



## The Meaning of Education in Oncology Nursing

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### Authors' contributions

This work was carried out in collaboration between all authors. Author ML designed the study and wrote the first draft of the manuscript. Authors ML, EC and NT managed the literature searches. All authors read and approved the final manuscript.

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### ABSTRACT

Cancer is one of the leading causes of death worldwide. Education has a critical influence on the continuing development of clinical oncology nursing practice. Education is essential in oncology nursing, because there are new strategies in cancer care and as a result the role of nurses is expanding. In order to provide qualitative care and ensure patients' effective response to this care, nurses need special qualifications. Continuing education is essential for nurses working in the clinical setting of oncology nursing. There are many factors which contribute to this need. All nurses must cooperate at state and international level in order to promote oncology education, and meet the growing needs of their patients.

*Keywords:* Education; oncology; cancer; nursing.

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## 1. INTRODUCTION

Cancer is one of the leading causes of death worldwide. An estimated 8.2 million deaths from cancer occurred in 2012. Each year, approximately 171,000 new cases occur. It is expected that new cancer cases will increase by 14 million in 2012 to 22 million over the next two decades [1]. Nursing is a profession within the health care. Although nursing practice varies through the countries, there are some nursing organizations offer definitions for nursing [2]. In 2010, the International Council of Nursing (ICN) introduced a new and improved definition for nursing: "Nursing encompasses autonomous and collaborative care of individuals of all ages, families, groups and communities, sick or well and in all settings. Nursing includes the promotion of health, prevention of illness, and the care of ill, disabled and dying people. Advocacy, promotion of a safe environment, research, participation in shaping health policy and in patient and health systems management, and education, are also key nursing roles" [3].

Nursing education is mainly divided into two categories: basic education that is designed to produce nursing professionals and more advanced education following this basic education. The education following basic education may be called "continuing education", "postgraduate education" or "lifelong learning", etc. [4]. Education has a critical influence on the continuing development of cancer nursing practice [5].

A literature review was conducting using the electronic databases PubMed and Google scholar from the years 2000-2014. There were used the following key words: "education", "oncology nursing", "cancer" and the combination of them. Exclusion criteria of articles were the language, except English and Greek.

## 2. PURPOSE

The purpose of this article is to identify the necessity of education in oncology nursing and stress the role of the nurse in oncology nursing. Also, in this article is stressed the necessity of continuing education in oncology nursing.

## 3. EDUCATION IN ONCOLOGY NURSING

The range of knowledge covered by Nursing Sciences spans biological, humanities and

natural sciences. Knowledge of nursing is developed through research and theoretical models applied in everyday nursing practice. Nursing interventions are intended to improve the health status and quality of life of patients. Nurses must have the ability to carry out these therapeutic interventions, and they must have the appropriate training and clinical experience [6].

There are various levels in nursing education, which can range from a Diploma in Nursing (Diploma), University Degrees in Nursing – a Bachelor or a Graduate Degree / Masters or a PhD / Doctorate. Diploma and University education is basic and general, offering no special knowledge about caring for patients with cancer. Additional education is required for nurses to provide care to patients with cancer, as well as to their families. Nursing students in basic education have limited contact to cancer patients, and this depends on the qualifications and commitment of their professors to the subject of oncology [7].

To become an oncology nurse, a student has to finish an undergraduate degree or diploma program in nursing and obtain license as a Registered Nurse [8]. A master's degree in oncology nursing is required in clinical nursing [9]. There are many masters and doctoral programs in cancer in USA [9] and some in Europe [10]. Furthermore, there are professional opportunities for nurses to obtain a formal certification of oncology nursing. In USA, Oncology Nursing Certification Corporation (ONCC) offers a formal certification of oncology nurses through examination [11]. Certification is a voluntary process [11], is granted for four years and after that recertification is required [9]. In Europe, the European Oncology Nursing Society (EONS) offers educational programs such as Post-Basic Curriculum for Cancer Nursing. Also, EONS' initiatives such as NOEP, TITAN and TARGET have resulted many European oncology nurses being trained in the most current protocols for the care of cancer patients [12].

Nurses play a vital role in providing care to patients with cancer through direct care, education, research and leadership [6]. They provide care during their patients' journey through cancer: diagnosis, treatment, possible recurrence, survival, palliative care and death [13]. Nurses, as opposed to other members of the healthcare team, have the opportunity to provide the appropriate time for patients and their

families. Their education, combined with experience, can help patients cope more effectively diagnosis, symptoms, treatments and side effects - even reintegration into society. The needs of cancer patients, their families, significant others or friends change as the disease and its management develops [14].

Education improves care, can improve patient outcomes by reducing inpatient stay, helps to increase patient satisfaction and reduce adverse events of cancer patient treatment [14]. Patient care has become more complex with the constant changes and growing complexity in the provision of treatment to cancer patients [15], which requires enhanced skills and critical thinking on the part of nurses working in the field of cancer [16]. Education is essential in oncology nursing because there are new strategies in oncology care and this results in an expanding role for nurses as well as for other health care professionals [17].

The demand on nurses to be highly qualified is steadily increasing because they are responsible for being up to date on treatment needs, the active agents of new drugs, the recommended duration of chemotherapy and its safe administration, and the prevention of chemotherapy extravasation [16]. Furthermore, nurses must educate patients to recognize and evaluate various side effects, e.g. nausea and vomiting, constipation. With respect to radiotherapy, nurses must know all technical procedures, the importance of proper positioning of the patient during radiotherapy, as well as the therapeutic doses and the side effects of radiotherapy [18].

Clinical oncology nursing research is an emerging issue; nurses are actively involved in clinical trials. Nurses are involved in nursing protocols and investigate the quality of life of patients and other associated symptoms [19]. In addition, they need specific competence, knowledge, skills and expertise in order to be able to conduct clinical trials in hospital settings and offer protection to subjects enrolled in clinical trials [20]. Finally, it has been proven that cancer and palliative care training result in improved knowledge and confidence [21]; hence the need for cancer training is obvious [22]. In order to determine how to best achieve this, however, additional research will be necessary [21].

#### **4. THE ROLE OF THE NURSE IN ONCOLOGY NURSING**

Cancer nursing is an area that has developed into a specialized field. Nurses need special qualification if they are to provide quality nursing care and if patients are to respond effectively to this care [13]. There is a great diversity in the roles of specialist oncology nurses [23]. Nurses need specialized knowledge and skills in oncology nursing [23], communication skills [24] and not least the ability to adapt to a stressful oncology environment [25]. The preparation of chemotherapy agents can be dangerous for nursing staff, and therefore they must qualified to manage occupational health and safety [26]. Nurses perceived improvements in patient care through improved communication skills, enhanced, individualized care and research-centred practice [21]. Furthermore, nurses need to be skilled in managing the social, cultural, spiritual and developmental needs arising from the response of patients to treatment and diagnosis [13]. Nurses holistically assess the patient and his/her family, educate and support them psychologically, as well as providing physical care and managing their symptoms [13,27].

In 2011, Schneider & Faithfull give the following definition for specialist cancer nurse "A clinical nurse cancer specialist is a recognised general nursing professional who was acquired additional oncology knowledge, skills and experience, together with a professionally and/or academically –accredited post-registration qualification in the clinical specialty. He/she should demonstrate characteristics and skills of practice at an advanced level" [10].

According to the National Council for the Professional Development of Nursing and Midwifery [28], some of the basic skills required of an oncology nurse specialist are the following:

- Clinical orientation
- Patient advocacy
- Conducting research
- Teaching and training of patients and relatives
- Acting as a consultant for their specialty

## 5. CONTINUING EDUCATION IN ONCOLOGY NURSING

Nursing as a profession is called upon to engender change and promote health [29]. In order to address this challenge, nurses should have access to lifelong learning [30]. Lifelong learning includes a variety of methods in different learning environments and in the context of postgraduate, doctoral, formal and informal continuing education [30]. Nursing schools, organizations providing care and nursing instructors should work together to provide nurses and nursing students with the opportunity to engage in continuing education, thus enabling them to meet growing needs [29]. According to Institute of Medicine (2012) "Lifelong learning enables oncology nurses to stay informed of scientific advances and research, lead and practice nursing research and evidenced-based nursing, and attain and maintain competency in the specialty of oncology nursing to provide safe, effective, and quality care to patients with cancer and their caregivers" [30].

Continuing education is essential for nurses working in the clinical setting of oncology nursing [16]. Crawford et al. [31] reported that continuing education is essential for oncology nurses in order to implement their roles to the fullest potential. The tremendous growth of scientific knowledge and technological applications in the area of oncology nursing require constant updates and training of nurses to provide quality care [19]. A longitudinal study about nursing education revealed that the participants desired more information about handling on chemotherapy, symptom management and palliative care [32]. The increasing number of new treatments applied in oncology and the need to provide patients with psychological support in adapting to their treatment mean that nurses must be able to rely on their knowledge and specific clinical skills [16].

Furthermore, nursing interventions must follow guidelines, based on evidence-based practice, and aim to provide holistic care [27,33]. Clinical nursing practice should reflect patients' individuality as well [16]. Generally, the provision of quality care calls for oncology nurses with good undergraduate education and expertise enhanced through ongoing programs of postgraduate education.

## 6. CONCLUSION

Oncology education is necessary due to the increased frequency of cancer. Education in oncology nursing may be influenced by cultural background, political situations and a country's health care system, but the basic principles of cancer patient treatment are the same everywhere.

As nurses take increasing responsibility for their education, the provision of education at various levels should continue to enrich and increase the skills of nurses and improve the care provided. The role of oncology nurse is multidimensional in clinical settings, so there is a great need for continuing education. Nurses have to respond in a variety of skills such as communication, clinical skills and psychological support. Patients with cancer have many needs, and the most important result of any program in oncology nursing education should be the effort to improve patient care. Nurses have to inform about the existing education programs in order to follow them and enrich their knowledge. All nurses must cooperate at state and international level in order to continue to promote education in oncology nursing so as to meet the growing needs of patients.

## COMPETING INTERESTS

Authors have declared that no competing interests exist.

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