



## Recent Status and Priorities of Pediatric Oncology Nursing Care in India: An In-Depth Exploration

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### Introduction

Pediatric oncology nursing care in India has evolved significantly over the past few decades, primarily driven by advances in cancer treatment, increased awareness, and governmental as well as non-governmental efforts to improve healthcare services. Pediatric oncology nurses play a crucial role in the care of children diagnosed with cancer. Their responsibilities span clinical care, patient education, emotional support, and interdisciplinary collaboration. However, despite notable progress, pediatric oncology nursing in India continues to face significant challenges, including resource constraints, workforce shortages, and gaps in specialized training. This article aims to explore the recent status and key priorities of pediatric oncology nursing care in India, providing an in-depth understanding of the landscape.

### Overview of Pediatric Oncology in India

Cancer in children accounts for approximately 5% of all cancers in India. While childhood cancers are relatively rare compared to adult cancers, the burden of disease is still significant. The incidence of pediatric cancer is estimated at around 50,000 new cases annually in India. The most common cancers among children include leukemia, lymphoma, and central nervous system (CNS) tumors.

Treatment outcomes for pediatric cancers have improved dramatically over the years, with survival rates for certain cancers, such as acute lymphoblastic leukemia (ALL), now reaching over 80% in developed countries. In India, however, survival rates are often lower due to delayed diagnosis, inadequate access to healthcare, and limited availability of specialized care. As a result, pediatric oncology nurses play a pivotal role in bridging these gaps and improving the quality of care for children with cancer.

### The Role of Pediatric Oncology Nurses

Pediatric oncology nurses are at the forefront of caring for children undergoing cancer treatment. Their responsibilities extend beyond administering chemotherapy and managing symptoms. They are essential in providing holistic care that addresses the physical, emotional, psychological, and social needs of both the child and their family.

Key roles of pediatric oncology nurses in India include:

1. **Clinical Care:** This includes administering treatments such as chemotherapy, managing side effects, and providing palliative care when necessary. Pediatric oncology nurses are trained to monitor vital signs, manage infections, and address any complications that may arise during treatment.
2. **Patient and Family Education:** Nurses are responsible for educating patients and their families about the disease, treatment options, potential side effects, and home care.



requirements. This education is crucial in ensuring adherence to treatment protocols and improving outcomes.

3. **Psychosocial Support:** Nurses often serve as a primary point of contact for both the patient and the family. They provide emotional support, help families navigate the healthcare system, and assist in coping with the emotional toll of cancer treatment.
4. **Advocacy:** Pediatric oncology nurses advocate for their patients, ensuring that their needs are met and that they receive the best possible care. This includes collaborating with other healthcare professionals to develop comprehensive care plans.
5. **Research and Evidence-Based Practice:** Many pediatric oncology nurses are involved in research to improve treatment protocols and patient outcomes. Evidence-based practice is critical in ensuring that nursing care is aligned with the latest advancements in pediatric oncology.

### Challenges in Pediatric Oncology Nursing in India

Despite the critical role of pediatric oncology nurses, the field faces several challenges that hinder the delivery of optimal care.

1. **Workforce Shortage:** One of the most significant challenges in pediatric oncology nursing in India is the shortage of trained nurses. The number of nurses specialized in pediatric oncology is insufficient to meet the growing demand for care. This shortage is particularly pronounced in rural areas, where access to healthcare services is limited.
2. **Inadequate Training and Education:** While there are specialized training programs for oncology nursing, the number of institutions offering such programs is limited. Many nurses working in pediatric oncology units lack formal training in oncology nursing, which can affect the quality of care provided. Continuing education and professional development opportunities for pediatric oncology nurses are also limited, further exacerbating the problem.
3. **Resource Constraints:** Pediatric oncology units in India often face resource limitations, including shortages of essential medications, diagnostic tools, and equipment. This can lead to delays in diagnosis and treatment, affecting patient outcomes. Nurses frequently have to work in resource-constrained environments, which can be stressful and challenging.
4. **High Patient-to-Nurse Ratio:** In many healthcare settings, pediatric oncology nurses are responsible for caring for a large number of patients simultaneously. This high patient-to-nurse ratio can lead to burnout and reduced quality of care. Nurses may struggle to provide individualized attention to each patient, affecting both clinical outcomes and patient satisfaction.
5. **Emotional and Psychological Toll:** Pediatric oncology nursing can be emotionally taxing, given the high stakes involved in caring for children with life-threatening illnesses. Nurses often witness the emotional distress of families and the pain and suffering of young patients. Without adequate support systems in place, nurses may experience burnout, compassion fatigue, and emotional exhaustion.

### Recent Developments in Pediatric Oncology Nursing



Despite these challenges, there have been significant strides in improving pediatric oncology nursing care in India. Several initiatives and advancements have been made in recent years to address the gaps in care and improve outcomes for children with cancer.

1. **Expansion of Training Programs:** Efforts have been made to increase the number of specialized training programs for oncology nurses. Institutions such as Tata Memorial Hospital in Mumbai and the Indian Nursing Council (INC) have developed specialized oncology nursing courses, including pediatric oncology. These programs aim to equip nurses with the knowledge and skills needed to provide high-quality care to children with cancer.
2. **Capacity Building and Continuing Education:** To address the need for ongoing professional development, several initiatives have been launched to provide continuing education opportunities for pediatric oncology nurses. Organizations such as the Indian Society of Pediatric Oncology (ISPO) and various international collaborations have organized workshops, conferences, and training sessions to enhance the skills of nurses working in pediatric oncology units.
3. **Telemedicine and Digital Health Solutions:** The use of telemedicine and digital health platforms has gained traction in pediatric oncology care in India. Telemedicine allows pediatric oncology nurses to provide remote consultations, follow-up care, and patient education, especially in rural and underserved areas. This has helped bridge the gap in access to specialized care and reduced the burden on overworked nurses in urban centers.
4. **Psychosocial Support Programs:** Recognizing the emotional and psychological challenges faced by both patients and nurses, several hospitals and non-governmental organizations (NGOs) have implemented psychosocial support programs. These programs provide counseling services, peer support groups, and stress management workshops for nurses to help them cope with the emotional toll of their work.
5. **Advancements in Palliative Care:** Palliative care has become an integral part of pediatric oncology nursing in India. Palliative care teams, which include nurses, focus on managing pain and improving the quality of life for children with advanced cancer. The Indian Association of Palliative Care (IAPC) has been working to expand access to palliative care services and train nurses in palliative care principles.
6. **Collaboration with International Organizations:** India has collaborated with international organizations such as the International Society of Pediatric Oncology (SIOP) and the World Health Organization (WHO) to improve pediatric oncology care. These collaborations have facilitated knowledge exchange, capacity building, and access to global resources and guidelines for pediatric oncology nursing.

### **Priorities for the Future of Pediatric Oncology Nursing in India**

To continue advancing pediatric oncology nursing care in India, several key priorities need to be addressed. These priorities focus on improving the quality of care, expanding access to specialized services, and supporting the well-being of pediatric oncology nurses.

1. **Strengthening Workforce Capacity:** Addressing the shortage of pediatric oncology nurses is critical to improving care. This requires increasing the number of training programs and ensuring that nurses in all regions of the country have access to



specialized education. Efforts should also be made to recruit and retain nurses in rural and underserved areas.

2. **Enhancing Training and Professional Development:** Continuing education and professional development opportunities should be made more accessible to pediatric oncology nurses. This includes expanding the availability of workshops, conferences, and online courses. Training programs should also focus on equipping nurses with skills in new technologies, such as telemedicine and digital health platforms.
3. **Improving Access to Resources:** Ensuring that pediatric oncology units are adequately resourced is essential for providing high-quality care. This includes improving access to essential medications, diagnostic tools, and equipment. Hospitals and healthcare organizations should work to secure funding and partnerships to address resource gaps.
4. **Reducing Burnout and Emotional Fatigue:** Given the emotional and psychological toll of pediatric oncology nursing, it is important to provide nurses with the support they need to prevent burnout. Hospitals should implement stress management programs, provide access to mental health services, and create a supportive work environment for nurses.
5. **Expanding Palliative Care Services:** Palliative care should be integrated into pediatric oncology care from the time of diagnosis. This requires training more nurses in palliative care principles and expanding access to palliative care services across the country. Providing compassionate, holistic care that focuses on improving quality of life should be a priority for pediatric oncology nurses.
6. **Promoting Research and Evidence-Based Practice:** Continued research in pediatric oncology nursing is essential for improving care outcomes. Nurses should be encouraged to participate in research studies and contribute to the development of evidence-based guidelines. Collaboration with international organizations and research institutions can help advance the field of pediatric oncology nursing in India.

## Conclusion

Pediatric oncology nursing care in India has made significant progress in recent years, but there are still considerable challenges that need to be addressed. The shortage of trained nurses, resource constraints, and the emotional toll of the work are some of the key issues facing the field. However, with continued investment in training, capacity building, and support for nurses, the future of pediatric oncology nursing in India looks promising.

By prioritizing workforce development, improving access to resources, expanding palliative care services, and promoting research, India can continue to make strides in providing high-quality, compassionate care to children with cancer. Pediatric oncology nurses will remain at the heart of this effort, playing a crucial role in improving outcomes for children and supporting their families throughout the cancer journey.

## Reference

1. World Health Organization: International Agency for Research on Cancer. Data visualization tools for exploring the global cancer burden in 2020. 2020. [10/01/21]
2. Gupta S, Howard SC, Hunger SP, et al. Disease Control Priorities. 3rd. Washington, DC: World Bank; 2015. Treating childhood cancer in low- and middle-income countries; pp. 121–146. [Internet] <http://www.ncbi.nlm.nih.gov/books/NBK343626/> [PubMed] [Google Scholar]



3. Friedrich P, Lam CG, Itriago E, et al. Magnitude of treatment abandonment in childhood cancer. *PLoS One*. 2015;10(9):e0135230. doi: 10.1371/journal.pone.0135230.
4. Hazarika M, Mishra R, Saikia BJ, et al. Causes of treatment abandonment of pediatric cancer patients – experience in a Regional Cancer Centre in North East India. *Asian Pac J Cancer Prev APJCP*. 2019;20(4):1133–1137. doi: 10.31557/APJCP.2019.20.4.1133.
5. Renner LA, McGill D. Exploring factors influencing health-seeking decisions and retention in childhood cancer treatment programmes: perspectives of parents in Ghana. *Ghana Med J*. 2016;50(3):149–156. doi: 10.4314/gmj.v50i3.6.
6. Kaye EC, Snaman JM, Johnson L, et al. Communication with children with cancer and their families throughout the illness journey and at the end of life. In: Wolfe J, Jones BL, Kreicbergs U, et al., editors. *Palliative Care in Pediatric Oncology*. Cham: Springer International Publishing; 2018.
7. Seth T. Communication to pediatric cancer patients and their families: a cultural perspective. *Indian J Palliat Care*. 2010;16(1):26–29. doi: 10.4103/0973-1075.63131.
8. Lin B, Gutman T, Hanson CS, et al. Communication during childhood cancer: systematic review of patient perspectives. *Cancer*. 2020;126(4):701–716. doi: 10.1002/cncr.32637. [PubMed] [CrossRef] [Google Scholar]
9. Stenmarker M, Hallberg U, Palmérus K, et al. Being a messenger of life-threatening conditions: experiences of pediatric oncologists. *Pediatr Blood Cancer*. 2010;55(3):478–484. doi: 10.1002/pbc.22558.
10. Zwaanswijk M, Tates K, Dulmen S, et al. Young patients', parents', and survivors' communication preferences in paediatric oncology: results of online focus groups. *BMC Pediatr*. 2007;7(1):35. doi: 10.1186/1471-2431-7-35
11. Landeira JC, Escibano B. *Biological Systems: Nonlinear Dynamics Approach*. 2019. SEMA SIMAI Springer Series (Springer International Publishing) [Google Scholar]
12. Committee on Serious and Complex Medical Conditions at the Institute of Medicine. *Definition of Serious and Complex Medical Conditions*. Washington: The National Academies Press. National Academies Press (US); 1999. [
13. Datta SS, Tripathi L, Varghese R, et al. Pivotal role of families in doctor–patient communication in oncology: a qualitative study of patients, their relatives and cancer clinicians. *Eur J Cancer Care (Engl)* 2017;26(5) doi: 10.1111/ecc.12543.
14. Neighbour R. *The Inner Consultation: How to Develop an Effective and Intuitive Cons*. 2nd. London: Radcliff Publishing Ltd; 2015. *How People learn?* pp. 99–110.
15. A. M. Balusamy Nachiappan, N. Rajkumar, and C. Viji, "Ensuring Worker Safety at Construction Sites Using Geofence," *SSRG International Journal of Civil Engineering*, vol. 11, no. 3, pp. 7, 2024.
16. B. Nachiappan, H. Najmusher, G. Nagarajan, N. Rajkumar, and D. Loganathan, "Exploring the Application of Drone Technology in the Construction Sector," *Salud, Ciencia y Tecnología-Serie de Conferencias*, vol. 3, p. 713, 2024.
17. B. Nachiappan, "Emerging and Innovative AI Technologies for Resource Management," in



Improving Library Systems with AI: Applications, Approaches, and ..., 2024.

18. B. Nachiappan, "E-Resources Content Recommendation System Using AI," in Improving Library Systems with AI: Applications, Approaches, and ..., 2024.
19. B. Nachiappan, N. Rajkumar, C. Viji, and A. Mohanraj, "Artificial and Deceitful Faces Detection Using Machine Learning," Salud, Ciencia y Tecnologia-Serie de Conferencias, 2024.
20. C. Viji, H. Najmusher, N. Rajkumar, A. Mohanraj, and B. Nachiappan, "Intelligent Library Management Using Radio Frequency Identification," in AI-Assisted Library Reconstruction, pp. 126-143, 2024.
21. N. Rajkumar, B. Nachiappan, C. Kalpana, A. Mohanraj, B. P. Shankar, and C. Viji, "Machine Learning-Based System for Automated Presentation Generation from CSV Data," Data and Metadata, vol. 3, p. 359, 2024.
22. M. H. Ansari, B. Nachiappan, S. Nagarajan, and J. Narasimharao, "Intelligent Resource Management in Computing using Genetic Algorithms," in 2024 International Conference on Science Technology Engineering and ..., 2024.
23. B. Nachiappan, "Real estate and rental management system enabled by blockchain," 2024.
24. B. Nachiappan, "A STUDY ON UNDERSTANDING RISK PERCEPTION OF ONLINE CUSTOMERS' SHOPPING," 2023.
25. B. Mahadevan, K. Vadivel, and B. Nachiappan, "ACQUISITION OF E-RESOURCES IN LIBRARIES," 2023.
26. G. Patni and B. Nachiappan, "Techniques of overcoming the fear: how to speak effectively," 2022
27. A. Islam and B. Nachiappan, "Digital Technology and Distraction of digital Classroom," 2022.