Filling the Gap: Development of the Oncology Nurse Practitioner Workforce

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One goal of the ongoing health care reform debate is to increase access to care through insurance reform. In contradistinction to these efforts, the future shortage of health care professionals will clearly limit such access. In cancer care, shortages of health care professionals will occur in conjunction with a growing older population, expanded treatment options, and increased cancer survivorship.^{1,2} Cancer care is distinguished by its interprofessional and multispecialty model. The ASCO Fall 2008 Workforce Statement urged development of the workforce to ensure continuous delivery of high-quality cancer care.³ Developing new strategies for oncology care delivery by increasing the numbers and expanding the roles of nonphysician practitioners, such as nurse practitioners (NPs) and physician assistants (PAs), is critically important to meet the current and potential cancer care needs of the US population. There are differences that each discipline brings, and this article will present an overview of advanced practice registered nurses (APRNs) in oncology and demonstrate potential collaborative opportunities for the Oncology Nursing Society (ONS) and ASCO in closing the gap between demand and supply.

Advanced Practice Nurses

There are four distinct advanced practice nursing roles: NP, clinical nurse specialist (CNS), nurse midwife, and nurse anesthetist. The two APRN roles in oncology are CNS and NP. The CNS functions as a clinical expert, consultant, educator, mentor, researcher, and institutional change agent. The NP may share some of these roles, but his or her primary role is individual patient care management.

NPs, in general, have grown in number and capabilities over the past several years. They are licensed independent practitioners who have been educated at the graduate level, with a minimum of a master's degree. Traditionally, NP education has covered a broad spectrum of patient populations but lacked concentrated attention to specific diseases. A majority of NPs working in the oncology setting have completed graduate programs that did not focus on the specialty (Oncology Nursing Certification Corporation [ONCC] 2008 survey, data not published). Cancer care reaches across all patient populations, making no NP educational preparation (eg, family, adult, acute care, and women's health) entirely adequate for the care of patients with cancer and their families. Although all APRNs have been educated in at least one age-specific population, some

are additionally prepared to work in a subspecialty, such as oncology. However, only a minority of accredited NP programs in the United States offer a specialty in oncology.⁴

Currently, a master's degree is the entry-level educational requirement for NPs. An emerging NP educational path is the doctor of nursing practice degree. In its Statement on the Practice Doctorate in Nursing, the National Organization of Nurse Practitioner Faculties recognized the practice doctorate as "an important evolutionary step for the preparation of NPs," which it expects "will become the future standard for entry into NP practice."⁵ Some of the factors building momentum for this change in nursing education at the graduate level include the rapid expansion of knowledge underlying practice; the increased complexity of patient care; national concerns about the quality of care and patient safety; and shortages of nursing personnel, which demand a higher level of preparation.⁶ Nursing education is moving in a direction similar to those of other health professions, such as pharmacy (PharmD), psychology (PsyD), physical therapy (DPT), and audiology (AudD), which all offer practice doctorates.⁶

Regulation

Each state board of nursing independently determines the requirements for entry into practice and the legal scope of practice for NPs. This variability limits the mobility of NPs in practicing from state to state as well as patient access to the care provided by NPs. Of most concern is variability in the legal scope of practice for NPs from state to state, including prescriptive authority, admitting privileges, and other functions, which in turn also affect reimbursement.⁷ In 2004, a national work group comprising representatives from nursing education, certification, accreditation, and regulation began a process to establish a consensus model for advanced practice nursing regulation. In 2008, a new model for the regulation of advanced practice nurses was launched, and 46 nursing organizations have endorsed it to date. The model is to be fully adopted by 2015. Under the new model, all advanced practice nurses, including NPs, are licensed as independent practitioners who have completed an accredited graduate education program with a focus on a specific patient population. They hold board certification at the population level, and this certification is required by the state board of nursing for regulatory purposes. The graduate education program may include an emphasis on a specialty (eg, oncology) beyond the population level (eg, adult). How-

Board Certification for Oncology Nurse Practitioners

- Administered by the Oncology Nursing Certification Corporation, an independent certifying body affiliated with the Oncology Nursing Society
- To be eligible for the Advanced Oncology Certified Nurse Practitioner (AOCNP) examination, a nurse must hold a valid, active, unrestricted registered nurse license and must have attained a minimum of a master's degree in nursing, completed an accredited nurse practitioner (NP) educational program, and completed a minimum of 500 hours of supervised clinical practice as an oncology NP
- Administered at computer testing sites throughout the United States and available year round
- Currently, 652 NPs hold AOCNP certification
- NPs renewing AOCNP certification have the option of again passing the certification examination or documenting 125 points of professional development every 4 years
- Visit <http://www.oncc.org> for details and more information

ever, these competencies must be taught in addition to the competencies at the population level and assessed in a separate certification examination.⁸

Specialty certification for NPs became available in 2005 (see Board Certification for Oncology Nurse Practitioners). However, in the future, specialty certification will not be required at the regulatory level. This is similar to requirements for physicians, wherein licensure is based on the general medical board examination, and specialty board certification is required in the workplace but not by state regulatory medical boards. Under this model, the oncology NP of the future will attain graduate education imparting competencies focused on a broad population-based area, which will qualify the graduate to take the board certification examination in that area (eg, adult or family). This certification will be the proxy for licensure as an adult or family NP. Ideally, the graduate program will also include didactic and clinical courses in oncology, qualifying the NP to take the board certification examination in oncology, which will be a requirement in the oncology workplace. For those who do not attain the oncology competencies in the graduate program, alternate educational strategies, such as those described in this article, will be needed to attain the knowledge, skills, and abilities to competently practice in oncology.

Role of the APRN in the Interdisciplinary Cancer Care Team

Nursing represents the largest segment of the US health care workforce and therefore has a significant role in patient care. The oncology NP (ONP) has been providing care in a variety of primary, acute, and tertiary settings, including physician practices. ONPs are also beginning to practice at nontraditional

health care sites, such as survivorship and symptom management clinics as well as high-risk and early detection clinics, demonstrating the unique skills ONPs have to offer in the delivery of quality cancer care. In multiple care settings, evidence has demonstrated the cost effectiveness, patient satisfaction, and quality care outcomes produced by NPs, prompting this growth of ONPs in cancer care.⁹⁻¹³ Improved outcomes have been documented in quality of life and cost outcomes in breast cancer care,¹⁴ but these must be further clarified in important subspecialties such as cancer survivorship.¹⁵

NPs are uniquely educated at the master's or doctoral level to provide quality care within a comprehensive health promotion framework.⁵ Equivocal or superior patient outcomes by advanced practice nurses in primary,¹⁶ acute specialty,¹⁷ and home-based cancer care¹⁸ have been well documented. Particular strengths of NPs are patient education, communication, duration of visits,¹⁶ and adherence to evidence-based practice guidelines.

Gaps in Learning Needs: The ONP Perspective

A descriptive analysis of NP learning needs was conducted by a national panel convened by ONS to address educational needs for NPs on entry to cancer care.¹⁹ A survey of 104 self-described ONPs was conducted through ONS in June 2009 to determine the educational gaps experienced by NPs on entry to practice in cancer care. The respondents reported they were well prepared for the foundational NP skills of obtaining a history, performing a physical exam, and writing and presenting a patient case. The clinical practice components for which the ONPs felt poorly prepared were specific to cancer care. The following items ranked as "not at all prepared" by the highest level of respondents included oncology-specific procedures such as bone marrow biopsies, thoracentesis, paracentesis, and lumbar punctures; chemotherapy/biotherapy competency; billing and reimbursement; and recognition and management of oncologic emergencies. The manner in which the respondents learned these clinical skills was most often via collaborating/supervising physician (80.8%) and self study (61.5%) and less often via collaborating/supervising NP (34.6%) and institutional training/orientation (26.9%).

These results have implications for hiring institutions and supervising physicians.²⁰ Although it is reasonable to assume that invasive-procedure psychomotor skills will be obtained in mentored, supervised on-the-job training, other content areas such as competency in chemotherapy and biotherapy and recognition and management of oncologic emergencies are critically important components of cancer care and cannot be taught on the job for NPs practicing with a high level of autonomy and patient care responsibility.

Improving and standardizing the cancer care education available to NPs entering oncology is essential to providing optimal, safe cancer care. Innovative approaches must be employed to assist NPs in gaining the knowledge and skills they need to competently practice in the oncology setting. This can be accomplished through extensions of current graduate education programs and continuing education programs and work-

Oncology Nursing Society Resources for the Nurse Practitioner

National Conferences

- 2009 Advanced Practice Nursing Conference Virtual Meeting: <http://www.softconference.com/ons/>
- Coming in 2010: Advanced Practice Nursing Conference, November 11-13, 2010, Orlando, FL
- Visit <http://www.ons.org> for details and more information

Publications

- Oncology Nurse Practitioner Competencies: <http://www.ons.org/media/ons/docs/publications/npcompetencies.pdf>
- Oncology Nursing Society Position Statement: The Role of Advanced Practice Nurses in Oncology Care: <http://www.ons.org/Publications/Positions/APNrole>
- Master's Degree With a Specialty in Advanced Practice Oncology Nursing
- Standards of Oncology Education: General and Advanced Practice Levels
- Statement on the Scope and Standards of Advanced Practice Nursing in Oncology
- Advanced Oncology Nursing Certification Review and Resource Manual
- Putting Evidence Into Practice: Improving Oncology Patient Outcomes
- Clinical Manual for the Oncology Advanced Practice Nurse
- The Oncology Nurse Practitioner and You: Partnering to Provide Quality Cancer Care
- "So, You Want to Be an Oncology Nurse Practitioner?!"
- A Guide to Symptom Management
- Advancing Nursing Science

Journals

- Oncology Nursing Forum
- Clinical Journal of Oncology Nursing

Continuing Nursing Education Courses

- Access Devices: The Virtual Clinic
- Advanced Oncology Certified Nurse Practitioner Online Review Course
- Cancer Basics
- Cancer Biology
- Chemotherapy and Biotherapy
- Genetics
- Reimbursement for Nurses and Managers
- Safe Handling of Hazardous Drugs
- Sessions from the 10th National Conference on Cancer Nursing Research
- Treatment Basics
- Other site specific courses available
- Visit <http://www.ons.org> for new releases in 2010

Networking

- Nurse Practitioner Special Interest Group and virtual communities: <http://nursepractition.vc.ons.org>

shops. ONS has developed entry-level competencies for ONPs that can be used as outcome measures for these educational programs.²⁰

Developing the ONP Workforce

Professional membership societies play an important role in educating their constituents in their respective professional fields. ONS serves as a professional home for oncology nurses, including ONPs and other APRNs, and serves as a resource for the profession of nursing and nurses caring for patients with cancer. ONS is uniquely positioned to understand what nurses need to know and how to deliver the education. Ongoing comprehensive continuing education is important for NPs to attain and maintain current knowledge and skills in the specialty. ONS offers intensive continuing education specifically for advanced practice nurses (presented in Oncology Nursing Society Resources for the Nurse Practitioner). Each fall, the ONS APN Conference provides a full 3 days of didactic instruction on a range of oncology topics for NPs and CNSs. The conference is preceded by a skills workshop offering both didactic and hands-on training in skills such as bone marrow biopsy and lumbar puncture. ONS held its second annual workshop for the novice ONP in November 2009, entitled "The Nuts and Bolts of Advanced Oncology Care—Oncology Nursing Society's Novice Oncology NP Workshop." The goals of this workshop are twofold: to establish a foundation for advanced practice in oncology for the NP with limited or no prior experience in oncology and to establish a network and resource set for the NP new to oncology. The evaluation of the pilot program held in November 2008 indicated that because of the workshop, the care of participants' oncology patients improved as a result of a "better basic understanding of cancer and the treatment that it entails." Respondents also said the workshop enhanced their collaboration with physician colleagues by "validating their knowledge base for delineation of privileges" and "gave me a more comprehensive understanding of the treatment process and the fundamental knowledge to enable me to help coordinate in that care" (ONS 2008 evaluation, data not published). ONS also offers educational tracks for APRNs at its annual conference in addition to many other CNE offerings geared toward the APRN.

An additional model for continuing education may be the expansion of university programs offering oncology content into clinical practice areas. A traditional 15-week, three-credit oncology course for NP students at the University of Pittsburgh School of Nursing (Pittsburgh, PA) was redesigned for NPs and PAs new to cancer care as a weekly, day-long seminar for 6 weeks of didactic and experiential learning. Content was developed on the basis of the ONS Oncology Nurse Practitioner Competencies²⁰ and through consultation with leaders in nursing and medicine at the University of Pittsburgh Cancer Institute. Pre- and post-testing and anecdotal information from participants and supervising physicians noted improvement in knowledge and clinical skills including history taking and decision making.

Challenges to Developing the ONP Workforce

As the need for NPs who specialize in oncology increases, the barriers to practice that NPs currently experience need to be resolved. Professional organizations, such as ONS and ASCO, can work together to help resolve these obstacles. Issues of concern include the lack of formalized academic education for NPs in the specialty of oncology and lack of uniformity in the regulatory requirements for NPs among states. Compounding these issues is the movement among some medical organizations to limit the practice of NPs.

A 2008 survey of advanced practice ONS members, conducted by the ONCC, revealed that only 16% of the NPs who responded had completed an NP program that focused on oncology (data not published). The vast majority had completed a program that focused on a broader population-based area like family or adult in primary or acute care. Of those who have taken the board certification examination for ONPs since its inception in 2005, only 21% have completed graduate education focusing specifically on oncology care, with the majority having completed a family or adult NP program. However, it is important to note that most ONPs have had a significant amount of experience working as RNs in the specialty of oncology before becoming NPs. The survey revealed that approximately 63% of the NPs had more than 10 years of experience in oncology nursing, with only 25% working as ONPs for more than 10 years. Even for NPs with oncology experience, there is additional education specific to this unique role that is necessary for the provision of safe and appropriate care for patients with cancer and their families across the cancer care trajectory.²¹⁻²³ The broad population-based programs do not offer this in-depth specialty education. Although in the minority, there are also those with no RN oncology experience who complete an adult or family NP program and then choose to work in oncology. These NPs need even more intense postgraduate training to attain the specialty competencies.

Another issue of concern that may create barriers to practice for NPs is the movement among some medical groups to limit the scope of practice of NPs. Although the need for NPs is clear, and the safety, quality, and cost effectiveness of NP

care in a variety of specialties has been demonstrated, the American Medical Association is continuing to move to restrict the independent practice of health care professionals who are not physicians.^{24,25} These efforts are divisive and impede rather than enhance patient access to quality care. Physicians and NPs in various specialties share common goals of providing high-quality care, improving patient outcomes, and enhancing the health of the US population. They also share concerns regarding the declining workforce and provision of appropriate reimbursement for services. A high-quality and efficient health care system requires effective multidisciplinary teams that collaborate to provide patient-centered care.²⁶⁻²⁸ Collaborative efforts are needed to strengthen the dialogue between physicians and NPs to improve future health care delivery.²⁹ There is strong need to work together to eliminate barriers to practice through political advocacy.

Conclusion

ONS is the professional home of more than 37,000 RNs and other health care providers dedicated to excellence in patient care, education, research, and administration in oncology nursing. ONS recognizes the value ONPs bring to the interdisciplinary oncology team and has assumed a leadership role in providing education to generalist NPs and in advocating for the NP role in oncology. By working collaboratively, organizations such as ONS, the ONCC, and ASCO can provide the resources required to develop the workforce necessary to meet the needs of patients with cancer through appropriate education and the elimination of barriers to practice.

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