Research Article *JICAH 2025 5(2) 82-94*
https://doi.org/10.64684/jicah.107

Journal of Infant, Child and Adolescent Health

Why nursing students are more anxious in paediatric units: A descriptive correlational study

Hemşirelik öğrencileri pediatri ünitelerinde neden daha kaygılı: Tanımlayıcı korelasyonel bir çalışma

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ABSTRACT

Purpose: This study aimed to investigate the clinical comfort and anxiety levels of nursing students in the paediatric nursing practice programme and their relationship with some variables.
Method: A descriptive correlational study design was used. The sample of the study consisted of 506 nursing students. The data collection tools of the study were the Personal Information Form and Pediatric Nursing Student Clinical Comfort and Worry Assessment Tool. The measurement tools were administered to nursing students at a Turkish state university by the authors.
Results: In the study, a significant correlational relationship was found between many factors such as gender, knowledge, satisfaction status and feeling of inadequacy and clinical comfort and anxiety subscales. ($p<0.05$)
Conclusion: Many factors such as differences between adult and paediatric care, communication problems with the child and family, feeling of inadequacy in paediatric interventions and dissatisfaction with physical conditions cause students to experience anxiety during paediatric practice.

Keywords: Anxiety; clinical practice; comfort; paediatric nursing

ÖZET

Amaç: Bu çalışmada çocuk hemşireliği uygulama programında yer alan hemşirelik öğrencilerinin klinik konfor ve anksiyete düzeyleri ile bunların bazı değişkenlerle ilişkisinin incelenmesi amaçlanmıştır.
Yöntem: Araştırma tanımlayıcı ve korelasyonel bir çalışmadır: Tanımlayıcı korelasyonel çalışma deseni kullanıldı. Araştırmanın örneklemini 506 hemşirelik öğrencisi oluşturdu. Araştırmanın veri toplama araçları Kişisel Bilgi Formu ve Pediatri Hemşireliği Öğrencileri Klinik Rahatlık ve Endişe Değerlendirme Aracı'dır. Ölçme araçları yazarlar tarafından Türkiye'de bir devlet üniversitesinde hemşirelik öğrencilerine uygulanmıştır.
Bulgular: Çalışmada cinsiyet, bilgi, memnuniyet durumu ve yetersizlik hissi gibi birçok faktör ile klinik konfor ve anksiyete alt ölçekleri arasında anlamlı bir korelasyonel ilişki bulunmuştur. ($p<0.05$)
Sonuç: Yetişkin ve pediatrik bakım arasındaki farklılıklar, çocuk ve aile ile iletişim sorunları, pediatrik girişimlerde yetersizlik hissi ve fiziksel koşullardan memnuniyetsizlik gibi birçok faktör öğrencilerin pediatri uygulamaları sırasında anksiyete yaşamalarına neden olmaktadır.

Anahtar Kelimeler: Anksiyete; klinik uygulama; konfor; pediatri hemşireliği

Introduction

Nursing education consists of theoretical and practical components that complement each other. Clinical practice enables students to learn through experience, develop communication and decision-making skills, and hone their professional competence and ability to work in a team (Şendir et al., 2018). The high expectations placed on students in terms of their skills and competence highlight the importance of clinical practice in nursing education (Çunkuş, Yiğitoğlu & Solak, 2021). Nursing plays a vital role in the progress and development of the healthcare system. The importance of nursing in the health system highlights the need to reconsider certain criteria for nursing students, who will be future practitioners (Luke, Petitt, Tombrella &

Bu çalışma 3. Uluslararası Akdeniz Pediatri Hemşireliği Kongresinde sözel bildiri olarak sunulmuştur.

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Geliş Tarihi / Received: 21.04.2025 **Kabul Tarihi**/Accepted: 24.06.2025

McGoff 2021). these criteria include the level of comfort and anxiety experienced by the students in the clinical environments, which is one of the main indicators of the quality of nursing education.

Nursing students are particularly exposed to high levels of stress during their training due to various factors including clinical workload, concerns about academic performance, financial inadequacy, lack of support in clinics, and experiencing patient deaths (Bhurtun, Azimirad, Saaranen & Turunen, 2019). A study found that there was a relationship between the competence of nursing students' competence and their clinical comfort, and that an increase in students self-efficacy improved comfort in the clinical environment (Mutlu, Azak & Kalaycı, 2020). Furthermore, it was found that students' individual comfort contributed to the development of their clinical decision-making skills, a fundamental aspect of nursing practice (Günerigök, Kurt & Küçükoğlu, 2020).

Another issue to consider in nursing education is the anxiety experienced by students during clinical practice. Martos et al. found that clinical practice caused nursing students the most stress compared to other aspects of their education programme (Pulido-Martos, Augusto-Landa & Lopez-Zafra, 2012). On the other hand, Sanad found that nursing students experienced moderate stress, which would negatively impact the quality of their clinical practice and education (Sanad, 2019). It is not uncommon for nursing students to experience anxiety during clinical practice. This anxiety is influenced by a number of factors (Aloufi, Jarden, Gerdtz & Kapp, 2021). These factors include the attitude of colleagues and other healthcare professionals towards the student in the clinic. In their study, Shen et al. found that negative experiences with hospital staff caused an increase in students' clinical anxiety levels (Shen et al., 2020).

There are significant differences between childcare and adult care in many areas, such as communication and application techniques. These differences can cause students to experience anxiety and stress, which can negatively affect their clinical performance (Top & Kulakaç, 2020). It has been observed that high anxiety levels among students practising in paediatric clinics lead to decreased comfort levels (Lassche, Al-Qaaydeh, Macintosh & Black, 2013). It is crucial to boost nursing students' confidence in their ability to care for children in a clinical setting. This can have a positive effect on the child's well-being, as well as contributing to important issues in the field of paediatric nursing, such as specialisation and improving quality (Şahin, Aközlü & Taşdelen, 2023).

Objectives

This study aimed to determine the clinical anxiety and comfort levels of nursing students performing clinical practice as part of their paediatric nursing course, and to investigate the relationship between these levels and paediatric nursing-specific variables.

Study Questions

- Do nursing students going to paediatric nursing clinical practice experience worry?
- Are the clinical comfort levels of nursing students who go to paediatric nursing clinical practice at a comfort level?
- What are the variables affecting the clinical comfort and worry levels of nursing students going to paediatric nursing clinical practice?

Materials and Methods

Study Design

A descriptive correlational approach was used in this study.

Study Population and Sample

This study was conducted with third- and fourth-year students from the Nursing Department at the Faculty of Health Sciences. Only these students were included because the paediatric nursing course and internship

are included in the third and fourth years of the curriculum, respectively. The dependent variable of the study is the clinical comfort and anxiety levels of the students, while the independent variables consist of socio-demographic variables and variables related to nursing education and practice. This study's alternative hypothesis posits that nursing education and practice variables, in conjunction with socio-demographic variables characterising nursing students involved in paediatric nursing practices, can positively or negatively affect clinical comfort and anxiety levels. The study population consisted of 520 students enrolled in the paediatric nursing programme at the university where the study was conducted. Power analysis techniques were employed to ascertain the requisite sample size and to determine the point at which saturation was achieved. This power analysis is grounded in the findings of analogous studies (Çunkuş et al., 2021). The analysis yielded the following results: an effective size value of 0.2802377, a critical t value of 1.6558899 and a real power value of 0.9510134. These findings indicate that a minimum sample size of 140 is required for the study. The sample population consists of 506 nursing students, which is approximately 97.3% of the total population. The saturation point was exceeded.

Information about the study process is given in Figure 1.

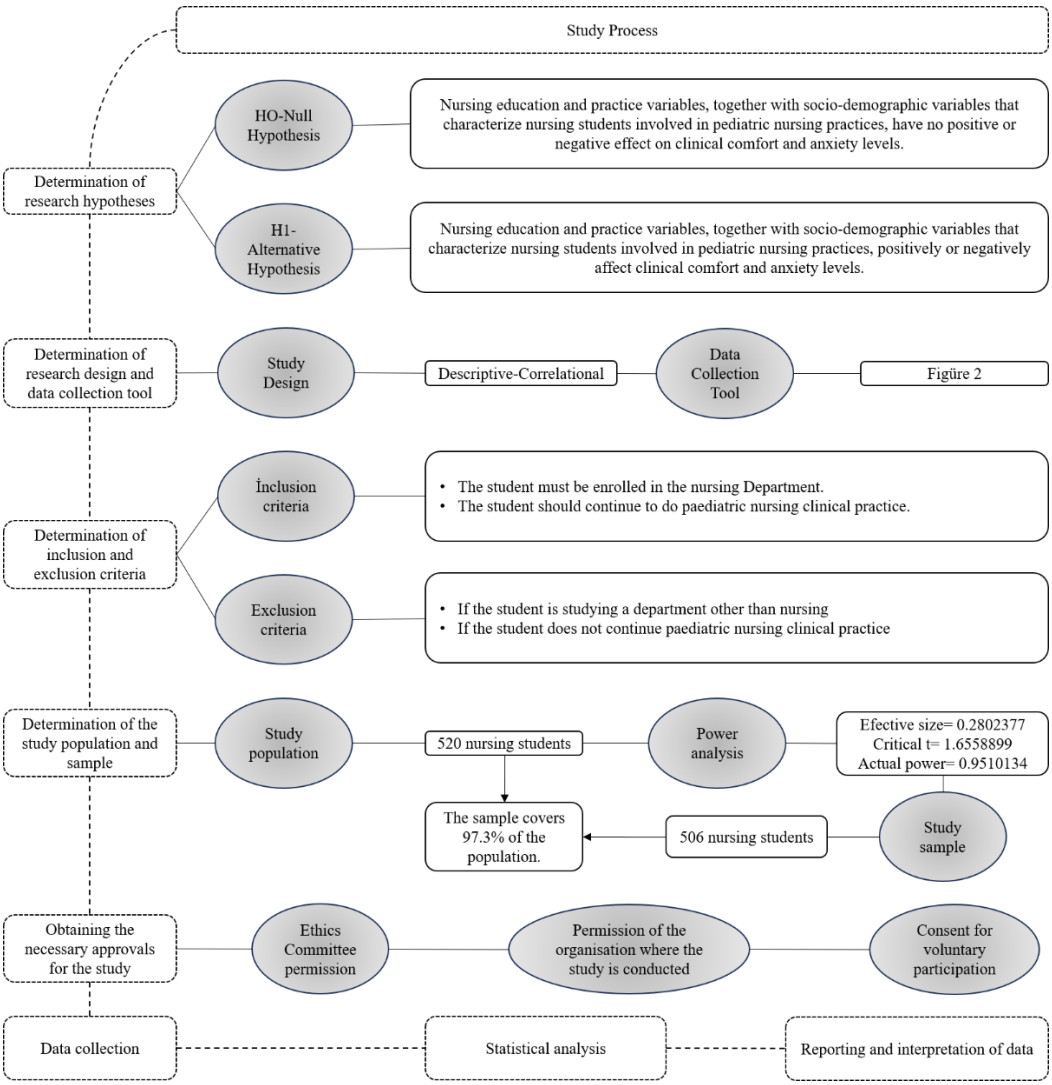

Figure 1. Study process

In light of the potential for the participating students to respond to the questionnaire items in a biased manner, the researchers informed them that no descriptive personal data concerning their participation in the study would be collected.

Measurements

The Personal Information Form was used to collect data on the independent variables, while the Paediatric Nursing Students' Clinical Comfort and Worry Assessment Tool was used to collect data on the dependent variables.

Personal Information Form

The Personal Information Form was developed by the researchers through a review of existing literature (Çunkuş et al., 2021; Menekşe, Tecik, Bülbül, Kabul & Çınar, 2024; Mutlu et al., 2020). The form consists of 20 items. The first part of the form contains 13 items relating to the students' socio-demographic characteristics, educational background and professional opinions. The second part of the form contains two items to assess student satisfaction or dissatisfaction with the placement units and their reasons. The third part of the form consists of five items designed to determine whether students feel adequately or inadequately prepared in the field of paediatric nursing, and the reasons for this feeling.

Pediatric Nursing Student Clinical Comfort and Worry Assessment Tool

The Paediatric Nursing Student Clinical Comfort and Worry Assessment Tool was developed by Al-Qaaydeh et al. in 2012. The Turkish validity and reliability study of the scale was conducted by Arslan et al. (Arslan, Şener & Cangür, 2018). The scale is designed to assess the anxiety and comfort levels experienced by students undertaking paediatric clinical practice. It consists of 11 items and two subscales (anxiety and comfort), which are presented using a four-point Likert scale (strongly agree, agree, disagree, strongly disagree). Additionally, the scale includes two reverse-scored items. The Cronbach alpha scores of the scale study were found to be 0.68 for the comfort subscale and 0.89 for the worry subscale. In the present study, Cronbach's alpha scores were 0.63 for the comfort subscale and 0.80 for the worry subscale.

Information about the data collection tools is given in Figure 2.

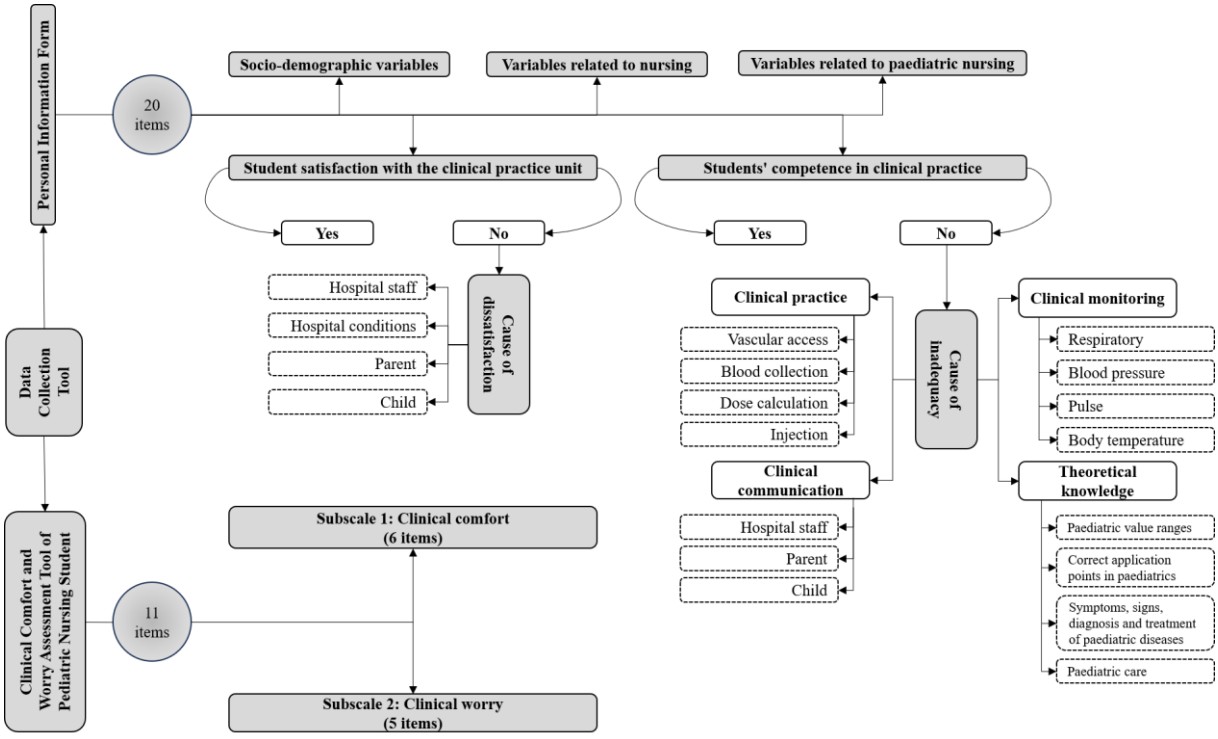

Figure 2. Data collection tools

Ethical Considerations

The requisite ethical committee and institutional approvals were obtained prior to the commencement of the study. The Declaration of Helsinki was adhered to throughout the study. Ethical approval for the study was obtained from the non-interventional clinical research ethics committee of a state university (protocol number 2021/381). The study was conducted using an online data collection method during the spring semester of the 2022-2023 education and training period.

Analysing the Data

In analysing the data, the mean, standard deviation, maximum and minimum methods were applied to the numerical variables. Furthermore, percentage and frequency calculations were conducted for the categorical variables. The Kolmogorov–Smirnov test was used to determine whether the scale and its subscales were normally distributed. The findings indicated that the scale did not demonstrate a normal distribution. The reliability of the scale and its subscales was then evaluated using Cronbach's alpha coefficient, revealing that they were within the acceptable range. The Mann–Whitney U test and Kruskal–Wallis test were then used to determine the relationships between the scale, its subscales, and the categorical variables in the personal information form. For all the analytical techniques used in the study, a p-value of 0.05 was taken as the threshold for statistical significance.

Limitations

This study has some limitations. Firstly, it is a single-centre study. Secondly, the variables that have the potential to influence the level of clinical comfort and worry are very broad and include individual causes. Therefore, not all potential variables could be included in the questionnaire form.

Results

The mean age of the students was 21.60 ± 1.55 years. The majority of students were female (79.6%) and in their third year (53.8%). Of the students, 45.4% stated that they had chosen the nursing profession partly willingly, and 51.2% said that they were satisfied with their choice of profession. Although 62% of students were aware of the general duties, authorities, and responsibilities of the nursing profession, only 47.6% had a good understanding of those specific to paediatric nursing. Of the students, 48.6% stated that they did not want to pursue a career in paediatric nursing, and 50.8% said that they experienced difficulties due to the differences between adult and paediatric care plans. 52.8% of students said they could only partially answer questions when caring for paediatric patients.

A comparison of the personal information form and scale subscales revealed that female students had higher scores on the comfort subscale than their male counterparts. Furthermore, students who expressed a partial preference for the nursing profession exhibited higher comfort scores than those who expressed a full preference. Additionally, students who did not express a desire to work in the paediatric unit after graduation had higher comfort scores than those who did. Students who demonstrated a lack of knowledge regarding the duties, authorities, and responsibilities of nursing and paediatric nursing were found to have higher comfort subscale scores and lower anxiety subscale scores than those who possessed such knowledge. The study's findings indicated that students who encountered challenges due to discrepancies in care between paediatric and adult patients exhibited higher comfort and lower anxiety scores. Analysis showed that students who could not find answers to their questions about paediatric patient care reported higher levels of comfort, while those who could demonstrated higher levels of anxiety ($p < 0.005$) (Table 2).

Table 1. Comparison of the scale and subscales with the variables in the personal information form

			Comfort Subscale			Worry Subscale			Scale Total		
	N	**%**	**X̄**	**Sd**	**p**	**X̄**	**Sd**	**p**	**X̄**	**Sd**	**p**
Gender											
Female	403	79.6	14.34	2.63	**0.023***	11.68	3.10	0.164*	26.03	3.70	0.822*
Male	103	20.4	13.59	2.86		12.33	3.25		25.92	4.04	
Paediatric Nursing Theoretical Course-Taking Status											
Received	235	46.4	13.97	2.87	**0.029***	12.05	3.09	0.145*	26.03	3.60	0.871*
Receiving	271	53.6	14.38	2.53		11.60	3.18		25.99	3.91	
Willingness to Choose Nursing Department											
Yes	171	33.8	13.77	2.48		11.90	3.13		25.67	3.68	
No	105	20.8	14.52	3.30	**0.018****	11.48	3.38	0.418**	26.00	4.37	0.150**
Partially	230	45.4	14.36	2.51		11.90	3.05		26.26	3.52	
Feeling Love for Nursing Profession											
Yes	259	51.2	13.79	2.66	**<0.001****	11.92	3.19		25.71	3.78	
No	44	8.7	14.65	2.71		11.93	3.35	0.534**	26.59	3.78	0.079**
Partially	203	40.1	14.61	2.67		11.66	3.05		26.27	3.72	
Knowledge of the Duties, Authorities and Responsibilities of Nursing											
Yes	314	62.0	13.88	2.67		12.14	3.25		26.03	3.82	
No	10	2.0	15.30	2.62	**<0.001****	10.70	3.30	**0.006****	26.00	3.19	0.972**
Partially	182	36.0	14.66	2.67		11.30	2.86		25.97	3.72	
Knowledge of the Duties, Authorities and Responsibilities of Paediatric Nursing											
Yes	240	47.4	13.60	2.62		12.35	3.16		25.96	3.80	
No	25	5.0	15.28	2.35	**<0.001****	11.12	3.11	**0.001****	26.40	2.64	0.872**
Partially	241	47.6	14.67	2.68		11.35	3.05		26.02	3.84	
Willingness to Work in a Paediatric Unit after Graduation											
Yes	118	23.3	13.79	2.62		11.88	2.97		25.67	3.96	
No	246	48.6	14.75	2.62	**<0.001****	11.55	3.12	0.089**	26.31	3.35	0.510**
Partially	142	28.1	13.55	2.70		12.21	3.30		25.77	4.24	
Feeling Difficulty with Differences in Care Plans between Paediatric and Adult Patients											
Yes	257	50.8	14.66	2.79		11.44	3.15		26.10	3.62	
No	92	18.2	13.42	2.13	**<0.001****	12.46	2.61	**0.009****	25.89	3.02	0.472**
Partially	157	31.0	13.87	2.70		12.05	3.35		25.92	4.36	
Ability to find answers to questions about caring for paediatric patients											
Yes	201	39.7	13.56	2.60		12.29	3.07		25.85	3.68	
No	38	7.5	15.47	3.15	**<0.001****	11.02	3.38	**0.016****	26.50	3.53	0.657**
Partially	267	52.8	14.49	2.59		11.57	3.12		26.06	3.87	

n = sample size; X̄ = mean; Sd = standard deviation.
* $p < 0.05$; Mann-Whitney U test was used for the comparison of two independent groups.
** $p < 0.05$; Kruskal-Wallis H test was used to compare three and more independent groups that did not have normal distribution.

In the present study, a high proportion of students expressed satisfaction with the hospital and unit conditions in which they completed their internships. Specifically, 81.6% reported satisfaction with the hospital, 30.0% with the unit and 77.1% with healthcare professionals' attitudes. Furthermore, 90.1% of students were satisfied with the attitudes of the paediatric patients under their care and 89.3% were satisfied with the attitudes of their parents. A statistically significant difference was identified between students who were satisfied with the conditions at their internship hospital and unit, and those who were not ($p < 0.01$). Moreover, students who were dissatisfied with all these factors exhibited significantly higher levels of anxiety.

Table 2. Comparison of the scale and its subscales with the situations encountered by students in paediatric units

				Comfort Subscale			Worry Subscale			Scale Total		
		N	%	X̄	Sd	p	X̄	Sd	p	X̄	Sd	p
Satisfaction with the Paediatric Unit in which the internship was performed												
Yes		354	70.0	13.96	2.55	**<0.001***	12.03	3.07	**0.013***	26.00	3.75	0.760*
No		152	30.0	14.73	2.94		11.31	3.26		26.04	3.81	
Satisfaction Variables	**Satisfaction with the Attitudes of Health Workers**											
	Yes	116	22.9	14.83	2.80	**0.006***	11.31	3.03	**0.003***	26.14	3.25	0.597*
	No	390	77.1	14.00	2.64		11.96	3.16		25.97	3.91	
	Satisfaction with the Attitudes of Parents											
	Yes	54	10.7	14.57	3.34	0.156*	10.70	3.27	**0.013***	25.27	4.52	0.208*
	No	452	89.3	14.15	2.61		11.95	3.10		26.10	3.66	
	Satisfaction with Hospital Conditions											
	Yes	93	18.4	14.69	3.12	**0.035***	11.10	3.24	**0.019***	25.80	4.11	0.616*
	No	413	81.6	14.08	2.58		11.97	3.10		26.06	3.69	
	Satisfaction with the Attitudes of Children											
	Yes	50	9.9	15.12	3.24	**0.006***	10.56	3.58	**0.005***	25.68	4.22	0.429*
	No	456	90.1	14.09	2.61		11.95	3.06		26.05	3.71	

n = sample size; X̄ = mean; Sd = standard deviation.

* $p < 0.05$; Mann-Whitney U test was used for the comparison of two independent groups.

** $p < 0.05$; Kruskal-Wallis H test was used to compare three and more independent groups that did not have normal distribution.

Although 60.1% of students participating in the study believed they were competent in paediatric nursing, their comfort subscale scores were significantly higher than those who did not believe they were competent. Examining the clinical practices that the students considered themselves competent in revealed that 50.8% were related to intravenous access, 26.3% to blood collection, 40.3% to dose calculation, 30.4% to injections, 3.6% to body temperature measurement, 14.0% to respiratory rate measurement, 30.6% to blood pressure measurement and 9.1% to pulse rate measurement. Thirteen point four per cent of the students thought they were competent at communicating with other healthcare professionals, 30.2 per cent with the paediatric patients they cared for, and 17.8 per cent with parents. 87.2% of students felt insufficiently knowledgeable about normal value ranges in children, 70.4% about correct application points in children, 60.5% about symptoms, findings, diagnosis and treatment of diseases in children, and 81.6% about issues that should be considered when caring for children.

It was found that students who thought they were competent in paediatric nursing had higher comfort subscale scores and lower anxiety subscale scores ($p < 0.001$). Examining the students' competence in areas related to clinical practice revealed that those who considered themselves competent in intravenous access, blood collection, dose calculation, injection and blood pressure measurement practices in paediatric units had higher comfort subscale scores ($p < 0.001$). Conversely, the anxiety subscale scores of students who did not consider themselves competent in blood collection, dose calculation, injections, respiratory rate and pulse measurement were higher ($p < 0.001$). The comfort scores of students who felt competent in communicating with the paediatric patient they cared for were higher, while the anxiety scores of students who felt incompetent in communicating with the family were higher ($p < 0.001$). In terms of theoretical knowledge, the comfort scores of students who considered themselves competent in areas such as measuring vital signs in children, normal value ranges, injection practices, and the child-specific approach were higher ($p < 0.001$).

Table 3. Comparison of the scale and its subscales with students' competence variables in paediatric nursing

				Comfort Subscale			Worry Subscale			Scale Total		
		n	%	X̄	Sd	p	X̄	Sd	p	X̄	Sd	p
Feeling Competent in the Field of Paediatric Nursing												
Yes		304	60.1	14.60	2.74	**<0.001***	11.38	3.17	**<0.001***	25.99	3.93	0.585*
No		202	39.9	13.57	2.51		12.47	3.00		26.04	3.50	
Competence Variables Related to Drug Practices	**Vascular Access**											
	Yes	257	50.8	14.57	2.49	**<0.001***	11.49	3.01	0.005*	26.07	3.50	0.872*
	No	249	49.2	13.79	2.84		12.14	3.24		25.94	4.03	
	Blood Collection											
	Yes	133	26.3	15.06	2.68	**<0.001***	11.09	3.28	**<0.001***	26.15	4.07	0.448*
	No	373	73.7	13.88	2.64		12.07	3.06		25.96	3.65	
	Dose Calculation											
	Yes	204	40.3	14.81	2.94	**<0.001***	11.18	3.12	**<0.001***	26.00	4.05	0.826*
	No	302	59.7	13.77	2.44		12.24	3.09		26.02	3.57	
	Injection											
	Yes	154	30.4	14.92	3.05	**<0.001***	10.97	3.09	**<0.001***	25.90	4.28	0.968*
	No	352	69.6	13.87	2.46		12.18	3.10		26.06	3.52	
Proficiency Variables for Vital Sign Measurement	**Body Temperature Measurement**											
	Yes	18	3.6	13.66	3.21	0.696*	10.00	3.62	0.016*	23.66	5.72	0.008*
	No	488	96.4	14.21	2.68		11.88	3.11		26.10	3.65	
	Respiratory Count Measurement											
	Yes	71	14.0	14.85	2.78	0.003*	10.50	3.24	**<0.001***	25.36	4.79	0.266*
	No	435	86.0	14.08	2.67		12.03	3.08		26.11	3.57	
	Blood Pressure Measurement											
	Yes	155	30.6	14.76	2.87	**<0.001***	11.30	3.12	0.016*	26.07	4.16	0.608*
	No	351	69.4	13.94	2.58		12.04	3.13		25.98	3.58	
	Pulse Rate Measurement											
	Yes	46	9.1	14.00	3.14	0.857*	10.30	3.46	**<0.001***	24.30	5.32	0.014*
	No	460	90.9	14.21	2.65		11.96	3.07		26.18	3.54	
Communication Competence Variables	**Communication with Healthcare Professionals**											
	Yes	68	13.4	14.77	2.75	0.028*	10.89	3.30	0.004*	25.67	3.96	0.251*
	No	438	86.6	14.10	2.68		11.96	3.10		26.06	3.74	
	Communication with Children											
	Yes	153	30.2	14.85	2.79	**<0.001***	11.28	3.19	0.017*	26.13	4.08	0.492*
	No	353	69.8	13.90	2.61		12.05	3.10		25.96	3.62	
	Communication with Family											
	Yes	90	17.8	14.83	2.91	0.005*	10.64	2.88	**<0.001***	25.47	3.75	0.082*
	No	416	82.2	14.05	2.63		12.07	3.14		26.12	3.76	
Theoretical Knowledge Competence Variables	**Paediatric Normal Value Ranges (Respiration, Blood Pressure, Pulse, etc.)**											
	Yes	65	12.8	15.21	2.66	**<0.001***	10.92	3.45	0.003*	26.13	3.96	0.885*
	No	441	87.2	14.04	2.67		11.95	3.08		25.99	3.74	
	Correct Application Points in the Child (Injection and Vital Findings Areas, etc.)											
	Yes	150	29.6	15.01	2.84	**<0.001***	11.12	2.90	0.001*	26.14	3.86	0.539*
	No	356	70.4	13.85	2.56		12.10	3.20		25.96	3.73	
	Symptoms, Findings, Diagnosis and Treatment of Paediatric Diseases											
	Yes	200	39.5	14.58	2.80	0.009*	11.37	2.96	0.003*	25.95	3.70	0.591*
	No	306	60.5	13.94	2.60		12.11	3.23		26.05	3.82	
	Issues to be Considered While Caring for Children (Approach, Behaviour, Attitude, etc.)											
	Yes	93	18.4	15.29	2.91	**<0.001***	10.53	3.09	**<0.001***	25.82	4.04	0.659*
	No	413	81.6	13.94	2.59		12.10	3.08		26.05	3.70	

n = sample size; X̄ = mean; Sd = standard deviation.
* $p < 0.05$; Mann-Whitney U test was used for the comparison of two independent groups.

Discussion

Students may experience anxiety when initially involved in paediatric nursing care (Akdeniz Kudubeş, Zengin, Ayar, Bektaş & Bektaş, 2024). Understanding the nature of anxiety experienced by nursing students during clinical practice, and the factors that influence it, is crucial for effective intervention (Wu, Rong & Huang, 2021). According to Dousis et al. (2022), existing literature identifies disappointment, stress, regret and frustration as potential causes of anxiety in nursing students. These emotions arise from failure to meet expectations in the clinical environment and disruption to comfort zones (Dousis et al., 2022). In this study, it was found that the majority of students were dissatisfied with the hospital and unit conditions, the attitudes of healthcare professionals and the paediatric patients and their parents they cared for, and their clinical anxiety scores were significantly higher.

Socio-demographic characteristics have been identified as a significant factor in the levels of clinical anxiety experienced by nursing students (Cornine, 2020). Ren et al. (2021) reported that Chinese female nursing students experienced anxiety due to feelings of fatigue, worthlessness and anger. Furthermore, it is commonly believed that the educational period plays an important role in shaping these levels. Indeed, Lavoie-Tremblay et al. (2022) stated in their study that these factors begin to form during professional education, such as that received by nurses, who are always exposed to stress factors in working life (Lavoie-Tremblay, Sanzone, Aubé & Paquet, 2022). When clinical comfort and anxiety levels were evaluated in terms of gender, the study found that female students had higher clinical comfort scores than male students.

Contemporary nursing curricula predominantly focus on acquiring knowledge to enhance students' practical skills (Mårtensson et al., 2023). However, this emphasis on acquiring knowledge can, in some cases, cause clinical anxiety in nursing students. The present study found that students with a comprehensive understanding of the duties, authorities, and responsibilities of general and paediatric nursing exhibit lower comfort levels and higher anxiety levels than their counterparts with less knowledge. This can be interpreted as meaning that students with knowledge of the duties, authorities and responsibilities of all areas of nursing experience heightened anxiety due to their awareness of their limitations and fear of error.

Paediatric nursing has been shown to present nurses with a range of challenges, including burnout (Buckley, Berta, Cleverley, Medeiros & Widger, 2020). These difficulties have been observed to affect practising nurses and student nurses alike. One study found that more students expressed a preference not to work in paediatric units after graduation than expressed a desire to do so, and that the former group were more comfortable with this prospect. The study identified several factors contributing to students' dissatisfaction with paediatric units, including a perceived lack of fulfilment in paediatric practices. It is hypothesised that this situation is exacerbated by the fact that most students do not aspire to work in paediatric units after graduation and that those who do not wish to work in paediatrics do not pursue paediatric nursing as a career.

The clinical practice units in which students are placed are another factor that affects their levels of clinical comfort and anxiety. Indeed, in their study, Simpson and Sawatzky (2020) defined the concept of clinical placement anxiety and mentioned its multidimensional effects on nursing students. The study found that students who were satisfied with their practice unit were more comfortable and less anxious in the clinical environment than those who were dissatisfied. Subsequent research into the causes of student dissatisfaction revealed that those dissatisfied with the attitudes of healthcare professionals, hospital conditions, or the approach to child care were more anxious in the clinical environment. Conversely, students who were satisfied with hospital conditions and these three factors exhibited heightened levels of anxiety. Another salient factor relates to the development of professional culture among nursing students. Godsey et al. (2020) asserted in their study that hospital members can inflict professional harm on nursing students. Van der Cingel and Brouwer emphasised that colleagues, other professionals in the environment and patients and their relatives play a pivotal role in shaping nursing students' professional identities (Van der Cingel & Brouwer, 2021). It

has been suggested that dissatisfaction experienced by student nurses in their communication and relationships with these individuals may result in anxiety. This, in turn, can lead to the development of professional identities that do not align with professional standards.

Feelings of inadequacy, an inability to apply theoretical knowledge to clinical practice, making mistakes at the beginning of one's career, and perceived stress can cause nursing students to experience anxiety in the clinical environment (Menekşe et al., 2024). This study found that students who felt competent in paediatric nursing were more comfortable in the clinical environment, while those who felt inadequate were more anxious. Additionally, this study analysed students' feelings of inadequacy in relation to interventions for practice, vital sign follow-up, communication, and theoretical knowledge. When students' sense of inadequacy was analysed in relation to these practices, it was found that those who felt competent in intravenous access, blood collection, dose calculation and injection practices were more comfortable in the clinic, while those who felt inadequate in these areas were more anxious. Another study found that the prospect of making mistakes in clinical practice causes anxiety in nursing students (Aljohani et al., 2021). The finding that 'students' feelings of inadequacy in practical interventions cause anxiety' may be associated with the fear of making mistakes.

Nurses play a pivotal role in the early diagnosis of diseases and performing vital follow-ups for patients. In this regard, monitoring vital signs is of paramount importance (Pozam, Khorshid & Sarı, 2022). The present study examined the relationship between students' feelings of competence in monitoring vital signs and their reported levels of comfort and anxiety. The findings showed that students who felt confident in their blood pressure measurement skills were more comfortable. Conversely, students who reported feeling inadequate in respiratory and pulse monitoring demonstrated increased anxiety.

Communication is widely recognised as fundamental to nursing skills and is crucial for providing high-quality care and ensuring patient safety (Höglander et al., 2023). When the study findings were analysed in terms of communication, it was found that students who felt competent at communicating with children were more comfortable in the clinic, while those who felt inadequate at communicating with families were more anxious. These findings support the idea that nursing students should be trained to be effective communicators in order to establish therapeutic relationships with their patients and become effective nursing professionals (Gutiérrez-Puertas, Márquez-Hernández, Gutiérrez-Puertas, Granados-Gámez & Aguilera-Manrique, 2020).

Finally, students who felt confident in their theoretical knowledge of normal value ranges and the correct application of these to children reported a higher level of comfort in the clinical environment. Additionally, students who felt confident in their theoretical knowledge of providing appropriate care for children reported greater comfort in the clinic, while those who felt less confident experienced higher levels of anxiety. Bektaş et al. suggest that nursing students experience anxiety when connecting theoretical knowledge with clinical practice because they cannot reconcile the knowledge they acquired during their education with clinical practice (Bektaş et al., 2021).

Although the proportion of students expressing feelings of competence in all areas, from invasive procedures to communication, was comparatively low, it is noteworthy that these students predominantly reported feeling more comfortable in the clinical environment. This finding highlights the importance of teaching students positive coping mechanisms prior to the start of clinical practice, as discussed by Onieva-Zafra et al. in their study (Onieva-Zafra et al., 2020).

Additionally, it can be said that the sense of inadequacy regarding paediatric nursing care stems from the discrepancy between paediatric nursing care in the educational curriculum and its implementation in clinical settings. It should therefore be emphasised that educational programmes must be made more compatible with real clinical needs, and that the education provided in educational institutions must be aligned with the paediatric care that students encounter in clinical settings. The study conducted by Dziurka et al. in 2022 also

supports this conclusion, as it found that integrating the clinic with current information reduces clinical stress (Dziurka et al., 2022).

Conclusion

A relationship was found between clinical comfort and anxiety levels in nursing students, as well as many other factors, such as gender, desire to work in the profession, knowledge of the profession, and perceptions of satisfaction and competence in the field of paediatric nursing. It is crucial to determine the factors that cause clinical anxiety in nursing students, as they are the future professionals. This knowledge is essential for effective intervention in the education process and practices.

It is believed that the following suggestions will effectively maintain optimum levels of clinical comfort and anxiety among students:

- Eliminating students' theoretical knowledge deficiencies when practising in paediatric units, particularly with regard to the differences between adult and child patient care,
- Providing training in effective communication techniques for healthcare professionals, children and families,
- Making the hospital and paediatric unit as suitable as possible for students.

Financial disclosure

This research did not receive any specific grant funding from public, commercial or not-for-profit organisations.

CRediT authorship contribution statement

Study design, Conceptualization and Methodology: PG;
Data collection: PG, BÇ
Data analysis: PG, BÇ
Manuscript writing: PG, BÇ
Reviewing and Editing: PG

Declaration of competing interest

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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