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Research

Staying or Leaving the Pediatric Oncology Clinic: Nurses' Challenges in Care and Voices of Struggle - A Qualitative Study

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ABSTRACT

Objective: Pediatric oncology nursing is a challenging and emotionally exhausting profession. Understanding the challenges and struggles faced by pediatric oncology nurses can help to create targeted interventions that will improve their well-being and enhance the quality of care for children with cancer and their families. This study aimed to explore the challenges and struggles nurses face in their daily care practices.
Method: A qualitative descriptive study was conducted with 16 pediatric oncology nurses. The researchers led the four focus groups, and each group included four participants. The data analysis involved transcribing focus group interviews, conducting member checking for accuracy, and using MAXQDA software to code and refine themes for interpretation and reporting. The Standards for Reporting Qualitative Research checklist was followed in the study.
Results: Four main themes and seven sub-themes were identified: Lack of Multidisciplinary Team and Institutional Resources, Coping Difficulties with Burnout, Management of Relations with Patients and Parents in Care, Continuing Education, and Mentoring.
Conclusion: This study identified four main themes that reveal the need for strategic interventions that promote interdisciplinary collaboration, strengthen psychosocial support, foster effective communication for patient and family engagement, and enhance continuous education and mentorship programs.

Cancer is one of the most life-threatening diseases in pediatric population.[1] Even though it is considered a rare disease, it is reported to be one of the leading causes of death between the ages of 0 and 19.[2] According to the National Cancer Institute,[3] by 2024, an estimated 14,910 children and adolescents are expected to be diagnosed with cancer, and 1,590 children will die because of this burdensome disease. Each year, 400,000 children around the world are diagnosed with cancer.[4] The burden of childhood cancer is significantly higher in low-and middle-income countries LMICs, which account for 85% of childhood cancer cases globally.[5,6] In Turkey, 2,500 to 3,000 children are newly diagnosed each year,[7] with 24,080 childhood cancer cases reported between 2009 and 2021.[8] On the other hand, improvements in treatment and care have led to a better prognosis for pediatric cancer over the last 50 years. In the 1970s, the 5-year survival rate for children ages 0 to 14 was 58% and 68% for ages 15 to 19.[9] The average 5-year survival rate has increased to between 83.2% and 87.3%, depending on the age.[3] Even with promising prognosis and survival rates, cancer remains a challenging disease, requiring lengthy treatment and a multidisciplinary approach.[10] Patients face pain, physical changes, and isolation.[11] In the meantime, parents experience shock, depression, anxiety, and fear of loss.[12] These difficulties impact not only the child and parents but also healthcare providers, including nurses.[10]

It is reported that pediatric oncology nurses experience more challenges than those in other clinical departments.[13] Aside from managing the multidisciplinary team, they also need skills in family-centered care and managing difficult emotional states. Working in a pediatric oncology unit can be a source of stress, fatigue, and burnout for nurses.[14] They experience complex emotions, including anxiety, compassion fatigue, and grieving over unexpected losses.[10,14,15] In addition to emotional challenges, they also encounter significant work-related difficulties, such as heavy workloads, a high number of

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Layperson Summary

What we investigated and why

We wanted to understand the challenges faced by pediatric oncology nurses, as their work can be both difficult and emotionally challenging. By learning about these challenges, we hope to find ways to support these nurses better, which could lead to better care for children with cancer and their families.

How we did our research

We conducted interviews with 16 nurses working in pediatric oncology using a research method that helped us to explore their experiences in depth. We organized these nurses into four focus groups of four participants and carefully analyzed what they shared with us to identify common themes and struggles.

What we have found

We discovered four main challenges faced by these nurses: working effectively with other healthcare team members, coping with burnout while trying to remain resilient, managing relationships with patients and their families, and the need for ongoing education and mentoring to continue to develop their skills.

What it means

Our findings suggest that to support pediatric oncology nurses better, healthcare organizations should focus on improving teamwork, offering resilience training, improving communication skills, and providing continuing education and mentorship. These steps can help nurses better cope with their difficult work and provide better care for their children and families.

patients, and a shortage of pediatric oncology nurses.[16] Yoshitsugu and Sobue[17] reported that the coordination of medical staff and the multidisciplinary care team can be very stressful. Furthermore, nurses frequently encounter challenges in communicating with the family and the child when developing an appropriate care plan together.[18] In their study in Turkiye, Aydın et al.[19] observed that there is a tendency to avoid open and honest discussions with the child in palliative care. Sawin et al.[20] described this situation as walking on eggshells. Furthermore, these challenges are not confined to just these issues.

Pediatric cancer care should adhere to certain standards on national and international platforms.[21] However, in LMICs, nurses may encounter inequalities, leading to various difficulties.[21,22] In a study involving 54 countries, Sullivan et al.[23] found that 16.8% of the countries failed to meet the standard required to provide safe care, while 32.7% only partially met the standard. Karaman and Yilmaz[24] discovered that Turkish pediatric oncology nurses faced significant challenges when communicating with immigrant patients. Yılmaz and Semerci[25] emphasized the high patient-to-nurse ratio in Turkey and its impact. Low care quality can lead to longer hospital stays, increased complications, higher costs, and elevated mortality rates.[26] Nurses work hard despite challenging conditions, but lack of support can affect their performance and patient care quality.[27-29] Therefore, it is crucial to determine from the nurses themselves what difficulties and challenges they face, how they overcome them, and what solutions they would recommend overcoming these challenges.

Methods

Study Aim

This study explored challenges and coping strategies experienced by pediatric oncology nurses in their clinical practice settings.

Study Design

We employed a descriptive qualitative design utilizing focus group interviews.[30] This study design enabled us to investigate the challenges and coping strategies of pediatric oncology nurses in their clinical practice settings, a phenomenon that remains relatively underexplored. The focus group methodology was chosen for data collection because it facilitates dynamic conversations, providing an environment where participants can share, encourage, and support one another. This approach often uncovers themes and insights that may not surface in other data collection methods.[30,31] By fostering a collaborative discussion, the focus groups allowed us to capture a nuanced understanding of the nurses' shared experiences and coping mechanisms in their clinical roles. The authors also adhered to the Guidance on Standards for Reporting Qualitative Research SRQR checklist to ensure precise and comprehensive reporting.[32]

Participants

The participants were nurses who worked in pediatric hematology and oncology units at hospitals in Turkiye. The inclusion criteria were working in pediatric hematology and oncology units for at least one year and being a volunteer to participate in the research. Purposive sampling was employed to select participants who represented the target population based on the study's inclusion criteria. Although the goal was to gain a broader perspective and encompass a diverse range of data by including nurses with varied experiences, a maximum variation method was not utilized. This approach aimed to select participants who could identify common challenges and experiences within the specific context of pediatric hematology and oncology nursing. Participation was voluntary, but researchers actively recruited participants through professional associations and networks, following the recommendations of Hennink et al.[33] They highlighted the importance of diversity in factors such as age, years of experience, and pediatric oncology specialty. These networks facilitated access to a wide demographic range of nurses. The qualifications of the nurses participating in the study were only in the field of pediatric nursing. Unlike some European countries, pediatric oncology nursing in Turkey does not have a formal AYA (Adolescent and Young Adult) nursing specialty. Pediatric oncology nurses in Turkey generally do not have specific AYA qualifications, nor is there a pediatric oncology-specific certification program. Instead, nurses working in pediatric oncology settings are generally undergraduates and work in the clinics to which they are assigned after graduation. Of the nurses in the study, 37.5% had a master's degree in pediatric nursing but did not have expertise in pediatric oncology and AYA.

Invitations were sent through the social media accounts and WhatsApp groups of the Pediatric Nursing Association and the Oncology Nursing Association. Additionally, we contacted nurses through the researchers' personal networks and social media accounts. To facilitate recruitment, the researchers created a flyer and collaborated with nurse managers to distribute it within these networks. Once volunteers expressed interest, they were sent a Descriptive Information Form for pre-assessment, which they were given one month to complete. After completing the forms, the researchers categorized participants by age, years of experience, and oncology expertise, ensuring a balanced distribution of participants with varied experiences within the inclusion criteria. This method, as recommended by Hennink et al. Hennink, Kaiser, Weber,[33] allowed the researchers to identify

common challenges faced by individuals with similar experiences, aiding in data saturation. The data saturation evaluation was conducted by analyzing the data from the first three groups. After the third focus group, the collected data was analyzed as outlined in the data analysis section, which helped identify potential codes and themes. A fourth focus group was conducted to validate the ten analyses and confirm data saturation. During this final session, the presence of overlapping comments indicated that sufficient saturation had been reached in the interviews, indicating that they were ready for comprehensive analysis. Upon conducting interviews with 16 pediatric oncology nurses, we reached data saturation.

Data Collection Tools

Data were collected through semi-structured focus-group interviews. Before the interviews, the researcher explained the purpose of the study and asked whether they wanted to participate. After the nurses agreed, the interviews were conducted via an online platform meeting. The number of participants is significant as it facilitates more comfortable expression and commentary from the participants. A focus group interview with four to five participants can yield in-depth insights, stimulate new ideas, and collect a substantial amount of information.[34] Four focus group interviews were conducted, each lasting an average of 45-60 minutes. The interviews were conducted with the participation of all researchers with expertise in pediatric oncology but moderated by one of the researchers (RS).

We used semi-structured questions during focus-group interviews. The semi-structured questions form was developed based on the literature[28,35,36] and in consultation with the research group that includes pediatric nurses working with pediatric cancer patients and researchers/faculty members.

Descriptive Information Form: The researchers created this form, which consists of seven questions regarding the descriptive characteristics of nurses, such as age, gender, length of experience in the profession, and the clinic they work in.

Some sample open-ended questions are presented below:

- What challenges do you encounter during your clinical practices as a pediatric oncology nurse?
- Which coping strategies do you use to deal with challenging aspects during care practices?
- How do the challenges you face and the coping strategies you use impact the care you provide to your patients?
- What specific policies or practices should be implemented to address your challenges?

Data Analysis

All meetings were conducted and recorded via ZOOM. The recordings were transcribed verbatim using the same program, which automatically tagged contributions with participant names. One of the authors reviewed the transcripts for accuracy. After completing all focus group interviews, a member-checking session was conducted to ensure the accuracy and trustworthiness of the findings. During this session, participants were presented with a summary of the preliminary themes and key findings from the discussions. They were asked to review these themes, confirm the accuracy of their contributions, and clarify any ambiguous or unclear statements. Participants were also encouraged to provide additional insights or suggest modifications to ensure their perspectives were fully represented. This process was not intended to validate the overall group consensus but focused solely on ensuring the accuracy of individual statements. Such an approach aligns with the practice of member checking, which enhances the trustworthiness and credibility of qualitative findings.[37] During the online interview, participants' contributions were automatically matched to their names using the instant transcription feature of the meeting program. Thus, no additional color-coding method was required. The primary goal of this process was to accurately capture the participants' perspectives while balancing group dynamics with individual insights. Member checking was not conducted at the end of each session; instead, it took place after all focus group interviews were completed. This timing allowed participants to reflect on and review the general themes that emerged across the group discussions.

Following the member-checking process, the raw data were analyzed using MAXQDA software version 2020.2.2 by one researcher (RS), who facilitated the coding and initial analysis. Three authors then independently read the raw data to generate initial codes and themes, which were subsequently compared to identify similarities and differences. In the final step, all authors collaboratively reviewed and refined the overall thematic taxonomy. The data were then interpreted, and the final report was prepared.

Rigor and Trustworthiness of Qualitative Analysis

The rigor and trustworthiness of our qualitative analysis were enhanced by our interviewer, RS, a female researcher with a PhD in nursing and over 10 years of experience in pediatric oncology. Dr. RS had no prior relationship with the participants before the study but built a professional yet approachable relationship with them. She used reflexivity to manage bias and open-ended questions to create a comfortable open-sharing environment. All participants participated in this study voluntarily. Only Dr. RS moderated the interviews to ensure conformability. To ensure the dependability and validity of the data, the three researchers identified the main themes and subthemes separately and discussed them until a consensus was reached. Sample quotes were taken directly from interviewee reports. The researchers' experiences and beliefs did not influence the meaning attributed to the study's 16 nurses.

Ethical considerations

This research was approved by the Koc University Ethics Review Board (No: 2024.191.IRB3.085, 2024). Informed consent was obtained, ensuring participants understood the study's purpose and their voluntary involvement, with the option to withdraw at any time. Confidentiality and anonymity were maintained by anonymizing and securely storing data, accessible only to the research team. The study received approval from an institutional ethics committee. Transparency and honesty were upheld throughout the study, with clear communication about the study's goals, methods, and impacts, addressing any concerns promptly.

Results

The study included 16 participants with a mean age of 39.13 $\pm$ 6.42 years. The average work experience among the participants was 3.94 $\pm$ 0.25 years. All participants were female (100%). Most participants held an undergraduate degree (62.5%), while the remaining 37.5% had postgraduate qualifications. Most participants were employed in university hospitals (75.0%). A smaller proportion worked in state hospitals (12.5%) and private hospitals (12.5%). Half of the participants (50.0%) worked in pediatric hematology/oncology units. The remaining participants were distributed between hematopoietic stem cell transplant units (12.5%) and other types of clinics (37.5%) (Table 1).

In this study, four main themes and seven sub-themes were identified (Figure 1).

TABLE 1
Descriptive Characteristics of Pediatric Oncology Nurses (n = 16)

Variables	Mean ± Sd	
Age	39.13 ± 6.42	
Work experiences	3.94 ± 0.25	
	n	**%**
Gender		
Female	16	100
Education		
Undergraduate	10	62.5
Postgraduate	6	37.5
Type of the hospital		
University Hospital	12	75.0
State Hospital	2	12.5
Private hospital	2	12.5
Type of the clinic		
Hematopoietic stem cell transplant unit	2	12.5
Pediatric hematology/oncology	8	50.0
Others	6	37.5

Sd: Standard Deviation.

Theme 1. Lack of Multidisciplinary Team and Institutional Resources

In the study focused on pediatric oncology nursing, several key issues emerged around the theme of Multidisciplinary Team Collaboration and Institutional Resources, particularly highlighting the sub-theme of a lack of multidisciplinary team collaboration. The pediatric oncology nurses reported significant challenges in standardizing treatment and care protocols across different professional levels, often encountering resistance from senior medical staff, such as professors rejecting established treatment and care protocols in favor of alternative approaches. This discrepancy undermines protocol adherence, particularly in areas like oral care, where treatment and care protocols are crucial. Professional development and leadership within the nursing teams were also identified as critical. Effective leadership was noted as essential for instilling professional practices and behaviors within the team, with nurses reflecting that solid leadership leads to more cohesive and professional nursing behaviors.

Sub Theme 1.1. Shortage of Multidisciplinary Team Members

A major motivational force for the nurses was their commitment to patient care. However, this motivation is frequently compromised by insufficient team support and inadequate resources, which hinder their ability to provide optimal care. Including inexperienced staff members exacerbates these challenges, necessitating extensive in-service training. Communication difficulties within these teams, especially with new or inexperienced staff, were also cited as detrimental to the quality of care.

"Creating a common language is very important, like a care protocol or prescription; everyone should approach the same situation in a standardized way. For example, we created an oral care protocol and approached stages 1 and 4 differently, but it is challenging with the professors we work with. For instance, we say, "Professor, we started this solution at stage 2 according to the protocol," but the professor rejects it and suggests something else." (Nurse 1, 48 years, FG3)

"Professionalism is essential; no one in our clinic likes their job, but we have always worked with insufficient numbers. It is fine if you are experienced and your professional training continues, but continuous development is essential. If you are a good leader, your nurses start to behave like you, giving you more chances." (Nurse 1, 41 years, FG1)

"Our biggest motivation is our patients. If our team is sufficient, we are already working with great motivation, but unfortunately, this support is very little." (Nurse 5, 42 years, FG1)

"Our new friends who come to us are generally inexperienced. We provide in-service training within ourselves. Psychologically, we have communication problems with the multidisciplinary team....." (Nurse 6, 34 years, FG2)

Nurses also expressed concerns about role overextension, often performing tasks outside their typical scope due to unclear job boundaries. This overextension is seen as necessary to prevent disruptions in patient treatment but highlights a systemic issue in role distribution within the healthcare team. For instance, nurses reported stepping in to complete essential documentation that other team members were unable to address promptly or assisting in routine procedures such as administering medications typically managed by other professionals when team shortages occurred. These examples underscore the need for clear role definitions and task delegation within the multidisciplinary team. The necessity of setting boundaries was emphasized, as the frequent need for nurses to fill care gaps points to a broader issue of role clarity and distribution within the team. This results section outlines a complex environment where pediatric oncology nurses strive to balance professional standards, team dynamics, and patient care amidst significant organizational challenges.

"Each profession has a job description. We work multidisciplinary, but sometimes we deliver medication, sometimes we are at the bedside, and sometimes we give verbal consent. However, we work so broadly that the patient's treatment is disrupted if we do not do these." (Nurse 9, 47 years, FG2)

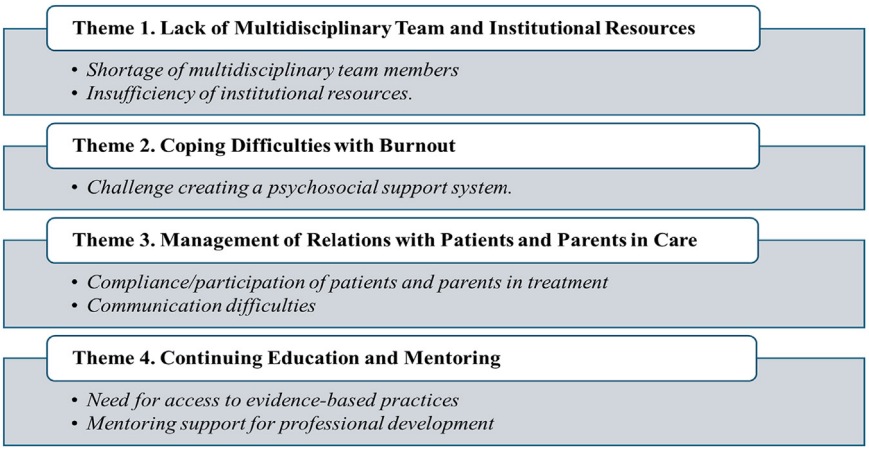

FIG 1. Themes and subthemes

"In the first clinic, the insufficient number of nurses, according to the number of patients, attracted my attention. Everyone is very talented, but we need help to care for the patients fully. We used to involve the relatives of the patients, for example, in oral care, by including them, but it was a problem not being able to provide care due to the number of patients and the insufficient number of nurses; it was good to get support from the families." (Nurse 8, 34 years, FG2)

"Our number is relatively small, but our biggest motivation is our patients; if our team is sufficient, we are already working with great motivation, but unfortunately, this support is fragile." (Nurse 4, 41 years, FG1)

Sub Theme 1.2. Insufficiency of Institutional Resources

The results illustrate significant challenges related to the insufficiency of institutional resources within pediatric oncology nursing. A common issue cited by nurses was the lack of personnel and essential supplies, particularly affecting the care of socio-economically disadvantaged patients. One nurse highlighted the severe financial burden due to costs denominated in euros, which complicates the acquisition of necessary medical and care-related supplies, such as specialized wound dressings, IV equipment, and hygiene products. Due to these resource limitations, nurses often perform tasks outside their scope, such as requesting these supplies from the medical secretary as an ideal responsibility outside of their nursing duties. This over-extension of administrative roles stresses nursing staff and can disrupt patient care.

"Also, the nurses do so much work that does not belong to them, interrupting patient care. For example, we are often required to enter and request specific medical supplies from a medical secretary, even though this is not our duty. Nurses care for everything; we act as a bridge between staff, assistants, and supervisors, complicating our work." (Nurse 7, 42 years, FG2)

The nurses further detailed the breadth of clinic responsibilities, from direct patient care to psychological support for patients and their relatives. The strain is compounded by insufficient nurses relative to the patient load, necessitating reliance on patients' relatives for tasks such as oral care. This dependency on families, while helpful, underscores the gaps in resource availability and highlights the challenges in delivering comprehensive care.

"I would like to point out the lack of materials, especially the products we use for socio-economically distressed patients, which have a seere cost because they are in euros." (Nurse 9, 47 years, FG2)

Theme 2. Coping Difficulties with Burnout

The study highlights the critical role of psychosocial support systems in enhancing resilience among pediatric oncology nurses, thus helping to reduce burnout. Nurses reported personal challenges and emotional strains, underscoring the necessity for effective coping strategies and support mechanisms. Issues in the recruitment process were identified, particularly the need for staff adept at managing the unique pressures of oncology and pediatrics. This need starts from recruitment and extends into ongoing job performance, suggesting that enhancing staff experience and knowledge is essential.

Sub Theme 2.1. Challenge Creating a Psychosocial Support System

Experienced nurses discussed the overwhelming burdens due to staff shortages and the misrecognition by the administration of the distinct needs of oncology patients compared to other pediatric patients. This administrative oversight contributes significantly to the stress levels experienced by nursing staff.

"I also have difficulties in the recruitment process; they have problems both in oncology and pediatrics, and anxiety starts from recruitment. We need to find people with more experience and knowledge. We need to make them like it and how to do it. I do not know if it is since they were students, but I think we need to focus on these." (Nurse 9, 47 years, FG2)

"I have 30 years of pediatric experience. Still, I could not cope with the insufficient number of nurses, the burden of every job on the nurses, and the administration's failure to accept that oncology patients are different from other pediatric patients." (Nurse 10, 50 years, FG2)

The testimonies of pediatric oncology nurses reveal significant challenges and coping strategies in their professional roles. Nurses often face difficulties communicating their experiences and frequently discuss problems to find solutions. However, the lack of adequate support sometimes leads to burnout.

"They have difficulty conveying their experiences firsthand. When we identify issues, we have discussions aimed at finding solutions. We communicate with the Pediatric Oncology Association or institutions to provide psychological strengthening at regular intervals, but unfortunately, we sometimes lose nurses over time." (Nurse 5, 42 years, FG1)

"I encountered difficulties and cried, but my awareness has increased. I developed positive communication techniques to cope in my way." (Nurse 11, 37 years, FG3)

Setting boundaries is crucial for nurses to manage their workload and prevent burnout. However, the expectation for nurses to fill in wherever there is a need exacerbates their stress levels. The lack of psychological support, despite the presence of a spiritual support specialist, underscores a significant gap in the holistic care provided to nurses.

"It is important to set our boundaries. If there is no urgent situation for patient transfer, we should not go. Perhaps nurses should refrain from handling medication administration. However, nurses fill in wherever there is a need or deficiency, which is the biggest problem." (Nurse 4, 41 years, FG1)

"*We have a* spiritual support specialist*, but we do not have psychological support, which I use*." (Nurse 6, 34 years, FG2)

Theme 3. Management of Relations with Patients and Parents in Care

Sub Theme 3.1. Compliance/Participation of Patients and Parents in Treatment

The experiences of pediatric oncology nurses highlighted the complexities of providing care to adolescents and the significant impact of family dynamics on care delivery. Adolescents often resist care, making it challenging for nurses to ensure compliance with necessary treatments.

"Age diversity is important because we have difficulty getting adolescents to accept care. We want to provide care when they are available, but for example, some adolescents never want to do oral care, and we struggle with that group. For instance, if their platelets are low, they still refuse to brush their teeth, and even if we try to reward them, they are uncooperative." (Nurse 7, 42 years, FG2)

The involvement of parents and relatives could significantly increase the workload for nurses. Managing the expectations and needs of families alongside patient care is often daunting. Family attitudes towards care can vary greatly, sometimes adding to nurses' challenges.

"Even though we care for a few patients, the parents are the most important factor that increases the burden of care. For example, if we care for three patients, with their parents and other relatives, it feels like we are caring for 6-9 people, making our work very challenging." (Nurse 9, 47 years, FG2)

"We work more easily with young children. Adolescents are more sensitive to painful stimuli. We once tried to persuade a child for 45 minutes. They may think, 'I don't want to take this medicine; I'll die anyway. I'll die without pain; I'll die without getting sick.'" (Nurse 4, 41 years, FG1)

"Families can be the same. For example, a former nurse may have an approach like, 'Let the nurse handle it,' but in our case, with symptoms like painful dermatitis and nausea, they eventually surrender only to you." (Nurse 11, 37 years, FG3)

Families' preference for alternative medicine is indeed a complex issue, and while it may seem unusual in conventional treatment settings, it is particularly common among Turkish oncology patients and their caregivers. Parents turn to alternative therapies in search of treatments perceived as 'natural' or less invasive. However, the use of alternative medicine poses a significant challenge as families sometimes favor conventional or non-evidence-based treatments, which can delay critical medical treatments. This problem appears to be particularly prevalent among patients with frequent relapses, where families often seek alternative options.

"We see more cases of herbal medicine use in patients with recurrent relapses. Alternative treatments are common among these patients. One mother refused further chemotherapy for her child after hearing about a so-called alternative treatment. She told us that a friend of hers would make a medicine that would cure her child in two months, so she stopped bringing her child for chemotherapy. She called us recently; her child had severe pain and asked us for advice. I believe they want to feel that they are doing everything possible for their child." (Nurse 12, 49 years, FG3)

Involving families more actively in the care process through comprehensive education and engagement can help overcome these challenges and promote collaborative treatment decisions.

"We involve families more in the care process, including any kind of education. When families are actively involved, some of the challenges we face can be minimized." (Nurse 13, 33 years, FG3)

Sub Theme 3.2. Communication Difficulties

Pediatric oncology nurses face significant challenges communicating effectively with children and their families. Tailoring communication to suit different age groups and understanding how much information to share about medications and diseases are ongoing issues. Nurses identify communication as one of the most significant difficulties in pediatric oncology, compounded by inadequate information and training on addressing sensitive topics.

"Communication according to age periods: Knowing how to answer children's questions according to their age, how much information about medication and disease can be shared, and how much detail should be provided are ongoing challenges we face." (Nurse 9, 47 years, FG2)

"I have worked in different fields, but the biggest difficulty in pediatric oncology is, firstly, communication and then the lack of information." (Nurse 8, 34 years, FG2)

Effective communication with children is particularly challenging due to the need to avoid certain "forbidden words" while conveying necessary information. Approaching families with the right balance of hope and realism is another area where nurses feel unprepared, leading to difficulties in providing appropriate support.

"Communication is very challenging. Yes, children know, but there are some forbidden words, some words that everyone knows but do not say." (Nurse 2, 30 years, FG1)

"There may be points where we do not know how to approach the family. I also work with donors, and we face difficulties. We don't know what to say or whether we should give hope, and we have inadequate coping. Maybe we can be supported in this area." (Nurse 1, 35 years, FG1)

These insights underline the need for enhanced training and resources to improve communication strategies for nurses working in pediatric oncology, ensuring they can provide clear, compassionate, and appropriate information to patients and their families.

Theme 4. Continuing Education and Mentoring

Sub Theme 4.1. Need for Access to Evidence-Based Practices

Pediatric oncology nurses emphasized the importance of clinical support rooted in evidence-based practices. They highlighted the necessity of guides and protocols to ensure efficient and standardized care, achieved through ongoing training. The lack of initial training in evidence-based drug preparation is a notable concern, with nurses relying on resources they seldom revisit after their student years.

"Clinical support is critical, especially if they know how to work evidence based. We work with guides, and nurses are efficient in care, achieved through ongoing training over time." (Nurse 9, 47 years, FG2)

"When I first started, we were also preparing chemotherapies. We didn't know how to prepare drug applications, etc. There are books and resources, but we don't look at them after being students." (Nurse 13, 33 years, FG3)

Treatment and care protocols that ensure all staff speak the same language and adhere to evidence-based practices are seen as invaluable resources, helping to eliminate many barriers to effective care.

"We have protocols for speaking the same language, our biggest resource. They contain evidence-based practices and eliminate many barriers." (Nurse 13, 33 years, FG3)

These statements underscore the critical need for accessible, up-to-date, evidence-based resources and continuous training to ensure high-quality care in pediatric oncology nursing.

Sub Theme 4.2. Mentoring Support for Development in the Profession

Pediatric oncology nurses emphasized the importance of mentoring and professional development in maintaining high standards of care. The structured mentoring relationship between senior and junior nurses is crucial in skill development and effective communication.

"We have a mentoring relationship between senior and junior nurses. They have worked together for three months. Drug preparation is done centrally. Communication is an important step for us. We provide peer support for 3 to 5-year-old children, use games for 5 to 10-year-old children, and try to be patient." (Nurse 14, 48 years, FG3)

Professional training, especially in mentoring and team leadership, is vital for continuous development and fostering of positive behaviors among nurses. In-service training and hands-on explanations of diseases and care procedures are crucial for enhancing the experience and skills of new nurses.

"Professional training is essential for continuous development, related to having team leaders. If you are a good mentor, your nurses behave like you." (Nurse 7, 42 years, FG2)

"Our new colleagues need to be more experienced. We provide in-service training within our team. It improves as I sit down and explain the diseases and care procedures to them." (Nurse 11, 37 years, FG3)

Orientation programs that include drug training, protocol training, and simulation exercises in central venous catheter care, guided by mentors, are seen as highly beneficial. However, there is a need for a supervision mechanism to ensure adherence to standard treatment and care protocols, as nurses sometimes follow doctors' instructions without applying the standard procedures.

"We have a 3-month orientation about what we do in the clinic. We also provide drug training, protocol training, and simulation in catheter care with mentor training. This is an advantage." (Nurse 4, 41 years, FG1)

"It requires a supervision mechanism by the senior nurses. However, since the nurses are more comfortable here, they follow the doctors' instructions, which means we only sometimes apply the standard protocol. It is possible to eliminate these obstacles, especially between all institutions." (Nurse 15, 29 years, FG3)

These insights highlight the importance of robust mentorship programs, continuous professional development, and adequate supervision to ensure high standards of care in pediatric oncology nursing.

Discussion

Pediatric oncology nurses establish intense interpersonal relationships, address children's and caregivers' multiple and complex needs, and constantly contact people's suffering.[38,39] The results showed that pediatric oncology nurses had difficulties with patients' and parents' compliance/participation in treatment and communication, unmet needs regarding the shortage of multidisciplinary team members, institutional resources, and access to evidence-based practices. Also, nurses used methods such as increased resilience by creating a psychosocial support system and mentoring support to overcome challenges and struggles.

The oncology clinic should be structured to facilitate collaboration between pediatric oncology nurses and a multidisciplinary team and provide comprehensive curative, supportive/palliative, and end-of-life care for children with cancer and their families.[28] However, pediatric oncology nurses reported the need for improved teamwork in the present study. This finding is consistent with other studies highlighting a lack of interprofessional and multidisciplinary collaboration and problems with clarity and accuracy of communication between oncology team members.[22,40] A shared understanding of challenges and effective communication of safety concerns among oncology staff is crucial for providing appropriate care.[28] The nurses reported significant challenges in standardizing treatment and care protocols, frequently facing resistance from senior medical staff who preferred alternative approaches over established protocols. Similarly, Nukpezah et al.,[28] reported that nurses need to gain knowledge on issues such as dressing application and pain management procedures. These challenges create psychological and emotional distress for the nurses and impede the implementation of standard procedures. However, in contrast to these findings, some studies showed that nurses are highly knowledgeable in pediatric oncology care and play a vital and central role in implementing standard procedures.[41,42] Although the nurses' commitment to patient care constituted a significant motivational force, this motivation was frequently undermined by a lack of team support and inadequate resources, which impeded their ability to provide optimal care. A study also detailed that lack of knowledge, poor motivation, job dissatisfaction, and the inability to give attention to all patients were the personal challenges experienced by nurses, and this result is paralleled with literature.[43] Concurrently, the absence of a well-structured unit dedicated to only oncology patients and the inadequacy of personal protective equipment contribute to the stress experienced by nurses, which in turn reduces their motivation.[28]

Pediatric oncology nurses face significant challenges in care, as highlighted in this current study. However, the lack of adequate support sometimes coping with the burnout. Similarly, in the literature, pediatric oncology nurses are more susceptible to burnout due to facing specific risk factors such as direct contact with death and pain suffered by patients and their families.[28,44] Additionally, excessive workloads, possible conflicts with other healthcare workers, inadequate resources, and a perceived lack of social support increase their risk of burnout.[44] A systematic review showed that high emotional exhaustion, depersonalization, and low personal accomplishment in pediatric oncology nurses are risk factors for burnout. In the same study, young age, female gender, and lack of experience were sociodemographic risk factors that increased burnout.[22] When addressing the issue of burnout, it is crucial to consider other psychological alterations related to the condition, such as emotional distress, sleep disorders, and behavioral changes, which can result from factors like overwork, insufficient staffing, and extended workdays.[45,46] A study of Greek nurses concluded that nurses primarily grieve the loss of the relationship and connection with that patient.[47] Accordingly, programs should be developed and implemented to address risk factors, enhance nurses' resilience, and help them cope with burnout.[48] A comprehensive, structured review and meta-analysis conducted in 2016 examined interventions to reduce physician burnout. The interventions varied widely, encompassing both individual-focused and institutional/structural strategies. Individual-focused interventions included small group curricula, stress management, self-care training, communication skills training, and mindfulness-based approaches. Institutional/structural interventions involved adjustments such as shortened attending rotation lengths and modifications to clinical work processes. These diverse interventions reduced burnout from 54% to 44% and decreased emotional exhaustion and depersonalization scores.[49] However, despite the critical role of nurses in pediatric oncology care, the literature lacks comprehensive programs aimed at enhancing their resilience. Most described programs consisted of one-time seminars, educational offerings, or off-site retreats, with limited evidence of ongoing organizational resources.[47] The Pediatric Oncology Working Group of the Turkish Oncology Nursing Association has organized various unstandardized training programs for pediatric oncology nurses over the past 10 years. However, there is a notable absence of nationally structured education programs and dedicated nurse educators specifically for training in pediatric oncology. The findings of our study highlight this gap in the existing literature.

A review of the literature revealed that nurses communicate with children with cancer and their families on a range of topics, including life expectancy, treatment options, future treatment prospects, and the impact of the disease on quality of life.[50,51] Children with cancer and their parents have indicated a need for guidance about cancer and have asserted that nurses are in a unique position to provide this support.[52,53] However, the findings from our study reveal that pediatric oncology nurses face significant challenges in communicating effectively with children, adolescents, and their families. Tailoring communication to different age groups and determining the appropriate amount of information to share about medications and diseases are ongoing issues. As in adult oncology, tenure enhances nurses' comfort and expertise in communication.[50,51] Similarly, in our study, experienced nurses reported more excellent expertise in communication, whereas inexperienced nurses indicated difficulties in communicating with patients and within the team. Effective communication is a fundamental aspect of healthcare quality and is significant in patient and family satisfaction.[54] Research exploring the effects of effective communication processes with children with cancer and their families indicates that such communication facilitates family decision-making, reduces uncertainty by empowering a sense of control, facilitates emotional expression, fosters hope, and enhances the quality of life for both children and their families.[55-57] Boyle and Bush[58] observed that a significant proportion of nurses lacked training in communication skills, rendering them unable to respond effectively to challenging questions. In Turkiye, nursing education generally provides students only generic communication skills training. To communicate with pediatric patients with cancer and their parents, nurses must receive more formal training in serious illness communication.[59] Nurses working in pediatric oncology should be included in in-service training programs. In our study, the experiences of pediatric oncology nurses highlight the complexities of providing care to adolescents and the significant impact of family dynamics on care delivery. Adolescents often resist care, making it challenging for nurses to ensure compliance with necessary treatments. Research indicates that adolescent patients are conscious, and their care providers must involve them in their treatment and meet their needs and requests. These findings highlight the significance of respecting the identity and autonomy of hospitalized children and adolescents, a principle consistent with the current study's findings.[16,60]

Pediatric oncology nurses emphasized the importance of clinical support rooted in evidence-based practices, ongoing training, and mentorship. Therefore, our findings emphasized the importance of a mentor support system that should be provided to the nurses to ensure professional development and high standards of care in pediatric oncology care. Mentorship support is essential to nurses' job satisfaction, reducing absenteeism and staff turnover. It also supports social support and continuing professional development by strengthening colleague relationships.[61] Montgomery, Sawin and Hendricks-Ferguson[18] highlighted the importance of various strategies such as standardized curricula, simulation, competency-based orientation programs, mentoring, and peer support for skill development and effective communication. Lafond et al.[62] aimed to assess the effect of a mentorship program on inexperienced nurses' confidence and competence in pediatric oncology care. Almost all nurses reported increased comfort in discussing death, suffering, spirituality, and hope with families, increased comfort in end-of-life care, increased knowledge and skills, improved communication, and better preparation to discuss and access palliative care resources, similar to our study. In addition, limited specialized nursing training and inadequate staffing may result in more extended hospital stays and complications among pediatric oncology patients.[27] Professional training, especially in mentoring and team leadership, is also vital for continuous development and fostering of positive behaviors among nurses. In-service training and practical explanations of care procedures are also crucial for enhancing the skills of new nurses and increasing the use of evidence-based practices.[63] These perspectives highlight the importance of robust mentoring programs, continuous professional development, and evidence-based practices in providing high standards of care in pediatric oncology nursing.

Strengths and Limitations

The strengths of this study include the rich data gathered from experienced pediatric oncology nurses, the in-depth discussions facilitated by focus groups, and the comprehensive analysis that identified multiple themes and sub-themes. However, the small sample size and the specific clinical setting limit the generalizability of the findings. Additionally, the focus group format may have restricted some nurses from fully expressing their opinions, potentially leading to a group consensus reflecting only a portion of their perspectives. The sample was self-selected, which could have introduced bias in shared experiences. Despite sending invitations through the social media accounts and WhatsApp groups of the Pediatric Nursing Association and the Oncology Nursing Association, we could not recruit male participants. This was not an intentional exclusion but rather due to the lack of male nurses responding to these invitations. Including male nurses could have provided more diverse perspectives on the challenges and struggles in daily care practices. Future research should aim to include male participants to explore potential gender-based differences. Moreover, the study focused exclusively on the nurses' perspectives without considering the views of patients or families, which may limit the applicability of the results to a broader context.

Conclusion

This study highlights nurses' challenges and struggles in their daily care practices. The findings revealed that pediatric oncology nurses experienced challenges and struggles with a shortage of multidisciplinary team members, institutional resources, and access to evidence-based practices. The findings also emphasized the nurses' concerns about patients' and parents' compliance and participation in treatment and communication issues. Findings suggest enhancing resilience by creating psychosocial support systems and utilizing mentoring support to overcome these challenges and struggles. By systematically addressing these challenges and struggles, pediatric oncology nurses can maintain focus on holistic and compassionate care practices, leading to improved children and family outcomes and increased overall quality of pediatric oncology care. This study highlights the importance of institutional support to education, coordination of the multidisciplinary care team, and empowering pediatric nurses for communication and psychological well-being to improve the quality of pediatric oncology care.

Implementation for Clinical Practice

Based on this study's findings, strategies to overcome the challenges faced by pediatric oncology nurses in the clinical setting should focus on enhancing number of the multidisciplinary team members, increasing institutional resources, supporting nurse burnout, improving patient and family communication, and promoting continuing education and mentorship. Standardizing treatment and care protocols can be established to enhance multidisciplinary team collaboration. In addition, open communication channels can be fostered among all team members to improve communication. Sufficient staffing levels can ensure patient needs are met and reduce nurse burnout. Resilience training programs, which include techniques for self-care, mindfulness, and work-life balance, can be offered to nurses. Comprehensive training in communication skills can be provided to help nurses navigate difficult conversations with patients and their families. Mentoring programs can be established that pair experienced nurses with newer staff to provide guidance, support, and professional development opportunities. By implementing these strategies, healthcare institutions can address the critical challenges identified in this study, thereby improving the work environment for pediatric oncology nurses and enhancing the quality of care for children with cancer and their families.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Declarations: During the preparation of this work, the author(s) used an AI-powered translator to ensure the fluency of the article and the use of native English. After using this tool/service, the author (s) have reviewed and edited the content as necessary and take full responsibility for the publication's content.

CRediT authorship contribution statement

Remziye Semerci: Writing – review & editing, Writing – original draft, Visualization, Supervision, Software, Resources, Methodology, Investigation, Formal analysis, Data curation, Conceptualization. **Aylin Akca Sumengen:** Writing – original draft, Validation, Software, Resources, Methodology, Formal analysis. **İlçim Ercan Koyuncu:** Writing – review & editing, Writing – original draft, Validation, Resources, Methodology, Investigation, Formal analysis, Data curation, Conceptualization. **Eyşan Hanzade Savaş:** Writing – review & editing, Writing – original draft, Resources, Methodology, Investigation, Formal analysis, Data curation. **Ayşe Ay:** Writing – review & editing, Writing – original draft, Software, Resources, Investigation, Formal analysis, Data curation, Conceptualization. **Münevver Erkul:** Writing – review & editing, Writing – original draft, Methodology, Investigation, Formal analysis, Data curation.

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