LEADERSHIP & PROFESSIONAL DEVELOPMENT

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Developing Outcomes
for an Oncology Nurse Internship Program

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Program evaluation is essential for organizations to justify the use of resources in the current healthcare environment. Specialized education programs for nurses require extensive human and facility resources to be successful. Outcome-based evaluation is one method to document success or track process improvement for an identified program. However, developing and applying outcomes that can be measured efficiently, effectively, and economically can be a challenge.

Background

The National Cancer Institute (NCI) Intramural Research Program developed an oncology nurse training program in 1985. The goal of the program was to prepare new graduates for the specialty of oncology nursing by providing knowledge, clinical experience with preceptorship, and professional development. The program expanded to include collaboration with Nursing and Patient Care Services of the Clinical Center at the National Institutes of Health (NIH). The Clinical Center at NIH is the world's largest hospital devoted entirely to clinical research. Patients who come to the Clinical Center consider enrollment on a clinical research study conducted by 1 of 27 institutes and centers of the Intramural Research Program.

Patients with cancer fill about 25% of the 234 beds at the Clinical Center, with the majority enrolled on protocols from NCI.

Clinical research nurses in Nursing and Patient Care Services support the Intramural Research Program by providing quality care in the context of research studies. To meet new requirements regarding length of time, number of participants, and curriculum, NIH's program was expanded as the Oncology Nursing Internship Program (ONIP), including a full-time position with Nursing and Patient Care Services and curriculum integrating knowledge related to clinical trials and the nurse's role in support and implementation of clinical research. The ONIP faculty consists of clinical nurse specialists (CNSs), nurse educators, NCI nurses and physicians, and community oncology professionals.

Participants for the ONIP are selected by a Nursing and Patient Care Services Internship Candidate Search Committee in partnership with oncology nurse managers. Applicants must have graduated from an accredited school of nursing within the previous 12 months and successfully completed the National Council Licensure Examination. About 6–10 new graduate nurses are hired to work full-time in an oncology

setting while participating in the ONIP. Interns complete a hospital-based and unit-based orientation in addition to specialty oncology training.

The original goals for the ONIP included providing support for the new nurse's role transition; in-depth education about oncologic diseases, process, treatments, oncology clinical trials, and the research process; retention in the oncology nursing specialty; and leadership development. The program included short-term objectives relating to professional growth (self-reported), an increase in oncology knowledge (pretest and post-test), and long-term objectives centered on leadership development. Nursing and Patient Care Services initially lacked a formal evaluation process to measure the programmatic outcomes based on the objectives. In addition, the test scores for knowledge assessment were not meeting the standard set by the department. As a result, Nursing and Patient Care Services established an initiative to evaluate the ONIP and develop outcomes that would address the program objectives

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Leadership & Professional Development

This feature provides a platform for oncology nurses to illustrate the many ways that leadership may be realized and professional practice may transform cancer care. Possible submissions include, but are not limited to, overviews of projects, accounts of the application of leadership principles or theories to practice, and interviews with nurse leaders. Descriptions of activities, projects, or action plans that are ongoing or completed are welcome. Manuscripts should clearly link the content to the impact on cancer care. Manuscripts should be six to eight double-spaced pages, exclusive of references and tables, and accompanied by a cover letter requesting consideration for this feature. For more information, contact Associate Editor Mary Ellen Smith Glasgow, PhD, RN, CS, at maryellen.smith.glasgow@drexel.edu or Associate Editor Judith K. Payne, PhD, RN, AOCN®, at payne031@mc.duke.edu.

and organizational goals. This article will describe the process used to develop program evaluation outcomes and present the curriculum applied in the revised ONIP.

Developing Outcome Measures

Program outcome measures development began with the assembly of the Program Outcomes Group. The goal of the group was to evaluate the current ONIP and develop a formal process for program evaluation. Members were invited to participate in the working group based on the expertise needed to accomplish the desired goal. The group was comprised of a nurse recruiter, a nurse researcher, a nurse consultant, and a CNS, all from Nursing and Patient Care Services, and the staff development director from the NCI Intramural Research Program. The group began by reviewing the goals and objectives of the program and identifying a process to develop program evaluation outcomes (see Figure 1).

The process of formulating program evaluation outcomes began with assessing the current program, benchmarking with outside agencies, and reviewing literature. Individuals with a vested interest (stakeholders), interviews, and participant evaluations were reviewed to assess the current program. Stakeholders of the ONIP included nurse managers from the four clinical center inpatient oncology units, oncology CNSs, an oncology nurse recruiter, colleagues from NCI, nurse administrators, nurse interns, and the nurse consultant who coordinates the internship programs. The stakeholders were asked what they liked and what they wanted to change about the ONIP. Participant evaluations from the previous seven years were collated and reviewed to evaluate the current program. The interns reported an increase in knowledge as a result of the curriculum and growth in professional development through assigned projects and presentations. However, the self-reported growth was incongruent with the knowledge post-test scores that were less than the goal of 85% set by faculty, so concerns emerged regarding the curriculum.

The stakeholder interviews were then reviewed to continue program assessment. The stakeholders suggested increasing interns' observational experiences in different work areas and made recommendations on clinical applications, activities, curriculum content associated with the oncology nursing certification examination, mentorship by an advanced practice nurse during project completion, leadership content in the curriculum, professional organization activities, extending time for the ONIP, and the orientation timeline. The suggestion to change the orientation timeline addressed improving the timing of the ONIP curriculum with other department requirements, such as the Oncology Nursing Society's (ONS's) chemotherapy and

biotherapy course, the Oncology Education Series, and department-based and unit-based orientations.

The assessment phase also included benchmarking the program with others offered at 14 facilities of comparable size with research initiatives similar to the Clinical Center. Eleven of the facilities were designated as NCI Comprehensive Cancer Centers. Organizations were contacted by phone or e-mail over a period of four weeks to gather information about the educational programs offered to new nurses at their facilities. Organizational representatives (educators, recruiters, and internship coordinators) provided details regarding six main topics: center demographics, program philosophy, participant qualifications, program description, evaluation process, and outcome measures. Benchmarking revealed that out of the 14 organizations, four general internships and three oncology internships were offered for new nurse graduates. In contrast to other programs available to participants who were not new nurse graduates, two oncology fellowships for advanced practice nurses and five educational programs for nursing students were offered. Two of the seven organizations that offered internship programs for new nurse graduates reported having an evaluation method in place. However, none of the seven reported usage of standard outcome measures for program evaluation.

An extensive review of the literature was done to complete the assessment phase of the initiative by identifying objective methods for measuring program outcomes. Various authors reported that internships and training programs are an effective method of gaining clinical knowledge, critical thinking, and competency in a specialty area (Blanzola, Lindeman, & King, 2004; Glennon, 2006; Hall & Marshall, 2006; Hayes et al., 2005; Santucci, 2004; Schoessler & Waldo, 2006). Beyond the outcome of clinical knowledge, Beecroft, Kunzman, and Krozek (2001) reported a 25% increased retention rate following changes to their program that included incorporation of the mentorship model.

The benefits of incorporating leadership content into a nursing internship and nursing curriculums also were described (DeSimone, 1999; Grossman & Valiga, 2005; Lemire, 2005). Because of changes in the current healthcare environment, economic pressures, shortages of nurses in an aging population, and continuous medical advancements, nurses must have sound leaders to support the forward direction of the profession. Although numerous tools and critical-thinking exercises for teaching nursing leadership were described, the outcome measures for leadership development and clinical competency were institution-specific and not applicable in the ONIP.

Program outcome measures associated with published internship programs had
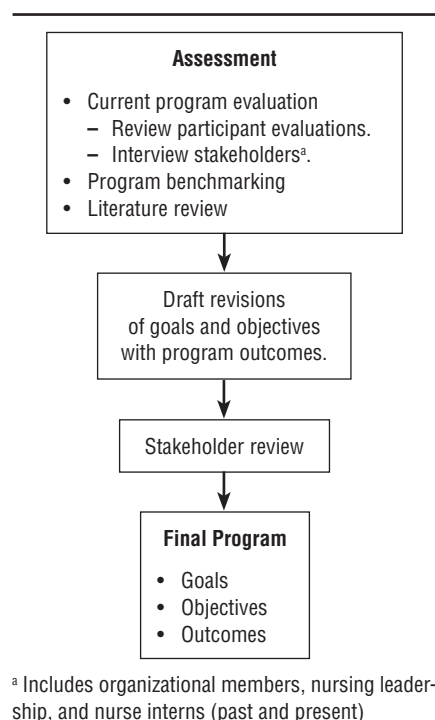
Assessment
- Current program evaluation
  - Review participant evaluations.
  - Interview stakeholders[a].
- Program benchmarking
- Literature review

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Draft revisions of goals and objectives with program outcomes.

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Stakeholder review

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Final Program
- Goals
- Objectives
- Outcomes

[a] Includes organizational members, nursing leadership, and nurse interns (past and present)

Figure 1. Program Group Process for Developing Evaluation Outcomes

limited applicability; however, resources from ONS and the National Council of State Boards of Nursing (NCSBN) provided additional guidance. The **Leadership Performance Inventory (LPI)** (Kouzes & Posner, 2006) is an evaluation of leadership practices used by the ONS Leadership Development Institute. Kouzes and Posner (2002) incorporated five essential leadership behaviors into the LPI, which is available in two versions (student and nonstudent). The NCSNB supported the concept of a professional portfolio (a tool that assists an individual with demonstration of professional accomplishments and documentation of professional growth) for nursing as early as 1996 (Williams & Jordan, 2007). A portfolio supports the competency of the nurse and serves as a helpful tool when applying for a new job, a promotion, or specialty certification (Byrne et al., 2007; Cook, Kase, Middelton, & Monsen, 2003; Weinstein, 2002; Williams & Jordan), although the concept is relatively unused by nursing.

Oncology Nursing Internship Program Goals, Objectives, and Outcomes

The outcomes group drafted goals with corresponding objectives and measurable outcomes once the literature review and other data collection were completed. Benner's (1984/2001) *From Novice to Expert: Excellence and Power in Clinical Nursing Practice* provided the theoretical framework for the program's foundation.

The framework describes the new graduate nurse as a novice in the oncology nursing specialty. Therefore, the ONIP needed to afford the interns classroom, clinical, and leadership opportunities to move through the "novice" and "advanced beginner" stages and graduate as an oncology nurse functioning at the "competent nurse" stage of the framework (Benner).

The goals, corresponding objectives, and measurable outcomes were established with a focus on knowledge, professional growth, leadership, and retention in oncology practice. The draft document underwent review by members of the outcomes group and ONIP stakeholders until consensus was achieved (see Table 1). After the final document was developed, the outcomes group determined that the curriculum needed revision to support the newly developed program goals, objectives, and outcomes. The curriculum was revised with reference to ONS's *Core Curriculum for Oncology Nursing* (Itano & Taoka, 2005) to ensure that the curriculum yielded a theoretical foundation for oncology nursing and prepared the interns for passing a national certification examination such as the Oncology Certified Nurse (OCN®) or Certified Pediatric Oncology Nurse (CPON®) examinations. The program was extended to two years to accommodate the revised curriculum, allowing the interns to gain the exposure required in the clinical setting. Clinical experiences could then be drawn on during the internship to teach oncology nursing concepts and develop clinical judgment and critical-thinking skills expected from a nurse in the competent stage (Dreyfus & Dreyfus, 1996).

The first goal for the revised ONIP is to facilitate the transition of new graduate nurses into practice with the objective of demonstrating the concepts and principles of oncology nursing (Beecroft et al., 2001). The outcome of successful completion of a national certification examination prior to finishing the ONIP includes the intern sitting for the OCN® or CPON® examination. The national certification examinations, which are developed, administered, and credentialed by the Oncology Nursing Certification Corporation (ONCC), are designed to establish minimum competency standards while recognizing nurses who have met those standards. The increased knowledge of cancer care also can lead to a greater sense of self-confidence and satisfaction for the nurse (Cary, 2001).

The second goal is to enhance the professional development of new graduate oncology nurses. Two outcome measures were adopted to evaluate this goal: improvement in scores on the student LPI and the development of a professional portfolio. The 30-question student LPI (Kouzes & Posner, 2006) is completed by ONIP interns and their faculty advisors at three time points: baseline, midpoint, and end of the program. The LPI scores currently are reviewed by the faculty for participant trends and program evaluation. The faculty hopes to review scores with each intern and customize their experience in the program as needed in the future.

The second outcome for the goal of professional development is for each intern to develop a professional portfolio. The interns begin by attending a professional portfolio class where the portfolio development process is explained and the intern has an opportunity to create or revise his or her curriculum vitae with guidance from ONIP faculty. Additional components recommended include the Oncology Nursing Certification–Points Renewal Option Log (ONCC, 2007) and tracking of project and meeting attendance. The intern assembles his or her professional portfolio based on these guidelines along with journal articles (Weinstein, 2002, Williams & Jordan, 2007) and final feedback from peer interns and ONIP faculty.

The final program goal is to improve the retention of new graduates within the oncology nursing specialty. To evaluate retention, nurse employment in oncology practice at one and five years after ONIP completion will be collected. Specific information on the number of years working in the oncology field is documented to capture any transition in and out of the specialty that might have occurred.

Application of the Oncology Nursing Internship Program Outcomes

The revised curriculum and program outcomes were applied in the ONIP class that began in the fall of 2006. Additional interactive activities were incorporated into the ONIP to reinforce clinical application and foster professional performance. For example, class time was scheduled for practice sessions in a simulation center and group discussions that centered on critical-thinking scenarios that helped to blend concepts addressed in class lectures were facilitated. Clinical rounds were added to provide the intern with practice developing nursing outcomes for patients. The professional portfolio development was expanded in the second year to allow each intern to present his or her individual professional portfolio to colleagues and leadership activities were revised to align with development outcomes. The activities included lectures about professional and personal goal setting and reflec-

Table 1. Oncology Nurse Internship Program Goals, Objectives, and Outcomes

Goal	Objective	Outcome
The goal of the program is to recruit and facilitate the transition of new graduates into oncology nursing practice.	The Oncology Nursing Internship Program (ONIP) graduate will demonstrate the concepts and principles of oncology nursing.	Successful completion of the Oncology Certified Nurse (OCN®) or Certified Pediatric Oncology Nurse (CPON®) examination prior to graduation from the ONIP
The ONIP will enhance new oncology nurse graduates' professional development.	The ONIP graduate will demonstrate professional development within oncology nursing.	Create a professional portfolio to include • Curriculum vitae • Professional meeting attendance record • Oncology Nursing Certification–Points Renewal Options[a] log initiation and recording of continuing education activities • Protocol mapping • Leadership project Improvement in self and observer scores on the student Leadership Practices Inventory (Kouzes & Posner, 2007)
The ONIP will improve retention of new graduates in the oncology nursing specialty.	The ONIP graduate will maintain a career in oncology nursing.	Employed as oncology nurse one year after ONIP completion Employed as oncology nurse five years after ONIP completion

[a] This is one method for a nurse certified in oncology to renew a certification credential.

tive exercises to encourage the intern to set professional and personal goals.

In addition to curriculum changes, one characteristic of the past program—the close mentorship of the oncology nurse interns by faculty—has intensified. Mentorship offers interns increased contact with seasoned oncology nurses and addtional interaction with the CNS internship coordinator. Over the course of 18 months, the organization has supported additional faculty for the ONIP, increasing from one coordinator to include an oncology CNS, an oncology clinical educator, and a nurse consultant for practice development. Each intern takes part in specialized clinical experiences, tours, and monthly classes. Projects are completed with an advanced practice nurse to develop and demonstrate leadership and professional performance. In addition to participating in the ONIP, the new nurse graduate attends general courses that provide continuing nursing education units such as the Oncology Education Series and ONS's chemotherapy and biotherapy course, the stem cell transplantation course, and the clinical research course.

To date, the seven interns of the initial class of 2006–2008 had completed 12 of the 20-month ONIP. The interns attended general nursing educational courses; attended 23 ONIP class days; completed two projects that focused on disease processes, development of nursing outcomes, and leadership development; completed two student LPI assessments; and started working with their mentor for their leadership projects. The interns will present their professional portfolios to the other internship participants and continue to prepare for the OCN® or CPON® examination.

Lessons Learned

By assessing current program processes, benchmarking with similar organizations, and reviewing published experiences, program-specific outcomes can be developed to improve oncology care and benefit the oncology nursing profession overall. Specified outcomes are used to guide curriculum development and nursing practice over the course of the program.

In reviewing the process of outcomes development, one consideration would be to use a more formal assessment phase. Because of scheduling logistics, information was collected in an informal manner at times, leaving omission of important details possible. Developing a stakeholder assessment questionnaire with an implementation timeline to standardize the assessment proceedings would ensure complete data collection. In addition, making a formal list of stakeholder names and departments to gather information prior to data collection may avoid oversight of potential stakeholders. For example, physicians could have been queried during the assessment phase if a comprehensive list of stakeholders was compiled in advance. Use of an electronic database file to maintain stakeholder information in one location may have been helpful for reference during the development process and for disseminating information in the future.

Other Nursing and Patient Care Services initiatives have benefited as a result of developing outcomes for the ONIP and revising the program. Some of the newly developed curricula (e.g., incorporation of leadership development, stress management, end-of-life classes) have been used in other educational programs. In addition, the process model has been applied to the Medical-Surgical Nurse Internship Program at the Clinical Center.

The process of developing outcomes for the ONIP proved to be worthwhile for the program and the organization. The outcome-based model provides concrete evidence to improve other organizational programs in addition to the ONIP. The model meets organizational needs by addressing retention, professional development, and knowledge in a designated specialty area of nursing. With the demands of current and forecasted nursing shortages, high staff turnovers, and the aging nurse workforce, all of these outcome measures are consistent with the functioning of a successful healthcare organization.

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