

Evaluation in Terms of Proactive Personality and Professional Self-Efficacy Predictors of Nurses' Turnover Intentions: Correlational and Cross-Sectional Study

Hemşirelerin İşten Ayrılma Niyetlerinin Proaktif Kişilik ve Mesleki Öz Yeterlik Yordayıcıları Açısından Değerlendirilmesi: İlişkisel ve Kesitsel Çalışma

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ABSTRACT Objective: The aim of the study was to examine whether proactive personality and professional self-efficacy predict turnover intentions in nurses. **Material and Methods:** The sample of the correlational, and cross-sectional study consisted of 402 nurses who worked in a university hospital in Türkiye. The Nurse Turnover Intention Scale (NTIS), the Nursing Profession Self-Efficacy Scale (NPSES), and the Proactive Personality Scale (PPS) were used for data collection between February-March 2023. **Results:** There was a significant difference between the nurses' NTIS mean scores according to satisfaction with nursing, job change request, the state of being satisfied with the service, position status, working shift and problems faced in the hospital ($p<0.05$). It was found in the study that nurses with high proactive personality traits had lower intentions to leave their job ($p<0.05$). A weak negative correlation was determined between the NTIS scores and the NPSES total scores ($r=-0.350$, $p=0.003$), the NPSES-attributes of caring ($r=-0.178$, $p=0.001$) and the NPSES-professionalism situations ($r=-0.399$, $p=0.005$). Moreover, the PPS was evaluated as the variable most affecting the NTIS. **Conclusion:** It was concluded that nurses with higher proactive personality and higher professional self-efficacy had lower turnover intentions. Interventions need to be made to support and develop the proactive behavior of nurses working in health institutions in order to increase their professional self-efficacy, commitment to work, quality of care and to eliminate their intentions.

Keywords: Nursing; job satisfaction; proactive personality; self-efficacy; turnover intention

ÖZET Amaç: Bu çalışmanın amacı, proaktif kişilik ve mesleki öz yeterliğin hemşirelerde işten ayrılma niyetlerini yordayıp yordamadığını incelemektir. **Gereç ve Yöntemler:** Korelasyonel ve kesitsel çalışmanın örneklemini Türkiye'deki bir üniversite hastanesinde çalışan 402 hemşire oluşturmaktadır. Şubat-Mart 2023 tarihleri arasında veri toplamak için Hemşire İşte Ayrılma Niyeti Ölçeği (HİAN), Hemşirelik Mesleği Öz Yeterlik Ölçeği (HMÖYÖ) ve Proaktif Kişilik Ölçeği (PKÖ) kullanılmıştır. **Bulgular:** HİAN puan ortalamaları arasında hemşirelikten memnuniyet, iş değiştirme isteği, hizmetten memnun olma durumu, pozisyon durumu, vardiyalı çalışma ve hastanede karşılaşılan sorunlara göre anlamlı bir fark bulunmuştur ($p<0,05$). Çalışmada, proaktif kişilik özellikleri yüksek olan hemşirelerin işlerinden ayrılma niyetlerinin daha düşük olduğu bulunmuştur ($p<0,05$). HİAN puanları ile HMÖYÖ toplam puanları ($r=-0,350$, $p=0,003$), HMÖYÖ-bakım nitelikleri ($r=-0,178$, $p=0,001$) ve HMÖYÖ-profesyonellik durumları ($r=-0,399$, $p=0,005$) arasında negatif yönde zayıf bir ilişki tespit edildi. Ayrıca, PKÖ, HİAN'yi en çok etkileyen değişken olarak değerlendirildi. **Sonuç:** Daha yüksek proaktif kişiliğe ve daha yüksek mesleki öz yeterliğe sahip hemşirelerin daha düşük işten ayrılma niyetlerine sahip olduğu sonucuna varıldı. Sağlık kurumlarında çalışan hemşirelerin mesleki öz yeterliklerini, işe bağlılıklarını, bakım kalitesini artırmak ve işten ayrılma niyetlerini ortadan kaldırmak için proaktif davranışlarını desteklemek ve geliştirmek için müdahalelerde bulunulması gerekmektedir.

Anahtar Kelimeler: Hemşirelik; iş tatmini; proaktif kişilik; öz yeterlik; işten ayrılma niyeti

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Turnover intention is defined as the probability of an individual leaving an institution soon and is the precursor of turnover behavior.¹ Turnover intention is a multi-stage process consisting of behavioral, psychological, and cognitive, elements, which includes the voluntary departure of the employee from their current position. Nursing is a profession with high turnover rates.²

It was seen that many studies were conducted on turnover intention and its main reasons in nursing. According to these reviews, the reasons for nurses' turnover intention include factors such as job satisfaction, quality of work life, commitment to the organization, working environment, low pay, leadership style, bullying, overtime, professional problems, and safety.^{3,4} Besides, nurse turnover intentions are also influenced by individual factors. A few factors have been linked to nurses' turnover intentions, including their gender, education level, marital status, age, health status, and length of employment.⁵ Moreover, the personality traits of nurses were found to be associated with their turnover intention.⁶

Being a good nurse is not only about professional knowledge and skills but also about one's personality traits, mental health, professional perception, and professional self-concept.⁷ The term "personality" refers to the totality of one's abilities, behaviors, manner of speech, appearance, and adaptability that makes him or her unique. It is a fact that the personality traits of individuals affect the quality of their work and job performance.⁸ "Proactive personality", a personality trait, is characterized by the ability to initiate the necessary change without waiting for approval and to play an active implementing role. Such individuals are generally considered to have high-performance potential.⁹ Proactive individuals seek to make positive changes in all environments in which they find themselves. These individuals are aware of their responsibilities. Proactive people are more likely to achieve what they want in life and to stay motivated while trying to achieve it. Research conducted on nurses has reported both positive and negative relationships between proactive personality and turnover intention.^{6,9,10} The display of this behavior by nurses can enhance both their success and the success of the organization.

The nursing profession is an applied science that combines science with art. Nurses, who have strong self-efficacy both in theory and in practice, can contribute more to their profession in the health care system.¹¹ It is self-efficacy that motivates individuals to perform the behaviors they wish to do and ensures that these behaviors are maintained over time. When individuals with high self-efficacy do not achieve their desired goal, they take action to realize this goal again.¹² Professional self-efficacy has an important place in the success and efficiency of nurses in their profession.¹³ Self-efficacy promotes teamwork among nurses. Nurses with high self-efficacy can transfer their knowledge to their colleagues and at the same time improve themselves by acquiring new knowledge from their colleagues.^{11,12} Nurses with high professional self-efficacy do not become frustrated in the face of a negative situation they encounter in practice. They re-question the methods and strategies used, search for the practice that will give better results, and choose the right method.¹¹ Meanwhile, nurses with a low level of professional self-efficacy lose their faith in their professions and themselves and are unwilling to make a change in their practice.¹³ However, nurses with a high level of professional self-efficacy make better quality practices in patient care.^{12,13} It was determined in a study that there was a negative relationship between job satisfaction, commitment to work, self-efficacy and nurses' intention to leave the job. Furthermore, as job engagement, job satisfaction, and self-efficacy perceptions levels increase among nurses, patient satisfaction increases as well.¹¹

Based on this information, there are many studies on the turnover intentions of nurses. However, there is limited research examining the relationship between nurses' proactive personality traits, intentions to leave and professional self-efficacy. With the new study in this field, it was aimed to raise awareness among nurses, improving the quality of patient care, and thus contribute to the development of society with better quality care. Further, this study is considered to be of vital importance to ensure that nurses make positive progress in their own lives and thus increase the success levels of the institutions. The purpose of this study is to examine whether proactive

personality and professional self-efficacy are predictors of turnover intentions among nurses. The research questions for this study are as follows:

1. What are the characteristics of the turnover intentions, the professional self-efficacy and the level of proactive personality traits of the nurses?
2. What are professional self-efficacy, proactive personality traits, and turnover intentions according to sociodemographic and professional characteristics of the nurses?
3. Is there a relationship between turnover intentions, proactive personality traits, and professional self-efficacy levels?

MATERIAL AND METHODS

DESIGN, SETTING AND PARTICIPANTS

This study is cross-sectional and correlational. The study population consisted of 480 nurses aged 18-65 working at the Pamukkale University Health Research and Application Centre. The sample size was 246 nurses, determined in a multiple linear regression analysis in G*power (Heinrich-Heine-Universität Düsseldorf, Germany) using a significance level of 0.01, 99% power, an average effect (0.15) and a 20% sample loss.¹⁴ The study was completed with 402 nurses who met the sample criteria. The study included volunteers from healthcare institutions with at least a high school education. The study excluded those who refused to participate, were unemployed or had no high school degree.

DATA COLLECTION

The data were collected between February-March 2023. The instruments were administered face-to-face by the authors in the seminar rooms of the hospital at times convenient for the nurses. Participants were given information about the study's goals and the questions it will ask in the questionnaire form, and their consent to participate was obtained. It took about 10 minutes to fill out the forms.

MEASURES

Data was collected through the nurses identification form, Proactive Personality Scale (PPS), Nursing Profession Self-Efficacy Scale (NPSES), and Nurse Turnover Intention Scale (NTIS).

Nurses Identification Form

The form had 12 questions on nurses' gender, age, position, education, marital status, years worked, satisfaction, choice service, hospital problems, and shift.^{2,4,11}

Proactive Personality Scale

The adaptation of the scale to Turkish and validity-reliability studies were conducted by Akin and Arıcı Özcan, and the scale consists of 10 items in a single dimension.¹⁵ There are no reverse items in the scale. The total scores that can be obtained from the scale are between 7-70. High scores on the scale indicate that the individual is highly proactive. The Cronbach alpha coefficient of the PPS was reported as 0.86.¹⁵ In this study, it was found to be 0.86.

Nursing Profession Self-efficacy Scale

The adaptation of the scale to Turkish and its validity-reliability studies were conducted by Kacaroglu Vicdan and Taştekin.¹⁶ The scale is a 5-point Likert scale with 19 items. There is no reverse item. The scale has 2 sub-dimensions: Care qualities and professionalism. Total scores range from 12 to 60 on the Care qualities subscale. Total scores that can be obtained from the professionalism subscale range from 7 to 35. As the score obtained from the scale increases, professional self-efficacy increases. The Cronbach alpha coefficient for the care qualifications sub-dimension was found to be $\alpha=0.82$, for the professionalism situations sub-dimension $\alpha=0.82$, and for the total scale $\alpha=0.87$.¹⁶ In this study, the total Cronbach alpha coefficient score was found to be 0.93, for the care qualities sub-dimension 0.93, and for the professionalism situations sub-dimension 0.85.

Nurse Turnover Intention Scale

The adaptation of the scale into Turkish and the validity and reliability studies of the scale were conducted by Zeyrek et al.¹⁷ The scale consists of one dimension. There is no reversely worded item in the scale. In total, the score ranges from 10 to 50. A high score indicates that nurses have high turnover intention. The internal consistency coefficient of the scale was found to be 0.83.¹⁷ In this study, it was found to be 0.89.

DATA ANALYSIS

The SPSS 24.0 software (IBM Statistics for Windows, Version 24.0. Armonk, NY: IBM Corp, USA) was used for all statistical analyses. The Kolmogorov-Smirnov test was used to analyse all data for normal distribution. Descriptive statistics, independent samples t-test and one-way analysis of variance were used to analyse the data. Multiple regression and Pearson correlation analysis were also used. Pearson correlation analysis, negligible ($r=0.00-0.10$), weak ($r=0.11-0.39$), moderate ($r=0.40-0.69$), strong ($r=0.70-0.89$), and very strong ($r=0.90-1.00$) values were used to evaluate the relational strength.¹⁸ All analyses considered $p<0.05$ statistically significant. The partial η^2 value was used to calculate the effect size.

THE ETHICAL DIMENSION OF RESEARCH

The principles of the Declaration of Helsinki were followed in the study design and conduct. Ethical approval was obtained from the Ethics Committee for Non-Interventional Research of Pamukkale University with decision number E-60116787-020-301331 dated December 13, 2022. Verbal and written informed consent was obtained from all participants prior to data collection. In addition, permissions for use of the scales used in the study were obtained.

RESULTS

The sociodemographic and professional characteristics of the participants are presented in Table 1. The mean NTIS score was 39.12 ± 7.66 , the mean PPS score was 54.09 ± 8.89 and the mean total score NPSES was 67.43 ± 8.33 , the mean score NPSES-attributes of caring was 35.15 ± 4.48 , NPSES-professionalism situations sub-dimensions 32.28 ± 4.55 (Table 2).

Table 3 compares the NTIS, PPS and NPSES mean scores by nurses' demographic and professional characteristics. There was a significant difference between the nurses' NTIS mean scores according to satisfaction with nursing ($p=0.012$), job change request ($p=0.033$), the state of being satisfied with the service ($p=0.001$), position status ($p=0.001$), working shift ($p=0.016$), and problems faced in the hospital ($p=0.012$). There was a significant difference

TABLE 1: Distribution of sociodemographic and professional characteristics of participants (n=402)

Demographic and professional characteristics	Minimum-maximum	$\bar{X}\pm SD$
Age	19-52	30.57 \pm 7.42
Total working years	1-30	8.11 \pm 7.32
	n	%
Sex		
Female	332	82.6
Male	70	17.4
Marital status		
Single	199	49.5
Married	203	50.5
Educational status		
High school	28	7.0
Pre-bachelor's degree	36	9.0
Bachelor's degree	302	75.0
University higher	36	9.0
Status of willingly choosing nursing		
Yes	145	36.1
No	257	63.9
Satisfaction with nursing		
Yes	97	24.1
No	87	21.6
Partially	218	54.2
Job change request		
Yes	309	76.9
No	93	23.1
The state of being satisfied with the service		
Yes	312	77.6
No	90	22.4
Position status		
Responsible nurse	56	13.9
Service nurse	247	61.4
Intensive care nurse	99	24.6
Shift		
Only during the day	120	29.9
All shifts (day/night)	282	70.1
Problems faced in the hospital		
No problem	50	12.4
Managerial problem	74	18.4
Professional problem	75	18.7
In-team problem	46	11.4
Patient/patient relatives	115	28.6
Working environment	42	10.4

SD: Standard deviation

in the mean PPS scores of the nurses in terms of their satisfaction with nursing ($p=0.025$) and position status ($p=0.010$). NPSES total score averages ($p=0.023$), NPSES-attributes of caring ($p=0.034$) and NPSES-professionalism situations ($p=0.039$) sub-dimensions

TABLE 2: The nurses' total score NTIS, PPS and NPSES (n=402)

Scales	Minimum-maximum	$\bar{X} \pm SD$
NTIS ^a	10-50	39.12 \pm 7.66
PPS ^b	10-70	54.09 \pm 8.89
NPSES ^c		
Attributes of caring	8-40	35.15 \pm 4.48
Professionalism situations	11-40	32.28 \pm 4.55
Total	19-80	67.43 \pm 8.33

^aIt scores range from 10 to 50, high scores indicate higher nurse turnover intention;

^bIt scores range from 7 to 70, high scores indicate higher proactive personality; ^cIt scores

range from 19 to 80, high scores indicate that nurses have higher professional self-efficacy. SD: Standard deviation; NTIS: Nurse Turnover Intention Scale; NPSES: Nursing Profession Self-Efficacy Scale; PPS: Proactive Personality Scale

mean scores of nurses who stated that they were satisfied with the nursing profession were found to be higher. Similarly, NPSES-total ($p=0.034$) and NPSES-professionalism situations ($p=0.035$) sub-dimension score averages of nurses who stated that they were satisfied with the department were significantly higher (Table 3).

The correlation coefficients between NTIS, PPS and NPSES are shown in Table 4. A weak negative correlation was determined between the NTIS scores and the NPSES total scores ($r=-0.350$, $p=0.003$), the NPSES-attributes of caring ($r=-0.178$, $p=0.001$) and the NPSES-professionalism situations ($r=-0.399$, $p=0.005$). There is a moderate negative correlation between the NTIS scores and the PPS scores ($r=-0.560$, $p=0.001$). Moreover, a positive moderate relationship was determined between the PPS scores and the NPSES total scores ($r=0.586$, $p=0.001$), the NPSES attributes of caring ($r=0.527$, $p=0.001$) and NPSES-professionalism situations ($r=0.553$, $p=0.001$) (Table 4).

According to the results of multiple regression analysis, NPSES-attributes of caring, NPSES-professionalism situations sub-dimensions and PPS total mean scores had a significant effect on NTIS total mean score ($R=0.384$, $R^2=0.234$, $F=4.632$, $p<0.05$). Accordingly, NPSES-attributes of caring, NPSES-professionalism situations sub-dimensions, and PPS total mean scores account for 23% of the variance of the NTIS mean score. According to the standardized regression coefficients, the order of importance of the predictor (independent) variables on the NTIS score was determined as PPS score ($\beta=-0.381$), NPSES-at-

tributes of caring ($\beta=-0.232$) and NPSES-professionalism situations ($\beta=-0.261$). Based on this result, 1-point decrease in turnover intention levels caused an increase of 0.381 in the level of proactive personality trait ($\beta=-0.381$, $p=0.003$). Besides, a 1-point decrease in turnover intention levels led to increases of 0.232 in attributes of caring ($\beta=-0.232$, $p=0.002$) and 0.261 in professionalism situations ($\beta=-0.261$, $p=0.001$) (Table 5).

DISCUSSION

In this study, the relationship between nurses' proactive personality traits, professional self-efficacy, and turnover intentions was determined. It was determined that the nurses who participated in the study had high turnover intentions. In studies evaluating the turnover intentions of nurses, it was observed that the turnover intentions of nurses were moderate and high levels.¹⁹⁻²¹ It can be stated that the results of the present study are in line with the literature. According to the findings of this study, the fact that 77% of nurses want to change their jobs supports the high rate of nurses' turnover intentions.

In the study, it was observed that nurses who were more satisfied with the nursing profession and the unit/department where they worked had less turnover intention. Furthermore, another finding of this study, that nurses who did not experience any problems in the work environment (such as administrative, professional, intra-team, patient/patient relatives' problems) had low turnover intentions, was consistent with the finding of satisfaction in the work environment. Based on the literature, occupational satisfaction and satisfaction with the work environment are known to be important factors determining nurses' turnover intention.^{20,22} Nurses working in healthcare organizations make positive or negative personal evaluations of their job characteristics and work environment.²³ Satisfaction with the work environment is an important factor affecting nurses' psychological health, communication skills, work performance, and productivity.²⁴ In this context, the turnover intention will inevitably increase as satisfaction with the nursing profession and working environment decreases.^{2,25} Nurses with more autonomy in their working conditions may have better critical

TABLE 3: Comparison of NTIS, PPS and NPSES score averages mean of participants according to demographic and professional characteristics (n=402)

Variables	NTIS		PPS		Attributes of caring		Professionalism situations		Total	
	$\bar{X} \pm SD$	test, p value, η^2	$\bar{X} \pm SD$	test, p value, η^2	$\bar{X} \pm SD$	test, p value, η^2	$\bar{X} \pm SD$	test, p value, η^2	$\bar{X} \pm SD$	test, p value, η^2
Sex										
Female	39.27 \pm 7.83	0.386 ^a	54.25 \pm 8.44	0.436 ^a	35.18 \pm 4.28	0.816 ^a	32.23 \pm 4.45	0.680 ^a	67.41 \pm 8.03	0.920 ^a
Male	38.40 \pm 6.78		53.34 \pm 6.78		35.04 \pm 5.34		32.48 \pm 5.04		67.52 \pm 9.71	
Marital status										
Single	38.59 \pm 7.47	0.165 ^a	53.93 \pm 8.06	0.714 ^a	35.32 \pm 4.16	0.448 ^a	32.21 \pm 4.48	0.775 ^a	67.54 \pm 7.81	0.801 ^a
Married	39.65 \pm 7.83		54.26 \pm 9.68		34.98 \pm 4.79		32.34 \pm 4.64		67.33 \pm 8.85	
Educational status										
High school	39.67 \pm 7.26	0.893 ^b	52.85 \pm 8.72	0.455 ^b	34.60 \pm 6.04	0.721 ^b	31.71 \pm 5.65	0.545 ^b	66.32 \pm 6.17	0.615 ^b
Pre-bachelor's degree	39.13 \pm 8.13		52.55 \pm 9.69		34.58 \pm 5.06		31.97 \pm 4.11		66.55 \pm 8.46	
Bachelor's degree	38.97 \pm 7.79		54.22 \pm 8.36		35.23 \pm 4.09		32.25 \pm 4.48		67.49 \pm 7.88	
University higher	39.88 \pm 7.23		55.52 \pm 9.84		35.52 \pm 5.65		33.22 \pm 4.73		68.75 \pm 9.50	
Status of willingly choosing nursing										
Yes	38.69 \pm 7.47	0.135 ^a	54.14 \pm 8.86	0.888 ^a	35.22 \pm 4.69	0.699 ^a	32.47 \pm 4.49	0.257 ^a	67.69 \pm 8.48	0.408 ^a
No	39.88 \pm 7.95		54.01 \pm 8.96		35.04 \pm 4.10		31.93 \pm 4.67		66.97 \pm 8.08	
Satisfaction with nursing										
Yes (1)	36.57 \pm 8.26	0.012 [*]	56.68 \pm 6.40	0.025 [*]	36.16 \pm 3.50	0.034 [*]	33.28 \pm 4.13	0.039 [*]	69.45 \pm 7.10	0.023 [*]
Partially (2)	38.91 \pm 7.15	0.069 ^{**}	53.49 \pm 9.37	0.028 ^{**}	34.74 \pm 5.19	0.017 ^{**}	32.03 \pm 4.74	0.016 ^{**}	67.78 \pm 9.30	0.019 ^{**}
No (3)	42.48 \pm 7.05	1<2<3	52.72 \pm 9.52	3<1,2	35.05 \pm 3.20	3<2<1	31.77 \pm 4.40	3<2<1	66.82 \pm 6.58	3<2<1
Job change request										
Yes	40.54 \pm 7.03	0.033 [*]	53.85 \pm 4.90	0.319 ^a	35.02 \pm 4.66	0.275 ^a	32.02 \pm 4.80	0.554 ^a	67.22 \pm 8.76	0.363 ^a
No	34.38 \pm 7.79	0.115 ^{**}	54.90 \pm 5.93		35.60 \pm 3.79		32.52 \pm 3.64		68.12 \pm 6.71	
Status of requesting the service										
Yes	38.84 \pm 7.53	0.457 ^a	54.57 \pm 8.93	0.263 ^a	35.22 \pm 4.22	0.746 ^a	32.47 \pm 4.61	0.372 ^a	67.70 \pm 8.14	0.508 ^a
No	39.41 \pm 7.80		53.58 \pm 8.84		35.08 \pm 4.75		32.07 \pm 4.49		67.15 \pm 8.55	
The state of being satisfied with the service										
Yes	38.36 \pm 7.70	0.001 [*]	54.29 \pm 8.79	0.407 ^a	35.37 \pm 4.55	0.073 ^a	32.53 \pm 4.47	0.035 [*]	67.91 \pm 8.36	0.034 [*]
No	41.75 \pm 6.94	0.034 ^{**}	53.41 \pm 9.23		34.41 \pm 4.18		31.38 \pm 4.77	0.011 ^{**}	65.80 \pm 8.07	0.011 ^{**}
Position status										
Responsible nurse (1)	35.50 \pm 8.92	0.001 [*]	55.79 \pm 7.76	0.010 [*]	35.41 \pm 3.84	0.895 ^b	33.66 \pm 4.08	0.055 ^b	69.07 \pm 7.19	0.280 ^b
Service nurse (2)	39.56 \pm 7.42	0.037 ^{**}	54.25 \pm 6.89	0.023 ^{**}	35.09 \pm 5.04		32.01 \pm 4.84		67.10 \pm 9.24	
Intensive care nurse (3)	40.06 \pm 6.94	1<2<3	52.64 \pm 9.72	3<2<1	35.16 \pm 3.18		32.17 \pm 3.94		67.33 \pm 6.25	
Working shift										
Only during the day	37.70 \pm 8.34	0.016 [*]	54.40 \pm 8.38	0.656 ^a	35.58 \pm 3.36	0.214 ^a	32.36 \pm 4.34	0.806 ^a	67.95 \pm 6.95	0.422 ^a
All shifts (day/night)	39.72 \pm 7.28	0.015 ^{**}	53.96 \pm 9.11		34.97 \pm 4.87		32.24 \pm 4.65		67.21 \pm 8.86	
Problems faced in the hospital										
No problem (1)	36.10 \pm 6.45	0.012 [*]	54.44 \pm 6.83	0.204 ^b	34.78 \pm 3.99	0.564 ^b	32.52 \pm 3.78	0.184 ^b	67.30 \pm 7.08	0.403 ^b
Managerial problem (2)	40.52 \pm 6.92	0.018 ^{**}	55.78 \pm 7.10		35.89 \pm 3.09		32.72 \pm 3.78		68.62 \pm 6.15	
Professional problem (3)	39.78 \pm 7.85	1<2,3,4,5,6	52.88 \pm 7.58		34.69 \pm 5.04		31.70 \pm 5.71		66.40 \pm 9.93	
In-team problem (4)	37.39 \pm 8.16		55.67 \pm 7.91		35.65 \pm 3.80		33.19 \pm 3.58		68.84 \pm 6.63	
Patient/patient relatives (5)	39.31 \pm 7.49		53.59 \pm 9.66		34.96 \pm 5.18		32.38 \pm 4.79		67.34 \pm 9.39	
Working environment (6)	40.42 \pm 8.83		52.54 \pm 9.11		35.11 \pm 4.72		30.95 \pm 4.55		66.07 \pm 8.50	
Age	r values -0.050	0.319 ^d	r values 0.090	0.073 ^d	r values 0.025	0.613 ^d	r values 0.029	0.556 ^d	r values 0.030	0.556 ^d
Total working years	-0.044	0.382 ^d	0.090	0.070 ^d	0.050	0.314 ^d	0.061	0.224 ^d	0.060	0.553 ^d
Years of work in this hospital	-0.061	0.224 ^d	0.084	0.093 ^d	0.043	0.387 ^d	0.028	0.571 ^d	0.039	0.438 ^d

*Statistically significant scores for: ^(a)Independent sample t-test; ^(b)One way analysis of variance; ^(c)Welch test; ^(d)Pearson correlation analysis) p<0.05; **Partial eta squared. NTIS: Nurse Turnover Intention Scale; PPS: Proactive Personality Scale; NPSES: Nursing Profession Self-Efficacy Scale; SD: Standard deviation

TABLE 4: Correlation analysis results of NTIS, PPS and NPSES (n=402)

Scales	(1)		(2)		(3)		(4)	
	r ^a	p value	r ^a	p value	r ^a	p value	r ^a	p value
(1) NTIS								
(2) PPS	-0.560 ^a	0.001*						
(3) NPSES-total	-0.350 ^a	0.003*	0.586 ^a	0.001*				
(4) NPSES-attributes of caring	-0.178 ^a	0.001*	0.527 ^a	0.001*	0.921 ^a	0.001*		
(5) NPSES-professionalism situations	-0.399 ^a	0.005*	0.553 ^a	0.001*	0.923 ^a	0.001*	0.701 ^a	0.001*

*Statistically significant scores for (°Pearson correlation analysis) p<0.05. NTIS: Nurse Turnover Intention Scale; PPS: Proactive Personality Scale; NPSES: Nursing Profession Self-Efficacy Scale

TABLE 5: NTIS of predictive PPS and NPSES sub-dimensions (n=402)

Variables	β	SE	Beta	t value	p value	F	p value	R ²	R
Constant	29.451	3.166		9.302	0.001*				
PPS	-0.381	0.052	0.337	-0.613	0.003*	4.632	0.001*	0.234	0.384
NPSES-attributes of caring	-0.232	0.121	0.223	3.136	0.002*				
NPSES-professionalism situations	-0.261	0.122	0.236	-0.504	0.001*				

*Statistically significant scores for (multiple linear regression) p<0.05. SE: Standard error; PPS: Proactive Personality Scale; NPSES: Nursing Profession Self-Efficacy Scale. Dependent Variable: Nurse Turnover Intention Scale.

thinking skills and less psychological risk of leaving. In the study, intensive care unit (ICU) nurses were found to have higher turnover intentions than charge nurses or ward nurses. A study conducted 2 years after the pandemic reported high levels of burnout and turnover among intensive care nurses.²⁴ The finding that nurses working in ICUs have higher turnover intentions is consistent with other studies.^{26,27} The fact that ICU nurses witness the most vulnerable and specific situations, the conditions of the patients in their care, their negative experiences, losses and limitations may make nurses more vulnerable to turnover intentions.²⁸ In the study, it was observed that nurses who worked only during the day had lower turnover intentions. In previous studies, it was reported that nurses working day and night shifts had higher turnover intentions.^{29,30} The fact that nursing is a profession that provides service 24 hours a day, 7 days a week and the labor shortage in health institutions may cause nurses to work more shifts and overtime. This, in turn, may lead to a higher turnover intention among nurses.

A negative correlation was found between proactive personality traits and the turnover intentions of nurses in the study. Moreover, according to

the regression analysis results, nurses' proactive personality trait was seen to be the variable that most affected their intention to leave work. Although some study results are consistent with the study's findings some studies have reported a positive relationship between proactive personality traits and turnover intentions.^{6,9,10,31} Differences in study results may be due to work environment, organizational commitment, hierarchy in organizations, culture and sample size. Moreover, nurses with higher proactive personality traits may be more willing to make changes in their work and may consider different job opportunities more easily to advance their careers. However, a nurse with a proactive personality can utilize coping resources effectively in the face of professional challenges, such as job stress, job dissatisfaction, and professional burnout, and develop a more fulfilling workplace.³² It is also suggested that more proactive individuals have a greater sense of self-efficacy in their work, which is associated with greater job satisfaction.¹⁰ Nurses with proactive characteristics define their responsibilities more clearly, adapt quickly to the work environment, communicate effectively with colleagues, adapt to their work as soon as possible, and realize their work goals more easily.³²

Thus, it can positively affect nurses' competence, work engagement, job performance, and the quality of nursing care. This supports the finding in this study that nurses with higher proactive personalities have higher professional self-efficacy. The present findings may be useful in recruiting and retaining nurses. For example, pre-employment personality tests may be implemented as a useful tool. Additionally, nursing managers can play an important role in preventing nurse turnover by improving organizational culture and providing staff development programs.

In this study, it was found that nurses with higher professional self-efficacy had lower turnover intentions. A study has shown that there is a negative relationship between nurses' professional self-efficacy and their turnover intentions.¹¹ Self-efficacy is a personal judgment of how well one can implement action plans to deal with possible situations. Self-efficacy is very important in nursing because it can improve a nurse's perception of work outcomes.¹² In this regard, nurses with high self-efficacy may reduce turnover intentions through the ability to effectively fulfill their duties in various professional conditions. According to the results of further analysis, it was revealed that the proactive personality trait of nurses was the strongest predictor of reducing turnover intentions. Thus, it can be argued that nurses should exhibit current proactive behaviors to increase professional self-efficacy, job commitment, job satisfaction, and nursing care quality and eliminate turnover intention.

LIMITATIONS

We concluded that nurses with high proactive personality traits have high professional self-efficacy and low intention to quit. In this way, we think we have made a significant contribution to the literature. Nevertheless, we acknowledge several limitations. The fact that the research data collection was over a 2-month period may be one of the limitations of the study. Second, a random sample of non-probability sampling techniques has been used. This sampling method, especially when compared to a random sample, may limit the generalizability of the results. Finally, data were collected only from working nurses working at the Pamukkale University Health Research

and Application Centre. Therefore, the study results cannot be generalized to other Turkish hospitals. There is a need to work with larger sample groups.

CONCLUSION

It was observed that the nurses who participated in the study had high turnover intentions. Besides, it was concluded that nurses with high proactive personality traits had high professional self-efficacy and low turnover intentions. It is thought that it is important to determine nurses' turnover intention levels and influencing factors that may contribute to nurse turnover in clinical nursing jobs, and to take preventive measures to minimize problems that may lead to nurse turnover.

Nursing professionals working in health institutions should be encouraged to use proactive behaviors and to receive positive feedback on how they can be improved in order to increase their professional self-efficacy, job commitment, job satisfaction, and quality of care as well as eliminate turnover intentions. Further, nurses with proactive personalities can reduce their intention to leave their jobs by asking for their opinions and ideas on issues such as patient care and management. On the other hand, nurse managers can use the results of this study to guide policies to reduce nurse turnover. There is a need for different empirical studies with different sample groups on nurses' turnover intentions.

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Conflict of Interest

No conflicts of interest between the authors and / or family members of the scientific and medical committee members or members of the potential conflicts of interest, counseling, expertise, working conditions, share holding and similar situations in any firm.

Authorship Contributions

Idea/Concept: Nesrin Çunkuş Köktaş, Özlem Fidan, Arife Şanlıalp Zeyrek; **Design:** Nesrin Çunkuş Köktaş, Özlem Fidan, Arife Şanlıalp Zeyrek; **Control/Supervision:** Nesrin Çunkuş Köktaş; **Data Collection and/or Processing:** Nesrin Çunkuş Köktaş, Özlem Fidan, Arife Şanlıalp Zeyrek; **Analysis and/or**

Interpretation: Nesrin Çunkuş Köktaş, Özlem Fidan, Arife Şanlıalp Zeyrek; **Literature Review:** Nesrin Çunkuş Köktaş, Özlem Fidan, Arife Şanlıalp Zeyrek; **Writing the Article:** Nesrin Çunkuş Köktaş, Özlem Fidan, Arife Şanlıalp Zeyrek; **Critical Review:** Nesrin Çunkuş Köktaş, Özlem Fidan, Arife Şanlıalp Zeyrek.

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