospital administrators may consider more reasonable planning by considering the possible effects and consequences of change, taking into account the negative effects on the overall identification of nurses exposed to constant change.

In conclusion, this study has some limitations. Firstly, the study was conducted on individuals working in a training and research hospital operating in a limited region. This is one of the biggest obstacles to generalisation about the variables. Further, the topic of the study can be generalised by conducting it on hospitals in different regions, different cultures, different business and organizational structures or different sector employees. This cross-sectional study can be analyzed using longitudinal methods by collecting data at different time periods, which may yield more accurate results.

## ETİK BEYAN VE AÇIKLAMALAR

### *Etik Kurul Onay Bilgileri Beyanı*

Çalışma, etik kurul izni gerektirmeyen bir çalışmadır.

### *Yazar Katkı Oranı Beyanı*

Yazarlar tüm çalışmalarını birlikte yürütmüştür.

### *Çıkar Çatışması Beyanı*

Çalışmada potansiyel bir çıkar çatışması bulunmamaktadır.

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