

# The Experiences of Intern Nursing Students in Pediatric Cancer Care: A Qualitative Study

## Abstract

**Background:** Understanding the experiences of nursing students in pediatric oncology clinics is important for lecturers. It helps in developing targeted educational strategies that may influence the students' future career choices.

**Aim:** This study aimed to explore the experiences and expectations of nursing students during their first encounter with pediatric cancer care.

**Methods:** This study employed a descriptive qualitative research design. The participants were 14 nursing students undergoing their first clinical training in pediatric oncology at a nursing faculty in Türkiye. Data were collected through individual semi-structured interviews conducted between April and June 2021. Content analysis was utilized to analyze data.

**Results:** The participants included 10 females and four males, aged between 21 and 23 years, with an average age of 21.4 years (Standard Deviation, SD=0.64). The analysis revealed three main themes and seven sub-themes related to the students' experiences and expectations: 'Encountering Challenges in the Clinical Environment,' 'Nursing Students' Pathways Toward Coping with Difficulties,' and 'Expectations and Wishes Regarding Clinical Training.'

**Conclusion:** The study found that nursing students felt they lacked the necessary communication skills and care behaviors required in the pediatric oncology clinic. These students recognized the importance of individual effort, willingness to learn, and maintaining a positive perspective when facing challenges. Moreover, the study highlighted the need for strong support from both lecturers and practicing nurses. Achieving optimal outcomes in nursing education programs can be facilitated by addressing the students' needs and supporting them.

**Keywords:** Cancer, nursing practice, nursing students, pediatric oncology, qualitative research

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## Introduction

Annually, over 11,000 children and adolescents are diagnosed with cancer.<sup>1</sup> This disease exerts a significant physical, emotional, and economic impact on patients, societies, and healthcare systems worldwide, with its prevalence continuing to rise.<sup>2</sup> Such trends underscore the critical need for nurses specialized in oncology. Due to the increasing demand for nurses in this department, it has become essential for nurses to enhance their knowledge and awareness of oncology nursing and to cultivate an interest in it during their undergraduate education. Acquiring clinical skills in a healthcare setting, along with theoretical knowledge, are crucial components of high-quality undergraduate nursing programs. Clinical training serves as an essential source of lasting and meaningful learning.<sup>3,5</sup> The undergraduate nursing education curriculum in Türkiye provides students with opportunities to practice in various clinical settings, offering care to patients with a wide range of diseases.<sup>4</sup> Oncology nursing, being a specialized field, requires nurses to fulfill important responsibilities in the care and treatment of oncology patients. Nursing students engage in the care of cancer patients during their clinical training, working alongside professional nurses. Unfortunately, various factors related to cancer patients can negatively impact nurses' attitudes toward cancer.<sup>6,7</sup>

The complexity and significance of the factors affecting nurses' attitudes toward cancer are amplified in pediatric oncology.<sup>8</sup> Pediatric oncology is regarded as a particularly challenging practicum area due to the demands for clinical skills and the emotional burdens it imposes.<sup>8</sup> The unfamiliarity of pediatric oncology clinics, the use of

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unfamiliar devices and clinical practices, life-threatening illnesses of patients, and complex treatment protocols all contribute to student strain.<sup>9,10</sup> Furthermore, the Coronavirus Disease 2019 (COVID-19) pandemic necessitated the shift to online education in Türkiye, preventing nursing students from participating in their clinical practicum for a period. Consequently, their professional learning process was adversely affected.<sup>11-13</sup> Creating a positive learning environment in pediatric oncology clinics is crucial, especially since students may find their first rotation in both a pediatric and an oncology clinic challenging.<sup>9</sup> Nurse educators should recognize the importance of supporting students in bridging theoretical knowledge with clinical practice.<sup>9,14</sup>

The literature suggests that, although pediatric oncology care provides valuable learning outcomes in terms of nursing care practices in hospitals, students encounter various challenges during their first rotation.<sup>10,15,16</sup> Previous studies have highlighted that nursing students caring for pediatric cancer patients often experience sadness, anxiety, fear, feelings of inadequacy, and low self-efficacy, leading them to keep a distance from the patients.<sup>8,9</sup> The negative emotional impact of students' first pediatric clinic rotation in hospitals is well-documented.<sup>16,17</sup> In the process of caring for pediatric patients of different ages and developmental levels and their families, students reportedly face communication difficulties.<sup>19,20</sup> The literature indicates that the initial pediatric oncology clinic practicum can be emotionally taxing, and can affect nursing students both in the short and long term, including diminishing the quality of clinical learning.<sup>10,21</sup>

A previous study noted that nursing students could develop problem-solving strategies to manage such stressful situations during clinical practicums.<sup>22</sup> While individual efforts toward professional development are crucial, it is equally important for students to receive support, encouragement, and positive role modeling from their lecturers and mentors in pediatric oncology clinics.<sup>8,9</sup> Findings from earlier studies suggest that enhancements in factors related to the quality of clinical training positively influence the educational outcomes of nursing student populations.<sup>23,24</sup> The goal of quality education is to train nurses who possess adequate knowledge and skills, can demonstrate their competence through critical thinking, analysis, and synthesis, and are capable of working effectively and efficiently.<sup>23</sup>

Previous qualitative studies have identified gaps in the foundational knowledge and preparation of undergraduate nursing students for providing patient care in pediatric oncology clinics.<sup>7,8,10,16</sup> To improve the quality of undergraduate nursing education, it is imperative for lecturers to understand their students' clinical experiences and expectations within pediatric oncology. The experiences and needs of students related to clinical care settings serve as crucial evidence for developing useful and effective education programs. Given the identified knowledge gap, this study aims to explore the experiences and expectations of nursing students regarding their first pediatric cancer care encounters.

### Research Questions

- What are the experiences of nursing students regarding their first pediatric cancer care in the pediatric oncology clinic?
- What are the expectations of nursing students regarding their first pediatric cancer care in the pediatric oncology clinic?

## Materials and Methods

### Study Design

Given the subjective nature of clinical environments, an in-depth and comprehensive examination is required. Thus, a descriptive qualitative research design was employed to elucidate the experiences of nursing students in a pediatric oncology clinic. The Consolidated Criteria for Reporting Qualitative Research (COREQ) guidelines were adhered to, ensuring the data is presented explicitly and comprehensively.

### Participants and Setting

Participants were recruited from the faculty of nursing at a university in southern Türkiye. In 2020, nursing students were unable to engage in practical experiences in the pediatric clinic due to the COVID-19 pandemic, and instead, continued their third year of pediatric nursing training online. Consequently, this study focuses on final-year nursing students participating in their first practicum in a pediatric oncology clinic. The internship schedules were exclusively dedicated to clinical practice, as the students had already completed their theoretical training. At this nursing faculty, fourth-year nursing interns are required to work a total of 32 hours a week, divided into two shifts: morning and night. The students spent seven weeks practicing in the pediatric oncology clinic. The individuals identified by the students as mentor nurses are seasoned professionals working in the clinic. This mentorship involves a dynamic relationship established with students during working hours, fostering both career and psychosocial development. Clinical nurses may volunteer to assist trainee students in acquiring technical and clinical skills. Nonetheless, it is the instructor's responsibility to evaluate the students.

A purposive sampling method was employed to select a diverse group of nursing students. Eligible participants were those who (a) were in the final year of their four-year undergraduate nursing program, (b) could speak Turkish, and (c) were undergoing their first rotation in the pediatric oncology clinic. The exclusion criterion was having previously interned in an adult oncology clinic, as such experiences could bias students' perceptions of the pediatric oncology population. At the study's outset, the first author (MG) briefed the students on the research project and invited them to participate. Although all nursing students initially agreed to participate, two were subsequently excluded due to their prior internship in adult oncology clinics. Data saturation was reached after 14 individual interviews, signifying no new information was forthcoming, thus confirming the adequacy of the sample size.

### Data Collection Tools

A demographic characteristics form was created to include information on age and gender. Based on a review of relevant literature and the study's objectives, the authors developed an interview guide composed of nondirective questions.<sup>6,8,9</sup> This guide contained six open-ended questions that focused on the nursing students' experiences in the pediatric oncology clinic. Additionally, probe questions were crafted to elicit more detailed information (Table 1).

### Data Collection

In-depth and detailed data were gathered through individual interviews.<sup>24</sup> Conducted from April to June 2021, these interviews utilized a semi-structured format. The first author, adept in qualitative

Table 1. Interview Guide

**Main Questions**

1. What were your thoughts and feelings on working with children with cancer when you learned that you would be practicing in the pediatric oncology clinic?
2. Can you tell me about your clinical practice experiences in pediatric cancer care?
3. How did you cope with negative experiences during your internship at the pediatric oncology clinic?
4. What expectations and wishes do you have regarding your lecturer in the clinical training process?
5. What expectations and wishes do you have regarding the pediatric oncology clinic staff?
6. What are your suggestions for other students in relation to this clinic?

**Probe Questions**

Which factors influence your feelings and thoughts about pediatric cancer care?

How do these feelings and thoughts affect you?

Please explain your experiences in as much detail as possible.

Could you give an examples of this topic?

Could you please provide further details about this topic?

research and specializing in pediatric nursing, carried out a single face-to-face interview with each participant. During the interviews, the researcher utilized a form to collect demographic characteristics and an interview guide. These interviews, lasting between 25 and 60 minutes with an average duration of 38 minutes, were conducted in a quiet meeting room within the faculty of nursing. All interviews were digitally recorded.

**Data Analysis**

Inductive content analysis was employed to analyze the data.<sup>25,26</sup> Individual interviews served as the units of analysis. The first author (MG) transcribed the interviews verbatim and then verified the accuracy of the text against the original audio recordings. The researchers individually listened to the audio recordings of the interviews and reviewed the transcripts multiple times. The research team, consisting of MG and SAT, independently coded the transcript contents. MG and SAT met regularly to review the nursing students' statements and develop a list of codes. The underlying meanings of the data were meticulously reviewed and interpreted. The team engaged in discussions to identify discrepancies, similarities, and associations in the content. Data analysis took place in June and July 2021. In the analysis of the data, the authors chose not to use qualitative software programs, aiming for greater familiarity with and immersion in the data. Efforts were made to identify themes that reflected the nursing students' experiences in the pediatric oncology clinic. Ultimately, the researchers reached a consensus, and the study findings were organized into three themes and associated sub-themes. Participant statements are included in the findings section, each annotated at the end with the abbreviation "participant (P), female (F), male (M), age (A)".

**Trustworthiness**

The rigor and trustworthiness of the findings were ensured through adherence to criteria such as confirmability, credibility, dependability, and transferability. To maintain rigor, all interviews were conducted by the first author (MG). For dependability, interviews were audio-recorded and transcribed verbatim. Two team members participated in the data analysis to enhance internal validity. Regular meetings between the two researchers to review transcripts and discuss findings contributed to confirmability. Efforts were made to base the themes on quotations from different nursing students to further support confirmability. In qualitative research, preventing changes participant expressions and maintaining the originality of sentences is important. In this regard, the Turkish data collected from the Turkish sample underwent translation back into Turkish language to verify the accuracy of sentence meanings when translated into English. Furthermore, credibility was enhanced through the involvement of an independent translator who assisted in translating the text from Turkish to English and then performing a back translation. The research team compared the Turkish and English versions. Transferability was achieved by providing detailed descriptions of the nursing students' sociodemographic characteristics, alongside thorough explanations of the methods and findings.

**Ethical Considerations**

This study received approval from the Clinical Research Ethical Committee of Akdeniz University (Approval Number: 2012-KAEK-20, Date: 19. 02. 2020) and was conducted in alignment with the Declaration of Helsinki. Nursing students were fully informed about the research goals, the nature of the qualitative interviews, and the need for audio recordings. Students who agreed to participate provided verbal consent and signed a written consent form. The first author (MG) assured participants that their identities and the audio recordings would be kept confidential. Anonymity was maintained by assigning a unique code to each student for use throughout the transcription and data analysis process.

**Results**

**Participant Characteristics**

The cohort comprised 10 females and four males, with ages ranging from 21 to 23 years. The mean age was 21.4 years (Standard Deviation, SD=0.64).

**Findings**

Three main themes and seven sub-themes emerged, reflecting the nursing students' experiences and expectations: 'Encountering Challenges in the Clinical Environment,' 'nursing Students' Pathways Toward Coping with Difficulties,' and 'Expectations and wishes Regarding Clinical Training' (Figure 1).

**Main Theme 1: Encountering Challenges in the Clinical Environment**

The first main theme encompasses three sub-themes: nursing students' prejudice against the clinic, communication barriers with children and their families, and clinical experiences during the COVID-19 pandemic.

**Sub-theme 1: Nursing Students' Prejudice Against the Clinic**

All nursing students reported having preconceived notions about the pediatric oncology clinic prior to their rotation. Nevertheless, they found the clinic to be less challenging than expected.

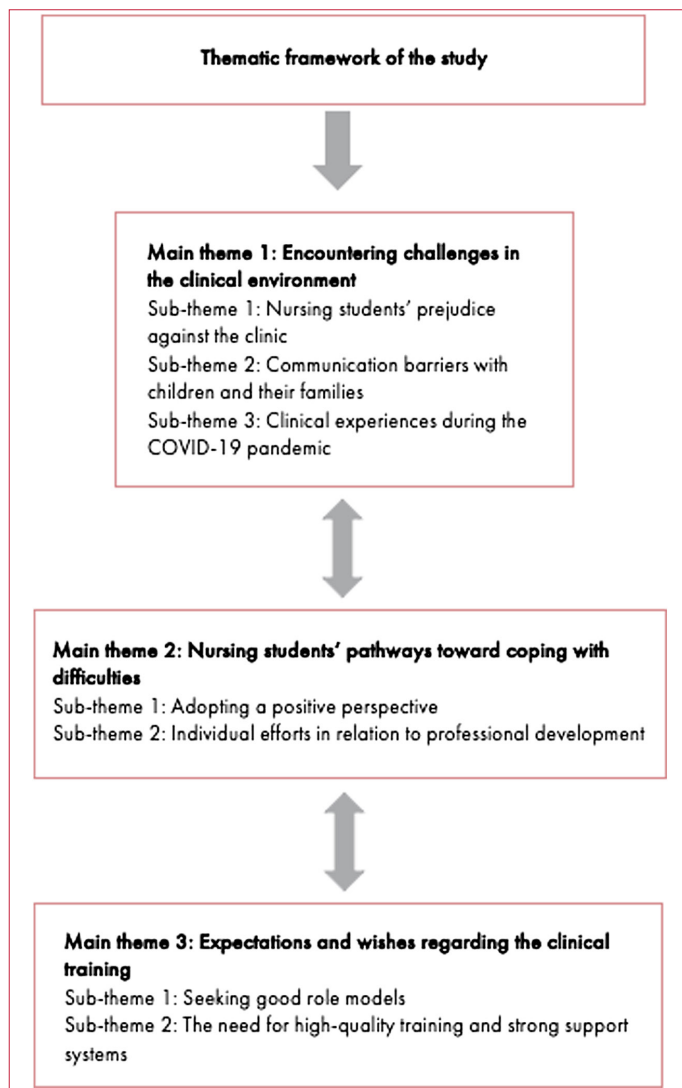


Figure 1. Thematic Framework of the Study .

"When I first learned that I was going to practice in this clinic, I was very worried because it was both a pediatric and an oncology clinic. I was afraid because I felt unprepared. I was prejudiced, but after I went to the clinic, I felt relieved." (P1, F, A22)

"At first, I was very anxious about this clinic because I thought that children with cancer were always sad, had a bad prognosis, or died. But when I arrived at the clinic, I saw that most of the children were lively, talking, and smiling at me. This made me very happy." (P6, F, A22)

**Sub-theme 2: Communication Barriers with Children and Their Families**  
Most nursing students reported experiencing difficulties in communicating with children and their families. They highlighted the distinction between children and adults, underscoring the importance of being skilled in communication techniques.

"While practicing in the adult [non-oncology] clinic, I noticed that adults suppressed their emotions and did not show their sadness. However, children said whatever they felt, they could express themselves more easily than adults. Sometimes they shouted that it hurt too much and

they didn't let us do the treatments. The younger the child, the more difficult it was to communicate with them." (P2, M, A23)

"Some parents didn't trust me because I was a student. They wanted a senior nurse to care for their children instead of me. I understood that they were trying to protect their children. However, the children were sometimes influenced by their parents and shouted at me to leave. I found it difficult to communicate with such children and their parents." (P13, F, A22)

### Sub-theme 3: Clinical Experiences During the COVID-19 Pandemic

All students shared that their clinical experiences were adversely affected by the pandemic. They also expressed greater concern for the children with cancer regarding the potential for coronavirus infection than for themselves.

"I feel responsible for protecting the children from the pandemic. I frequently wash my clothes at home. I try not to remove my mask in the hospital. I try to avoid crowds in my social life... The children have compromised immune systems. When a child develops a fever due to neutropenia, coronavirus is immediately suspected. I try to protect myself to prevent transmitting the coronavirus to the children." (P2, M, A23)

"We have been vaccinated, but the possibility of transmitting the coronavirus still worries me. Because of the pandemic, we cannot have contact with the children. They can't use the playroom or go out into the corridor. [Before the pandemic], we could play more games together and our communication was stronger." (P10, M, A22)

### Main Theme 2: Nursing Students' Pathways Toward Coping with Difficulties

The second main theme includes two sub-themes: Adopting a Positive Perspective and Individual Efforts in Relation to Professional Development.

#### Sub-theme 1: Adopting a Positive Perspective

Most students shared that despite encountering numerous difficulties at the pediatric oncology clinic, they managed to overcome them, finding the rotation both satisfying and beneficial.

"I administered medicines through central venous catheters, paying attention to sterility. I bathed the children because they have to stay in the hospital for a long time. I provided oral care to the children alongside my mentors. Oral care was very painful for some children and caused bleeding. This was the first time I had seen such oral care provided to patients with mucositis. I thought, "How can oral care be so painful?" The pediatric oncology clinic is a very difficult and unique unit. However, I learned many practices here; this clinic was very useful for me." (P1, F, A22)

"It saddened me that such young children had these diagnoses. Children with cancer suffer severe symptoms from chemotherapy side effects. They undergo painful procedures. Children and their families need us here. I feel like I'm more helpful to them over time. This brings me a sense of satisfaction, happiness, and pride." (P7, F, A21)

#### Sub-theme 2: Individual Efforts in Relation to Professional Development

Most nursing students emphasized the significance of individual efforts toward enhancing their professional development. They mentioned the necessity of being eager to learn for success.

"Sometimes, nurses can offer advice to doctors. I've noticed that the more knowledgeable nurses are, the more respected they are by their team members. Therefore, I think that as a student nurse, I also need to make an effort to learn. I've informed my mentor that I am willing to learn in the clinic. I conduct research and read about the differences in pediatric oncology care practices in more detail at home." (P10, M, A22)

"I used to be shy, but I realized that this led me to failure. Maybe a peer who put himself forward was performing a clinical task that I could do better. When I realized this, I compelled myself to learn my profession. When I enter a patient's room, I use therapeutic communication. It is necessary to overcome the fear of communication. For professional communication, it is necessary to be positive." (P7, F, A21)

### Main Theme 3: Expectations and Wishes Regarding Clinical Training

The third main theme includes two sub-themes: Seeking Good Role Models and the Need for High-Quality Training and Strong Support Systems.

#### Sub-theme 1: Seeking Good Role Models

Nurses with practical, applicable knowledge greatly inspired the nursing students. They unanimously expressed a desire for role models who embody professional values such as responsiveness, compassion, respectfulness, and trustworthiness.

"Some nurses do not focus only on their tasks when they enter a patient's room; they look at the patient, talk with compassion and respect, and respond to the parents' questions. I expect nurses to find time to communicate with patients and parents, even though their workload is heavy. I will be like these positive role models in the future." (P7, F, A21)

"Nurses paid close attention during care practices. They shared information with each other in great detail. Their management of patients and care practices was very good. Observing them inspired me. I, too, want to be a highly knowledgeable and professional nurse in the future." (P2, M, A23)

#### Sub-theme 2: The Need for High-Quality Training and Strong Support Systems

Every nursing student highlighted the importance of incorporating pediatric oncology-specific training into the nursing education curriculum. Furthermore, they recognized the need for comprehensive information in theoretical courses to enhance their effectiveness in the pediatric oncology clinic. They sought support and understanding concerning their clinical practices.

"Before starting our internship at the hospital, our lecturer should have given us a questionnaire to identify gaps in our knowledge and any other issues related to pediatric oncology. If we had been given training based on these results, we would have been better prepared for practice." (P7, F, A21)

"Nurses should not assume that we are at the clinic to help them; we are there to learn. I don't want to do only basic tasks such as monitoring vital signs or making observations. Our lecturers, nurses, and healthcare team should trust us; we can perform many clinical practices with their support. I expect tolerance and encouragement to develop my clinical practice skills and improve my performance." (P1, F, A22)

## Discussion

This study was designed to investigate undergraduate nursing students' experiences and expectations regarding their clinical practicum in a pediatric oncology clinic. Assessing the impact of clinical training conditions on students' experiences in pediatric oncology and delineating their expectations represent the strengths and innovative contributions of this research.

According to our findings, most nursing students faced communication barriers with patients and their families in the pediatric oncology clinic. They observed that children were more open in expressing their pain and sadness compared to adults. Communicating with younger patients proved more challenging, and students felt they lacked the necessary communication skills. This observation aligns with many previous studies indicating nursing students' difficulties in communicating with pediatric and oncology patients.<sup>19,20,27</sup> The primary reason for this struggle may be insufficient preparation for clinical practice. Literature on nursing education emphasizes the importance of communication between nursing students, patients, and their families to identify and address essential care needs.<sup>9,19</sup>

Another important finding of the study was the nursing students' fear of transmitting COVID-19 to children with cancer. Aware of the compromised immune systems of these children, the students took measures to prevent infection. This concern is corroborated by some previous studies.<sup>28,29</sup> The nursing students also mentioned their inability to interact with the children in playrooms or corridors due to the clinic's protective measures. The threat of coronavirus infection compromises the lifestyle of hospitalized children with cancer, reducing their daily activities and limiting their social interactions.<sup>29</sup>

In this study, most nursing students addressed challenges by adopting a positive attitude and exerting personal effort to advance their professional growth. They found clinical nursing practice extremely beneficial. Consistent with this, another study indicated that pediatric clinical learning environments are typically associated with positive and valuable experiences for nursing students.<sup>30</sup> Yet, some earlier research has noted that initial pediatric clinical experiences can negatively impact students emotionally.<sup>16,17</sup> An example of a particularly challenging practicum area is the oncology unit. Therefore, entering the work environment of a pediatric oncology department for the first time may be traumatic for nursing students, who may be more sensitive to emotional influences in this setting. These experiences can affect students' future career choices.<sup>9</sup>

One of the main findings of this study is that students require more high-quality training and stronger support systems. They expect support, tolerance, and empowerment from lecturers and clinic staff to help them navigate the various challenges of their first pediatric oncology rotation. This expectation aligns with previous studies that have emphasized the importance of positive interactions and attitudes from staff and lecturers toward students, treating them with respect, and supporting them as team members in nursing education programs.<sup>14,23,31</sup> Many studies have highlighted the positive impact of strong support systems on students' clinical adjustment, learning, and performance.<sup>4,9</sup> Findings from prior research are similar to our study's conclusions. Enhancing undergraduate nursing students' positive experiences in clinical practice and supporting their adaptation to the clinical setting and their nursing roles are crucial for ensuring high-quality learning opportunities. Advocating for adaptations in pediatric

oncology clinical settings to mitigate stress factors, preparing students adequately for clinical practice, expanding practice options, and facilitating learning are important measures. By addressing students' needs and providing support, it is possible to achieve optimal outcomes in nursing education programs.

### Limitations and Strengths

This study represents the first in-depth investigation of nursing students' initial experiences in pediatric oncology during the pandemic in Türkiye. Given the variation in internship schedules across nursing faculties, the experiences of nursing students in this study may differ from those at other institutions. Thus, the recruitment from a single nursing faculty at one university in southern Türkiye may restrict the generalizability and transferability of our findings.

### Conclusion

This study offers valuable insights into undergraduate nursing students' experiences and expectations during their first pediatric oncology clinic rotation in Türkiye. Students described the pediatric oncology clinic as a distinct and unique workplace compared to their previous clinical practicum experiences, noting that it contributed to their professional development while also having emotionally traumatic effects. The COVID-19 pandemic was found to negatively impact the students' ability to gain clinical skills. The students recognized the importance of individual effort, a willingness to learn, and maintaining a positive outlook when facing challenges. Because the students felt they lacked appropriate communication skills and caregiving behaviors in pediatric oncology practice, working with positive nurse role models was inspiring to them. They desired improvements in the quality of clinical training and strong support from lecturers and professional nurses. Lecturers and pediatric oncology staff should try to adopt an empathetic approach toward students' expectations and collaborate closely with them. We recommend that lecturers provide quality training on effective therapeutic communication to nursing students before a pediatric oncology practicum to enhance nursing care. To further improve nursing care for pediatric patients, more research should be conducted on students' experiences in pediatric oncology clinical settings. Additionally, future studies could explore trainee nurses' approaches to child- and family-centered care and their ability to implement it.

**Ethics Committee Approval:** This study received approval from the Clinical Research Ethical Committee of Akdeniz University (Approval Number: 2012-KAEK-20, Date: 19. 02. 2020)

**Informed Consent:** Students who agreed to participate provided verbal consent and signed a written consent form.

**Peer-review:** Externally peer-reviewed.

**Author Contributions:** Concept – M.G., S.A.T.; Design – M.G., S.A.T.; Supervision – S.A.T.; Resource – M.G., S.A.T.; Materials – M.G., S.A.T.; Data Collection and/or Processing – M.G.; Analysis and/or Interpretation – M.G., S.A.T.; Literature Review – M.G.; Writing – M.G.; Critical Review – M.G., S.A.T.

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