Moving toward research-based cancer nursing practice

By Margaret Fitch, Anne Bolster, Dorothy Alderson, Gail Kennedy and Dianne Harrison Woermke

Abstract

Research has a role in generating sound information and in helping cancer nurses make good practice decisions. Frequently, cancer nurses have not had the opportunity to learn about research. This article describes an approach for introducing research to cancer nurses. The approach was selected primarily to help cancer nurses see a relevancy in research. It also helped the nurses see a use for the data gathered through research methods and experience a sense of investment in data collection activities. Four projects are highlighted to illustrate how nurses identified questions in their clinical practice and used systematic data collection to generate information (data) to help in their practice decision-making. The projects focus on information needs of women experiencing colposcopy, use of an information sheet for women with breast cancer after radiation, introduction of a new health assessment tool and identifying the needs of palliative care patients on an inpatient service.

Introduction

In the course of any single day, oncology nurses are faced with many decisions. Whether a staff nurse, a head nurse, an educator or an administrator, an oncology nurse makes decisions that can have an impact on patients, family members or colleagues. Hence, the decisions need to be based on sound information. They need to be based on reliable, valid data.

Research has a role in generating sound information and in helping pinpoint the influence of nursing actions (Ferrell, Grant, Rhiner, 1990).

Dianne Harrison Woermke, Gail Kennedy, Anne Bolster and Margaret Fitch. Absent: Dorothy Alderson.

Margaret Fitch, RN, PhD, is oncology nurse researcher, Anne Bolster, RN, and Dorothy Alderson, RN, BScN, are primary nurses, and Gail Kennedy, RN, BScN is standards of nursing practice coordinator at the Toronto Sunnybrook Regional Cancer Centre.

Dianne Harrison Woermke, RN, MScN, was clinical nurse specialist, oncology, at the Sunnybrook Health Science Centre at the time of the project.

Research has a role to play in identifying which nursing interventions are effective and where changes can be made to achieve improvements in patient care. Because of its rigor, or system of checks and balances, research offers a way of knowing about our practice that carries a specified level of confidence.

If oncology nurses working in clinical settings want to ensure sound information is available for practice decisions, a model of oncology nursing practice that integrates research with practice and education must be embraced. We need to have clear links between practice, education and research. The significant clinical questions raised in the practice arena need to be answered through the efforts of nursing research, and effective educational approaches need to be designed to share the information and translate it into usable knowledge for making decisions about patient care.

Barriers to achieving an integrated model of nursing practice in clinical settings have been cited (Funk et al, 1991; Holm, Llewellyn, 1986). These barriers include the failure of researchers to communicate their findings to practitioners; the chasm between education, research and practice; differences in methodologies between research and practice; lack of research theory in basic nursing programs and the failure of research conducted in the clinical settings to address nursing clinical practice questions.

The nursing department of the comprehensive cancer program at the Toronto-Sunnybrook Regional Cancer Centre and the Sunnybrook Health Science Centre is convinced that research-based practice is critical to the future of nursing as a professional group. It is the key to ensuring quality nursing care is delivered. We are committed to reducing the barriers to nursing research in clinical settings and are moving toward the realization of an integrated model of oncology nursing practice. To provide leadership in research, a PhD-prepared nurse (M. Fitch) was hired. A primary mandate or responsibility was to work with staff members and to create a "user-friendly" atmosphere surrounding research. While a number of strategies designed to build research into the fabric of daily practice have been implemented, this article describes one aspect of the work - engaging staff nurses in actual project work.

VERS UNE PRATIQUE ONCOLOGIQUE AXÉE SUR LA RECHERCHE

ABRÉGÉ

La recherche joue un rôle important; elle permet de produire une information fiable et aide les infirmières en oncologie à prendre de bonnes décisions pratiques. Dans bien des cas, les infirmières n'ont pas eu l'occasion d'explorer la recherche. Cet article décrit une approche qui présente la recherche aux infirmières en oncologie. On l'a retenue parce qu'elle permet de sensibiliser les infirmières en oncologie à la pertinence de la recherche. Grâce à elle, les infirmières ont compris qu'elles pouvaient utiliser l'information recueillie par le biais de la recherche et qu'elles pouvaient s'investir dans des activités de collecte de données. L'article met en vedette quatre projets pour montrer comment des infirmières ont cerné des points précis au niveau de leur pratique clinique et ont utilisé une collecte de données systématique pour obtenir l'information qui les aide à prendre des décisions éclairées. Les projets s'intéressent aux besoins en information des femmes subissant une colposcopie, à l'emploi d'un feuillet informatif à l'intention des femmes atteintes d'un cancer du sein, après radiothérapie, à l'introduction d'un nouvel instrument d'évaluation sanitaire et enfin, à l'identification des besoins des patients d'un service interne en soins palliatifs.

The nursing department has four standing committees which oversee the department's activities. These committees include nursing advisory (administrative), quality assurance, nursing development (education and research) and nursing practice. As the nurse researcher, I am a member of these committees and, in that capacity, work to bring a research perspective to the committee deliberations. Specifically, I work to engage staff members in using research methods and research findings as they go about the department's business. I want to see a culture emerge where nurses are comfortable questioning how things are done and whether there are "better" ways of doing things.

Moving the research mandate forward required careful planning and slow implementation. It was easy to have research perceived as something extra to do in an already-busy day or to have the questions the nurse researcher might pose perceived as her ideas or interests, not those of the staff.

Believing that engagement and experience are good teachers, I looked for opportunities to encourage individual staff nurses in projects involving systematic data collection. I looked for opportunities to assist staff nurses in a project that was based on their idea and was manageable on a short-term basis. I hoped this approach would allow them to see a relevancy to the work, a use for the data that would be gathered and a sense of ownership for the project. If the project could also be linked to a relevant goal for the nurse (i.e., an assignment for a university course) I kept that in mind as well. Ultimately, I hoped this approach was a way of opening the door to research-based practice.

The role I played as the nurse researcher varied from project to project. I tried to give as much support as was necessary to ensure the success of the project and a positive learning experience. The following summaries illustrate four of the projects which have been completed.

Project #1: Evaluating the use of an information sheet for women with breast cancer

A. Bolster, primary nurse, radiation

Background

Having previously worked as a nurse in the community, I was aware that women often had questions once they were home and their radiation treatment had ended. With radiation for breast cancer, the side effects that may occur (eg., redness, dryness, blistering) emerge frequently towards the end of treatment and after treatment has stopped and the patient is no longer coming to the treatment centre on a regular basis. I noticed that even though a teaching program about skin care was provided for each patient, many women called back to the clinic after they were home. I wondered if it would be helpful to the women to have a printed sheet of information to take home describing the side effects and how to manage them. I designed a sheet containing the essential points from the material taught to the patients during the treatment interval by myself and the oncologist. As I began using the information sheets with the patients, I wondered how the effectiveness of the sheets could be evaluated.

Methods

To evaluate patients' response to the information sheets, the following data collection methods were implemented. All women referred for radiation treatment to this clinic were assigned alternately to receive the information sheet or not to receive the information sheet. Hence, 50% received the sheet and 50% did not receive the sheet. The oral teaching was completed in the usual way with all the women. Those women assigned to receive the information sheet were given it on their last treatment day. Approximately three weeks following the completion of the radiation treatment, the nurse researcher contacted each woman by telephone. Of the 40 who were part of the project, four could not be reached and 36 answered the questions about their side effects following the radiation treatment. The questions focused on:

- questions about skin care procedures
- problems experienced with skin care
- self-care regarding skin care
- responses to the information sheet.

Findings

There was no significant difference in the age of the women who received the information sheet and those who did not receive the information sheet (See Table One). The distributions of treatment sites and treatment fractionation across the two groups were similar.

Women in both groups had questions at the time of the telephone interview that included concerns about the status of the disease, the effects of surgery and their skin. Two women who received the information sheet and nine who did not receive the sheet reported experiencing changes in their skin. The descriptions of the actual skin changes were similar in both groups and were changes which were expected (i.e., itchiness, redness, peeling). Interestingly, the women who had received the sheet said they expected the changes and did not use the word "problem" to describe the skin changes. Those who had not received the information sheet spoke of the changes as "problems".

In response to the question about the usefulness of the printed information sheet, 17 women remembered receiving it, 15 found it helpful and clear and several offered suggestions for additions. Of the two who did not report the sheet was helpful, one did not read English well and one felt she did not need to read it. All 18 women who had not received the written sheet made the suggestion that written information would be useful.

Conclusion

Based on the findings from this clinical practice audit, the information sheet was revised slightly and is being used with women who are undergoing radiation treatment for primary breast disease. Consideration is also being given to using the approach with other disease site groups who may experience side effects at home following the completion of their treatment.

Table One: Selected data from women who received radiation treatment for primary breast disease

Selected variables		Respondents in Group A (n=18) Received Info Sheet	Respondents in Group B (n=18) Did Not Receive Info Sheet
Demographics	Average age in years	55.4	54.6
	Range in age in years	38-80	34-77
Treatment site	Breast only	13	14
Had questions about skin care		4	7
Reported skin changes		2	9
Skin care management	As per protocol	14	6
	Did not need anything	4	2
	Tried various approaches		10
Stated written information	Was helpful	15	-
	Would be helpful	-	18

Project #2: Information needs of women

D. Alderson, primary nurse, colposcopy suite

Background

In 1992, 307 new patients and 867 follow-up patients were seen in the colposcopy suite. They were referred from a variety of physicians in the community following an abnormal Pap smear. As I observed the women's responses during clinic visits, I wondered if something more than vocal teaching needed to be introduced. It was not entirely clear how much had been explained to the women prior to their clinic visit or how much they understood about the colposcopy treatment and follow-up. I thought a written booklet might be helpful.

Although I felt I could write a booklet that would contain information I thought was important, I wondered what the women themselves thought was important. Because women's perspectives about the colposcopy experience might be different than the perspectives of the nurses, I thought steps should be taken to find out what women felt was important to know.

Methods

The project which was undertaken to identify women's perspectives about the colposcopy experience involved a two-stage process of data collection. The first phase helped to identify the types of questions that should be used in a written survey questionnaire. Ten women attending the suite were asked to describe their experiences related to coming to the colposcopy suite and some of the questions they had had. By analyzing the content of these descriptions, the questions for the written survey questionnaire were identified. The survey focused on the experiences while attending the colposcopy suite and contained questions about:

- feelings coming to the suite
- knowledge coming to the suite
- specific content areas women could have questions about
- whether additional information was desired
- preferred format for additional information.

The second phase of data collection occurred during a four-week interval when the survey was given to every woman who had an appointment in the suite. This meant the respondents included women at various stages of their treatment. Seventy-five (75) women completed the survey while they waited for their appointments. The response data were analyzed in terms of how many women identified certain topics (frequency and content analysis).

Findings

The highlights of the findings are presented in Table Two. A large majority of the women identified they required more than oral information about their disease and treatment. Women identified a booklet or pamphlet as an ideal format because it could be taken home and referred to as necessary. Women wanted additional information in a wide range of topics including the purpose of colposcopy; definitions for dysplasia, human papillomavirus, Pap smear, condyloma (genital warts); impact on one's health (i.e., menstruation, sexuality, fertility, pregnancy, types of treatment and follow-up plans [i.e. what follow-up, timelines]).

Table Two: Perceptions of women in colposcopy suite

Selected findings Perceptions of women in colposcopy suite	Per cent of 75
Worried upon referral to clinic	60%
Frightened upon referral to clinic	20%
Had too little information prior to first clinic visit	22%
Had too little information during clinic visit	5%
Felt the information they received was understandable, clear, thorough	94%
Wanted additional information in booklet format	74%
Wanted additional discussion	10%

Conclusion

Based on the information gathered from the women, a new booklet is being designed. When it is complete, the booklet will be used in the suite to augment the vocal teaching.

Project #3: Designing a patient assessment tool

G. Kennedy, project co-ordinator, standards of nursing practice

The members of the documentation committee designed a new nursing health assessment form to be consistent with and support the newly-developed standards of nursing practice. In our clinic, the health assessment is completed during the patient's initial visit to the clinic and updated as necessary on subsequent clinic visits. Usually the patient is encouraged to complete the form and then the primary nurse reviews the information and completes the unanswered questions with the patient.

The new assessment form was longer than the previous form and contained new topic areas. The actual format was considerably different, offering more precoded responses and options. It was also formatted with a specific column for nurses to add their comments to the information the patient recorded. The new form was expected to provide a more comprehensive assessment database than the old form and to facilitate the identification of nursing diagnoses.

The question was raised, however, whether patients were going to be able to complete the form easily. Specifically, we wondered if the instructions for completing the form were clear, if the actual assessment questions and their responses were understandable and if any particular topic areas should be omitted. We also wondered how long it would take to complete the form. We decided a pilot test of the new form with patients was needed prior to implementing the new form across the entire clinic.

The members of the documentation committee conducted the pilot test. During an interval of four weeks, all new patients in each disease site were identified and 10% were selected to complete the new assessment form rather than the old form. When the patients had finished completing the form to the best of their ability, a member of the committee reviewed the information on the form with them and asked several questions concerning the actual form and its use. The time to complete the form was monitored and the patients' comments about the form were documented by the nurse committee member.

Findings

A total of 50 patients were involved in the pilot test. They were selected from the following clinics: Breast (12), gastrointestinal (8), head and neck (2), central nervous system (2), lung (4), haematology (2), gynecology (6), sarcoma (2), late effects/paediatrics (4) and genito-urinary (8).

On average, patients completed their portion of the assessment form in 20 minutes and the nurses completed the review in 10 minutes. Questions related to sexuality, self-concept, patient education, coping and prevention/early detection were left out most frequently by the patients. The patients themselves had very little feedback about the form or suggestions for change. However, the nurses conducting the pilot test learned a good deal. Examples of the observations nurses made were:

- the questions specific to "males" or "females" required a different format to achieve clarity
- use of a "✓" in a box was less confusing than having the words "YES/NO" printed on the form for circling
- use of a column format was helpful.

Conclusion

On the basis of the findings, the assessment form was revised. The pilot experience was seen as helpful in gathering the patients' viewpoint and allowing revision of the document prior to complete introduction. By testing the form in the clinic environment, observations were made that were helpful in creating a workable form.

Project #4: Documentation palliative care needs

D. Harrison Woermke, clinical nurse specialist, oncology

Background

At the onset of the program planning exercise a variety of opinions surfaced regarding how much palliative care was being provided on our two oncology inpatient units. Traditionally, the units had been described as providing acute oncology care. Staff, particularly nurses and social workers, stated many patients were in need of palliative care and expressed the opinion we needed experts available to assist them in planning care for these individuals. Prior to taking action, a clear picture of the patient group needed to be developed.

Methods

As a strategy for developing a clear picture of the current patient group and understanding the issues regarding palliative care more clearly, a retrospective chart review was conducted. An audit tool was designed (M. Fitch) to capture a comprehensive range of variables related to palliative care. The tool was pilot-tested using the medical records of 10 patients known to require palliative care prior to implementing the full audit.

For the full audit, a complete list of all patients admitted to the two oncology units during a six-month period was created and 15% of the names were selected randomly for review purposes. These 67 medical charts were reviewed using the audit tool designed for the study.

Based on the data in the medical record, patients were categorized as palliative and non-palliative. An individual was placed in the palliative category if at least one of the following criteria was met:

- 1) reason for admission recorded as palliative on patient chart
- 2) disease status recorded as palliative
- 3) consult request for submission of palliative papers
- 4) do not resuscitate order on the chart
- 5) patient died during the admission under review
- 6) discharge to a palliative care unit.

Findings

On the basis of these criteria, 37% of the patients were clearly in need of palliative care. We were able to develop a clear profile of these patients, the symptoms they experienced and their course in hospital. For example, the patients were on average 62 years of age, had more than one admission to the unit and were in hospital, on average, 14.8 days. The most frequently identified symptoms they experienced during hospitalization included pain, dyspnea, nausea and vomiting. More than half the group had concerns recorded about needs of family members. This type of profiling is of assistance in program planning and resource allocation. Highlights of the profile appear in Table Three.

Additionally, this type of audit can pinpoint concerns regarding the type of information that is recorded. For example, the data regarding physical care and symptom management was generally recorded in sufficient detail so that one could follow a chain of interventions and determine if a problem was resolved. This was not the case, however, with psychosocial care. Pertinent data regarding psychosocial dimensions of care was rather scant in light of the multitude of issues one confronts in the face of death. This observation stimulated discussion about documentation expectations in general and documentation for palliative care patients specifically.

Conclusion

This audit provided clear evidence that a proportion of the patients admitted to the service were in need of palliative care and could be identified. The process made the needs of the palliative care patients visible. The data contributed to the development of a clinical program focused on palliative care.

Closing

Each of the projects highlighted above emerged from a question or concern a nurse had within her daily practice. All were looking for information to make a decision about future patient-related activities. In each instance, a systematic, planned approach was used to gather information and, as a result, the nurses knew how much confidence they could place in the findings. In all cases, introduction to data collection, analysis and interpretation offered a relevant learning experience about using research methods as a way to gather information upon which to base practice decisions.

As we look to the future, oncology nursing is facing many issues that will require astute decision-making. Any decisions will be limited by the data we have upon which to base them. Clearly, research has a role in providing sound information, but it must concentrate on answering significant clinical questions. That focus will emerge as nurses in clinical settings see the value of a systematic approach to data collection.

Table Three: Selected data from palliative care chart audit

Selected Characteristic		Palliative Care Group N=25	Non-Palliative Care Group N=42
Demographic Data	Average Age in Years	62.0 (±13.8)	57.6 (±15.6)
	Female/Male	16/9	34/8
	Number Married	18	19
Length of Stay	Average Number of Days	14.76 (±12.9)	13.29 (±11.9)
	Range of Days	1-54	1-45
Symptoms	Mean on Admission	2.28	0.90
	Mean during Hospitalization	2.80	2.33
Symptoms During Hospitalization	Pain	18	27
	Dyspnea	8	3
	Nausea	9	17
	Vomiting	11	12
	Fever	1	7
	Diarrhea	3	6
	Constipation	3	5
Medications	Mean during Hospitalization	12.48 (±7.25)	12.52 (±5.69)
	Range	4-28	2-27
Family Concerns Identified		17	12

References

- Ferrell, B.R., Grant, M.M., Rhiner, M. (1990). Bridging the gap between research and practice. *Oncology Nursing Forum*; 17:447-448.
- Funk S.G., Champagne, M.T., Wiese, R.A., Tornquist, E.M. (1991). Barriers to Using Research Findings in Practice: the clinician's perspective. *Applied Nursing Research*; 4:90-95.
- Holm, K., Llewellyn, J.G. (1986). *Nursing Research for Nursing Practice*. Toronto: W.B. Saunders.