From post-World War II through the early 1970s, the model of care for a patient-physician relationship was predominantly patriarchal (Feldmann, 1973; Planche, 1951). During this era, patients declined to become involved in selecting their own treatment, even when urged to do so by the physician. Patients essentially said, “It is up to you, doctor. You are the expert.” By the mid-1970s, paternalism became unpopular, and a shared model of care emerged (McKinstry, 1992; Medhat, Hassanein, & Beisecker, 1988). Experts suggested that the forces driving this change were the rising costs of health care (Ford, 1977; Lachner, 1970; Lalonde, 1977); a rise in healthcare consumerism in North America, Europe, and Australia (McDevitt, 1986; Price, 1981; Sparrow, 1978); and an increased emphasis on patient-centered care (Cohen & Naughton, 1995; Hardeng, 1976).

Many models of patient-physician relationships have been described since a paternalistic model was postulated in the early 1950s (Planche, 1951). Among them are the informative model (Emanuel & Emanuel, 1992), doctor-as-agent model (Emanuel & Emanuel, 1992; McKinstry, 1992), shared model of care (Charles, Gafni, & Whelan, 1997, 1999), family-centered model (Freedman, Pierce, & Reiss, 1987), and Degner and Beaton’s Patterns of Decision Making (Degner & Russell, 1988). The evolution of these models also contributes to the evolving role of the nurse and nurse practitioner during cancer treatment decision making. This article reviews the current and evidence-based roles of the nurse during cancer treatment decision making, and implications for practice and research are discussed.
the medical subject heading (MeSH) terms role of nurse, cancer, decision making, and treatment, yielding 186 articles. Searches in two other databases, CINAHL® Complete and PsycINFO, were also performed using the same search terms, yielding 22 and 15 articles, respectively. All titles and abstracts were reviewed, and full-text articles were obtained if they met the criterion that the article must include a description of the role of the nurse or nurse practitioners throughout the cancer treatment decision-making process. Thirty-two articles met the criterion for this review. Thirty-three articles were included in the review after reading the full text and after using the ancestry approach, an approach involving retrieval of articles found to be relevant to the review after the completion of the reviews of articles that have met the criteria. Figure 1 illustrates the results of the search process.

Results
Information Sharing to the Multidisciplinary Care Team
The multidisciplinary team (MDT) approach has been adopted in several subspecialties in cancer care, including lung cancer (Leo, Venissac, Poudenx, Otto, & Mouroux, 2007), head and neck cancer (Stalfors, Lundberg, & Westin, 2007), colorectal cancer (Wood et al., 2008), and breast cancer (Jenkins, Fallowfield, & Poole, 2001). Nurses are integral members of the oncology MDT and participate in case discussions, share perspectives on pressing clinical issues facing the patients, and contribute to treatment decision making through MDT meetings. The MDT approach to care has been shown to improve cancer care outcomes, including improved survival (Kesson, Allardice, George, Burns, & Morrison, 2012).

Lamb et al. (2014) reported that patients had positive experiences with an MDT working together. In this study, the researchers recommended that the role of the nurse in MDT decision making should be strengthened to improve the representation of patients’ interests. The nurse is in an excellent position to gather information related to patients’ preferences for treatment and improve the quality of decision making in MDT meetings (Kidger, Murdoch, Donovan, & Blazeb, 2009). In a study by Muller-Juge et al. (2013), researchers found that medical residents on an internal medicine ward wanted more active participation from nurses during the clinical decision-making process. Medical residents wanted nurses to have a deeper understanding of the patient’s clinical situation, anticipate problems, verify medical decisions, and exchange more information. Information sharing with physicians was a major nurse’s role during end-of-life decision making identified by de Veer, Francke, and Poortvliet (2008).

Information Giving to Patients and Families
Information giving has been an essential part of the nurse’s role in clinical practice. In a qualitative study of influences on the treatment decisions made by patients with advanced lung cancer, researchers have identified the clinical nurse as a trusted source of information (Thornton, Parry, Gill, Mead, & Macbeth, 2011). Another study also supported the nurse’s role of information giving to patients related to various types of therapy and tests (Jenkins et al., 2001). A study on treatment decision making in 20 older adults diagnosed with symptomatic myeloma, patients identified nurses as one of the sources of information (Tariman, Doorenbos, Scheppe, Becker, & Berry, 2014).

In the palliative care setting, nurses are vital in providing information related to symptomatology and disease trajectory. Kennedy (2005) reported that nurses found it difficult to discern when to give devastating information to patients and families, and nurses shared that they have to balance clinical decision making based on the patient and family preferences and wishes. Patient information giving by nurses is well studied in the population of patients with cancer. A systematic review of 30 published studies on the priority of information needs for patients with cancer revealed that the top three patient information needs were related to prognosis, diagnosis, and treatment, and that nurses play a major role in the provision of disease- and treatment-related information (Tariman, Doorenbos, Schepp, Singhal, & Berry, 2014). Nurses were among the trusted sources of information by patients and their caregivers (Kennedy, 2005; Tariman, Doorenbos, Schepp, Becker, et al., 2014).

Advocacy
The nurse is the most trusted healthcare team member according to a Gallup survey (Newport, 2012). For this reason, nurses are in an excellent position to advocate for the patient’s right to autonomy and informed decision making. However, one challenging question constantly nags the nurse’s ethical core—what is the role of the nurse in futile treatment decisions? Many oncology nurses are faced with this common situation in which oncologists are allowed to override patient autonomy with physician autonomy. An ethnographic finding on physicians’ versus nurses’ views on patient autonomy revealed that physicians considered patient autonomy by emphasizing beneficence through treatment provision (Robertson, 1996). In a discourse with a patient vignette reflecting on a futile aggressive chemotherapy
Nurses also provide emotional support to women following early breast cancer treatment to help them feel satisfied with their decisions and prevent psychological distress (Budden, Hayes, & Buettner, 2014). Listening to patients and being present during periods of decision uncertainties were among the psychological support roles identified in most studies mentioned previously.

**Complex Role**

Brownhill, Chang, Bidewell, and Johnson (2013) described the role of the community nurse during the decision-making process in bereavement care as a “complex role,” characterized by decision making that is discretionary and contingent on several variables in the context of uncertainty. A similar theme of complexity and the increasingly nursing role in decision making has been reported in the decision-making process of nurses when extubating patients following cardiac surgery (Hancock & Easen, 2006). Hancock and Easen (2006) found that many variables, including relationships, hierarchy, power, leadership, education, experience, and responsibility, have influenced the decision-making process of nurses.

**Symptom Assessment, Monitoring, and Management**

During the actual administration of chemotherapy, studies have shown that nurses are involved in symptom assessment, monitoring, and management, often using standardized checklists in adult patients with cancer (Williams et al., 2013; Williams, Lantican, Bader, & Lerma, 2014; Williams, Williams, LaFever-Roling, Johnson, & Williams, 2011), as well as in children with cancer (Williams et al., 2012). One large, randomized study also identified this role through the use of a well-designed homecare nursing program outlining the specific nursing actions that relate to symptom assessment and management (Molassiotsi et al., 2009). Similarly, McMillan and Small (2007) also demonstrated this important nursing role with the use of the COPE (Caring, Optimism, Planning, and Expert information) intervention, designed to address the specific needs of families caring for patients with cancer at home, for patients receiving hospice care.

**Outcome Evaluation**

Nurses have been involved in outcome evaluation initiatives because of popularity of evidence-based practice. One study demonstrated that nurses were able to develop, implement, and evaluate the effectiveness of a nurse-led risk assessment tool for the reduction of febrile neutropenia in hospitalized patients with cancer receiving chemotherapy (O’Brien, Dempsey, & Kennedy, 2014). Advanced practice nurses are also involved in outcome evaluation to examine the efficacy and cost-benefit analysis of undertreating the side effects of chemotherapy, such as nausea and vomiting (Viale, Grande, & Moore, 2012).

Based on the various roles of the nurse during the cancer treatment decision-making process identified in this literature review, the authors proposed a model to reflect the evolving roles (see Figure 2). The model shows the evolving role of the nurse from earlier roles of patient education and advocacy to the most recent roles in symptom assessment, monitoring, and management and outcome evaluation. The complex role is in the middle of the model to reflect the central theme that the nurse's role during cancer treatment decision making is multifaceted, and the nurse responds to the needs of the patient depending on contingent

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**FIGURE 2. Proposed Model of Cancer Treatment Decision-Making Roles of the Nurse**

- **Patient Education**
- **Outcome Evaluation Role**
- **Complex Role**
  - Contingent on relationships, hierarchy, power, leadership, education, experience, and responsibility
- **Psychological Support Role**
- **Advocacy Role**
- **Information-Giving Role**
- **Assessment, Monitoring, and Treatment of Side Effects**
<table>
<thead>
<tr>
<th>Article</th>
<th>Design</th>
<th>Identified Roles of the Nurse</th>
</tr>
</thead>
<tbody>
<tr>
<td>Berry et al., 2013</td>
<td>Randomized, controlled trial with 494 patients newly diagnosed with localized prostate cancer in urology, radiation oncology, or multidisciplinary oncology clinics</td>
<td>Evaluation of outcomes; nurse researchers evaluated the efficacy of P3P in reducing the decisional conflict among patients with newly diagnosed localized prostate cancer, and how well P3P facilitates patient selection of cancer treatment that is congruent with values and preferences.</td>
</tr>
<tr>
<td>McMillan &amp; Small, 2007</td>
<td>Randomized, controlled trial using three-group comparative design with repeated measures with 329 patients with cancer and their caregivers in hospice home care who were randomized into three groups of standard care, standard care plus friendly visits, and standard care plus the COPE intervention</td>
<td>Symptom assessment, monitoring, and management roles using the COPE intervention</td>
</tr>
<tr>
<td>Molassiotis et al., 2009</td>
<td>Randomized, controlled trial with 110 patients with colorectal cancer and 54 patients with breast cancer in a homecare setting</td>
<td>Symptom assessment, symptom management, and patient education roles during oral chemotherapy using a homecare nursing program</td>
</tr>
<tr>
<td>Kesson et al., 2012</td>
<td>Retrospective, comparative, nonrandomized, interventional cohort study with 14,358 patients diagnosed with symptomatic invasive breast cancer at National Health Services, Inc., hospitals serving patients with breast cancer and managed by health boards</td>
<td>Information-sharing MDT members; a MDT approach to care led to improved overall survival.</td>
</tr>
<tr>
<td>Leo et al., 2007</td>
<td>Prospective, cohort study with 344 patients with lung cancer who were present at least once during a weekly multidisciplinary meeting for a one-year period in three active thoracic oncology units</td>
<td>Information sharing during MDT meeting; supports previous findings that the approach may improve one-year overall survival</td>
</tr>
<tr>
<td>O’Brien et al., 2014</td>
<td>Prospective, observational chart review with 459 patient records in a hospital-based oncology units</td>
<td>Clinical outcome evaluation role in which the incidence of febrile neutropenia was evaluated after the development and implementation of a risk assessment tool</td>
</tr>
<tr>
<td>Stafors et al., 2007</td>
<td>Quantitative, cohort study with 329 patients with head and neck cancer who participated in a weekly MDT meeting during a one-year period in a large university hospital</td>
<td>Information sharing to team members, including tumor diagnoses, classification and staging, and treatment options</td>
</tr>
<tr>
<td>Williams et al., 2011</td>
<td>Two-group, repeated-measures pilot study with 20 newly diagnosed adult patients with cancer (16 with breast cancer) in an outpatient oncology clinic; 10 participants in the control group received standard care, and 10 received standard care plus teaching intervention.</td>
<td>Patient education and teaching role using TRSC during cancer treatment</td>
</tr>
<tr>
<td>Williams et al., 2012</td>
<td>Cross-sectional study with 385 children receiving chemotherapy at five university-affiliated outpatient clinics</td>
<td>Symptom assessment, monitoring, and management roles using TRSC—Children during cancer treatment</td>
</tr>
<tr>
<td>Williams et al., 2013</td>
<td>Sequential cohort trial in an oncology clinic with 55 patients receiving standard care in cohort 1 and 58 patients receiving standard care plus TRSC in cohort 2</td>
<td>Symptom assessment, monitoring, and management roles using TRSC during cancer treatment</td>
</tr>
<tr>
<td>Williams et al., 2014</td>
<td>Cross-sectional study with 67 Mexican Americans receiving outpatient oncology treatment at a private oncology clinic</td>
<td>Symptom assessment, monitoring, and management roles using TRSC during cancer treatment</td>
</tr>
<tr>
<td>Wood et al., 2008</td>
<td>Prospective study with 157 patients with colorectal cancer who made consecutive multidisciplinary decisions during a 14-month period at a large university hospital</td>
<td>Information sharing to multidisciplinary care team including discussion of pathological and radiologic data; nurses play a role in gathering information related to patient-related factors, including comorbidities and patient treatment preferences</td>
</tr>
<tr>
<td>Bryon et al., 2008</td>
<td>Literature review of research studies of clinical nurses involved in decision making about artificial feeding in end-of-life care in intensive care units, long-term care facilities, nursing homes with a dementia unit, oncology units, and hospitals for terminally ill patients</td>
<td>Advocacy role; patient education role (information giving to patients); psychological support role</td>
</tr>
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(Continued on the next page)

CINV—chemotherapy-induced nausea and vomiting; COPE—Caring, Optimism, Planning, and Expert information; MDT—multidisciplinary team; P3P—Personal Patient Profile—Prostate; TRSC—Therapy-Related Symptom Checklist

Note: Levels of evidence are based on Melnyk and Fineout-Overholt’s (2011) hierarchy of evidence.
TABLE 1. Synthesis of the Articles Included in the Review (Continued)

<table>
<thead>
<tr>
<th>Article</th>
<th>Design</th>
<th>Identified Roles of the Nurse</th>
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<tbody>
<tr>
<td><strong>Level of Evidence: V (Continued)</strong></td>
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<tr>
<td>Tariman, Doorenbos, Schepp, Singhal, et al., 2014</td>
<td>Systematic review with 30 studies reporting information needs priorities involving patients with various types of cancer</td>
<td>Information giving to patients and family; nurses provide disease- and treatment-related information to patients.</td>
</tr>
<tr>
<td>Viale et al., 2012</td>
<td>Systematic review with eight studies that examined the cost of treatment of CINV in patients receiving various types of therapy for CINV, mostly in the outpatient setting</td>
<td>Outcome evaluation role with special focus on efficacy and cost for the use of antiemetic therapy in CINV</td>
</tr>
<tr>
<td><strong>Level of Evidence: VI</strong></td>
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<tr>
<td>Brownhill et al., 2013</td>
<td>Qualitative, grounded-theory approach with 10 community health nurses providing bereavement care to families in the community</td>
<td>Complex role; decision-making role is contingent on multiple variables in the face of uncertainty</td>
</tr>
<tr>
<td>Budden et al., 2014</td>
<td>Quantitative and qualitative descriptive study with 104 women diagnosed with breast cancer in a surgical oncology practice</td>
<td>Individualized decision support role provided by nurses; psychological and long-term support</td>
</tr>
<tr>
<td>de Veer et al., 2008</td>
<td>Qualitative survey and descriptive study with 489 nurses who worked in palliative, terminal care units who had given palliative, terminal care to at least one patient in the past two years</td>
<td>Information sharing to physicians and patients; nurses discuss with physicians and patients end-of-life care decision-making processes.</td>
</tr>
<tr>
<td>Hancock &amp; Easen, 2006</td>
<td>Qualitative, ethnographic study using participant observation and semistructured interview with 43 nurses, 16 medical personnel, and 2 managerial staff in a cardiothoracic intensive care unit</td>
<td>Complex role; decision-making processes were highly contextual with many factors being considered, including relationships, hierarchy, confidence, competence, and issues of trust.</td>
</tr>
<tr>
<td>Jenkins et al., 2001</td>
<td>Qualitative, descriptive study with five MDTs in a large healthcare system for patients diagnosed with breast cancer</td>
<td>Information giving to MDT members; information giving to patients; breast care team nurse provides information related to various types of therapy and tests.</td>
</tr>
<tr>
<td>Kennedy, 2005</td>
<td>Qualitative study using interpretive strategy to identify meanings and content with three district nurses who had 11 episodes of participant observations and 12 in-depth interviews in patients with cancer requiring palliative care</td>
<td>Information giving to patients and family</td>
</tr>
<tr>
<td>Kidger et al., 2009</td>
<td>Qualitative study using interviews, observations, and constant comparison technique with 16 members of one gynecologic MDT (4 nurses, 3 radiologists, 3 surgical oncologists, 3 medical oncologists, 2 pathologists, 1 team coordinator) in a large, academic center</td>
<td>Information gathering and sharing to care team; nurses were identified having a central role in identifying support needs of patients to deal with treatments within the context of their lives.</td>
</tr>
<tr>
<td>Kohara &amp; Inoue, 2010</td>
<td>Qualitative study using a grounded-theory approach with 25 patients with cancer considering phase I clinical trial at a cancer center in a large metropolitan city</td>
<td>Psychological support role; nurses allowing patient to talk about clinical trial and important things in their lives and helping patients live life satisfactorily until the end</td>
</tr>
<tr>
<td>Lamb et al., 2014</td>
<td>Qualitative study using a focus group approach with 21 patients with a history of cancer in three focus groups in two large district hospitals</td>
<td>Information sharing to MDT; role of clinical nurse specialist as patient advocate</td>
</tr>
<tr>
<td>Monterosso et al., 2005</td>
<td>A two-phase, combined quantitative and qualitative study using a descriptive approach with 61 neonatal intensive care nurses in a neonatal tertiary referral center</td>
<td>Advocacy role; nurses advocating for the best interests of the infant and family, which includes speaking up on behalf of infant and family and communicating the needs of infant family with consideration of cultural background</td>
</tr>
<tr>
<td>Muller-Juge et al., 2013</td>
<td>Qualitative study using thematic content analysis with 14 residents and 14 nurses in an internal medicine unit in a large university hospital</td>
<td>Information sharing to team; nurses recognized the importance of team approach, communicating and exchanging information with team members</td>
</tr>
<tr>
<td>Tariman, Doorenbos, Schepp, Becker, et al., 2014</td>
<td>Qualitative study using directed content analysis with 20 older adults with symptomatic myeloma in a large, academic outpatient oncology clinic</td>
<td>Information giving to patients and family; nurses were identified as among the top sources of information by patients.</td>
</tr>
<tr>
<td>Thornton et al., 2011</td>
<td>Qualitative study with thematic content analysis with five patients with non-small cell lung cancer and their partners in a regional oncology unit</td>
<td>Information giving to patients and their partners; clinical nurse specialists were a valuable source of information. (Continued on the next page)</td>
</tr>
</tbody>
</table>

CINV—chemotherapy-induced nausea and vomiting; COPE—Caring, Optimism, Planning, and Expert information; MDT—multidisciplinary team; P3P—Personal Patient Profile—Prostate; TRSC—Therapy-Related Symptom Checklist

Note. Levels of evidence are based on Melnyk and Fineout-Overholt’s (2011) hierarchy of evidence.
variables. Table 1 summarizes all articles included in this literature review. Levels of evidence for nursing studies are based on Melnyk and Fineout-Overholt’s (2011) hierarchy of evidence.

### Discussion and Implications for Practice

One of the competencies outlined by the American Association of Colleges of Nursing (AACN), 2008, 2010a, 2010b, 2012) for nurses with various educational levels (baccalaureate to doctorate) is to provide appropriate health information to patients, families, caregivers, and the community. Advocacy for patients, as guided by the ethical principles of nursing practice, is also a role that nurses perform in clinical practice. This review of the literature clearly demonstrates that patient education and advocacy roles are widely observed in practice. However, nursing role discrepancies have been documented in the literature, particularly in the areas of organizational decision making and in the provision of patient education (Takase, Maude, & Manias, 2006a, 2006b). A study on intensive care nurses’ involvement in end-of-life decision-making processes found that the relatives of patients wanted more involvement from nurses (Lind, Lorem, Nortvedt, & Hevroy, 2012).

Nurses must strive to achieve role actualization (actual performance of expected and desired role) to provide comprehensive patient education and advocate for people with cancer, particularly during periods of decision uncertainty. Berry et al. (2013) developed an Internet-based intervention for newly diagnosed patients with prostate cancer called the Personal Patient Profile–Prostate, which addresses decision uncertainty and facilitates selection of cancer therapies that is congruent with a patient’s personal values and preferences.

In advanced practice nursing, the role of the acute care nurse practitioner during decision making is highly sensitive to context and largely dependent on the laws regulating the scope of nurse practitioner practice, as well as healthcare system-level policies that are under the control of medical and nursing leadership (Kilpatrick, 2013). Nurse practitioners must continue to be cognizant of organizational policies and professional bylaws to practice within the scope of legal, professional, and organizational limits. In addition, nurse practitioners must proactively address the barriers to full actualization of nurse practitioner role related to cancer treatment decision making. Nursing administrators and nurse leaders must shape policies and procedures geared toward the full role actualization related to cancer treatment decision making.

Nurses must have full awareness of their professional role during cancer treatment decision making, understand and resolve the barriers to full actualization of their role, use evidence-based interventions that can decrease patients’ decision uncertainty, and continue to work on improving clinical outcomes related to cancer treatment decision making.

### Implications for Research

A paucity of nursing research exists related to the ideal versus actual role of nurses and nurse practitioners during cancer treatment decision making. Oncology nurses and nurse practitioners are often asked by patients, “If you were me, what treatment would you choose?” No right answer exists to this question because no one-size-fits-all approach to cancer treatment exists. Based on a literature review by Tariman, Berry, Cochrane, Doorenbos, and Schepp (2012), many factors could influence...
the actual cancer treatment decisions, including patient-specific, physician-specific, and contextual factors. An assumption that the nurse’s ability to provide patient education, give health information, and advocate on behalf of the patients may be influenced by professional education, years of training, and types of practice (Goodman, 2003; Hewitt, 2002). However, a more systematic study is still needed to test this assumption. One study on treatment decision making among patients with advanced cancer found that a need exists to clarify the specific role of nurses during the different stages of treatment decision making (McCullough, McKinlay, Barthow, Moss, & Wise, 2010). Similarly, a review on the role of the nurses in the clinical decision-making process also calls for more research studies that address the specific contributions of the nurses during clinical decision making, which can potentially lead to the improvement of healthcare outcomes (Campos & Graveto, 2009).

Conclusions

The authors of the current article believe that health care is now entrenched in the era of the shared decision-making model of practice, where patients are being asked or expected to participate in the cancer treatment decision-making process (Charles et al., 1999; Colella & DeLuca, 2004; Elwyn et al., 2012; Fenton, 2003; Kane, Halpern, Squiers, Treiman, & McCormack, 2014; Muller, 2012). The paternalistic model of care has faded in popularity (Feldmann, 1973; McKinstry, 1992; Medhat et al., 1988) and the shared decision-making model of care is taking hold, particularly in the cancer care setting (Lund, Jonler, Graversen, Borre, & Bro, 2013; Shad, Myers, & Hennessy, 2012; Tariman, Berry, Cochrane, Doorenbos, & Schepp, 2010). The Agency for Healthcare Research and Quality recognized the important role of nurses and nurse practitioners in providing patient education to engage patients and provide information about treatment options (Clancy, 2012). How nurses’ and nurse practitioners’ roles have evolved in response to this changing paradigm in the patient-physician relationship has not been previously investigated. Therefore, a study that focuses on examining the contemporary role of nurses and nurse practitioners during the cancer treatment decision-making process is needed.

A large study in 17 European countries regarding physicians’ perceptions of nurse involvement in end-of-life decision making revealed geographic differences in the perceived level of participation, with more involvement noted in the northern European region (Benbenishty et al., 2006). Researchers from this study suggested that these geographic differences may be because of varying work cultures in different regions of Europe. Nurses working in the northern regions have more collegial relationships with physicians. Further investigation is needed to validate these findings, and additional investigation is warranted to explore factors or variables that are associated with higher level of participation of nurses during cancer treatment decision making.

References


Implications for Practice

- Strive to perform different nursing roles related to decision making at various time points of cancer treatment decision-making process.
- Use evidence-based nursing interventions to improve patient outcomes related to treatment decisions.
- Assess the needs of patients with cancer during the decision-making process, and provide tailored nursing interventions based on the patient’s needs.
in the medical encounter: What does it mean? (or it takes at least two to tango). Social Science and Medicine, 44, 681–692.


Jenkins, V.A., Fallowfield, L.J., & Poole, K. (2001). Are members of multidisciplinary teams in breast cancer aware of each other’s informational roles? Quality in Health Care, 10(2), 70–75.


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2. What were the outcomes or recommendations for practice, education, administration, and/or research based on the evidence presented?
3. Which of the recommendations would you consider implementing in your setting? Why or why not?
4. What would be the next steps in applying the information presented in the article in your setting?

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