A Needs Assessment for an End-of-Life Care Curriculum for Advanced Practice Nursing Students

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Abstract

Purpose: To assess advanced practice nurse (APN) students' perception of their formal teaching (education received), clinical experience, confidence in, and skill in 9 end-of-life (EOL) core competencies.

Design and Methods: An anonymous survey distributed in graduate level classes in 2 southwestern Gulf Coast health science centers.

Findings: APN students indicated having more clinical experience than theoretical knowledge in EOL care and perceived themselves as having both skill and confidence in those skills in nine EOL topics.

Conclusions: These results suggest APN students would be open to an EOL educational curriculum.

INTRODUCTION

People are living longer today due to changes in life styles and advanced health care technology used in the detection, prevention, and treatment of illness. The nurse who practices in today's healthcare system faces the challenge of meeting older people's needs in an efficient and continuous way. End-of-life (EOL) care too, is becoming a more important nursing focus ([1]). EOL care includes physical, psychological, spiritual, and cultural ([2],[3],[4],[5]). Little content on EOL care can be found in basic nursing curricula, as those curricula focus on preparation of the generalist ([8],[9],[10],[11]). The advanced practice nurse is in a unique position to specialize in EOL care. The purpose of this article is to describe and discuss a survey conducted to study APN students' perceptions of their formal teaching (education received), clinical experience, confidence in, and skill in EOL core competencies at 2 health science centers on the southwestern Gulf Coast.

REVIEW OF THE LITERATURE

White and colleagues developed a survey to determine EOL core competencies using a convenience group of 56 registered nurses who answered open-ended questions (7). Included in the survey were items about their practice, their EOL experiences in school and in continuing education, and a request to rank order EOL core competencies. The surveys were mailed to 2,334 nurses in 4 states. Analysis was based on responses from 750 nurses. Regardless of geographic location, educational preparation, practice area, role, or age, the participants chose several competencies they believed should be included as EOL core competencies. These competencies were talking with patients and family about dying, interventions for comfort, recognition of the signs of death, and religious and cultural perspectives.

Ury and colleagues conducted a needs assessment to improve EOL education and clinical services for medical interns at an 800-bed tertiary care facility in New York City ([6]). These researchers reported responses from 51 interns regarding their educational experience, skill, and comfort levels regarding EOL topics. Included as core EOL units were:

- What is Palliative Care?
- Giving Bad News Effectively
- Management of Pain
- Communication Skills (other than giving bad news)
- Nutritional Issues

- Withdrawal of Care/Ethical Issues at EOL.
- Advanced Directives and Do-Not-Resuscitate Orders
- Symptom Management
- Psychological Care
- Participation as Part of a Team (6)

The findings from these two surveys provide useful information for nurse educators. Both groups of respondents expressed the need to develop specialized curriculum in EOL care to instruct nurses and physicians. A comparison of core components for the 2 studies cited above and other EOL curriculum proponents can be found in Table 1. All EOL curricula reviewed contain information regarding pain management, a discussion of legal and ethical issues, and information about communicating with the patient and their family. Information on cultural differences pertinent to EOL care (3,4, 6,$_{7}$) and grief, loss, and bereavement were also considered important curricula issues by multiple authors (3,4,7,13).

Figure 1

Table 1: Comparison EOL Curricula

AACN, ELNA Curriculum, 2001	AACN, Peaceful Death... September, 2001 (Competencies)	Billings & Block, 1997	Ury, Reznich, & Weber, 2000	White, Coyne, & Patel, 2001 (Core competencies)
Nursing care at EOL	Recognize population, economic, and service delivery changes that necessitate improved professional preparation for EOL care. Assess & treat multiple pt care dimensions	Provide care that is accessible, comprehensive, quality in the home, hospice, or hospital	Palliative care	Meaning of hospice
Pain management	Promote comfort care	Manage pain skillfully	Pain management	Pain control Comfort care
Symptom management **Preparation & care for time of death**			Symptom management Nutritional support	Palliative treatments Recognize (physiologic changes) impending death
Ethical/legal issues	Apply legal & ethical principles	Determine & implement pt's EOL wishes Understand ethical EOL issues	Withdrawal of care Obtain & administer advanced directives Ethical issues	Ethical issues Legal issues Advanced directives
Cultural considerations	Demonstrate respect		Care of the family	Religious & cultural perspectives

Using the areas identified by Ury and colleagues, a survey of EOL topics for APN students was developed (6). This survey assessed APN students' EOL care experience including formal teaching, clinical experience, confidence in (comfort in), and skill in 9 EOL Additionally, students were asked to identify the topics of interest and ones they would use.

METHODS

SAMPLE AND SETTING

In spring 2001, a convenience sample of APN students from two health science centers on the southwestern Gulf Coast responded to an EOL needs survey. In addition to results providing demographic information, the students answered questions to describe their exposure in four areas: formal teaching, clinical experience, and their confidence in, and skill in nine EOL topics. Respondents were asked to rate four areas for each of the nine topic areas developed from the review of the literature on a scale of 0 to 5, with 0 indicating none and 5 indicating a lot. The nine topics were:

- Giving Bad News
- Management of Pain
- Obtaining & Administering Advanced Directives
- Care of the Family, Nutritional Support
- Withdrawal of Care
- Ethical Issues
- Symptom Management
- Palliative Care

Demographic information was provided on age, gender, and years as a registered nurse, primary practice area, and length of time practicing in primary practice area. Other survey questions asked of respondents were to identify three areas from the nine which respondents were most interested in and then, three areas from the nine they were least interested in. Survey questions also asked respondents to list any of the nine topics they would not use; and to list any additional areas not included in the survey.

The sample was obtained from APN students in two family nurse practitioner classes at one university health science center and an APN core course at each of the two universities. The sample came predominantly from primary care APN students. Only 3 students may not have been in primary care. Surveys were handed out to class members; students were requested to return completed surveys, without personal identifying information, to the instructor at the end of class. Respondents were requested to complete only one survey, and there were no course related benefits or penalties for survey completion or non-completion. The researcher was not present at the time surveys were completed. Completion of the anonymous survey was viewed as implied

consent from the respondents.

DEMOGRAPHIC PROFILE

The APN student group had a mean age of 39 years (sd = 8.2) with the range from 24 through 53 years of age and practiced from 1 to 29 years (X = 10 years, sd = 7.5). These nurses had spent from 1 to 29 years in their primary practice area (X = 7.5 years, sd = 6.3). Ethnic status data were not collected, as those data would have potentially compromised the assurance of respondent anonymity. Only 5 males were in the sample and there were data missing from one person (n = 43). A total of 75 surveys were distributed to class members, and 43 were completed for a 57% return rate. Areas of primary practice for the sample were varied (see Table 2). The majority of nurses practiced in the intensive care units, followed by childbearing units.

Figure 2

Table 2: APN Student Group Primary Practice Areas (N = 44)

Area	*n* =
Intensive care	12
Childbearing	6
Emergency room	5
Community settings	5
Oncology	4
Cardiology	2
Chidrearing (nursing care of children)	2
Hospital	2
Family medicine	1
Medical/surgical	1
Neurology	1
Psychiatric	1
US Naval Hospital	1

n = 43

RESULTS

DATA ANALYSIS PROCESS

END-OF-LIFE CORE COMPETENCIES

Statistical tests included measures of central tendency and computing effect sizes (Cohen's d) manually from means and standard deviations ($_{12}$). APN students described themselves as having received the most formal teaching in "Care of the Family, Nutritional Support, Ethical Issues, and Symptom Management." The least formal teaching received was in "Giving Bad News." For the nine topics, the grand mean was 2.73 (sd = .56), with a range from 1.65 to 3.28 on the 0 to 5 point response scale used. Table 3 presents a summary of the reports regarding amount of formal teaching and actual clinical experience on the topics.

Figure 3

Table 3: EOL Educational Experiences (N = 44)

Topic	Mean	Standard Deviation
A. Formal Teaching		
Giving bad news	1.65	1.43
Pain management	2.77	1.43
Obtain & administer advanced directives	2.19	1.37
Care of the family	3.09	1.32
Nutritional support	3.28	0.91
Withdrawal of care	2.95	1.48
Ethical issues	3.07	1.28
Symptom management	3.19	1.47
Palliative care	2.40	1.48
B. Clinical Experience		
Giving bad news	3.14	1.51
Pain management	3.84	1.27
Obtain & administer advanced directives	2.72	1.39
Care of the family	3.69	1.06
Nutritional support	3.14	0.99
Withdrawal of care	2.95	1.54
Ethical issues	3.42	1.14
Symptom management	3.77	1.07
Palliative care	3.07	1.32

All students expressed they had clinical experience in EOL core topics, grand mean of 3.3 (sd = .39) and a range of 2.72 to 3.84. The least amount of experience was in "Obtaining and Administering Advanced Directives' and "Withdrawal of Care." The most experience was in the "Management of Pain" (see Table 3). For confidence in, the grand mean was 3.1 (sd = .35) with a range of 2.63 to 3.58. APN students described "Giving Bad News" and "Withdrawal Care" as having the most confidence in topics for them (see Table 4).

The grand mean for skill in EOL topics was 3.1 (sd = .37) with a range of 2.47 to 3.53. These students perceived themselves as having more skill than comfort in the EOL topics. The topics these students perceived they were least skillful in were "Obtaining and Administering Advanced Directives," "Giving Bad News," "Palliative Care," and "Withdrawal of Care." "Symptom Management and Management of Pain" were areas in which these students believed they had more skill (see Table 4).

Figure 4

Table 4: Reported Confidence in or Skill Level in EOL Topics (N = 44)

Topic	Mean	Standard Deviation
A. Confidence in		
Giving bad news	2.77	1.31
Pain management	3.42	1.16
Obtain & administer advanced directives	2.63	1.35
Care of the family	3.57	0.97
Nutritional support	3.14	0.99
Withdrawal of care	2.95	1.48
Ethical issues	3.23	1.15
Symptom management	3.58	1.03
Palliative care	2.88	1.16
B. Skill Level		
Giving bad news	2.67	1.31
Pain management	3.40	1.20
Obtain & administer advanced directives	2.49	1.39
Care of the family	3.52	0.99
Nutritional support	3.14	1.00
Withdrawal of care	2.95	1.54
Ethical issues	3.14	1.17
Symptom management	3.53	1.03
Palliative care	2.81	1.18

$n = 43$

Since the same response scale was used to report teaching exposure, clinical experience, confidence in, and skill in the nine topic areas, it was possible to inspect for effect size differences in these four exposure areas for each of the nine topics. A small to medium effect size (Cohen's d) difference in APN student responses was found between perceived "Clinical Experience" and "Formal Teaching" in the nine EOL topics (d = .46 standard deviations). The means for skill level and comfort level for the nine EOL topics were the same.

TOPIC INTEREST

Thirty-six percent of students were most interested in the "Palliative Care" topic and 34% of students had interests in the topics of "Ethical Issues," "Care of the Family," and "Giving Bad News." The least interesting topic for these students was "Obtaining and Administering Advanced Directives" (45%). Topics some students would not use were "Withdrawal of Care" (9%), and "Obtaining and Administering Advanced Directives" (9%) (See Table 5). Additional EOL topics suggested by students were hospice admission requirements and the process of admission, information regarding children's hospice, cultural issues, general hospice issues, and psychotherapy as a part of palliative care and spirituality.

Figure 5

Table 5: Topic Area Interest

Areas	Most	Least	Not Use
Giving Bad News	$n = 15$ 34%	$n = 9$ 20%	$n = 1$ 2.3%
Pain Management	$n = 14$ 32%	$n = 5$ 11%	$n = 1$ 2.3%
Obtain & Administer Advanced Directives	$n = 3$ 6.8%	$n = 20$ 45%	$n = 4$ 9%
Care Of The Family	$n = 15$ 34%	$n = 6$ 13.6%	
Nutritional Support	$n = 12$ 27%	$n = 12$ 27%	$n = 1$ 2.3%
Withdrawal Of Care	$n = 13$ 29.5%	$n = 8$ 18%	$n = 4$ 9%
Ethical Issues	$n = 15$ 34%	$n = 7$ 16%	
Symptom Management	$n = 11$ 25%	$n = 7$ 16%	$n = 1$ 2.3%
Palliative Care	$n = 16$ 36%	$n = 11$ 25%	

DISCUSSION

This needs assessment has provided information regarding APN students' views of their formal teaching, clinical experience, confidence in, and skill in EOL curriculum topics. The respondents reaffirmed eight of the EOL topic areas as described in the literature (3,4,6,7,[13]). Least supported was the topic "Obtaining and Administering Advanced Directives." Students said they would not use this topic nor the "Withdrawal of Care" topic. Respondents gave no reason why they believed they would not use the two topics. Research in advanced directives has shown that even if patients have advanced directives their wishes may not be followed by family members ([14]). However, when advanced directives are present or discussed with physicians, patients experience more satisfaction with the primary care physician and increased accuracy of treatment decisions by hospital-based physicians ([15,16]).

The respondents perceived they had more clinical experience than formal teaching exposure in the nine EOL topics. A small to medium effect size difference (d = .46) between the two topic areas was found. These findings concur with Farell's work (8-11).

The means were the same between APN students' perceived confidence in and skill in the nine EOL topics. When respondents perceived they were confident in an area, they would also perceive they were skillful in the same topic. The three highest rated EOL topics were skillful in were Pain Management, Symptom Management, and Care of the Family.

Though Ury and colleagues did not say they measured self-

efficacy, when they asked respondents what their comfort was in the nine EOL topics, they were indeed attempting to learn the respondents' beliefs about how capable they were in performing a behavior or self-efficacy (6). This survey, inspired by Ury's work, used “confidence in,” for “comfort in,” to measure self-efficacy. In Bandura's social cognitive theory self-efficacy, or a person's “confidence in,” performing a behavior, that leads to outcomes- varies across behaviors and situations ($_{17}$). According to Bandura, self-efficacy expectations are positively related to outcomes (17). Application of this proposition to these survey findings would suggest that students who perceived they had high confidence in any of the nine EOL topics would also have perceptions of high skill levels in the same EOL topics. This survey's results indicated no difference in effect sizes between the group means for the “confidence in” and the “skill in” responses.

LIMITATIONS

This needs assessment was conducted using a small, convenience sample from two southwestern Gulf Coast universities. A larger, more representative and more diverse (e.g., specialty areas of primary versus acute care; or clinical nurse specialist versus nurse practitioner; or identification of clinical track) APN student sample is needed to assess how generalizable findings are and to identify if needs are different based on role, specialty, or setting. One key topic area, cultural perspectives, was not included in this survey.

IMPLICATIONS FOR NURSING

The APN students' responses to the last survey questions provided valuable information regarding student interest in EOL topic areas for nurse educators and practitioners. The paucity of clinical and theoretical knowledge on EOL topics shown by this survey can be used to present evidence to gain support for instituting an EOL curriculum for APN students or to incorporate more specific content into curricula. Additionally, the students' responses provided insights into their perception of their formal teaching, clinical experience, confidence in, and skill in nine EOL topics.

CONCLUSION

A growing awareness exists of the importance in providing EOL education to health care practitioners. An EOL curriculum for graduate nursing students can be one way to improve education in EOL care. This needs assessment indicates that APN students perceive the need for increased training in this area. This needs assessment also indicates which EOL topics APN students believe should be in an EOL curriculum and the areas in which students perceived they were skilled and confident. These findings provide supporting justification for instituting an EOL educational program or incorporating EOL content more specifically into graduate level curricula.

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