

# The Role of Advanced Practice Nurses in Information Dissemination for Oncology Patients: Review

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## Abstract

**Background:** Advanced practice nurses (APNs) play a crucial role in managing cancer patients, particularly in disseminating vital information that influences treatment adherence and emotional well-being. However, the effectiveness of their contributions in this area remains underexplored.

**Methods:** This review synthesizes qualitative and quantitative studies published from 1990 to 2010, focusing on the role of nurses in providing information to oncology patients. The review assesses the degree to which nurses contribute to information dissemination, evaluates their effectiveness as information providers, and examines patients' perceptions of the information they receive.

**Results:** The analysis reveals that cancer patients frequently rely on nurses for information, particularly regarding treatment side effects and practical living issues. Studies indicate that patients report higher satisfaction levels with the information provided by nurses compared to that from physicians. For instance, one study found that patients undergoing radiation therapy preferred receiving information from nurses during treatment consultations, which led to improved anxiety management and understanding of their conditions. Additionally, nurses are recognized for their ability to communicate complex information clearly and empathetically, fostering patient empowerment and engagement.

**Conclusion:** Advanced practice nurses are essential in the oncology care continuum, providing critical information that enhances patient understanding and emotional support. Their role as information providers is vital for improving patient outcomes, yet further research is needed to clarify the specifics of the information exchanged and the impact of these interactions on patient care and quality of life.

**Keywords:** Advanced Practice Nurses, Oncology, Patient Information, Cancer Care, Patient Outcomes.

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## I. Introduction

Accessing high-quality and trustworthy information on their therapy is a paramount concern for cancer patients (1). The information comprises facts obtained by cancer patients via various means, and the dissemination of information is a fundamental nursing intervention (2). Individuals confronting cancer and its ramifications need precise knowledge pertinent to their circumstances, which they consider significant. This information may improve patients' adherence to recommended medication, their perception of control over their illness, and likely their clinical results (3,4). The dissemination of information is essential for empowering patients to engage in and make informed choices on their treatment (2, 5). Furthermore, research conducted by Johnson et al. (6) and findings related to the self-regulation theory of coping indicate that the delivery of specific information may improve patients' well-being and recovery while reducing their stress (7). This is particularly crucial for cancer patients since stress has been recognized as a substantial determinant of patient outcomes (6).

The dissemination of information to cancer patients is a significant domain of nursing interventions. Nurses in oncology settings may assume several tasks, including specialized clinical, educational, emotional, and supportive care to cancer patients. To improve this crucial element of their profession and effectively achieve targeted patient outcomes, nurses must establish a clear and substantive description of their role in information dissemination, as well as inpatient education and counseling.

This literature review aims to summarize data from qualitative and quantitative studies on the provision of information as a nursing intervention for cancer patients.

## **II. Methods**

A descriptive critical review approach was used. The research was based on published studies from January 1990 to 2010.

## **III. Outcomes about nurses together**

Hinds et al. (13) conducted interviews with a convenience sample of 83 American patients before and after a complete regimen of radiation. The predominant means of information dissemination, whether before or after treatment, was verbal contact, particularly with the physician. Nonetheless, nurses were seen as a source of information more often after therapy. One reason pertained to the treatment protocol was that all radiation patients received weekly consultations with a departmental nurse, facilitating their inquiries. The authors assumed that nurses were capable of delivering timely information to patients on an individual basis. The alternative hypothesis centered on the specific information requirements of patients as therapy advanced, which increasingly pertained to side effects and familial concerns. Nonetheless, the aforementioned are presumptive.

The findings of ethnographic research conducted in Denmark seemed to validate the hypothesis that nurses are seen as providers of information distinct from that offered by doctors. Patients with acute myeloid leukemia generally sought information via inquiring with nurses and other patients, while deliberately avoiding more medical knowledge on their diagnosis and prognosis as a means to preserve optimism (14). Instead, they concentrated on knowledge about issues impacting daily living. Additionally, a qualitative content analysis conducted in China identified nurses as the primary providers of informational assistance, effectively addressing patients' knowledge requirements (15).

In descriptive quantitative research of Thai Buddhist patients receiving radiation treatment, elevated satisfaction levels with the information supplied by nurses were observed. The findings revealed that patients want oncology nurses to provide education before the initiation of treatment since this knowledge facilitates mental preparation, alleviates worry, and clarifies expectations (16). The majority of participants believed that nurses excelled at delivering explanations and used simple language. In Canada, Deane and Degner (17) observed that women who underwent breast biopsy desired nurses to furnish them with information primarily regarding the biopsy diagnosis, as they were too anxious to retain all the information provided by their physicians. The results align with the findings from Canadian qualitative research (18) and a French study (19). Sainio and Eriksson (3) conducted research with 273 Finnish cancer patients, revealing that nurses, in contrast to doctors, delivered more information to patients using various oral and written techniques. Patients perceived that nurses delivered information, honestly, readily, and promptly.

The results of the aforementioned research indicate that nurses play a vital role in information dissemination, offering various sorts of information in a way distinct from that of doctors. The analyzed studies indicate that most cancer patients successfully adapted to the new circumstances based on the advice supplied by nurses. Overall, via targeted informational assistance, patients exhibited improved adaptation to their illness and cultivated a heightened optimism for the future. Two phenomenological investigations indicated that participants saw nurses as either inaccessible or disengaged in their decision-making and that the nurses' role in disseminating information was not distinctly evident (20,21). The cause of this gap remains ambiguous; comprehensive interviews might likely uncover hidden significances, specifically regarding not only the provision of information but also patients' judgments of nurses' willingness and the quality of their involvement in the process.

## **IV. Outcomes of Advanced Nurse Practitioners (APNs)/Specialist Nurses**

The findings presented by Booth et al. (22), who executed a prospective study including 70 British patients with gynecological cancer, merit attention. Participants who received help and information from a nurse specialist reported reduced anxiety six months post-diagnosis. The majority of research participants favored clinical nurse specialists as providers of knowledge and assistance. Patients' primary concerns were inquiries about their present disease, future prognosis, treatment-related difficulties, physical complaints, and functional capabilities. A study conducted in Ireland by Mills and Davidson (23) involving 430 cancer patients revealed that Specialist/Macmillan nurses were the most favored source of information, receiving the highest ratings for information quality among 19 commonly available sources. Nonetheless, the hospital consultant was the most often used source of knowledge, while nurses ranked fourth among ward personnel. These findings align with those of Luker et al. (2000), who performed a mixed methods qualitative and quantitative investigation. Breastcare cancer nurses were seen as more informed and qualified to deliver information than the main healthcare team. The particular categories of information sought were not specified.

The data summarized below pertain to either clinical nurse specialists or nurse practitioners. Hallowell (24), in a qualitative analysis of 23 British women having preventive oophorectomy, determined that patients

should have access to gynecological nurse specialists both preoperatively and postoperatively to get information on oophorectomy and its subsequent effects. In Australian research, Raupach and Hiller (25) found that women receiving first therapy for breast cancer were provided with diminishing information on treatment, recurrence, and familial risk as time progressed after the initial diagnosis. UK research including 105 breast cancer patients (26) found that 80% of participants regarded the breast care nurse specialist as a very valuable source of knowledge, second only to the hospital consultant at 95%. Ward and clinic nurses were recognized as information providers by 37% of participants, while general practitioners were cited by 25%. Additionally, British qualitative research examining the experiences of patients with operable esophageal cancer highlighted that, although surgeons and other patients were recognized as primary sources of knowledge, the need for specialized thoracic surgery nurses was underscored (27). A retrospective descriptive study on satisfaction with supportive care among Swedish patients with upper gastrointestinal cancers revealed that patients found the information provided by specialist nurses more comprehensible and felt more comfortable posing questions to nurses rather than physicians. However, these differences were not statistically significant (28). Similarly, qualitative British research (29) revealed that palliative care patients appreciated practical advice from expert nurses, aligning with findings from Australian breast cancer patients (30).

Numerous studies highlight the extensive knowledge and specialized skills of Advanced Practice Nurses (APNs) in evaluating and addressing the informational requirements of cancer patients (31). Qualitative research in the UK revealed that breast care nurses addressed patient-centered issues with conventional information, whereas surgeons provided solely factual material about surgery (32). Canadian research indicated that nurse specialists satisfactorily addressed the informational requirements of 97 women at high risk for breast cancer (33). The primary information needs identified were personal risk factors, breast cancer screening, and lifestyle choices. Koinberg et al. (34) conducted phenomenographic research in Sweden, revealing that breast cancer patients expressed great satisfaction with check-up visits to a specialized nurse. The individuals expressed high satisfaction with the expertise and competencies of the specialized nurses, who furnished them with appropriate information, including self-care instruction and breast self-examination.

The aforementioned research indicates that APN/specialist nurses are essential in delivering information to cancer patients. They are often recognized as primary sources of knowledge, albeit not as often as doctors. According to the analyzed research, it can be extrapolated that nurses may provide information of varying types and substances, likely in a way distinct from that of doctors and other healthcare professionals. The precise content, quality, and methods of information dissemination by specialized nurses were not consistently articulated.

## **V. Research that does not differentiate the function of nurses from that of other healthcare professionals**

Such studies allow for inferences on the role of nurses, since they address nurses in general, with just one study particularly mentioning Advanced Practice Nurses (APNs). Certain researchers described a nursing function in information dissemination as 'assisting,' often supplementary to the medical role. Some individuals acknowledged the informational function of the therapeutic team using inclusive terminology such as 'HCPs,' 'hospital staff,' or 'medical staff,' without distinguishing the contributions of nurses from those of other healthcare professionals.

The findings of exploratory qualitative research including breast cancer reconstruction patients in the USA indicated that information was obtained from several sources; nevertheless, the primary sources were the plastic surgeon and other medical professionals (35). The information supplied included treatment alternatives and the decision-making process. The findings aligned with other previous research that investigated information requirements and dissemination (1).

Chelf et al. (36) examined 625 adult cancer patients in the USA and found that patients favored interactive, interpersonal connections with doctors or nurses. Patients want precise information on therapy, diagnosis, management of side effects, coping techniques, and diet. Numerous research corroborated similar findings, indicating that cancer patients predominantly choose healthcare professionals as their sources of information (37-39).

In a qualitative study examining the stressors experienced by 12 Icelandic women during the diagnostic phase of breast cancer, participants indicated that they primarily sought comprehensive and candid informational support from healthcare professionals and expressed satisfaction with the information provided (40). This conclusion aligns with the findings of previous studies indicating that the majority of patients express satisfaction with the information supplied by healthcare professionals (7, 41, 42). Kerr et al. (43) conducted a prospective observational research including breast cancer patients in Germany, revealing that patients found the information provided by doctors to be imprecise, unintelligible, and inadequate, expressing a need for more time to communicate with medical personnel. British research indicated that cancer patients often reported inadequate information (44).

Canadian research indicated that among women finishing breast cancer treatment, nurses were identified as the most significant source of information after oncologists, and more commonly than family physicians (45). Canadian research (46) revealed that 74 women identified nurses as their third most frequent source of information, behind doctors and family or friends, and the most desired source after physicians. The investigators determined that the patient's informational requirements were not fulfilled by the nurses.

However, healthcare professionals are not consistently the preferred sources of information, and other information sites have been documented. Numerous studies have shown that cancer patients may favor informal information sources, including other patients, media, friends, and family members (5). In the USA, qualitative research indicated that although patients pursued information from several sources, one of the most prevalent and beneficial sources was other patients with analogous experiences (4). Such findings may elicit apprehensions about the quality, effectiveness, and suitability of the information provided by healthcare professionals.

## **VI. Summary**

Nurses are regarded as a crucial source of information during and after therapy. Further study is required to clarify the precise information conveyed by nurses and the communication methods and skills used. The efficacy of oncology nurses as information givers for cancer patients requires more investigation. The significant and essential function of nurses as information providers seems to be underrepresented in nursing literature. The aforementioned conclusions may not be reflective of, nor applicable to, many cultures and nations. Consequently, more nursing research is essential to investigate the knowledge dissemination process in nations and cultures of non-Anglo-Saxon heritage. Future studies must focus on the kind of patient inquiries directed toward nursing, the substance of the information disseminated, and the practical methods and interpersonal skills used.

It is essential to examine the possible impact of nurses' information delivery on cancer patients' psychological and physiological outcomes, as well as on their satisfaction with care and overall quality of life. These may be examined using either conventional experimental designs or interpretative methods of inquiry.

## **References**

- [1]. Meredith C, Symonds P, Webster L, Lamont D, Pyper E, Gillis CR & Followfield L (1996) Information needs of cancer patients in West Scotland: cross sectional survey of patients' views. *British Medical Journal* 313, 724–726.
- [2]. Chelf JH, Agre P, Axelrod A, Cheney L, Cole DD, Conrad K, Hooper S, Liu I, Mercurio A, Stepan K, Vallejo L & Weaver C (2001) Cancer-related patient education: an overview of the last decade of evaluation and research. *Oncology Nursing Forum* 28, 1139–1147.
- [3]. Sainio C & Eriksson E (2003) Keeping cancer patients informed: a challenge for nursing. *European Journal of Oncology Nursing* 7, 39–49.
- [4]. Skalla KA, Bakitas M, Furstenberg CT, Ahles T & Henderson JV (2004) Patients' need for information about cancer therapy. *Oncology Nursing Forum* 31, 313–319.
- [5]. Davison BJ, Goldenberg SL, Gleave ME & Degner LF (2003) Provision of individualized information to men and their partners to facilitate treatment decision making in prostate cancer. *Oncology Nursing Forum* 30, 107–114.
- [6]. Johnson JE, Fieler VK, Jones LS, Wlasowicz GS & Mitchell L (1997) *Self-regulation Theory: Applying Theory to Your Practice*. Oncology Nursing Press, Pittsburgh.
- [7]. Leydon GM, Boulton M, Moynihan C, Jones A, Mossman J, Boudioni M & McPherson K (2000) Cancer patients' information needs and information seeking behaviour: in depth interview study. *British Medical Journal* 320, 909–913.
- [8]. Mills ME & Sullivan K (1999) The importance of information giving for patients newly diagnosed with cancer: a review of the literature. *Journal of Clinical Nursing* 8, 631–642.
- [9]. Echlin KN & Rees CE (2002) Information needs and information-seeking behaviors of men with prostate cancer and their partners: a review of the literature. *Cancer Nursing* 25, 35–41.
- [10]. Semple CJ & McGowan B (2002) Need for appropriate written information for patients, with particular reference to head and neck cancer. *Journal of Clinical Nursing* 11, 585–593.
- [11]. Davies E & Higginson IJ (2003) Communication, information and support for adults with malignant cerebral glioma: a systematic literature review. *Supportive Care in Cancer* 11, 21–29.
- [12]. Rutten LJ, Arora NK, Bakos AD, Aziz N & Rowland J (2005) Information needs and sources of information among cancer patients: a systematic review of research (1980–2003). *Patient Education and Counseling* 57, 250–261.
- [13]. Hinds C, Streater A & Mood D (1995) Functions and preferred methods of receiving information related to radiotherapy. Perceptions of patients with cancer. *Cancer Nursing* 18, 374–384.
- [14]. Friis LS, Elverdam B & Schmidt KG (2003) The patient's perspective: a qualitative study of acute myeloid leukemia patients' need for information and their information-seeking behaviour. *Supportive Care in Cancer* 11, 162–170.
- [15]. Liu J-E, Mok E & Wong T (2006) Caring in nursing: investigating the meaning of caring from the perspective of cancer patients in Beijing, China. *Journal of Clinical Nursing* 15, 188–196.
- [16]. Lundberg PC & Trichorb K (2001) Thai Buddhist patients with cancer undergoing radiation therapy. *Cancer Nursing* 24, 469–475.
- [17]. Deane KA & Degner LF (1998) Information needs, uncertainty, and anxiety in women who had a breast biopsy with the benign outcome. *Cancer Nursing* 21, 117–126.
- [18]. Gray RE, Fitch M, Greenberg M, Hampson A, Doherty M & Labrecque M (1998) The information needs of well, longer-term survivors of breast cancer. *Patient Education and Counseling* 33, 245–255.
- [19]. Negrier S, Gomez F, Chauvin F, Buclon M, Syp L, Gonnon G, Dumortier A, Friedrich M & Saltel P (2007) Treatment planning visit in oncology: factors predictive of satisfaction with the meeting with the physician and benefits of a second interview with a nurse. *La Presse Médicale* 36, 779–785.
- [20]. Lacey MD (2002) The experience of using decisional support aids by patients with breast cancer. *Oncology Nursing Forum* 29, 1491–1497.
- [21]. Brown M, Koch T & Webb C (2000) Information needs of women with non-invasive breast cancer. *Journal of Clinical Nursing* 9, 713–722.

- [22]. Booth K, Beaver K, Kitchener H, O'Neill J & Farrell C (2005) Women's experiences of information, psychological distress and worry after treatment for gynecological cancer. *Patient Education and Counseling* 56, 225–232.
- [23]. Mills ME & Davidson R (2002) Cancer patients' sources of information: use and quality issues. *Psycho-Oncology* 11, 371–378.
- [24]. Hallowell N (2000) A qualitative study of the information needs of high-risk women undergoing prophylactic oophorectomy. *Psycho-Oncology* 9, 486–495.
- [25]. Raupach JCA & Hiller JE (2002) Information and support for women following the primary treatment of breast cancer. *Health Expectations* 5, 289–301.
- [26]. Luker KA, Beaver K, Leinster SJ & Glynn Owens R (1996) Information needs and sources of information for women with breast cancer: a follow-up study. *Journal of Advanced Nursing* 23, 487–495.
- [27]. Mills ME & Sullivan K (2000) Patients with operable oesophageal cancer: their experience of information-giving in a regional thoracic unit. *Journal of Clinical Nursing* 9, 236–246.
- [28]. Viklund P, Wengström Y & Lagergren J (2006) Supportive care for patients with oesophageal and other upper gastrointestinal cancers: the role of a specialist nurse in the team. *European Journal of Oncology Nursing* 10, 353–363.
- [29]. Chapple A, Ziebland S & McPherson A (2006) The specialist palliative care nurse: a qualitative study of the patient's perspective. *International Journal of Nursing Studies* 43, 1011–1022.
- [30]. Halkett G, Arbon P, Scutter S & Borg M (2006) The role of the breast care nurse during treatment for early breast cancer: the patient's perspective. *Contemporary Nurse* 23, 46–57.
- [31]. Raja Gopal LR, Beaver K, Barnett T & Nik Ismail NS (2005) A comparison of the information needs of women newly diagnosed with breast cancer in Malaysia and the United Kingdom. *Cancer Nursing* 28, 132–140.
- [32]. Wolf L (2004) The information needs of women who have undergone breast reconstruction. Part II: information giving and content of information. *European Journal of Oncology Nursing* 8, 315–324.
- [33]. Stacey D, DeGrasse C & Johnston L (2002) Addressing the support needs of women at high risk for breast cancer: evidence-based care by Advanced Practice Nurses. *Oncology Nursing Forum* 29, E77–E84.
- [34]. Koinberg I, Holmberg L & Fridlund B (2002) Breast cancer patients' satisfaction with a spontaneous system of check-up visits to a specialist nurse. *Scandinavian Journal of Caring Sciences* 16, 209–215.
- [35]. Neill KM, Armstrong N & Burnett CB (1998) Choosing reconstruction after mastectomy: a qualitative analysis. *Oncology Nursing Forum* 25, 743–750.
- [36]. Chelf JH, Deshler AMB, Thiemann KMB, Dose AM, Quella SK & Hillman S (2002) Learning and support preferences of adult patients with cancer at a comprehensive cancer center. *Oncology Nursing Forum* 29, 863–867.
- [37]. Stewart DE, Wong F, Cheung AM, Dancey J, Meana M & Cameron JL, M'Andrews MP, Bunston T, Murphy J & Rosen B (2000) Information needs and decisional preferences among women with ovarian cancer. *Gynecologic Oncology* 77, 357–361.
- [38]. Rehnberg G, Absetz P & Aro AR (2001) Women's satisfaction with information at breast biopsy in breast cancer screening. *Patient Education and Counseling* 42, 1–8.
- [39]. Montazeri A, Vahdani M, Haji-Mahmoodi M, Jarvandi S & Ebrahimi M (2002) Cancer patient education in Iran: a descriptive study. *Supportive Care in Cancer* 10, 169–173.
- [40]. Fridfinnsdóttir EB (1997) Icelandic women's identifications of stressors and social support during the diagnostic phase of breast cancer. *Journal of Advanced Nursing* 25, 526–531.
- [41]. Kyngäs H, Mikkonen R, Nousiainen EM, Ryttilähti M, Seppänen P, Vaattovaara R & Jämsä I (2001) Coping with the onset of cancer: coping strategies and resources of young people with cancer. *European Journal of Cancer* 10, 6–11.
- [42]. Gray RE, Goel V, Fitch MI, Franssen E & Labrecque M (2002) Supportive care provided by physicians and nurses to women with breast cancer: results from a population-based survey. *Supportive Care in Cancer* 10, 647–652.
- [43]. Kerr J, Engel J, Schlesinger-Raab A, Sauer H & Hölzel D (2003) Communication, quality of life and age: results of a 5-year prospective study in breast cancer patients. *Annals of Oncology* 14, 421–427.
- [44]. Cox A, Jenkins V, Catt S, Langridge C & Fallowfield L (2006) Information needs and experiences: an audit of UK cancer patients. *European Journal of Oncology Nursing* 10, 263–272.
- [45]. Edgar L, Remmer J, Rosenberger Z & Fournier MA (2000) Resource use in women completing treatment for breast cancer. *Psycho-Oncology* 9, 428–438.
- [46]. Bilodeau BA & Degner LF (1996) Information needs, sources of information and decisional roles in women with breast cancer. *Oncology Nursing Forum* 23, 691–696.

**الخلفية:** يلعب الممرضون الممارسون المتقدمون (APNs) دورًا حيويًا في رعاية مرضى السرطان، لا سيما في نشر المعلومات الأساسية التي تؤثر على الالتزام بالعلاج والرفاهية العاطفية. ومع ذلك، لم يتم استكشاف فعالية مساهماتهم في هذا المجال بشكل كافٍ.

**الطرق:** تتضمن هذه المراجعة تحليلًا للدراسات النوعية والكمية المنشورة بين عامي 1990 و2010، مع التركيز على دور الممرضين في تقديم المعلومات لمرضى الأورام. تم تقييم مدى مساهمة الممرضين في نشر المعلومات، وفعالية دورهم كمقدمي معلومات، وانطباعات المرضى حول المعلومات التي يتلقونها.

**النتائج:** كشفت التحليلات أن مرضى السرطان يعتمدون بشكل كبير على الممرضين للحصول على المعلومات، خصوصًا فيما يتعلق بآثار العلاج الجانبي والقضايا العملية المتعلقة بالحياة اليومية. أشارت الدراسات إلى أن المرضى أبدوا مستويات رضا أعلى عن المعلومات المقدمة من الممرضين مقارنة بتلك التي يحصلون عليها من الأطباء. على سبيل المثال، أظهرت إحدى الدراسات أن المرضى الذين يخضعون للعلاج الإشعاعي يفضلون تلقي المعلومات من الممرضين أثناء الاستشارات العلاجية، مما أدى إلى تحسين إدارة القلق وفهم حالاتهم. كما يتميز الممرضون بقدرتهم على توصيل المعلومات المعقدة بطريقة واضحة وتعاطفية، مما يعزز تمكين المرضى وإشراكهم في العملية العلاجية.

**الاستنتاج:** يُعتبر الممرضون الممارسون المتقدمون جزءًا أساسيًا في سلسلة رعاية مرضى السرطان، حيث يقدمون معلومات حاسمة تُحسن فهم المرضى وتوفر لهم الدعم العاطفي. دورهم كمقدمي معلومات يُعد ضروريًا لتحسين نتائج المرضى، ومع ذلك، هناك حاجة إلى المزيد من الأبحاث لتوضيح طبيعة المعلومات المتبادلة وتأثير هذه التفاعلات على رعاية المرضى وجودة حياتهم.

**الكلمات المفتاحية:** الممرضون الممارسون المتقدمون، الأورام، معلومات المرضى، رعاية السرطان، نتائج المرضى.