

Determining the Expected Competencies for Oncology Nursing: A Needs Assessment Study

Abstract

Background: A critical component of cancer care, rarely addressed in the published literature, is an expected competency in oncology nursing education. The present text describes an effort to develop cancer-nursing competencies in Iran and the process of the needs assessment. **Materials and Methods:** A 3-phase, mixed-method approach for needs assessment was used, incorporating modified Delphi technique, literature review, interviews, and an expert panel. Different stakeholders, consisting of nurses, faculty members in fields related to oncology nursing education, and patients and their families, participated in different phases of the study. Data were analyzed using manual content analysis. **Results:** In the present study, totally 123 sub-competencies were identified under holistic physical healthcare for patients, psychological and social care, spiritual care, palliative care, ability to prevent at three levels, teamwork and inter-professional competencies, management and leadership competencies, ability to conduct research and evidence-based nursing, supportive care, communication skills, professionalism, provision of education and counselling to patients and their families, and reasoning, problem solving, and critical thinking skills, respectively. **Conclusions:** An updated and applicable list of competencies was extracted, which can be used to design and develop educational programs, which seek to train qualified oncology nurses for an effective nursing care.

Keywords: Cancer nursing, competency-based education, educational needs assessment, Iran

Introduction

Cancer care is one of the most important issues in the healthcare system.^[1] In accordance with the Global Action Plan for the Prevention and Control of Non-Communicable Diseases (NCDs) 2013–2020, countries are recommended to “strengthen health systems at national and local levels to deliver cure and care for cancer patients.”^[2] Lack of qualified nurses in the field of cancer care is a well-known problem in Iran. In spite of the fact that expert nurses have a huge impact on the quality of care, there is no formal training program to prepare them for this important role in Iran. The important role of nurses in supporting cancer therapy and their impact on the quality of care outcomes is well recognised by patient groups and specialist teams. Unfortunately, health services often neglect the skill and education required to provide such support for individuals with cancer and their families.^[3]

There is a variety of programs in oncology nursing education. Some of the well-known

examples are the European Oncology Nursing Society (EONS) curriculum, World Health Organization (WHO), Oncology Nursing Society (ONS) standards, Cancer Nurses Society of Australia (CNSA), and International Society of Nurses Cancer Care (ISNCC) programs.^[4,5] This variety shows that there has been an international trend toward academic training in oncology nursing over the past decades. However, Iranian nursing schools have obviously failed to define a cancer curriculum for their students. Thus, the authors of the present study decided to define competencies as the first step of developing a competency-based curriculum for cancer nursing in line with the recommendations of the Iranian Ministry of Health and Medical Education (MHME).

Much has been reported regarding cancer treatment, diagnosis, and care, and oncology nurses’ experiences; however, there is not much information about the new duties and competencies of oncology nurses.^[6-8] A revision in the nursing education curriculum should be considered due to changes in the

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current healthcare environment, economic pressures, and continuous medical advancements.^[7] Furthermore, lack of a scholarly approach to needs assessment is a general problem. Needs assessment methods, which go beyond the consensus, have not been widely reported. The process of reaching a consensus on nurses' competencies curriculum is not often explicitly described. This report describes an effort to develop cancer-nursing competencies in Iran, highlights the competencies of its curriculum, and describes the process of the needs assessment.

Materials and Methods

This research was conducted at the Education Development Center (EDC), Isfahan University of Medical Sciences, Iran, in 2013–2016. Different stakeholders, including nurses, patients and their families, and faculty members in fields related to this field, participated in different phases of the study. A three-phase, mixed-method approach for needs assessment was used, incorporating the modified Delphi technique, literature review, interviews, and an expert panel.

Phase 1: Forming the taskforce

In response to a greater need for a competency-based curriculum of oncology nursing, a small group of motivated educators set out to determine the appropriate competencies for these nurses in our country. This initial group consisted of the director of the EDC, interested nursing faculty members, and two PhD students of medical education.

Phase 2: Determining the competencies domains

In this stage, the three methods of interviews, Delphi, literature review were used concurrently. Interviews were conducted to explore nurses' views concerning their educational needs regarding cancer care, which were not covered in their education, as well as patients' and their families' expectations from their nurses. Interviews lasted between 30 and 60 minutes and were carried out at a location of the participant's choice. Based on results of previous studies, participants who have the chance to choose the place of interview may feel more empowered in their interaction with the interviewer and be more comfortable to speak. Two interviews were conducted in the patient's home and 12 interviews at the cancer hospital (7 patients and 5 nurses who worked there). An interview guide was developed from existing literature and face-to-face interviews were conducted. Interviews were transcribed verbatim. Data were analyzed using content analysis. Each transcript was read several times and prominent sentences of participants' views were highlighted. For each transcript, we aimed to capture the needs that each individual conveyed.

The modified Delphi survey was conducted to achieve a comprehensive list of key competencies for oncology nurses in Iran. The modified Delphi was implemented using an open-ended questionnaire consisting of two

rounds, with the purpose of gaining consensus on the oncology nurses' competencies and sub-competencies. The participants were asked to write down all competencies they considered essential for oncology nurses in Iran. All the identified faculty members in fields related to oncology nursing education, such as medical surgical nursing and psychiatric nursing, were emailed and invited to participate in the present study. The second round was developed based on the synthesized results of the literature review and interviews with the nurses, and cancer patients and their families. Related literature was reviewed to collect the existing competency frameworks developed by other bodies. The purpose of the literature review was not simply the translation of the existing competency frameworks. Oncology societies' programs were searched (EONS, WHO, ASCO, ONS, CNSA, and ISNCC).^[4,5] The second round of the survey was sent to 21 participants who completed the first round; 19 participants (90%) completed this second and last round. The participants were given information regarding the first round and had the opportunity to add to the list and to comment on the items related to determined competencies. The taskforce decided to continue the Delphi rounds as long as most participants confirmed the results and no more new data was obtained. Subsequently, the results were categorized under competencies and sub-competencies domains according to the literature review conducted by the taskforce. The taskforce proposed 13 domains for oncology nurses and introduced an applied definition. In addition, some sub-competencies were considered for each domain.

Phase 3: Finalizing the domains of competencies

An expert panel of 7 faculty members was held to review the list of competencies extracted from the previous phase of the study to refine the list and determine the most important competencies. The draft comprising the competencies domains and sub-competencies was presented to the panel.

The expert panel opened with an introduction and background questions. Participants were provided with documents summarizing data from previous phases. A member of the research team recorded the discussion and transcribed the audio recording. The director of the panel was a member of the research team and was responsible for facilitating the discussion between experts, and taking field notes and observing the focus group to identify conflicts or strong opinions.^[9] The raw transcribed data and field notes were reviewed to edit the list. The taskforce considered these competencies in order to make their final decisions about curriculum planning and accreditation for this specialty at a national level.

Ethical considerations

The Ethical Review Board of the EDC of Isfahan University of Medical Sciences approved the study. The

approval number of the project is 291305. All participants were informed about the study process before participating. They were assured of confidentiality and anonymity. Verbal and written consents were obtained from all participants. Interviews were tape recorded after obtaining the participant's permission and coded by the participant to guarantee anonymity.

Results

Figure 1 presents participants' information and different phases of needs assessment. Table 1 shows the competencies and sub-competencies. The complete competency framework comprises of 13 domains consisting of holistic physical healthcare, psychological and social care, spiritual care, palliative care, ability to prevent cancer, teamwork and inter-professional competencies, management and leadership competencies, ability to conduct research and evidence-based nursing, supportive care, communication skills, professionalism, education and counselling of patients and their families, reasoning, and problem solving and critical thinking skills [Table 1].

Thus, totally 123 sub-competencies were identified under holistic physical healthcare for patients, psychological and social care, spiritual care, palliative care, ability to prevent at three levels, teamwork and inter-professional competencies, management and leadership competencies, ability to conduct research and evidence-based nursing, supportive care, communication skills, professionalism, provision of education and counselling to patients and their families, and reasoning, problem solving, and critical thinking skills, respectively [Table 1].

Discussion

The aim of this manuscript was to highlight the process of developing competencies for the oncology nursing curriculum in Iran. The authors believe that the results of this endeavour can be applied to similar projects in the future.

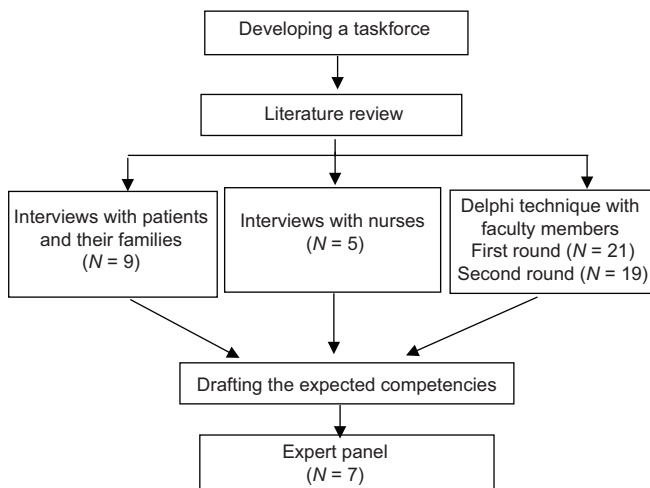


Figure 1: Participants' information in different phases of needs assessment

The first recognized important competency in this study was holistic physical healthcare. Cancer and its treatment have side effects on the body, which stimulate us to ponder the importance of physical health care. Pain, nausea and vomiting, fatigue, and fertility and sexual side effects in men and women, are some examples of these side effects that require special attention.

Table 1: Competencies and some examples of sub-competencies of cancer nursing in Iran in 2015

Competency	Sub-competencies
Holistic physical healthcare	Recording of medical history and physical examination GI system, respiratory system, cardiovascular system, and kidney and urinary track care
Psychological and social care	Care in patients with newly diagnosed cancer, caring for patients with end-stage cancer, and breaking bad news
Spiritual care	Improving the patient-God connection, and religious involvement
Palliative care	Managing pain, caring for patients with end-stage phase disease
Ability to prevent cancer	Preventing cancer, providing rehabilitation programs for patients, and participating in cancer screening programs
Teamwork and inter-professional competency	Ability to work with other team members to improve the quality of care, and team accountability
Management and leadership competency	Identifying, recording, tracking, evaluating, and prioritizing gaps in services, and the ability to lead and coordinate the activities of the team
Ability to conduct research and evidence-based nursing	Finding appropriate information sources, and assessing the evidence
Supportive care	Preventing, controlling, and relieving the side effects of disease and treatments, and improving the patients comfort and quality of life
Communication skills	Active listening skills, effective body language, and empathy skills
Professionalism	Allocating sufficient time to meet and consult with patients and their families, and commitment to honesty and integrity, ethics in research, education, and care.
Educating and counselling patients and their families	Applying the principles of patient education, and using appropriate teaching methods (lectures, group discussions, etc.)
Reasoning, problem solving, and critical thinking skills	Applying the principles of critical thinking in dealing with various claims (spoken, written, and visual), identifying problems related to their work, analysing problems, and developing appropriate solutions

The communication skills domain is the other main competency, which is important in the provision of high quality care by oncology nurses. The quality of communication was found to influence patient health and effective communication is necessary for optimal cancer management. Several studies have recommended the consolidation of general communication skills training programs using specific modules focusing on communication skills related to cancer management.^[10] However, lack of thorough communication remains a serious challenge in healthcare and an educational priority in nursing schools.^[11]

The next competency which should be considered in the oncology nursing curriculum is spiritual care that has recently been recognised as an effective approach in cancer care. Spiritual issues were significant for many patients in their last year of life and their care services.^[12] Health professionals lack the essential capabilities to address these issues.^[13] Researches have shown that spiritual well-being leads to protection against end-of-life depression.^[14]

Psychological and social care skills are also very important for oncology nursing. A review study suggested that evidence for psychosocial intervention is limited.^[15] Nevertheless, the available studies have discovered that some psychological interventions are acceptable to patients and effective in decreasing the consequences of cancer. The potential psychosocial benefits of such interventions have been presented in the literature.^[16-19] Hence, it is required to be a priority in educational programs.

Professionalism, one of the most popular and critical components of the competencies of the healthcare profession, should be considered more in training programs, especially for oncology nurses whose patients are in a painful condition. Paying attention to development and enrichment of values, attitudes, moral standards, ethical rules, and other necessary attributes to practice the profession is highly recommended in the literature related to health profession education.^[20-23]

The positive effects of educating and consulting patients and their families,^[24-26] as well as the effective teaching strategies for patient education have been widely reported.^[27] However, health professionals lack the necessary skills and time to perform them appropriately and need to learn, practice, and perform them in the correct way.

The other competencies, such as teamwork and inter-professional competency, management and leadership, ability to conduct research and evidence-based nursing, supportive care, and reasoning, problem solving, and critical thinking skills, are necessary for providing a comprehensive, accurate, and safe nursing care including cancer nursing.^[28-32] The most apparent limitation in phase 1 of Delphi was low response rate. Researchers tried to increase the response rate by contacting potential

respondents personally, asking them to participate, and sending a reminder. The researchers believe that the low response rate was related to the open-ended questionnaire, which was not easy to complete.

Conclusion

The competencies for cancer nurses in Iran were developed with consideration of the needs assessment methods. An updated and applicable list of competencies was extracted, which is valuable for designing, and developing educational programs that seek to train qualified oncology nurses for a comprehensive and effective nursing care.

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Conflicts of interest

Nothing to declare.

References

1. Mahfudh SS. Nurse's role in controlling cancer pain. *J Pediatr Hematol Oncol* 2011;33:S146-8.
2. Organization WH. Global action plan for the prevention and control of noncommunicable diseases 2013-2020. 2013.
3. McCorkle R. Cancer Nurse as Cancer Survivor. *Cancer Nurs* 2012;35:245-6.
4. Sheldon LK, Brant J, Hankle KS, Bialous S, Lubejko B. Promoting cancer nursing education, training, and research in countries in transition. *Cancer care in countries and societies in transition*. Springer; 2016. p. 473-93.
5. So WK, Chan RJ, Truant T, Trevatt P, Bialous SA, Barton-Burke M. Global perspectives on cancer health disparities: Impact, utility, and implications for cancer nursing. *Asia Pac J Oncol Nurs* 2016;3:316.
6. Naseri N, Taleghani F. Social support in cancer patients referring to Sayed Al-Shohada Hospital. *Iran J Nurs Midwifery Res* 2012;17:279-83.
7. Bahrami M. Do nurses provide holistic care to cancer patients? *Iran J Nurs Midwifery Res* 2010;15:245-51.
8. Borhani F, Abbaszadeh A, Mohsenpour M, Asadi N. Lived experiences of pediatric oncology nurses in Iran. *Iran J Nurs Midwifery Res* 2013;18:349-54.
9. Liampittong P. *Focus group methodology: Principle and practice*. Sage; 2011.
10. Canivet D, Delvaux N, Gibon AS, Brancart C, Slachmuylder JL, Razavi D. Improving communication in cancer pain management nursing: A randomized controlled study assessing the efficacy of a communication skills training program. *Supportive Care Cancer* 2014;22:3311-20.
11. Foronda C, Gattamorta K, Snowden K, Bauman EB. Use of virtual clinical simulation to improve communication skills of baccalaureate nursing students: A pilot study. *Nurse Educ Today*

- 2014;34:e53-7.
12. Vilalta A, Valls J, Porta J, Vinas J. Evaluation of spiritual needs of patients with advanced cancer in a palliative care unit. *J Palliat Med* 2014;17:592-600.
 13. Ross L, Austin J. Spiritual needs and spiritual support preferences of people with end-stage heart failure and their carers: Implications for nurse managers. *J Nurs Manag* 2015;23:87-95.
 14. Wang YC, Lin CC. Spiritual well-being may reduce the negative impacts of cancer symptoms on the quality of life and the desire for hastened death in terminally ill cancer patients. *Cancer Nurs* 2016;39:E43-50.
 15. Stern C, Kennedy C. Psychosocial interventions for patients with head and neck cancer. *Int J Evid Based Healthc* 2015;13:37-8.
 16. Semple C, Parahoo K, Norman A, McCaughan E, Humphris G, Mills M. Psychosocial interventions for patients with head and neck cancer. *Cochrane Database Syst Rev* 2013;7:CD009441.
 17. Stafford L, Foley E, Judd F, Gibson P, Kiropoulos L, Couper J. Mindfulness-based cognitive group therapy for women with breast and gynecologic cancer: A pilot study to determine effectiveness and feasibility. *Support Care Cancer* 2013;21:3009-19.
 18. Thornton LM, Cheavens JS, Heitzmann CA, Dorfman CS, Wu SM, Andersen BL. Test of mindfulness and hope components in a psychological intervention for women with cancer recurrence. *J Consult Clin Psychol* 2014;82:1087-100.
 19. Wurtzen H, Dalton SO, Christensen J, Andersen KK, Elsass P, Flyger HL, *et al.* Effect of mindfulness-based stress reduction on somatic symptoms, distress, mindfulness and spiritual wellbeing in women with breast cancer: Results of a randomized controlled trial. *Acta Oncol* 2015;54:712-9.
 20. Kang KJ, Yu SJ, Seo HM, Park M, Yu M, Chae YR, *et al.* Factors influencing professionalism in male and female student nurses. *J Korean Acad Soc Nurs Educ* 2014;20:491-501.
 21. Lombarts KM, Plochg T, Thompson CA, Arah OA, Consortium DP. Measuring professionalism in medicine and nursing: Results of a European survey. *PLoS One* 2014;9:e97069.
 22. Rapport F, Doel M, Hutchings H, Jones A, Culley L, Wright S. Consultation workshops with patients and professionals: Developing a template of patient-centred professionalism in community nursing. *J Res Nurs* 2014;19:146-60.
 23. Ghadirian F, Salsali M, Cheraghi MA. Nursing professionalism: An evolutionary concept analysis. *Iran J Nurs Midwifery Res* 2014;19:1.
 24. Lu SR, Hong RB, Chou W, Hsiao PC. Role of physiotherapy and patient education in lymphedema control following breast cancer surgery. *Ther Clin Risk Manag* 2015;11:319-27.
 25. Marie N, Luckett T, Davidson PM, Lovell M, Lal S. Optimal patient education for cancer pain: A systematic review and theory-based meta-analysis. *Support Care Cancer* 2013;21:3529-37.
 26. Reif K, de Vries U, Petermann F, Görres S. A patient education program is effective in reducing cancer-related fatigue: A multi-centre randomised two-group waiting-list controlled intervention trial. *Eur J Oncol Nurs* 2013;17:204-13.
 27. Friedman A, Cosby R, Boyko S, Hatton-Bauer J, Turnbull G. Effective teaching strategies and methods of delivery for patient education: A systematic review and practice guideline recommendations. *J Cancer Educ* 2011;26:12-21.
 28. Lamb BW, Sevdalis N, Mostafid H, Vincent C, Green JS. Quality Improvement in multidisciplinary cancer teams: An investigation of teamwork and clinical decision-making and cross-validation of assessments. *Ann Surg Oncol* 2011;18:3535-43.
 29. Chan ZC. A systematic review of critical thinking in nursing education. *Nurse Educ Today* 2013;33:236-40.
 30. Chang MJ, Chang YJ, Kuo SH, Yang YH, Chou FH. Relationships between critical thinking ability and nursing competence in clinical nurses. *J Clin Nurs* 2011;20:3224-32.
 31. Bush T, Shahwan-Akl L. Palliative care education: Does it influence future practice. *Contemp Nurs* 2013;43:172-7.
 32. Witkamp FE, van Zuylen L, Van der Maas PJ, Van Dijk H, Van der Rijt CC, Van der Heide A. Improving the quality of palliative and terminal care in the hospital by a network of palliative care nurse champions: The study protocol of the PalTeC-H project. *BMC Health Serv Res* 2013;13:115.