Ordu Üniversitesi Hemşirelik Çalışmaları Dergisi
Ordu University Journal of Nursing Studies

Ordu University J Nurs Stud
2024, 7(3), 797-806
DOI: 10.38108/ouhcd.1310219

Araştırma Makalesi/ Research Article

The Relationship Between Nursing Students' Professional Competencies Related to Clinical Practices and Clinical Stressor Perceptions

Hemşirelik Öğrencilerinin Klinik Uygulamalara Yönelik Mesleki Yetkinlikleri ile Klinik Stresör Algıları Arasındaki İlişki

Merve Aydın[1] Ceyda Uzun Şahin[2] Enes Furkan Aksu[3] Mehmet Görgöz[3]

[1]Karadeniz Technical University, Faculty of Health Sciences, Nursing Department, Trabzon TÜRKİYE
[2]Recep Tayyip Erdogan University, Vocational School of Health Services, Rize, TÜRKİYE
[3]Ordu University, Institute of Health Science, Ordu, TÜRKİYE

Geliş tarihi/ Date of receipt: 05/06/2023 **Kabul tarihi/ Date of acceptance:** 02/01/2024
© Ordu University Faculty of Health Sciences, Department of Nursing, Türkiye, **Published online**: 12/11/2024

ABSTRACT

Objective: This study was planned to identify the relationship between nursing students' professional competencies toward clinical practice and their perceptions of clinical stressors.

Methods: The research was conducted in a cross-sectional and correlational design between November and December 2022. The sample consisted of 737 nursing students.

Results: The results showed that the Competency Inventory for Nursing Students score was 251.93±33.74 and the Nursing Students' Perceptions of Clinical Stressors Scale score was 85.43±17.52. Students' competency and clinical stressor perception scores are above the medium level, based on the average of the lowest and highest scores that can be obtained from the scales. A weak statistically significant relationship in the negative direction was found between the Competence Inventory scores and the Clinical Stressor Perceptions Scale.

Conclusions: As the clinical stressor perceptions of nursing students increased, their professional competence decreased.

Keywords: Clinical practice, clinical stressor, nursing students, professional competence.

ÖZ

Amaç: Bu çalışma, Hemşirelik öğrencilerinin klinik uygulamalara yönelik mesleki yetkinlikleri ile klinik stresör algıları arasındaki ilişkiyi belirlemek amacıyla planlanmıştır.

Yöntem: Araştırma, kesitsel ve ilişki arayıcı desende Kasım-Aralık 2022 tarihleri arasında yapılmıştır. Örneklemde 737 hemşirelik öğrencisi bulunmaktadır.

Bulgular: Hemşirelik Öğrencilerinin Yetkinlik Ölçeği puanı 251.93±33.74, Hemşirelik Öğrencilerinin Klinik Stresör Algıları Ölçeği puanı 85.43±17.52'dir. Öğrencilerin yetkinlik ve klinik stresör algıları puanı, ölçeklerden alınabilecek en düşük ve en yüksek puanın ortalamasına göre orta düzeyin üzerindedir. Araştırmaya katılan öğrencilerin Yetkinlik Ölçeği puanları ile Klinik Stresör Algıları Ölçeği arasında negatif yönde zayıf düzeyde istatistiksel olarak anlamlı bir ilişki olduğu bulundu.

Sonuç: Hemşirelik öğrencilerinin klinik stresör algıları arttıkça mesleki yetkinlikleri azalmaktadır.

Anahtar Kelimeler: Hemşirelik öğrencisi, klinik stresör, klinik uygulama, mesleki yetkinlik.

ORCID IDs of the authors: MA: 0000-0001-7466-2136; CUŞ: 0000-0002-1392-7409; EFA: 0000-0002-3081-1352; MG: 0000-0002-1625-1483
Sorumlu yazar/Corresponding author: MSc, RN, Enes Furkan Aksu
Ordu University, Health Sciences Institute, Ordu, TÜRKİYE.
e-posta/e-mail: enesaksu.024@gmail.com
Atıf/Citation: Aydın M., Uzun Şahin C., Aksu EF., Görgöz M. (2024). The relationship between nursing students' professional competencies related to clinical practices and clinical stressor perceptions. Ordu Üniversitesi Hemşirelik Çalışmaları Dergisi, 7(3), 797-806. DOI: 10.38108/ouhcd.1310219

Content of this journal is licensed under a Creative Commons Attribution-NonCommercial 4.0 International License

Ordu University J Nurs Stud
2024, 7(3), 797-806
DOI: 10.38108/ouhcd.1310219

Introduction

The way to achieve a successful career goal starts with admission to a professional program. As a professional program, nursing education is a process that includes theoretical and clinical education. Through this education, students are expected to acquire knowledge, attitudes, and abilities in the domains of cognition, emotion, and movement, or professional competence (Akansel et al., 2021).

Competence is defined as "the knowledge, skills, achievements, and abilities that a person should have to fulfill the task assumed in the best way" (Ülker and Korkmaz, 2022). As in every professional group, competence is extremely significant in the nursing profession. A nurse who uses her/his knowledge, skills, and abilities while providing care to the patient and fulfills her/his duty in the best way under all circumstances is considered competent (Kajander-Unkuri et al., 2014). The academic and clinical training they receive during their undergraduate studies is crucial for nursing students to be regarded as competent after graduation (Oermann, 2018). Nursing students can use their professional knowledge, and communication skills, fulfill the tasks and responsibilities they undertake and make decisions in the field of activity independently with the vocational education they receive (Fırat Kılıç, 2018).

Clinical education has an undisputed role in nursing students' education (Rafati et al., 2021). Through clinical education experiences, nursing students are able to bridge the gap between theoretical knowledge and practical skills (Sharifipour et al., 2020), view their profession from a professional perspective, improve a professional identity (Cornine, 2020), and promote their communication skills (Akansel et al., 2021). Well-planned clinical practice areas make a significant contribution to students' education and competencies (Simpson and Sawatszky, 2020). A negative clinical education experience may lead to a reduction in nursing students' confidence and motivation (Sharifipour et al., 2020), a reduction in their level of interest in the nursing profession, discouragement from the profession (Bazrafkan and Kalyani, 2018), a feeling of being unprepared for the rest of the practice education, and questioning their professional competence and proficiency (Simpson and Sawatszky, 2020).

Clinical education is an important component of nursing students' education. However, students often feel it to be an extremely stressful situation (Rafati et al., 2020). The main clinical stressors explained by nursing students include fear of making mistakes, harming the patient, lack of knowledge, experiencing uncertainty due to the expectations of the instructor, the thought of receiving negative feedback, excessive workload, discrepancies between the clinical environment and the theoretical environment, and the approach of health team members (Özdemir et al., 2020). Özdemir et al. (2020) argued that students with high-stress levels in clinical practice have decreased clinical education and academic performance, cannot evaluate the patient they care for well, and have problems creating trust in the patient, which negatively affects their professional competence (Özdemir et al., 2020).

Various studies have been conducted to determine nursing students' clinical stress levels (Admi et al., 2018; Graham et al., 2016) and professional competencies (Almalkawi et al., 2018; Immonen et al., 2019) but, no studies, to our knowledge, have investigated the relationship between clinical stress levels and professional competencies of nursing students. Our results are expected to make valuable contributions to nursing students' perceptions of clinical stressors, professional competence levels, and the relationship between clinical stressors and professional competence.

Aim

This study was planned to determine the relationship between nursing students' professional competencies toward clinical practice and their perceptions of clinical stressors.

Method

Research Design

This study featured a cross-sectional, and correlational design.

Study Population and Sample

The population of this study was comprised of nursing students from four state universities located in the east of Turkey from November to December 2022. With the Open Epi program (https://www.openepi.com), it was calculated that 670 students should be included in the sample with 99% power at a 95% confidence interval. In case of missing data, questionnaires were sent to 10% more participants than the sample size, and the study was completed with 737 students who fulfilled the inclusion criteria on the relevant dates. Inclusion criteria were being a volunteer, being 18 years of age or older, studying in the department of nursing,

Ordu University J Nurs Stud
2024, 7(3), 797-806
DOI: 10.38108/ouhcd.1310219

using a smartphone, having clinical practice experience, and answering the questions completely. First-year students without clinical practice experience were not included in the study.

Data Collection Tools

The data were collected using the Student Information Form, the Nursing Students' Perceptions of Clinical Stressors Scale, and the Competency Inventory for Nursing Students.

***The Student Information Form*:** The form has four questions to determine the sociodemographic characteristics of the students such as age, gender, class, and place of residence, and eight questions about academic performance, willingness to choose the department of nursing, the inclusion of coping with stress topics to the courses, and competence in clinical practice.

The Nursing Students' Perceptions of Clinical Stressors Scale (NSPCSS): The scale was created by Rafati et al. (2021) to evaluate nursing students' perceptions of clinical stressors. The Turkish validity and reliability study was conducted by Aydın et al. (2022). The scale is a 5-point Likert-type scale consisting of 22 items and 6 dimensions: "Inappropriate situations in the clinical environment", "Instructor's inappropriate conduct", "Student's inadequate knowledge and skills", "Concerns over nursing care", "Instructor's academic performance", "Instructor's attitude towards education". Scale items are scored as "Always Causes Stress (5), Very Often Causes Stress (4), Sometimes Causes Stress (3), Rarely Causes Stress (2), Never Causes Stress (1)". The scale has no reversed items. The lowest and the highest scores on the scale are 22 and 110. High scores indicate students' high perceptions of clinical stressors. Cronbach alpha coefficient of the scale is 0.912. Cronbach alpha coefficient was found to be 0.965 in this study.

The Competency Inventory for Nursing Students (CINS): The scale was developed by Hsu and Hsieh in 2013 to determine the competencies of nursing students. The Turkish validity and reliability study of the scale was performed by Ülker and Korkmaz (2022). It is a 7-point Likert-type scale consisting of 43 items and 6 dimensions: "Clinical biomedical science", "General clinical skills", "Critical thinking and reasoning", "Caring", "Ethics and responsibility", and "Lifelong learning". The total score obtained from the scale varies between 43 and 301 points. High scores indicate high competence levels in students. Cronbach alpha coefficient of the scale is 0,978. Cronbach alpha coefficient was found to be 0.975 in this study.

Data Collection

The research data were collected by sending the Google Forms questionnaire form to the students' smartphones via WhatsApp. Before the study, participants were informed about the purpose of the study and that the data obtained would be kept confidential and would only be used for scientific purposes. The students started to answer the questions after they approved the informed consent form in the first part of the data collection forms. It took nearly 10-15 minutes to complete the forms.

Data Analysis

The data were analyzed with the Statistical Package for Social Sciences version 23.0 (IBM Corp., Armonk, NY, USA). The relevance of the data for normal distribution was appraised with the Kolmogorov test. Parametric tests were performed to analyze normally distributed data, and descriptive analyses like frequency, percentage, mean, and standard deviation (SD) were used to compare scale and sociodemographic data. For independent groups, a t-test, and one-way analysis of variance (ANOVA) were performed, and for pairwise comparisons, the Tukey HSD test was used. The relationship between continuous variables was evaluated with Pearson correlation analysis. The statistical significance level was considered $p< 0.05$.

Ethical Considerations

Prior to the study, permission to use the scale was obtained from the author via e-mail. Ethical approval was obtained from the Human Research Ethics Committee of a local university (Number: E-13562490-199-312071-35; No: 2022/39), and informed consent was received from the volunteers in the study.

Results

The mean age of the individuals in the study was 20.95±1.75 years (min.18-max.29), 81.7% were female, 35.7% were third-year students, 79.4% had a primary school graduate mother, 57.9% had a primary school graduate father, 70.6% perceived their academic performance as poor, and 76.4% spent most of their lives in the city. 70% willingly chose their department, 62.6% reported having courses including topics on coping with stress, 50.3% felt competent in clinical practice, and 65.4% worked in a different clinic outside the scope of the semester course (Table 1).

The CINS were analyzed according to the sociodemographic characteristics of the

Ordu University J Nurs Stud
2024, 7(3), 797-806
DOI: 10.38108/ouhcd.1310219

participants, and no significant difference was detected between the scale scores and gender, class, and maternal education level (p>0.05). Students who perceived their academic performance as good (p<0.001), those who spent most of their lives in the city (p=0.014), those who chose their department willingly (p<0.001), those whose courses included topics on coping with stress (p<0.001), and those who considered themselves competent in clinical practice (p<0.001) had statistically significantly higher CINS. The analysis of the NSPCSS scores according to the sociodemographic characteristics of the participants showed that the scale scores of female students (p<0.001), those whose mothers were primary school graduates (p=0.009), those who perceived their academic success as good (p<0.001), and those who spent most of their lives in the city (p=0.048) were significantly higher (Table 1). There was a statistically significant difference between students' classes and the NSPCSS scores. According to the Tukey test results, the difference was between the third class-second class and the fourth class-second class (p<0.001).

It was found that the CINS was 251.93±33.74 (min.128-max.301) and the NSPCSS was 85.43±17.52 (min.22-max.110) (Table 2).

Table 1. Distribution of the mean scores of the Competency Inventory for Nursing Students and the Nursing Students' Perceptions of Clinical Stressors Scale according to the sociodemographic characteristics of the participants (n=737)

Characteristics Feature	n (%)	The Competency Inventory for Nursing Students	Nursing Students' Perceptions of Clinical Stressors Scale
		Mean.±sd	Mean.±sd
Gender			
Male	135 (18.3)	248.22±33.40	73.17±18.53
Female	602 (81.7)	252.76±33.79	88.18±16.06
		p=0.158	**p<0.001**
Class			
2. year[a]	177 (24)	247.62±36.04	80.71±21.32
3. year[b]	263 (35.7)	251.69±32.67	85.17±16.10
4. year[c]	297 (40.3)	254.71±33.09	88.48±15.51
		p=0.085	**p<0.001 b>a, c>a**
Academic performance			
Poor	520 (70.6)	248.69±34.30	83.45±17.73
Good	217 (29.4)	259.69±31.10	90.17±16.06
		p<0.001	**p<0.001**
The place where you spend most of your life			
Village	174 (23.6)	246.41±34.81	83.13±16.57
City	563 (76.4)	253.63±33.25	86.14±17.75
		p=0.014	**p=0.048**
Choosing the department willingly			
Yes	516 (70)	256.92±32.41	85.65±16.91
No	221 (30)	240.28±33.98	84.92±18.89
		p<0.001	p=0.607
The inclusion of topics on coping with stress in the courses			
Yes	461 (62.6)	255.64±32.00	85.36±16.08
No	276 (37.4)	245.74±35.67	85.54±19.72
		p<0.001	p=0.887
Self-competency in clinical practice			
Yes	371 (50.3)	260.44±30.99	84.34±17.77
No	366 (49.7)	243.30±34.26	86.53±17.21
		p<0.001	p=0.090
Age (Mean ± SD) (Min.-Max.)		20.95±1.75 (18-29)	

Ordu University J Nurs Stud
2024, 7(3), 797-806
DOI: 10.38108/ouhcd.1310219

Table 2. Distribution of the mean scores of the participants in the Competency Inventory for Nursing Students and the Nursing Students' Perceptions of Clinical Stressors Scale and their sub-dimensions (n=737)

Scales	Mean.±sd (Min.-Max.)
The Competency Inventory for Nursing Students	251.93±33.74 (128-301)
Clinical biomedical science	25.22±5.21 (9-35)
General clinical skills	38.64±7.33 (14-49)
Critical thinking and reasoning	21.32±4.30 (6-28)
Caring	36.21±5.72 (12-42)
Ethics and responsibility	94.33±12.04 (50-105)
Lifelong learning	36.19±5.16 (19-42)
The Nursing Students' Perceptions of Clinical Stressors Scale	85.43±17.52 (22-110)
Inappropriate clinical environment	23.46±5.18 (6-30)
Instructor's inappropriate conduct	16.55±3.63 (4-20)
Instructor's academic performance	11.29±2.80 (3-15)
Instructor's attitudes toward education	10.42±2.82 (3-15)
Students' inadequate knowledge and skills	12.06±2.76 (3-15)
Concerns about the characteristics of nursing care	11.62±2.81 (3-15)

There was a statistically significant negative relationship at a weak level between the CINS and the NSPCSS (r=-0.267, p<0.001). A positive and weakly significant relationship was determined between age and the NSPCSS (r=0.142, p<0.001) and all its sub-dimensions. A positive, weakly significant relationship was determined between age and the scores of the critical thinking and reasoning (r=0.100, p=0.006) and caring (r=0.134, p<0.001) sub-dimensions in the CINS (Table 3).

Discussion

Well-designed and organized clinical practice plays a major role in the maintenance of adequate knowledge, skills, attitudes, and competencies of nursing students in their transition to the professional nursing profession. The study found that the competencies of students who considered themselves competent in clinical practice were higher than those of students who did not consider themselves competent in clinical practice. Evidence shows that students' competence increased as the time spent in clinical practice increased. Clinical education gives students the opportunity to translate the theoretical knowledge they receive into practice, gain professional identity, and learn by doing (Helminen, et al., 2016). It is expected that the competency levels of students who consider themselves competent in clinical practice are higher compared to students who do not consider themselves competent in clinical practice.

.

Higher clinical stress was observed in female students than in male students in our study. Consistent with our study, various studies report that female students have higher clinical stress levels (Admi et al., 2018; Chan et al., 2014; Suen, et al., 2016). Women are more likely to cognitively perceive themselves adversely, have a gloomy assessment of their clinical performance, and recall unpleasant experiences more frequently. Because female students relate failure to internal factors and male students to external causes, female students may feel higher levels of stress.

In the study, fourth-year nursing students had higher clinical stress levels than second and third-year students. Supporting the findings of the study, Altıok and Üstün (2013) reported that clinical stress levels increased as the grade level increased in nursing students (Altıok and Üstün 2013). Contrary to the findings, various studies in the literature suggest that the clinical stress levels of fourth-year nursing students are lower than those in the other classes (Admi et al., 2018; Labrague et al., 2018; Rafati et al., 2020). It is thought that fourth-year nursing students have high stress levels because of their increasing responsibilities in life as a group about to step into the profession, their worries about not getting a job, their feelings of inadequacy regarding their professional knowledge and skills, and their future concerns

Ordu University J Nurs Stud
2024, 7(3), 797-806
DOI: 10.38108/ouhcd.1310219

Table 3. The relationship between participants' age and the Competency Inventory for Nursing Students and the Nursing Students' Perceptions of Clinical Stressors Scale and their sub-dimensions

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
1. **The Competency Inventory for Nursing Students**	1														
2. Clinical biomedical science	p<0.001	1													
3. General clinical skills	p<0.001		1												
4. Critical thinking and reasoning	p<0.001	p<0.001	p<0.001	1											
5. Caring	p<0.001	p<0.001	p<0.001	p<0.001	1										
6. Ethics and responsibility	p<0.001	p<0.001	p<0.001	p<0.001	p<0.001	1									
7. Lifelong learning	p<0.001	p<0.001	p<0.001	p<0.001	p<0.001	p<0.001	1								
8. **The Nursing Students' Perceptions of Clinical Stressors Scale**	p<0.001	p<0.001	p<0.001	p<0.001	p=0.001	p<0.001	p=0.003	1							
9. Inappropriate clinical environment	p=0.747	p=0.366	p=0.772	p=0.380	p=0.099	p=0.191	p=203	p<0.001	1						
10. Instructor's inappropriate conduct	p<0.001	p<0.001	p<0.001	p=0.001	p=0.001	p=0.009	p=0.095	p<0.001	p<0.001	1					
11. Instructor's academic performance	p<0.001	p<0.001	p<0.001	p<0.001	p<0.001	p=0.061	p=0.125	p<0.001	p<0.001	p<0.001	1				
12. Instructor's attitudes toward education	p<0.001	p<0.001	p<0.001	p<0.001	p=0.001	p<0.001	p=0.001	p<0.001	p<0.001	p<0.001	p<0.001	1			
13. Students' inadequate knowledge and skills	p<0.001	p<0.001	p<0.001	p=0.015	p=0.294	p<0.001	p<0.001	p<0.001	p<0.001	p<0.001	p<0.001	p<0.001	1		
14. Concerns about the characteristics of a nursing career	p<0.001	p<0.001	p<0.001	p<0.001	p=0.013	p<0.001	p<0.001	p<0.001	p<0.001	p<0.001	p<0.001	p<0.001	p<0.001	1	
15. Age	p=0.183	p=0.219	p=0.920	p=0.006	p<0.001	p=0.711	p=0.868	p<0.001	p<0.001	p<0.001	p<0.001	p=0.041	p=0.032	p=0.028	1

Ordu University J Nurs Stud
2024, 7(3), 797-806
DOI: 10.38108/ouhcd.1310219

In the study, the clinical stressor perceptions of students who perceived their academic performance as good were higher than the others. Stress significantly influences students' academic performance (Oducado et al., 2020). The level of stress can have varying effects on students. While moderate stress increases the level of learning, high levels of stress may affect the well-being of students. The clinical environment, fear of making mistakes, instructors' observations, fear of harming, excessive workload, the approach of health team members, and low level of professional competence are factors that trigger stress on students in clinical practice (Wang et al., 2019). Our results demonstrated that mild clinical stress improved academic performance. Likewise, medical students in Malaysia were said to perform well academically despite significant levels of stress (Siraj et al., 2014). Additionally, it was discovered in a study of nursing students in the Philippines that their academic performance increased as their degree of stress did (Llego et al., 2018). Based on this finding, we think that because the students experience stress above the moderate range, they may exhibit stress-coping behaviors and have a good academic performance.

In the study, the competencies of nursing students were above the moderate level. The concept of competence is widely used in nursing education. However, defining and evaluating competency is challenging (Al Gharibi and Arulappan, 2020). Despite the attempts to clarify the concept of competence, discussions around the subject continue. Competence is defined as "the knowledge, skills, achievements, and abilities that a person should have to accomplish the task undertaken in the best way" (Immonen et al., 2019; Ülker and Korkmaz, 2022). The clinical biomedical science and general clinical skills competencies of the nursing students in our study were above the moderate level. Competence in professional development is the nurse's involvement in lifelong learning, raising professional standards, and acting to further personal and professional development and others (Almalkawi et al., 2018). Nursing care competence requires having the necessary knowledge and skills to plan the right nursing actions (Aydın and Kaşıkçı, 2019). In our study, nursing students' nursing care competencies were above the moderate level. Knowledge and cognitive competence mean analyzing, judging, and thinking critically and having relevant knowledge. To provide patients with the best care possible, nurses are supposed to transfer theoretical knowledge to practice. Inthis study, nursing students' ethical and responsibility competencies were above the moderate level. Similarly, research indicates that nursing students have a higher-than-normal propensity for ethical principles (Gürdoğan et al., 2018; Kırca et al., 2020). In our study, the lifelong learning competencies of nursing students were also above the moderate level. This result can be interpreted as nursing students partially adopting the concept of lifelong learning and the lifelong aspect of learning. It may be recommended to encourage nursing students to learn on their own and increase their curiosity and desire to learn.

This study showed that nursing students in the northeastern part of Türkiye experienced clinical stress above the moderate level. The stress level of nursing students in other countries has been reported as high (Admi et al., 2018), moderately high (Graham et al., 2016), and slightly moderate (Admi et al., 2018). Even though stress in nursing students arises from a variety of factors, clinical practice experiences are frequently cited as one of the most trying times for students. In, numerous studies investigating what causes clinical stress (Admi et al., 2018; Graham et al., 2016) concern about lack of knowledge about caring for patients, not knowing how to help patients and families with psychosocial problems, and negative interpersonal relationships with health professionals and faculty were highlighted. In this study, the most common type of clinical stressor was identified as inappropriate situations in the clinical setting and a lack of knowledge and skills. Clinical stresses were also usually attributed to inappropriate instructor behavior. Likewise, limited clinical competence, inappropriate attitudes, and behaviors of instructors (Rafati et al., 2020), constant observation and evaluation of nursing students by instructors in clinical practice (Bhurtun et al., 2019), and unclear expectations of instructors (Ismaile, 2017) are sources of clinical stressors expressed by nursing students. To develop their professional identity and competence, nurses rely heavily on educators. Therefore, instructors need to be aware of how stress affects them.

Nursing education aims to produce competent and self-confident nurses. Patients require safe, effective care from nurses, and clinical experiences help nursing students put theory into practice. Yet many nursing students worry about the clinical setting (George et al., 2020). In this study, it was observed that as students' perceptions of clinical stressors increased, their competence decreased.

Ordu University J Nurs Stud
2024, 7(3), 797-806
DOI: 10.38108/ouhcd.1310219

Educational strategies aimed at eliminating students' clinical experience-induced anxieties are necessary to raise a new generation of nurses who are proud of their profession and have the desire to continue nursing.

One of the most significant components of nursing education is clinical practice. In a clinical practice where emotional intensity is high, students encounter many stressors such as lack of clinical experience, making mistakes, having difficult patients, harming the patient, and fear of being negatively evaluated by educators and clinical nurses (George et al., 2020). In the study, as the age of the students increased, their perceptions of clinical stressors increased. As the age of the students increased, they studied in higher classes, and therefore, their increasing negative clinical experiences increased their perceptions of clinical stressors.

Competence in knowledge and cognitive ability includes critical analysis, judgment, and thinking and having relevant knowledge (Immonen et al., 2019). To handle challenging clinical scenarios and deliver accurate, high-quality patient care, nursing students must promote their critical thinking and reasoning skills (Guerrero et al., 2022). In our study, critical thinking competencies increased with increasing age. However, unlike our study results, Guerrero et al. evaluated the critical thinking skills acquired by nursing students and staff nurses with high-fidelity simulation experience and found that the critical thinking competencies of both groups were similar and there was no significant difference between them (Guerrero et al., 2022). Care is a multifaceted and all-encompassing concept that results from the nurse's abilities, actions, and knowledge. The nurse's responsibility is to assist the patient in overcoming the stress that they go through by supporting and assisting them in adjusting to their disease or crisis. The functions of care include psychomotor skills, processes, and decision-making in helping people, empathy, compassion, reassurance, and support (Aydın et al., 2022). Nurses are deemed competent if they perform their roles and obligations to the best of their ability in every circumstance while using their knowledge, skills, and talents to care for patients (Kajander-Unkuri, 2014). The study found that students' levels of competence rose as their ages did, and it was hypothesized that this was due to the students' growing theoretical and practical skill sets as they advanced through the academic system.

Conclusion and Recommendations

Nursing students' perceptions of clinical stressors and professional competencies are above the moderate level. Their perceptions of clinical stressors are affected by variables such as age, gender, place of residence, class, and academic performance. Professional competencies of nursing students are affected by variables like age, place of residence, academic performance, willingly choosing the department of nursing, and perception of self-competency in clinical practice. As the clinical stressor perceptions of nursing students increase, their professional competencies decrease. Turkish nursing students are exposed to many clinical stressors that adversely affect their professional competencies. Nurse educators should be aware of students' stress situations in clinical practice and create a supportive and communicative environment. In addition, they can contribute to reducing negative situations in clinical settings in Türkiye by establishing positive interpersonal relationships with health professionals, thus reducing nursing students' stress caused by unfavorable clinical environments. Nurse educators should take part in clinical practice training to advance students' knowledge and abilities and provide them the chance to fill in any gaps in those areas. Competency levels should be taken into consideration in the selection and employment of nurse educators.

This study was conducted in a descriptive design, and it is recommended that qualitative studies be carried out to determine the factors affecting nursing students' perceptions of clinical stressors and professional competencies. It was conducted in four state universities in the Eastern Black Sea Region. Therefore, it is recommended to perform further studies with large samples in nursing schools in other states and private universities.

Acknowledgements

We would like to thank our nurse students who participated in this study.

Ethics Committee Approval: Prior to the study, permission to use the scale was obtained from the author via e-mail. Ethical approval was obtained from the Human Research Ethics Committee of a local university (Number: E-13562490-199-312071-35; No: 2022/39), and informed consent was received from the volunteers in the study.

Peer-review: External referee evaluation.

Ordu University J Nurs Stud
2024, 7(3), 797-806
DOI: 10.38108/ouhcd.1310219

Author Contributions: Idea /Concept: MA, CUS, EFA, MG; Design: MA, CUS, EFA, MG; Supervision: MA, CUS; Materials: MA, CUS, EFA, MG; Data Collection and/or processing; Analysis and/ or Interpretation: MA, CUS, EFA, MG; Literature review: MA, CUS; Writing: MA, CUS, EFA, MG; Critical review: MA, CUS.
Conflict of interest: The authors declare that they have no conflict of interest.
Financial Disclosure: No financial support has been received for this research.

What did the study add to the literature?

- As the clinical stressor perceptions of nursing students increased, their professional competence decreased.
- Nursing students' perceptions of clinical stressors are affected by variables such as age, gender, place of residence, class, and academic performance.
- Professional competencies of nursing students are affected by variables like age, place of residence, academic performance, willingly choosing the department of nursing, and perception of self-competency in clinical practice.

References

Admi H, Moshe-Eilon Y, Sharon D, Mann M. (2018). Nursing students' stress and satisfaction in clinical practice along different stages: A cross-sectional study. Nurse Education Today, 68, 86–92. https://doi.org/10.1016/j.nedt.2018.05.027

Akansel N, Watson R, Palloş A. (2021). Validity and reliability of the Turkish version of Stressors in Nursing Students Scale. Perspectives in Psychiatric Care, 1–7. https://doi.org/10.1111/ppc.12936

Al Gharibi KA, Arulappan, (2020). Repeated simulation experience on self-confidence, critical thinking, and competence of nurses and nursing students—An integrative review. SAGE open nursing, 6, 2377960820927377. https://doi.org/10.1177/ 2377960820927377

Almalkawi I, Jester R, Terry L. (2018). Exploring mentors' interpretation of terminology and levels of competence when assessing nursing students: An integrative review. Nurse Education Today, 69, 95–103. https://doi.org/10.1016/j.nedt.2018.07.003

Altıok HÖ, Üstün B. (2013). The stress sources of nursing students. Educational Sciences in Theory and Practice, 13(2), 747-766.

Aydın M, Kaşıkçı M. (2019). Patients' perceptions of nursing care. Turkish Journal of Research & Development in Nursing 21(3), 14–24.

Aydın M, Erdöl H, Görgöz M, Aksu EF. (2022). Turkish validity and reliability study of "Nursing Students' perceptions of Clinical Stressors Scale". Nurse Education in Practice, 64, 103440. https://doi.org/ 10.1016 /j.nepr.2022.103440

Bazrafkan I, Kalyani MN. (2018). Nursing students' experiences of clinical education: A qualitative study. Investigacion Educacion En Enfermeria, 36(2):e04. https://doi.org/10.17533/udea.iee.v36n3a0

Bhurtun HD, Azimirad M, Saaranen T, Turunen H. (2019). Stress and coping among nursing students during clinical training: An integrative review. The Journal of Nursing Education, 58(5), 266–272. https://doi.org/10.3928/01484834-20190422-04

Chan ZC, Chan YT, Lui CW, Yu HZ, Law YF, Cheung KL, Hung KK, Kei SH, Yu KH, Woo WM, Lam CT. (2014). Gender differences in the academic and clinical performances of undergraduate nursing students: A systematic review. Nurse Education Today, 34(3), 377–388. https://doi.org/10.1016/ j.nedt.2013.06.011

Cornine A. (2020). Reducing nursing student anxiety in the clinical setting: An integrative review. Nursing Education Perspectives, 41(4), 229-234.

Fırat Kılıç H. (2018). The relationship between nursing students' educational stress and professional self-esteem. Journal of Hacettepe University Faculty of Nursing, 5 (1), 49-59.

George TP, DeCristofaro C, Murphy PF. (2020). Self-efficacy and concerns of nursing students regarding clinical experiences. Nurse Education Today, 90, 104401. Advance online publication. https://doi.org/10.1016/j.nedt.2020.104401

Graham MM, Lindo J, Bryan VD, Weaver S. (2016). Factors associated with stress among second year student nurses during clinical training in Jamaica. Journal of professional nursing: official journal of the American Association of Colleges of Nursing, 32(5), 383–391. https://doi.org/10.1016/j.profnurs.2016.01.004

Guerrero JG, Ali SAA, Attallah DM. (2022). The acquired critical thinking skills, satisfaction, and self-confidence of nursing students and staff nurses through high-fidelity simulation experience. Clinical Simulation in Nursing, 64, 24-30.

Gürdoğan EP, Aksoy B, Kınıcı E. (2018). Ethical awareness of nursing students, and their relationship with professional values. Journal of Health and Nursing Management, 5(3), 147-154.

Helminen K, Johnson M, Isoaho H, Turunen H, Tossavainen K. (2017). Final assessment of nursing students in clinical practice: perspectives of nursing teachers, students and mentors. Journal of Clinic Nursing, 26 (23–24), 4795–4803. http://doi.org/10.1111/jocn.13835

Hsu LL, Hsieh SI. (2013). Development and psychometric evaluation of the competency inventory for nursing students: A learning outcome perspective. Nurse Education Today, 33(5), 492-497.

Immonen K, Oikarainen A, Tomietto M, Kääriäinen M, Tuomikoski AM, Kaučič B. M, Mikkonen K. (2019). Assessment of nursing students' competence in clinical practice: A systematic review of reviews.

Ordu University J Nurs Stud
2024, 7(3), 797-806
DOI: 10.38108/ouhcd.1310219

International Journal of Nursing Studies, 100, 103414.

Ismaile S. (2017). Perceived clinical stressors among Saudi nursing students. Open Journal of Nursing, 7(04), 463.

Kajander-Unkuri S, Meretoja R, Katajisto J, Saarikoski M, Salminen L, Suhonen R, et al. (2014). Self-assessed level of competence of graduating nursing students and factors related to it. Nurse Education Today, 34 (5), 795–801.

Kırca N, Bademli K, Özgönül ML. (2020). Determining student nurses' the inclination to ethical values scale. Journal of Anatolia Nursing and Health Sciences, 23(3), 410-417.

Labrague LJ, McEnroe-Petitte DM, Papathanasiou IV, Edet OB, Tsaras K, Leocadio MC, Colet P, Kleisiaris CF, Fradelos EC, Rosales RA, Vera Santos-Lucas K, Velacaria PIT. (2018). Stress and coping strategies among nursing students: an international study. Journal of Mental Health (Abingdon, England), 27(5), 402–408. https://doi.org/10.1080/09638237.2017.1417552

Llego J, Gabriel E, Corpus J. (2018). A correlational study on the stress level and academic performance of nursing students. Journal of Basic and Applied Research, 4(4), 83-87. https://ssrn.com/abstract=3306863

Oducado RMF, Sotelo M, Ramirez LM, Habaña M, Belo-Delariarte RG. (2020). English language proficiency and its relationship with academic performance and the nurse licensure examination. Nurse Media Journal of Nursing, 10(1), 46-56. https://doi.org/10.14710/nmjn.v10i1.28564

Oermann MH. (2018). Chapter 12: assessment methods. In: Oermann, M.H., De Gagne, J.C., Phillips, B.C. (Eds.), Teaching in Nursing and Role of the Educator: The Complete Guide to Best Practice in Teaching, Evaluation and Curriculum Development, 2nd ed.. Springer Publishing Company, New York.

Özdemir H, Khorshıdb L, Zaybak A. (2020). Determination of nursing students' stress level toward nursing education. Turkish Journal of Science and Health, 1(2) 20-28.

Rafati F, Rafati S, Khoshnood Z. (2020). Perceived stress among Iranian nursing students in a clinical learning environment: A cross-sectional study. Advances in Medical Education and Practice, 11, 485–491. https://doi.org/10.2147/AMEP.S259557

Rafati F, Sharif Nia H, Khoshnood Z, Allen KA. (2021). Development and psychometric testing of nursing students' perceptions of clinical stressors scale: an instrument design study. BMC Psychiatry, 21(1), 1. https://doi.org/10.1186/s12888-020-02964-8

Sharifipour F, Heydarpour S, Salari N. (2020). Nursing and midwifery students' viewpoints of clinical learning environment: A cross-sectional study. Advances in Medical Education And Practice, 11, 447–454. https://doi.org/10.2147/AMEP.S253782

Simpson G, Sawatzky VJA. (2020). Clinical placement anxiety in undergraduate nursing students: A concept analysis. Nurse Education Tuday, 87, 104329. https://doi.org/10.1016/j.nedt.2019.104329

Siraj H, Salam A, Roslan R, Hasan N, Jin T, Othman M. (2014). Stress and its association with the academic performance of undergraduate fourth year medical students at University Kebangsaan Malaysia. The International Journal of Malaysia, 13(1), 19-24.

Suen WQ, Lim S, Wang W, Kowitlawakul Y. (2016). Stressors, and expectations of undergraduate nursing students during clinical practice in Singapore. International Journal of Nursing Practice, 22(6), 574–583. https://doi.org/10.1111/ijn.12473

Ülker T, Korkmaz F. (2022). Nursing students' self assessment of professional competence scale' validity and reliability: Methodological study. Turkiye Klinikleri Journal of Nursing Sciences, 14(3), 788-797.

Wang AH, Lee CT, Espin S. (2019). Undergraduate nursing students' experiences of anxiety-producing situations in clinical practicums: A descriptive survey study. Nurse Education Today, 76, 103–108. https://doi.org/10.1016/j.nedt.2019.01.016