Acta Scientific MEDICAL SCIENCES (ISSN: 2582-0931)

Volume 10 Issue 8 August 2026

Review Article

Successful Interdisciplinary Collaboration in Oncology Nursing: Case Reports

Denny Mariam Oommen*

Dr. BRAIRCH, All India Institute of Medical Sciences, New Delhi, India

***Corresponding Author:** Denny Mariam Oommen, Dr. BRAIRCH, All India Institute of Medical Sciences, New Delhi, India.

Received: June 26, 2026

Published: July 16, 2026

Abstract

Cancer management is inherently complex, requiring a multifaceted, patient-centered approach that integrates an interdisciplinary team of healthcare professionals. Multidisciplinary treatment (MDT) has emerged as a cornerstone of modern oncology care, combining the expertise of oncologists, radiologists, pathologists, oncology nurses, palliative care providers, psychologists, social workers, dietitians, chaplains, and others. This holistic model addresses not only the physical dimensions of cancer but also the emotional, social, spiritual, and informational needs of patients. Central to this framework is the oncology nurse—particularly the liaison nurse—who bridges communication among patients, families, and the broader healthcare team.

Key components of effective interdisciplinary cancer care include the formation of a well-represented team, structured tumour boards, shared goals and values, effective communication, personalized care plans, strong leadership, and quality assurance mechanisms. Each element supports coordinated, compassionate, and evidence-based care tailored to individual patient needs. This collaborative framework ensures continuity of care across the cancer trajectory—from diagnosis through survivorship—ultimately enhancing patient outcomes, satisfaction, and quality of life. The interdisciplinary approach is not merely a structural model but a cultural shift toward integrative, holistic healing.

Keywords: Interdisciplinary Collaboration; Multidisciplinary Team; Oncology Nursing; Liaison Nurse; Cancer Care

Introduction

The care of patients with cancer is inherently multifaceted, involving healthcare professionals from multiple disciplines who work together to provide comprehensive treatment and support. Given the intrinsic complexity of the disease, cancer management demands a wide range of treatment modalities, which has given rise to the concept of multidisciplinary treatment (MDT) in oncology. Regardless of cancer type, a holistic approach involving key stakeholders—including oncologists, pain and palliative care teams, radiologists, pathologists, oncology nurses, psychologists, physiotherapists, wound care managers, social workers, dietitians, and chaplains—plays a crucial role in improving patient outcomes [1]. In this context, the liaison nurse occupies an increasingly important role, serving as a bridge among patients, families, and the wider healthcare team throughout the cancer journey.

Interdisciplinary collaborative care must address the full spectrum of patient needs. Oncology patients present with diverse and often simultaneous requirements spanning physical, emotional, social, and informational dimensions. Physical needs may include symptom management (pain, fatigue, nausea), nutritional support, sexual dysfunction, insomnia, and cognitive disturbances. Psychological needs commonly involve anxiety, depression, and fear associated with a cancer diagnosis. Social

needs may encompass transportation assistance, housing support, childcare, return-to-work support, financial counselling, and access to peer support groups. Spiritual needs include concerns related to faith, personal meaning, and bereavement. Informational needs involve understanding the illness trajectory, treatment side effects, and access to relevant resources [2].

Through a successful interdisciplinary orientation, holistic care can be rendered by attending to the physical, psychological, social, and spiritual dimensions of the patient. Effective communication, critical thinking, and interprofessional collaboration together pave the way for optimal treatment decisions. Oncology nurses serve as the backbone of interdisciplinary cancer care; their sustained contact with patients enables accurate needs assessment, timely coordination, and meaningful advocacy within the team.

Key aspects of interdisciplinary cancer care

Interdisciplinary care cannot be sustained through individual effort alone. All team members must collaborate while adhering to the ethical principles of their respective professions. The key components of a successful interdisciplinary collaboration are outlined below.

Formation of a well-represented team

An effective MDT encompasses health professionals from diverse disciplines capable of addressing the multifaceted needs of patients. The team should include medical, surgical, and radiation oncologists; radiologists; pathologists; oncology nurses; pain and palliative care specialists; nutritionists; physiotherapists; occupational therapists; social workers; and psychiatrists or psycho-oncologists. Nurses play an active role by communicating patients' and caregivers' concerns to the team and conveying treatment plans and decisions back to patients and families [3].

Structured tumour board

Regular multidisciplinary case conferences—whether weekly, fortnightly, or monthly—facilitate systematic case review, treatment planning, and the application of evidence-based clinical guidelines. These tumour boards not only enhance patient outcomes through more informed decision-making but also foster quality assurance and opportunities for continuous improvement [4].

Shared goals and values

A unified commitment to the holistic well-being of patients is essential in establishing effective cancer treatment. Shared goals are achieved through individual patient assessment, effective communication, and streamlined care coordination across the cancer care continuum. The shared-goals framework enables clinicians to operate collaboratively while respecting their respective professional scopes, thereby transcending siloed practice [5].

Effective communication

Regular and purposeful communication among team members and caregivers facilitates exchange of professional knowledge and education, with direct implications for improved patient care [6]. Through enhanced communication, individualized treatment plans can be developed that address not only medical but also psychosocial dimensions of care.

Tailored patient needs and preferences

Addressing individual patient needs and preferences is paramount in oncology care, as it improves both the quality of care and patient outcomes. Interdisciplinary care must be patient-centred, incorporating personal values, cultural preferences, and psychosocial needs, while actively engaging patients in the decision-making process and directing treatment toward individualized goals [7].

Strong leadership

Strong leadership is indispensable in fostering a collaborative environment and ensuring adequate resources and support for all team members. High-quality leadership and effective chairing skills are integral to coordinating care, facilitating productive team meetings, and addressing the unmet needs of oncology patients.

Quality assurance

Systematic monitoring and evaluation of processes and outcomes—benchmarked against established standards—must be maintained throughout the disease trajectory, from cancer screening through survivorship. This may be achieved through multidisciplinary meetings, evidence-based quality indicators, clinical audits, patient-centred quality checks, and error reporting mechanisms that create opportunities for ongoing improvement [8].

Case studies of successful multidisciplinary collaboration

Case Study 1: Acute myeloid leukaemia with relapse

Mr. X presented with a diagnosis of intermediate-risk Acute Myeloid Leukaemia (AML) with complaints of right inguinal pain and swelling. Laboratory investigations revealed leukocytosis (total leukocyte count >1.3 × 10^5/mm^3), and bone marrow biopsy confirmed AML-M2 with CD7 expression on flow cytometry. He was referred to a tertiary centre for further management.

Following completion of a standard 3+7 induction regimen, the patient achieved remission. However, on routine follow-up, he presented with bleeding from multiple sites; investigations revealed thrombocytopenia, and flow cytometry demonstrated AML with maturation, confirming disease relapse. He was commenced on azacitidine and venetoclax (AV regimen) and was completing his fifth cycle at the time of referral for allogeneic stem cell transplantation (allo-SCT). He attended the outpatient department regularly for subcutaneous azacitidine injections, reporting pain and fatigue.

Physical Needs	**Pain and fatigue associated with subcutaneous azacitidine therapy**
Psychological Needs	Anxiety related to premature death and separation from loved ones
Spiritual Needs	Spiritual distress evidenced by verbalized feelings of disconnection from divine Providence and self-blame regarding the disease
Caregiver Needs	Concerns regarding disease relapse, evidenced by repetitive questioning about prognosis

Table 1: Identified Needs: Case Study 1 (Mr. X).

A multidisciplinary team approach was adopted for Mr. X, involving the medical oncology team, oncology nurses, psycho-oncologist, pathologists, medical social worker, dietitian, and chaplain. The medical oncology team managed the haematological malignancy and facilitated the allo-SCT referral. The oncology nurse coordinated patient care, administered medications, monitored for engraftment-related complications and treatment side effects, provided emotional support, delivered patient education on cancer terminology and self-care, and liaised with the broader team to ensure optimal outcomes. The psycho-oncologist addressed significant psychological distress and promoted positive psychological well-being for the patient and his family—vital for successful recovery and quality of life—including anxiety related to premature death and family separation. The medical social worker provided psychosocial support, counselling, and practical assistance to the patient and his family. The dietitian managed nutritional needs throughout the transplant process, from pre-transplant assessment to post-transplant recovery, to prevent malnutrition and optimize outcomes. The chaplain addressed the patient's spiritual distress, supporting him in reconsolidating his sense of meaning and faith.

Case Study 2: Early-stage breast cancer in a young woman

Mrs. Y, a 35-year-old premenopausal married woman, presented to the Preventive Oncology Clinic for routine cancer screening. Clinical breast examination revealed a 2 cm firm-to-hard lump at the 3 o'clock position, 4 cm from the nipple-areola complex (NAC) in the right breast, with associated ipsilateral axillary lymphadenopathy. Detailed history revealed a significant family history of cancer. Sonographic mammography returned a BI-RADS 4C finding, and subsequent core needle biopsy confirmed Invasive Breast Cancer, Luminal B subtype.

Physical Needs	Palpable breast lump with axillary lymphadenopathy
Psychological Needs	Anxiety related to cancer diagnosis; concerns regarding family life and dependent children
Spiritual Needs	Spiritual distress evidenced by feelings of being punished by God and loss of faith
Caregiver Needs	Concerns related to prognosis, evidenced by repetitive questions regarding disease recurrence

Table 2: Identified Needs: Case Study 2 (Mrs. Y).

A multidisciplinary collaboration was initiated for Mrs. Y, involving the preventive oncology team, radiology, pathology, medical oncology, psycho-oncology, and genetic counselling services. The preventive oncology nurse identified the lesion at the earliest opportunity through a thorough clinical breast examination, thereby facilitating timely referral and enhancing diagnostic accuracy—factors well established to improve patient outcomes. Following radiological and pathological workup for diagnosis and staging, Mrs. Y was referred to the medical oncologist, who commenced neoadjuvant chemotherapy after comprehensive evaluation. The psycho-oncologist conducted structured psychotherapy sessions addressing the emotional and psychological well-being of Mrs. Y and her family, given her presentation with depressive symptoms. Genetic counselling was arranged in view of her significant family history; the genetic counsellor assessed hereditary risk, interpreted genetic test results, and guided the patient through informed decision-making regarding preventive measures and treatment options.

Outcomes of successful interdisciplinary collaboration

Evidence consistently demonstrates that successful interdisciplinary collaboration in oncology produces the following synergistic outcomes:

- **Reduction in recurrence rates:** Collaborative diagnosis, personalized treatment planning, and ongoing monitoring establish a coherent care pathway from diagnosis through recovery. Patients with advanced cancers demonstrate particularly pronounced benefit when managed through multidisciplinary frameworks [9].
- **Improved quality of life for patients and caregivers:** Early integration of multiple disciplines has been shown to improve quality of life, reduce depressive symptoms, and enhance life expectancy among patients with cancer, compared with disease-focused treatment alone [10].
- **Enhanced patient satisfaction:** Patients managed through a multidisciplinary approach report greater satisfaction, attributable to improved communication, better continuity of care, and personalized, informed decision-making—factors that strengthen trust and positive perceptions of care.
- **Fostered professional satisfaction among healthcare workers:** The team-based environment promotes knowledge-sharing, professional development, and improved communication, collectively reducing errors in cancer management [11].
- **Reduced caregiver burden:** Multidisciplinary care provides a more holistic and integrated support system for both patients and caregivers, addressing physical, emotional, and practical needs, thereby mitigating caregiver fatigue and burden [12].

Barriers to successful interdisciplinary collaboration in oncology nursing

Despite its benefits, interdisciplinary oncology nursing faces multiple barriers to effective collaboration:

- **Communication breakdown:** Inadequate and poorly structured communication among nurses, physicians, and other team members results in fragmented care, misinterpretations, and treatment delays [13].
- **Logistical challenges:** Failures in logistics—including poor coordination, inadequate resource allocation, and scheduling conflicts across healthcare teams—can compromise patient safety and treatment effectiveness.
- **Limited access:** Restricted access to interdisciplinary services may potentiate fragmented care, delay diagnosis, impede implementation of evidence-based initiatives, and reduce overall quality of life.
- **Insufficient continuing education:** Lack of targeted education and awareness regarding interdisciplinary roles in oncology has contributed to scheduling conflicts, absence of structured communication channels, misunderstandings, and inconsistent professional terminology [14].
- **Nursing workforce shortage:** The global shortage of oncology nurses increases the workload on existing staff, predisposing to burnout and declining quality of care [15].

Conclusion

Interdisciplinary care is indispensable in oncology, offering a comprehensive and collaborative approach to managing the complex needs of patients throughout the cancer care continuum. By integrating the expertise of multiple healthcare professionals, MDT models ensure more effective treatment planning, optimized symptom management, and enhanced psychosocial support for patients and their families. Within this framework, oncology

nurses occupy a pivotal position. Their sustained and close contact with patients equips them to assess needs comprehensively, deliver evidence-based and compassionate care, provide patient education, and coordinate timely referrals. Their contributions not only elevate the quality and continuity of care but also strengthen the collective effectiveness of the interdisciplinary team, ultimately improving patient outcomes and quality of life.

Bibliography

1. Knoop T., *et al*. "Emerging models of interprofessional collaboration in cancer care". *Seminar on Oncology Nursing* 33.4 (2017): 459-463.

2. Lang-Rollin I and Berberich G. "Psycho-oncology". *Dialogues Clinical Neuroscience* 20.1 (2018): 13-22.

3. Lamb BW., *et al*. "Quality of care management decisions by multidisciplinary cancer teams: a systematic review". *Annals of Surgical Oncology* 18.8 (2011): 2116-2125.

4. El Saghir NS., *et al*. "Tumor boards: optimizing the structure and improving efficiency of multidisciplinary management of patients with cancer worldwide". *American Society of Clinical Oncology Educational Book* 34 (2014): e461-e466.

5. Graetz DE., *et al*. "Interdisciplinary care of pediatric oncology patients: a survey of clinicians in Central America and the Caribbean". *Pediatric Blood Cancer* 70.5 (2023): e30244.

6. Stiefel F., *et al*. "Communication and support of patients and caregivers in chronic cancer care: ESMO Clinical Practice Guideline". *ESMO Open* 9.7 (2024): 103496.

7. Adi-Wauran E., *et al*. "Patient-centred care in precision oncology: a systematic review". *Patient Education Couns* 136 (2025): 108753.

8. British Psychological Society. "Demonstrating quality and outcomes in psycho-oncology". (2022).

9. Parkway Cancer Centre. "Benefits of a multidisciplinary cancer care approach". (2025).

10. Del Ferraro C., *et al*. "Improving palliative cancer care". *Journal of Advanced Practitioner in Oncology* 5.5 (2014): 331-338.

11. Bunnell CA., *et al*. "Models of multidisciplinary cancer care: physician and patient perceptions in a comprehensive cancer center". *Journal of Oncology Practice* 6.6 (2010): 283-288.

12. Huang LW., *et al*. "Who will care for the caregivers? Increased needs when caring for frail older adults with cancer". *Journal of the American Geriatrics Society* 67.5 (2019): 873-876.

13. Mashiro E., *et al*. "What are the barriers to medical collaboration in community-based integrated care supporting cancer patients? A qualitative analysis of healthcare and long-term care providers' perceptions". *Japanese Journal of Clinical Oncology* 53.12 (2023): 1162-1169.

14. Solera-Gómez S., *et al*. "Educational needs in oncology nursing: a scoping review". *Healthcare (Basel)* 10.12 (2022): 2494.

15. Challinor JM., *et al*. "Oncology nursing workforce: challenges, solutions, and future strategies". *Lancet Oncology* 21.12 (2020): e564-e574.