





The Relationship Between Nurses' Individual, Work-related Variables, Colleague Solidarity, and Work Engagement: A Cross-Sectional Study

Hemşirelerin Bireysel, İşle İlgili Değişkenleri, Meslektaş Dayanışması ve İşe Bağlılıkları Arasındaki İlişki: Kesitsel Bir Çalışma

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ABSTRACT

Objective: The aim of this study was to examine the effect of nurses' individual, work-related variables and colleague solidarity on their level of work engagement.

Methods: This cross-sectional, descriptive study was conducted between October and December 2021 in a private chain hospital group in Turkey, using an online survey. The sample of the study consisted of 331 nurses. The Individual and Work-related Characteristics Form, the Colleague Solidarity of Nurses Scale, and the Work Engagement Scale were used for data collection. Descriptive statistics, Spearman correlation, and multiple linear regression analyses were used in the data analysis.

Results: In the study, the mean score of the Colleague Solidarity of Nurses Scale was 103.87 (± 9.64), and the mean score of the Work Engagement Scale was 61.53 (± 16.31). A positive and significant relationship was found between the scores that nurses obtained from the Colleague Solidarity of Nurses Scale and the Work Engagement Scale ($r = 0.33, P < .001$). In the regression analysis, it was determined that 6 independent variables affected nurses' level of work engagement and that these 6 variables explained 17.9% of the total variance.

Conclusion: The results revealed that colleague solidarity, being married, long-term professional experience, and a high perception of workload increased work engagement. The results also indicated that working as a nurse manager and having the intention to leave work reduced work engagement.

Keywords: Nurse, work engagement, colleague solidarity

ÖZ

Amaç: Bu çalışmanın amacı, hemşirelerin bireysel, işle ilgili değişkenleri ve meslektaş dayanışmasının işe bağlılık düzeyleri üzerindeki etkisini incelemektir.

Yöntemler: Bu kesitsel, tanımlayıcı çalışma Ekim-Aralık 2021 tarihleri arasında Türkiye'de özel bir zincir hastane grubunda çevrimiçi anket kullanılarak gerçekleştirildi. Çalışmanın örneklemini 331 hemşireden oluşmaktadır. Veri toplamak için Bireysel ve İşe İlişkin Özellikler Formu, Hemşirelerde Meslektaş Dayanışması Ölçeği ve İşe Bağlılık Ölçeği kullanılmıştır. Verilerin analizinde tanımlayıcı istatistikler, Spearman korelasyon ve çoklu doğrusal regresyon analizi kullanılmıştır.

Bulgular: Araştırmada Hemşirelerde Meslektaş Dayanışması Ölçeği puan ortalaması 103,87 ($\pm 9,64$) ve İşe Bağlılık Ölçeği puan ortalaması 61,53 ($\pm 16,31$) olarak bulunmuştur. Hemşirelerde Meslektaş Dayanışması Ölçeği ve İşe Bağlılık Ölçeği'nden aldıkları puanlar arasında pozitif yönde ve anlamlı bir ilişki bulunmuştur ($r:0,33, P < ,001$). Regresyon analizinde altı bağımsız değişkenin hemşirelerin işe bağlılık düzeyini etkilediği ve bu altı değişkenin toplam varyansın %17,9'unu açıkladığı belirlenmiştir.

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Sonuç: Bu çalışma, meslektaş dayanışmasının, evli olmanın, uzun süreli mesleki deneyimin ve yüksek iş yükü algısının işe bağlılığı artırdığını ortaya koymuştur. Sonuçlar ayrıca, yönetici hemşire olarak çalışmanın ve işten ayrılma niyetinin işe bağlılığı azalttığını göstermiştir.

Anahtar Kelimeler: Hemşire, işe bağlılık, meslektaş dayanışması

INTRODUCTION

Today, healthcare organizations are experiencing several challenges, such as increased competition, financial constraints, patient safety concerns, the insurance of patient and family satisfaction, the achievement of sustainable quality criteria, and workforce shortages.¹ In order to overcome such challenges, they need employees who are highly engaged with their work.² Previous studies have indicated that nurses with a high level of engagement demonstrate increased work effectiveness and performance,^{3,4} quality of care,⁵ patient safety, patient satisfaction,⁶ and job satisfaction.³ It is thus essential to create a hospital work environment that encourages nurses to be engaged in their work. As such, a more complete understanding of the key drivers of work engagement is critical.²

Studies conducted on the predictors of employee engagement have measured perceptions of working conditions, generally focusing on job resources and job demands.⁷ Systematic reviews examining the studies conducted on nurse engagement concluded that the predictors of engagement are individual/organizational resources and job demands.⁸⁻¹⁰ On the other hand, Saks and Gruman have drawn attention to the remaining uncertainty concerning the influencing factors of employee engagement.⁷

The concept of employee engagement has been the focus of attention for both researchers and managers. The first empirical study on the concept of engagement was conducted by Kahn,¹¹ who stated that an individual's degree of engagement is formed through experiences related to 3 psychological situations: psychological meaningfulness, psychological safety, and psychological availability. He also argued that individuals reflect on these 3 aspects when making decisions about the extent to which they will involve themselves in any role. Thus, employees who consider their work meaningful and feel confident and prepared would be more involved in their work roles.¹² He defined a fully engaged person as "attentive, connected, integrated, and absorbed," pointing out the importance of the degree to which employees experience meaningfulness at work.¹¹ Schaufeli and Salanova,¹³ on the other hand, defined the concept of engagement as "a positive, fulfilling, work-related state of mind that is characterized by vigor, dedication, and absorption." In this context, vigor refers to the presence of a high level of energy and mental resilience when working; dedication refers to a strong sense of involvement, importance, enthusiasm, and motivation; and absorption refers to the state of being completely concentrated on and devoted to one's work. Engagement is not associated with personal characteristics but is a result of the interaction between personal learning and the quality of one's work environment throughout one's career.⁹ Therefore, engagement is a changeable element of the work environment.⁷

Nurse engagement affects nurse performance and, thus, healthcare outcomes and is closely associated with work environment characteristics. Keyko et al¹⁰ examined the concept of engagement within the scope of the Nursing Job Demands-Resources (NJD-R) model, categorizing it into 6 themes, including 77 factors.

These 6 themes are: "organizational climate," "job resources," "professional resources," "personal resources," "job demands," and "demographic variables." Previous studies showed that job resources such as autonomy/job control, a supportive work environment, coaching, feedback, and development opportunities increase nurse engagement.^{9,14} It was also found that heavy workloads and increased emotional and organizational demands decreased nurses' engagement.¹⁴

Crawford et al¹⁵ defined job demands as either "challenging" or "hindering," arguing that challenging demands increase work engagement while hindering demands decrease work engagement.¹⁵ In their longitudinal study, Kiema-Junes et al¹⁶ argued that the provision of social support from colleagues and managers in the workplace increases work engagement, even in the case of increased job demands. In a study examining the precursors of Japanese nurses' work engagement, Kato et al⁹ found that, contrary to the findings of studies conducted in Western countries, nursing teamwork affects nurses' level of engagement. Kristoffersen¹⁷ pointed out that, due to its nature, nursing is practiced in close cooperation with both colleagues and other healthcare team members, thus highlighting the importance of colleague solidarity among nurses.

Colleague solidarity is defined as the support provided by colleagues and involves the sharing of professional knowledge, techniques, and skills.¹⁸ One's ability to help and establish solidarity with one's colleagues increases organizational productivity through effective coordination and the improvement of one's skills and abilities. It is extremely important that nurses working under challenging and exhausting conditions receive help and solidarity from both the institution and their colleagues.¹⁹ Previous studies found that colleague solidarity had a positive impact on variables such as job satisfaction, motivation, organizational commitment, organizational climate, and job satisfaction.^{20,21} In work environments that do not enable colleague solidarity, nurses were reported to be unhappy, dissatisfied, exhausted, inefficient, and alienated from their work.¹⁹ Colleague solidarity, which enables adjustment and stress management at work,¹⁷ could increase engagement by enhancing job satisfaction, thus facilitating both the preservation of nurses' individual well-being and the provision of better quality services. Therefore, this study aimed to examine the effect of nurses' individual and work-related characteristics on work engagement and colleague solidarity.

AIM

The study aimed to examine the effects of nurses' individual and work-related characteristics and colleague solidarity on nurses' level of engagement.

METHODS

Design

This descriptive, cross-sectional study was conducted between November and December 2021 in a private chain hospital in Turkey, using an online survey.

Setting and Sample

This study's universe consisted of 2,700 nurses working in 30 hospitals in a chain hospital group in Turkey. The sample's calculation was performed based on a 95% confidence interval and a 5% margin of error using the known universe sample calculation method, which resulted in a total of 336.²² The sampling criteria were: at least 6 months of nursing experience in the relevant hospital group; and consent to participation in the study. A total of 355 nurses responded to the online survey, which sent 3 reminder messages at 15-day intervals. Twenty-three nurses who had not completed the survey were excluded from the sample, resulting in a final sample size of 331 nurses. The G*Power program (version 3.1) was used to perform post hoc power analysis based on the value of R^2 a 17.9% found in the regression analysis, in which six independent variables were concluded to have significant effects on the level of work engagement of the participants. The standard effect (large effect) size (f^2) and power were found to be 0.64 and 0.95 (95%), indicating that the sample size was sufficient.

Measurements and Data Collection

The data was collected online via a Google Forms document. Permission for the study was obtained from the central administration of the hospitals, and the online survey link was sent to the participants' corporate email addresses by the directors of nursing services. During data collection, 3 reminders of the survey were sent at 15-day intervals. Participation was voluntary, and the online survey contained no personal identifying elements of the participants. Summary of the study's purpose and information about informed consent were included on the first page of the data collection form. Participants were able to begin the survey only after they agreed to participate in the study by clicking on the "I accept" button, and the survey took approximately 10 minutes to complete. The Individual and Work-related Characteristics Form, the Colleague Solidarity of Nurses Scale, and the Utrecht Work Engagement Scale were used in the collection of research data.

Individual and Work-related Characteristics Form

This form was prepared by the researcher and was based on a literature review.^{9,20} The questionnaire consists of 18 questions about demographics (age, gender, marital status, and educational background), professional characteristics (unit, position, duration of experience, and work schedule), and nurses' opinions concerning work-related variables and job satisfaction.

Utrecht Work Engagement Scale

This 5-point Likert-type scale was developed by Schaufeli et al.²³ and was adapted to Turkish by Eryılmaz and Doğan.²⁴ The scale was scored as (1) "Not at all appropriate," (2) "Not appropriate," (3) "Slightly appropriate," (4) "Appropriate," and (5) "Completely appropriate." There are no reverse-coded items in the scale. Higher scores obtained from the scale indicate a higher level of work engagement. The "Work Engagement Scale" consists of 3 subscales: vigor, dedication, and absorption. Sampling items for each subscale included (respectively): "At my work, I always persevere, even when things do not go well," "I find the work that I do full of meaning and purpose," and "I get carried away when I'm working." The Cronbach's alpha reliability coefficient for the overall scale was 0.94 for the original study, and the reliability coefficients obtained for the subscales were 0.87, 0.87, and 0.84, respectively. The Cronbach's alpha reliability coefficient of the overall scale in the Turkish version was 0.94, while it was 0.87, 0.87, and 0.84 for the subscales, respectively.

Colleague Solidarity of Nurses Scale (CSNS)

The Colleague Solidarity of Nurses Scale (CSNS), which is used to measure nurse solidarity, was developed by Çetinkaya-Uslusoy and Ecevit-Alpar.¹⁸ It is a 5-point Likert-type scale consisting of 23 questions rated as "Always (5)," "Often (4)," "Occasionally (3)," "Rarely (2)," and "Never (1)." The scale includes 3 subscales: "emotional solidarity," "academic solidarity, and "negative opinions about solidarity." The "emotional solidarity" subscale measures emotional friendship relations among colleagues; the "academic solidarity" subscale measures solidarity behaviors exhibited in a professional manner; and the "negative opinions about solidarity" subscale measures negative statements of expressions of solidarity. The expressions in the third subscale are reverse-scored. The lowest possible score obtained from the scale is 23, while the highest score is 115. Higher scores indicate a higher level of nurse solidarity. Sample items for each subscale are, respectively: "I establish a strong bond of friendship with my colleagues," "I share my professional knowledge with colleagues who need it," and "I cannot help my colleagues because of my workload." The Cronbach's alpha reliability coefficient of the overall scale was 0.80, while it was 0.80, 0.78, and 0.63 for the subscales, respectively.¹⁸

Statistical Analysis

Data was analyzed using IBM Statistical Package for the Social Sciences Statistics for Windows, version 26.0 software (Armonk, NY, USA). The normal distribution of the scale scores was determined using the Skewness (-0.2908 and -0.592) and Kurtosis values (0.000 and 6.351), which did not indicate a normal distribution.²⁵ Descriptive statistics (numbers, percentages, arithmetic mean, and standard deviation) were performed for individual and work-related variables, and the relationship between the scale scores was analyzed using Spearman correlation. The effect of independent variables on the dependent variable (work engagement) was analyzed using multiple linear regression (forward). Independent variables were considered to be either numeric or categorical variables. The numerical variables included the overall CSNS score, age, and duration of professional experience. Each of the categorical variables was binary coded. The significance level was set at $P < .05$.

Ethical Considerations

Ethical approval for this study was granted by the ethics committee of İstinye University (Date: August 23, 2021, Number: 21-69), and institutional permission was received from the executive nurse at the headquarters of the relevant hospitals. The first page of the online survey included information about the purpose of the study and the number of questions, indicating that participation was voluntary. Only employees who had been working in the current hospital for at least 6 months were invited to participate in the study, and those who volunteered could complete the questionnaire only after clicking on the "Yes, I would like to participate" box. The completed surveys forwarded to the researchers did not include identifying information of the participants.

RESULTS

Nurses' individual and work-related variables are shown in Table 1.

The findings regarding nurses' satisfaction/perception of work-related variables and their intention to leave work are shown in Table 2.

Table 1. Nurses' Individual and Work-related Variables (n = 331)

Variables		n	%
Age	<30 years old	228	68.9
	≥30 years old	103	31.1
	Mean (SD): 28.31 (7.79)		
Gender	Men	62	18.7
	Women	269	81.3
Marital status	Single	200	60.4
	Married	131	39.6
Educational background	High school	150	45.3
	Associate degree	89	26.9
	Baccalaureate degree	77	23.3
	Graduate degree (MSc or PhD)	15	4.5
Current unit	Inpatient	258	77.9
	Outpatient	73	22.1
Position	Staff nurse	233	70.4
	Educator or manager nurse	98	29.6
Duration of professional experience (years)	<9 years	223	67.4
	≥9 years	108	32.6
	Mean (SD): 7.89 (7.68)		
Duration of hospital experience (years)	<5 years	207	62.5
	≥ 5 years	124	37.5
	Mean (SD): 4.51 (4.84)		
Duration of ward experience (years)	<4 years	201	60.7
	≥4 years	130	39.3
	Mean (SD): 3.94 (4.48)		
Work schedule	Mixed (daily & night shifts)	192	58.0
	Daily shift	139	42.0
	Working hours/weekly (SD): 50.03 (6.85)		

The mean score obtained from the Colleague Solidarity of Nurses Scale was 103.87 (± 9.64), and the mean score obtained from the Work Engagement Scale was 61.53 (± 16.31). A positive and significant relationship was found between the scores obtained from both scales ($r = 0.33$, $P < .001$) (Table 3). A higher level of colleague solidarity is associated with a higher level of work engagement.

The regression analysis performed to determine the factors affecting nurses' work engagement determined that 6 variables remained in the model. These variables were the colleague solidarity score ($\beta: 0.27$, $P < .001$), marital status ($\beta: 0.20$, $P < .001$), duration of professional experience ($\beta: 0.19$, $P < .001$), position ($\beta: -0.17$, $P = .01$), perception of workload ($\beta: 0.11$, $P = .04$), and the intention to leave work ($\beta: -0.19$, $P < .001$). These 6 independent variables, which were found to influence nurses' work engagement, explained 17.9% of the total variance ($R^2: 17.9\%$, $F: 11.765$, $P < .001$. Durbin Watson: 2.083) (Table 4).

DISCUSSION

This study determined that increased nurses' colleague solidarity resulted in higher levels of work engagement. The literature review found no studies that directly examined the relationship between these 2 variables. Othman et al²⁶ found no significant relationship between coworker support and nurses' work engagement;

Table 2. Nurses' Satisfaction or Perception Regarding Work-Related Variables (n = 331)

Variables		n	%
Willingly choose the profession	Yes	299	90.3
	No	32	9.7
Willingly choose the current unit	Yes	307	92.7
	No	24	7.3
Job satisfaction	Very satisfied or satisfied	219	66.1
	Not satisfied or not satisfied at all	112	33.8
Satisfaction with career opportunities at the current hospital	Very satisfied or satisfied	191	57.7
	Not satisfied or not satisfied at all	140	42.3
Satisfaction with benefits at the current hospital	Very satisfied or satisfied	179	54.1
	Not satisfied or not satisfied at all	152	45.9
Perception of workload	Balanced	144	43.5
	Heavy workload	187	56.5
Intention to work leave work	None or rarely or sometimes	263	79.5
	Often or at all times	68	20.5

however, other studies indicate that collegial support at work²⁷ and workplace friendship positively affect work engagement.²⁸ In their qualitative study on nurse engagement conducted with 15 participants, García-Sierra et al²⁹ highlighted the importance of social support between colleagues. These findings indicate that colleague solidarity exhibited in the nursing work environment is an important factor affecting nurses' work engagement.

This study showed that marital status affected work engagement, with married participants exhibiting higher levels of engagement. Some previous studies found that marital status did not affect nurses' work engagement;^{26,30} however, Aboshaiqah et al³¹ determined that married nurses had a higher level of work engagement. Indeed, married nurses may be more engaged due to their obligation to financially support their families.

This study also found that working as a nurse manager or nurse educator reduced work engagement. Although some studies have obtained findings similar to this finding, there are also studies reporting that the work engagement of managers and specialist nurses is higher than that of staff nurses.^{32,33} According to the JDR theory, increased job demands result in burnout and low levels of employee engagement, particularly when employees do not have adequate resources to meet these demands¹⁴ or when they do not consider such demands challenging.¹⁵ It is known that the increasing complexity of health care creates challenges for nurse managers in meeting role expectations and trying to keep up with numerous new regulations with few resources.^{33,34} It has also been reported that nurse managers experience burnout as a result of continuous exposure to major stressors such as time pressure, demanding obligations, and high levels of responsibility, resulting in low job satisfaction, decreased work productivity, and low work engagement.^{33,35,36} In this context, the finding of this study that working as a manager/educator nurse is a factor that decreases commitment shows that it should be addressed as an important problem in health institutions. Nurse managers have a key role in retaining employees, increasing productivity, and achieving organizational goals—in other words, providing quality and safe healthcare services.^{33,34}

Table 3. Descriptive Statistics and Correlations for Scales^a (n = 331)

	1	2	3	4	5	6	7	8
1. UWES-Tr, F1	1	.834**	.856**	.960**	.178*	.160*	.280**	.295**
2. UWES-Tr, F2		1	.781**	.905**	.193**	.158*	.350**	.359**
3. UWES-Tr, F3			1	.940*	.153*	.158*	.269**	.275**
4. UWES-Tr				1	.192**	.179*	.309**	.331**
5. CSNS-F1					1	.676**	.231**	.685**
6. CSNS-F2						1	.230**	.676**
7. CSNS-F3							1	.788**
8. CSNS								1
Mean	21.09	19.70	20.74	61.53	42.28	41.96	19.63	103.87
SD	6.14	5.33	5.69	16.31	3.83	3.84	5.43	9.64
Cronbach's alpha	0.92	0.95	0.88	0.96	0.86	0.83	0.84	0.80
Skewness	-.700	-1.296	-.592	-.915	-2.098	-2.030	-1.181	-1.209
Kurtosis	.044	1.146	.000	.560	6.351	6.278	.524	1.928
Median	22.00	20.00	22.00	65.00	44.00	43.00	21.00	107.00
Lower/Upper limit	6-30	5-25	6-30	17-85	18-45	18-45	5-25	56-115

CSNS, Colleague Solidarity of Nurses Scale; CSNS-F1, emotional solidarity; CSNS-F2, academic solidarity; CSNS-F3, negative opinions about solidarity; F1, vigor; F2, dedication, F3, absorption; UWES-Tr, Utrecht Work Engagement Scale.
^aSpearman correlation.**P* < .01.***P* < .001.

This study determined that the duration of professional experience positively affected work engagement in that, as professional experience increases, nurses' work engagement also increases. Previous studies on this issue have had varying results. Wang et al³⁷ stated that 5 or fewer years of professional experience increased nurses' work engagement, while other studies revealed that increased durations of professional experience had a positive impact on nurses' work engagement.^{31,32} As such, it may be assumed that nurse achievement, such as increased professional experience, development of competencies, and progression up the career ladder, positively affects nurses' work engagement.

According to this study's results, nurses' perceptions of their workloads affected work engagement, with heavy workload perceptions indicating a higher level of engagement. Contrary to this finding, some studies reported that heavy workload had an adverse effect on work engagement.³⁷⁻³⁹ In the literature, it has been emphasized that workloads causes many negative employee outcomes, such as stress, fatigue, burnout, and absenteeism, thus negatively affecting employees' work engagement.⁴⁰⁻⁴² On the other hand, Crawford, Lepine, and Rich¹⁵ pointed out that workload is associated with inconsistent

results in the literature on engagement and empirically demonstrated that workload may not necessarily negatively affect work engagement. In the study, it was stated that it depends on the individuals themselves; people who see workload as a challenge put more energy into their work and develop engagement, while those who see workload as an obstacle have a negative impact on their work engagement.¹⁵ Xanthopoulou, Bakker, Demerouti and Schaufeli⁴³ also found that high workload was significantly positively related to engagement. This result is explained in the literature by the fact that although job demands, such as heavy workloads, require constant effort, deplete energy, and result in tension and exhaustion, they are also seen as stressful demands that have the potential to stimulate employees' mastery, personal growth, or future gains and thus have the effect of triggering work engagement.¹⁵ Therefore, it can be thought that the heavy workload in this study encourages engagement in nurses, as they see it as an opportunity to show their competence, such as taking more responsibility, learning, and achieving, and they are willing to fulfill their work.

This study's results also indicated that one's intention to leave work had an impact on work engagement and that as intention to

Table 4. Factors Associated with Nurses' Engagement (n = 331)

Independent Variables ^a	B	SE	β	t	P	Lower Bound	Upper Bound
(Constant)	12.42	9.68		1.28	.200	-6.63	31.48
Colleague solidarity	0.45	0.09	0.27	5.29	<.001**	0.28	0.62
Marital status (married)	6.85	2.01	0.20	3.42	<.001**	2.91	10.80
Duration of professional experience	0.34	0.11	0.19	3.10	<.001**	0.13	0.56
Position (educator or manager nurse)	-5.68	2.05	-0.17	2.76	.010*	-9.72	-1.63
Workload (heavy workload)	3.70	1.81	0.11	2.04	.040*	0.13	7.26
Intention to leave from work (often or at all times)	-7.85	2.25	-0.19	-3.49	<.001**	-12.27	-3.42

R²: 17.9%; F: 11.765; P < .001; Durbin Watson: 2.083.
 P* < .05.*P* < .001.

leave work increased, nurses' work engagement decreased. Previous studies show that there is a negative relationship between work engagement and the intent to leave.^{4,6,10} It can be said that the intention to leave the job, which occurs as a result of many negative individual and work-related experiences, negatively affects the work engagement of nurses.

Limitations

Because this study was conducted in a sample of chain private hospitals, the results provide data concerning only the private health sector. In addition, because this study is the first known to examine the effect of nurses' colleague solidarity on work engagement, discussion of similar findings is limited.

This study determined that nurses' engagement was affected by colleague solidarity, marital status, position, duration of professional experience, workload perception, and intention to leave work. Its findings contribute to the literature on the importance of colleague solidarity and increased work engagement. The status of being married and having long-term professional experience was positively associated with nurses' work engagement. In addition, the finding that increased nursing workloads were associated with increased work engagement is a remarkable one. The fact that working in a managerial position reduces work engagement is another noteworthy finding.

Nurses' work engagement is an important issue for staff nurses, nurse managers, and healthcare managers. Considering the fact that colleague solidarity was the factor that most affected nurses' work engagement, hospital managers' consideration of colleague solidarity as an important part of corporate culture across all positional levels may make a huge difference in the healthcare industry. In particular, it may be useful for unit nurse managers to implement strategies that support and develop colleague solidarity in the nursing work environment. Furthermore, considering the positive effects of reduced turnover intention on work engagement, hospital managers should identify areas for improvement and continue to invest in retaining nurses.

Another important finding of this study was that those working as managers or nurse educators exhibited lower levels of work engagement. Therefore, it is recommended that hospital administrators review the duties, responsibilities, and roles of nurse managers and develop strategies to create the necessary resources to empower these individuals in their roles and thus promote work engagement.

Ethics Committee Approval: Ethics committee approval was received for this study from the ethics committee of İstinye University (Date: August 23, 2021, Number: 21-69).

Informed Consent: Written informed consent was obtained from the nurses who participated in this study.

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