Assessing the Learning Needs of Oncology Nurses

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The Nurse Oncology Education Program (NOEP) is a nonprofit organization of the Texas Nurses Foundation that develops and provides education for nurses in all fields of practice on cancer prevention, detection, treatment, and survivorship. To meet the most current educational needs of nurses, NOEP conducts a biannual needs assessment survey to better understand its audience and inform its course development. The 2013 NOEP needs assessment survey used a convenience sample of licensed nurses throughout the United States. Nurses completed the online survey, and results revealed several priority areas for educational programs, including management of cancer symptoms and treatment side effects, complementary and alternative or integrative medicine, and screening recommendations. Time was noted as the largest barrier to educating patients and families about primary prevention practices. Results from this survey can be compared to those from previous surveys, particularly the 2009 and 2011 surveys, to determine changes in the demographics of NOEP’s constituency, as well as consistencies in educational gaps. The results from the 2013 NOEP needs assessment survey offer valuable information about the learning needs of nurses across the country. The data can be used by the nurse educators and faculty who are responsible for providing cancer-specific education to nurses.

Cancer is diagnosed in more than 1.6 million Americans annually, which translates to almost 4,600 diagnoses daily (American Cancer Society [ACS], 2014). Cancer is the second leading cause of death in America after heart disease and is estimated to account for almost 1,600 deaths per day (ACS, 2014).

In addition to the increasing prevalence of cancer, those with a cancer diagnosis are living longer than ever before. Sixty-eight percent of Americans diagnosed with cancer are expected to live beyond five years (ACS, 2014). As a result of improved screening tools, enhanced treatments, and more primary prevention strategies, 13.7 million cancer survivors are alive in the United States (de Moor et al., 2013). The number of cancer survivors is projected to reach 18 million by 2020, with continued aging of the population and improvements in survival rates (Stein et al., 2006).
basic didactic and clinical learning experiences in the following four content areas: medical-surgical, maternal and child health, pediatrics, and mental health. Specialty care, such as oncology, “is not emphasized at the baccalaureate level” (Childress & Gorder, 2012, p. 341). Specific oncology care skills are learned through specialty training courses, certification, and continuing education (CE). In Texas, a lack of oncology knowledge and skills among the nursing workforce seem to exist. More than 215,000 RNs practice in the state of Texas (Texas Board of Nursing, 2013a), with about 2% certified in oncology (Bachner, 2013). However, preparation of a competent workforce is of utmost importance in today’s changing healthcare climate. Goals emphasized in the Institute of Medicine (2011) report, *The Future of Nursing: Leading Change, Advancing Health*, included “preparations of an expanded workforce, changes in nursing scopes of practice, advances in the education of nurses across all levels, improvements in the practice of nursing across the continuum of care, [and] transformation in the utilization of nurses across settings” (p. xii).

The Nurse Oncology Education Program (NOEP) is a non-profit organization dedicated to educating nurses in all fields of practice to meet the changing needs of the healthcare system. NOEP provides free evidence-based continuing nursing education on cancer prevention, detection, treatment, and survivorship (www.noep.org). This program was established by the Texas Nurses Association in 1987, using funds from the Texas Cancer Council, with the goal of educating all nurses in Texas about oncology to create changes in nursing practice and increase the number of nurses who are educated in oncology. NOEP conducts periodic needs assessment surveys to ensure that educational programs stay current and meet educational requirements and nurses’ needs. The previous two assessments were conducted in 2009 and 2011. This article reports the results of the most recent 2013 NOEP needs assessment survey and discusses its implications.

**Methods**

In 2012, a team of NOEP employees developed a survey to assess the educational needs of nurses. The survey was loosely based on previous biannual education assessments and included 29 items that covered demographic information, learning preferences, and several “check your knowledge” questions. Data were collected from October to December 2012. An initial email was sent to those on NOEP’s electronic mailing list, which included 18,797 nurses and nursing students who had indicated an interest in NOEP’s educational offerings. The email had a 15% open rate and generated 655 clicks to the link for the survey. The other 373 respondents resulted from the survey’s presence on the NOEP website homepage. Those willing to participate in the study were provided an electronic link to the SurveyMonkey® survey tool. The voluntary nature of participation in this survey was emphasized in all contacts. Similar to previous educational assessments, which were determined exempt by institutional review boards, data were collected by NOEP in a manner that did not allow the participants to be identifiable. Survey participants were entered into a drawing for one of eight $100 cash prizes as an incentive for participation. Once the deadline of the survey passed, data were aggregated on NOEP’s server.

**Results**

**Demographics**

A total of 1,028 participants completed the survey (about a 5% response rate). Overall, 60% of the respondents were nurses or nursing students living in the state of Texas. Thirty-seven percent were nurses or nursing students residing in a state other than Texas. Of the 374 out-of-state respondents, 46 states were represented, as well as American Samoa and Guam. Delaware, Maine, Vermont, and Wyoming were the only states not represented in the current sample. Ninety-six percent of respondents were female. Sixty-two percent of the respondents were aged between 45–64 years. The majority (67%) of participants had more than 16 years of experience working as a nurse. Sixty-two percent of the participants held a bachelor’s degree or higher. Eighty-six percent were RNs, and 5% were advanced practice nurses. Thirty-nine percent worked in an oncology setting. Twenty-five percent of the nurses stated they were oncology certified nurses, and 20% responded affirmatively to the desire to become certified.

Thirty-two percent of respondents provided direct care for patients currently undergoing cancer treatment or for patients who are cancer survivors. The majority of nurses worked in a hospital setting (42%), 15% worked in community or public health, 13% worked as faculty in a school of nursing, and 4% were retired. Forty percent of respondents were members of the Texas Nurses Association or another state’s nursing association.

**Primary Prevention Education and Practices**

The survey included the question, “How much do each of the following issues limit your ability to educate patients or others in the community about primary cancer prevention practices?” Eighty-three percent of respondents cited time limitations as hindering patient teaching by “a lot” or “a little.” Sixty-six percent of respondents stated that availability of resources limited patient teaching by “a lot” or “a little.” Factors that had the least limiting effect on the nurse’s ability to educate were “lack of confidence in myself as a role model for primary prevention practices” (60%), “institutional policies” (59%), and “physician or nurse attitudes and practices” (58%).

Three questions included in the survey measured current knowledge of nurses on breast, colorectal, and cervical cancer prevention strategies. Eighty-nine percent of nurses answered correctly regarding breast cancer prevention strategies, compared to 79% for colorectal and 67% for cervical.

Figure 1 shows the highest ranked topics that the respondents wanted to know more about. Results revealed several priority areas for educational programs, including management of cancer symptoms and treatment side effects, complementary and alternative or integrative medicine, and screening recommendations. The NOEP needs assessment survey included several questions about CE preferences. Topic (97%) and format (86%) were the largest factors influencing choice of CE, cited as “important,” “very important,” or “essential.” Other influencing factors were cost (83%), reputation of the
presenter or provider (80%), and number of contact hours awarded (81%). Eighty-eight percent of respondents used an online course format to obtain CE in the past two years. The majority of respondents (47%) obtained a combination of free and paid-for CE. Thirty-four percent obtained education from providers of free CE, compared with 12% who paid out of pocket, and 7% who had CE paid for by employers. Another emerging trend is education that is accessible in mobile formats, as well as mobile tools for care. Interestingly, 68% of respondents have a smartphone, and 21% of those nurses use it at the point of care.

Discussion

The previous NOEP needs assessment, conducted in 2011, surveyed 1,472 nurses. The methods were similar to the 2013 survey in that NOEP staff recruited nurses through its email contact list and used SurveyMonkey. In the 2011 survey, time constraints (86%) were cited as the largest barrier to educating patients or others in the community about primary prevention practices. Results from the 2011 survey also revealed several priority areas for cancer-related education, including management of cancer symptoms (47%), screening recommendations (44%), and pain management (43%). The identified limitations to patient education and the educational priorities are generally consistent with the most recent 2013 survey.

The 2009 NOEP Needs Assessment had a smaller sample size of 521 nurses. That survey differed slightly in that it aimed to compare oncology nurses to their non-oncology counterparts. Time constraints were noted as the largest barrier to integrating cancer-related knowledge into nursing practice. Educational priorities recognized were clinical care topics, survivorship issues, tobacco cessation strategies, and clinical trials (Volker et al., 2011).

Symptom management and screening recommendations were consistently ranked high in the 2011 and 2013 survey. Screening recommendations are likely a needed topic because of the recent changes and discrepancies by groups like the ACS and the U.S. Preventive Services Task Force (Kushi et al., 2012; U.S. Preventative Services Task Force, 2014). Pain management is another area that has ranked high in the 2011 and 2013 surveys. NOEP plans to respond to these requests for education and has made symptom management, complementary and alternative or integrative medicine, and pain management educational priorities for the 2014 fiscal year.

A survey of nurses who have smartphones was performed in 2011, as well as in 2013 (Watson, 2010). In the two-year gap between those surveys, those who reported having a smartphone increased from 36% to 69%. Twenty-one percent of the respondents from the 2013 survey used a smartphone at the point of care. As an increasing number of nurses are accessing NOEP’s CE via their smartphones, courses need to be developed in formats that allow for mobile functionality and that provide mobile tools for care.

Limitations

The 2013 NOEP needs assessment survey was completed using a convenience sample of nurses who were part of the organization’s mailing list, which consisted of nurses and students who registered for CE on NOEP’s website and who have opted-in at NOEP events. This sample may be skewed toward nurses who value oncology education or no-cost CE, and may not accurately reflect Texas or national nurses as a whole. In addition, the sample of 1,028 nurses represented a small percentage of the total 18,797 nurses who made up NOEP’s constituency at the time this survey was disseminated.

The 2013 NOEP survey focused on self-identified educational needs of the nurse respondents, and, therefore, the results may not reflect actual knowledge or skills gaps. The survey question asked, “Which cancer-related topics do you need to know more about?” The “need to know” could imply identified gaps by others in the nurse’s place of work,
personal recognition of a need for career growth, desire to remain current on healthcare trends, personal experience with cancer, interest in a different field of nursing practice, or general curiosity.

The objective format of the survey posed some limitations to fully understanding the respondents. Nurses listed “availability of resources,” “physician or nurse attitudes/practices,” and “institutional policies,” among other barriers that limit the nurse’s ability to educate patients about primary cancer prevention practices. There was not an opportunity for further elaboration to better understand each of these factors. Similarly, the question, “If you have a smartphone, do you use it at the point of care?” did not allow for consideration of reasons why nurses do or do not use smartphones in the workplace. For example, the 48% of nurses who have a smartphone, but do not use it at the point of care, may have external factors that influence this decision. Hospital policy that discourages phone use on a patient care unit, feeling disconnected with the patient when using a mobile device, concerns of violating the Health Insurance Portability and Accountability Act, and discomfort with technology are only a few examples of reasons why nurses may not use a smartphone at the point of care. More research is needed to explore the topic of technology use by nurses at the bedside.

Nursing Implications and Conclusion

The NOEP needs assessment is a useful tool in the ongoing evaluation of cancer-related learning needs of nurses in Texas and across the country. The results from this survey are used to direct educational priorities for online CE for nurses in all fields of practice. Responding to current educational needs of nurses, such as cancer symptom management, complementary and alternative or integrative medicine, and screening recommendations, is critical for educational programs and organizations to remain viable partners in the preparation of an educated and qualified nursing workforce. In addition, the NOEP needs assessment provides insight into the audience of nurses and their learning preferences. Teaching strategies of oncology educational programs can be manipulated based on these preferences to maximize gain in knowledge and change in nursing practice.

Because of advances in early detection and improvements in cancer treatment, the number of people diagnosed with cancer is increasing steadily and those with cancer are living longer (de Moor et al., 2015). Because patients with cancer and survivors are receiving nursing care in many areas of the healthcare system, cancer education is becoming more important for nurses in all fields of practice. Nurses, based on their scope of practice, diverse practice settings, and role in the community, are positioned to have an important impact on increasing cancer awareness, including prevention and early detection of many cancers (Ayres, 2009), as well as considerations of the late effects of cancer treatments. More research is needed on effective ways to incorporate cancer education into academic curricula of nursing schools, as well as in ongoing CE for nurses in the workforce.

References


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