Finding a place for research in your clinical practice

By Margaret I. Fitch

Abstract

Many oncology nurses feel uncertain about the role of research in their daily practice. This article describes, in summary fashion, the key role of research in clinical settings and highlights the array of research roles available to nurses - contributor, facilitator, client advocate and questioner. All are critical to achieving research-based practice or a practice in which decisions are made on the basis of knowledge gleaned through research.

Introduction

The word "research" evokes a range of responses from nurses. Some become excited and intrigued. Some shrug their shoulders and turn away. Others are outspoken in their criticism, saying that research is just extra work and doesn't have any relevance for their practice.

In further exploring these responses with colleagues, it became evident that the role research could play in daily practice was not entirely clear to everyone. Phrases such as "nurses should be involved in research" and "research should be every nurse's business" were stated frequently, but ideas about what they really meant were rather nebulous.

This article was written as an outcome of conversations with oncology nursing colleagues about research. The various ideas discussed were cited by nurses as helpful in understanding how research might become a reality in their daily practice. It was written for the purpose of stimulating ideas about achieving research-based practice in oncology nursing. Although it is written for an oncology audience, many of the comments may be of value to other specialty practices and to nursing in general.

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A key role for research

The future of cancer care is certain to be filled with many complexities. Population shifts, economic factors, scientific advances and quality of life issues will be key influences in that future. The aging North American population will add to the cancer care burden as the actual numbers of individuals diagnosed with cancer increases. Ontario projects a doubling in the number of individuals who have cancer by the year 2000 from this aging population trend alone (NCIC, 1990). Escalating health care costs are of concern to governments, professionals and the public. It is clear that there are not apt to be additional financial resources to deal with the additional cancer care requirements. The challenge will be to find creative strategies to "do more" with the resources we have (Cancer 2000, 1990). Initiatives to reduce costs in the acute care sector have resulted in the movement of care provision into the community setting in new or different ways (eg, home chemotherapy). Projections for the next decade indicate that such trends will become commonplace. One projection for the turn of the century pictures hospitals as providing only trauma, intensive and operating room care (McCaffrey, 1990) with the remaining types of care provided on an out-patient basis or in the patient's home.

Scientific and technological advances are leading to the development of new diagnostic and treatment protocols that require increased knowledge to manage. Trying to provide good cancer care for patients means clinicians wage a constant battle to "keep up-to-date". Increased emphasis during the past decade on issues of quality of life have created opportunities to focus on the patient and family perspectives. Determining what is important for patients and families, involvement of patients as partners in care and patients' participation in decision-making are cited as critical in the delivery of quality cancer care; yet, at the same time, these concepts present dilemmas regarding how to apply them in practice most effectively.

Patients and families have a variety of needs during their experience with cancer and require a range of interventions. Yet what is most helpful for one individual may not be the most useful for another. Trying to decide which intervention is best to offer, what new programs to begin, or where care should actually be delivered will not be simple decisions. Yet the future of cancer care will demand those decisions. It will require making choices from among alternatives. Research has a key role in providing data upon which we can make those decisions.

ACCORDER UNE PLACE À LA RECHERCHE AU SEIN DE LA PRATIQUE CLINIQUE

ABRÉGÉ

Nombreuses sont les infirmières en oncologie qui ne sont pas bien sûres du rôle de la recherche dans leur pratique quotidienne. Cet article décrit, sous la forme de résumé, le rôle clé de la recherche dans le cadre des soins cliniques et souligne l'éventail des rôles de recherche qui sont à la disposition des infirmières - contribution, promotion, défense des intérêts des patients et enquêtes. Tous ces rôles sont vitaux si l'on veut parvenir à une pratique fondée sur la recherche ou une pratique où les décisions sont prises en tenant compte des connaissances rassemblées grâce à la recherche.

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As practitioners, managers, educators or administrators, nurses constantly make decisions that will have an impact upon patients and families. Those decisions can only be as good as the information or data used to make the decisions. In turn, the data will only be as good (as reliable and valid) as the methods used to collect it are sound and appropriate. And nurses will only know if data gathering techniques are sound and appropriate if we are familiar with methods of systematic inquiry. We need to feel comfortable with research and the idea of using research findings on a daily basis. One of the first steps toward achieving this comfort is to understand what research is and to possess an appreciation for the role it can play in providing data for clinical decision-making.

Research as a way of knowing

There are a variety of ways of knowing or learning about the world around us (Roth, 1957). These sources of knowledge include, among others, intuition, chance, tradition or custom, trial and error, logic deduction and authority. Each has its own place in our understanding of the world and in providing us with useful information. Each is valuable in different ways. However, knowledge gleaned from these sources needs to be verified or validated through systematic study. It is the **rigour** and **systematic data collection** of the research process together with the production of **observable, verifiable data (information)** that lends it its credibility. The availability of objective, reproducible information means we can describe, explain and predict events with a known level of confidence. The resulting conclusions based on research methods are not subject to the same biases which may enter some of the other methods of knowing. With reliable, valid information about the impact of actions upon future events, we can make informed decisions about nursing interventions. We can select confidently from among alternatives.

Role of research in clinical practice

If we are honest with ourselves, we would have to admit that a number of practices in nursing have roots in ritual, tradition or authority and have not been tested or validated empirically. In recent years, a growing desire has emerged on the part of many nurses to increase the empirical base for their practice. They want research to provide a scientific base for clinical practice that provides clear evidence for clinical decision-making (Lieske, 1986).

The main goal of research in a practising profession is to generate knowledge that enables clinicians to deliver safe and effective services and to know they are delivering the best care possible. Research-based practice, then, means we would use knowledge gleaned through the research process to select appropriate interventions for our patients. In the broadest sense, nursing research develops that knowledge unique to nursing about how individuals and families function in health and illness situations and the strategies nurses use to (a) assist individuals and families develop healthy lifestyles, (b) facilitate the maintenance and restoration of health, (c) care for individuals and families through periods of crisis in health and illness, (d) improve the quality of the community setting and (e) cultivate appropriate uses of health services (CNA, 1981). It is the study of phenomena central to our practice -- a focus on the things that we can do something about. Research allows us to describe the phenomena of our practice, explore relationships in those phenomena and explain why specific relationships exist. This understanding enables us to predict the outcomes (impact) of our interventions (actions) and therefore choose the most effective approaches for particular patients.

Priorities for research

Nursing leaders are actively involved in pinpointing priorities for nursing research activity. Overall priority lists, recently published in Canada (CNA, 1991) and United States (NIH, 1989), contain items that are relevant for cancer nursing research: Symptom management, care of the elderly, risk assessment, use of technology across the lifespan, and utilization of nursing resources. Within all specialties of nursing, clinical research efforts are required to develop studies that evaluate nursing interventions across multiple sites, evaluate the impact of applying nursing standards, identify quality care indicators, design clinically useful measurement tools and develop effective interventions for high-risk patient groups.

Within oncology nursing, priorities for nursing research have been identified on a number of occasions (Oberst, 1978; Grant and Stromberg, 1981; Degner, 1984; McGuire et al, 1985). The needs for work regarding symptom management, supportive interventions and patient education have been cited frequently. A 1988 survey of oncology nursing society members identified the priorities as prevention and early detection, symptom management, pain control, pain management, patient and health education and coping/stress management (Funkhouser and Grant, 1989). In Canada, Degner (1987) identified the top cancer nursing research priorities as: Finding ways to prevent and/or treat stomatitis from chemotherapy, determining needs of health professionals for education related to pain management; evaluating the effectiveness of patient teaching in relation to patient compliance, maintenance of self-care and coping; evaluating the use of relaxation, imagery, biofeedback techniques in decreasing anticipatory nausea, side-effects of treatment and for enhancing quality of life; determining effective methods for prevention and control of chemotherapy-induced nausea and vomiting.

More recently, another Canadian study (Bramwell, 1989), reported findings from a survey of cancer nurses regarding the most difficult patient problems. Problems of coping with disease progression and the attendant emotional responses presented the greatest challenges for the nurse respondents. Nurses felt, other than nutrition and pain management, they could manage the physical care needs. They experienced difficulty around assisting families to cope with the cancer trajectory.

In a recent interview series, conducted by the author (Fitch, 1991), 52 oncology nurses working in ambulatory care identified research priorities in relation to the patient and family, the nurse as a professional practitioner and the work environment. Helping patients and families deal with symptom distress, their need for information and the burdens of home care were cited most frequently. The challenge of providing quality care in the current economic environment, developing and maintaining effective working relationships and ensuring one's knowledge is current were described in relation to the work environment and professional practice.

Oncology nursing field is ripe for research

In actuality, the field of oncology nursing is ripe for nursing research activity. The impact of both the disease and treatment on both the patient and family members, as well as the changing location of care delivery, raise many questions about what constitutes appropriate and effective nursing interventions. The existing network of cancer centres with mandates for care and research provides a rich opportunity for the support of research activity and for multi-site trials of interventions. In general, nurses come to the specialty with sound clinical backgrounds and are expert clinicians. Their astute observations about patient problems and practice issues can be a "gold mine" of researchable questions. Increasingly, oncology nurses are obtaining graduate preparation and exposure to research at the Masters and Doctorate levels. As

well, the growing status of oncology nursing as a specialty in Canada, and in other parts of the world, means increased availability of opportunities and resources for nursing research.

A recent survey by the research committee of the Canadian Association of Nurses in Oncology revealed 35 oncology nursing studies across the country (CANO, 1990). Studies focused on issues such as fatigue, patient education, information needs, uncertainty/psychosocial distress, decision-making, pain, satisfaction with care, preferences for participation, adherence with treatment, self concept coping skills, nausea/vomiting and family responses to cancer. The majority of these studies are investigating questions posed in the clinical setting.

Research activity in clinical settings

A number of factors can influence the growth of nursing research in the practice setting by creating barriers (Heffin, 1982). For example, research findings are often not presented in language that is understandable or in terms for implementation. Many research studies are of a small scale and few, if any, replications have been conducted. Nurses in practice settings are often not comfortable evaluating the quality of a research project. They speak of research as not being relevant to their practice and something that interferes with an already heavy workload. Also, there are few individuals with expertise in both research and clinical practice.

These factors are changing, albeit slowly. The introduction of nursing research objectives in many hospital nursing departments and the increasing number of nurses prepared at the PhD level who are linked with clinical agencies is encouraging. Oncology-related nursing research programs are growing under the direction of Dr. E. Davies in Vancouver, Dr. L. Degner and Dr. L. Kristjanson in Winnipeg, Dr. K. Olsen in Edmonton and Dr. M. Fitch in Toronto and provide different models for incorporating research activity in a practice setting. Initiatives such as the Western Consortium for Nursing Research (1987) and the London Nursing Research Consortium (Bramwell et al, 1989) also provide excellent models for fostering research by groups of nurses in clinical and university settings.

However, before we see drastic changes in our ability to utilize research in practice, a number of events must occur. We need an increase in the amount of scientifically sound research that seeks to answer significant clinical questions. Oncology nurses in clinical settings must be helped to articulate the significant clinical practice questions and ways must be found to pursue the study of these questions. We need initial studies replicated and expanded. And perhaps most importantly, we need to implement strategies that foster research-mindedness and create conditions that support curiosity. Research activity must become, at some level, integral to every nurse's role.

This last statement does not mean that every nurse must be conducting a research project. Because of the demands of clinical practice and the specialized knowledge necessary to develop and implement a research study, it is not appropriate for every nurse to initiate a project. However, there is an array of research roles available to practising nurses that reflect involvement in research. All of these roles are needed if we want to see research-based practice become a reality. These roles include consumer, contributor, facilitator and client advocate. As a **consumer**, you can be aware of advances in your field, base your own practice upon valid research and question any practice that lacks a sound research foundation. You never know when a patient or family member will ask you to comment on a newspaper report about cancer research or something they read in a magazine. Responding to their questions draws upon your abilities to interpret research findings in the same ways as you would if you were evaluating the rationale for a new policy or procedure implemented in your clinical setting. As a **contributor**, you can pinpoint problems that need to be investigated

and provide advice to researchers regarding the clinical appropriateness and feasibility of their project designs and data collection techniques. Responding to study reports, validating the clinical usefulness of data and recommending ways to use study findings are also important contributions. The role of **facilitator** may include identifying patients for study purposes, collecting data or implementing an intervention for a study protocol. As a **client advocate**, you can ensure research protocols are compatible with the ethics of nursing practice and that patients understand their participation in research. Patients may require assistance in understanding what is standard care, what is a research requirement and that withdrawal from participation in the research will not influence their care.

Using nursing research in practice

The idea of using research findings in one's own practice is an idea that does not receive much attention in discussions about research activity. So, frequently, the discussions focus on the role of conducting research. The notion that oncology nurses can use research methods and research findings in a number of ways each day seems to almost startle many nurses.

The **methods of research** (how one goes about exploring an issue and collecting information about it) can be used in a variety of situations in a clinical setting. Avoiding premature closure (drawing conclusions without all the data) in the assessment of an issue and generating alternative explanations (hypotheses) in situations is critical for appropriate problem-solving and clinical decision-making. Using specific techniques to ensure data are reliable and valid has application in quality assurance endeavours, product evaluations, reviewing an issue at a staff meeting and implementing a new policy or procedure. In addition, specific data collection techniques may be most helpful in problem-solving sessions during group meetings, strategic planning initiatives or priority setting activities (ie, nominal group process, consensus building strategies, rating schemes).

The findings from research may also be used in a variety of situations in a clinical setting. Reading research reports or hearing research presentations; critically reviewing the data and conclusions; and deciding whether the information is reliable, valid and useful for your patients is the initial approach for utilizing research findings. Such an approach assumes you have determined the scientific merit of the work, thought about its clinical relevance and determined the specific implications of the findings for your setting and your patient group. You may then simply begin to make use of the information or knowledge as you interact with your patients and write interventions in your care plans. Or you might share the knowledge at a patient care conference or rounds so that your colleagues may also make use of the knowledge for their patients. Or you may decide a protocol or procedure needs to be altered and speak to your head nurse/manager about the issue.

It is the picture of the practitioner using the knowledge learned through research activity that is embodied within the vision of professional practice. Ultimately, the aim of research activity is to provide the practitioner with reliable, valid information upon which to base practice decisions. When this aim is not realized, a serious gap exists between research and practice. Such gaps will only close if practice and research experts interact. When you attend conferences and hear research presentations or read research papers, question the nurse investigators if the clinical significance of their work is not apparent. If the research findings do not seem to fit with your practice experience, do not hesitate to share your clinical observations. Talk with nurses who conduct research and tell them the questions that need to be answered for you to make daily practice decisions.

Nurses who are reporting their investigations need to look closely at the practice implications in their work. When presenting at a

clinical practice meeting, nurse researchers need to speak to the audience in terms of the research knowledge and its use for practice decision-making. Researchers need to be clear when knowledge is ready for utilization in practice and when questions still remain unanswered, needing further work. It would be most helpful too, if nurse researchers could write for clinical practice journals in "user-friendly" language.

Conducting your own study

If we maintain open, inquiring minds, and are curious about what is happening, why it is happening and what might happen if something were changed, then some of us will want to conduct our own projects. There are numerous research questions in clinical practice just waiting for an inquiring nurse to find them.

Research questions emerge from the data of one's own experience, the patterns and trends around you, and what other people have written. What have you been wondering about? What has bothered you in your practice? What would you like to do differently? Answers to these questions will give you a good start in finding your research questions. Some nurses have found it helpful to collect a series of case studies about a particular situation (ie patients with a certain nursing diagnosis). By recording the same information about each individual patient and your interventions, and then observing the patterns that emerge over time you may see the impact nursing interventions have had. This type of exploratory review or audit of your practice can provide an excellent base for identifying research questions.

If you decide to proceed with your own research project, one important step is checking what resources might be available to you. Is there someone in the nursing department of the local community college/university with research skills? Could you consult them or work collaboratively with them? Might some of your colleagues be interested in the same questions? It is immensely useful in a project to link with someone who has similar interests so the workload can be shared. You may also wish to check your access to resources within your workplace such as libraries, photocopying, funding, computer facilities and statistical consultation. If this is your first

project, keep things as simple as you can and move one step at a time. Research projects require that you think about many factors and it can be somewhat overwhelming. However, the orderly approach inherent in the research process can provide a helpful step-by-step guide concerning what to do next, and there are increasing numbers of nursing research textbooks available to provide guidance. If you proceed, do not hesitate to ask for help with the intricacies of the methodology and data analysis. These are areas that demand a special expertise and your credibility will be enhanced if you have expert consultation for your project in these areas.

Summary

Oncology nursing research begins because there is a desire for good information to make reliable, valid clinical decisions regarding the care of individuals with cancer and their families. Nurses observe an event in their practice and wonder if it will happen with a group of patients under similar circumstances. A question is posed and the answer sought by applying the rigour of the scientific method. Nurses try to understand the resulting answers and to determine if, by using that knowledge, they can influence the course of events for patients. And so the scientific base for oncology nursing practice is built.

But that scientific base is far from complete. There are still many unanswered questions. Until oncology nurses in clinical settings are asking significant research questions which are systematically investigated, we will not see the scientific base for our nursing practice grow as it should.

To engage in research-based practice means you make decisions in daily practice on the basis of knowledge generated and tested through the systematic inquiry of research. Although this is a vision for our future, we can achieve the first step towards it by cultivating the ability to ask questions and be curious. By maintaining the ability to question ourselves and our practices - if we can hold onto a stance of inquiry and curiosity - we will begin to see research integrated in every nurse's practice.

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