European Journal of Oncology Nursing 19 (2015) 740–746

Contents lists available at ScienceDirect

European Journal of Oncology Nursing

journal homepage: www.elsevier.com/locate/ejon

The role of advanced nursing in lung cancer: A framework based development

A. Serena [a, b, c, *], P. Castellani [b, 1], N. Fucina [b, 1], A.-C. Griesser [b, 1], J. Jeanmonod [b, 2], S. Peters [b, 3], M. Eicher [a, c, 4]

[a] Institute of Higher Education and Research in Health Care, University of Lausanne, Switzerland
[b] University Hospital Center of Lausanne, Switzerland
[c] University of Applied Arts and Sciences Western Switzerland, School of Health Fribourg, Switzerland

ARTICLE INFO

Article history:
Received 21 February 2015
Received in revised form
13 May 2015
Accepted 15 May 2015

Keywords:
Lung cancer nurse
Advanced practice nursing
Lung neoplasm
Supportive care

ABSTRACT

Purpose: Advanced Practice Lung Cancer Nurses (APLCN) are well-established in several countries but their role has yet to be established in Switzerland. Developing an innovative nursing role requires a structured approach to guide successful implementation and to meet the overarching goal of improved nursing sensitive patient outcomes. The "Participatory, Evidence-based, Patient-focused process, for guiding the development, implementation, and evaluation of advanced practice nursing" (PEPPA framework) is one approach that was developed in the context of the Canadian health system. The purpose of this article is to describe the development of an APLCN model at a Swiss Academic Medical Center as part of a specialized Thoracic Cancer Center and to evaluate the applicability of PEPPA framework in this process.
Method: In order to develop and implement the APLCN role, we applied the first seven phases of the PEPPA framework.
Results: This article spreads the applicability of the PEPPA framework for an APLCN development. This framework allowed us to i) identify key components of an APLCN model responsive to lung cancer patients' health needs, ii) identify role facilitators and barriers, iii) implement the APLCN role and iv) design a feasibility study of this new role.
Conclusions: The PEPPA framework provides a structured process for implementing novel Advanced Practice Nursing roles in a local context, particularly where such roles are in their infancy. Two key points in the process include assessing patients' health needs and involving key stakeholders.

1. Introduction

In order to meet complex lung cancer patients' health needs, the role of the Advanced Practice Lung Cancer Nurse (APLCN) is well-established in North America, Australia and several North European countries. Yet to date, no such role has been developed in Switzerland. Indeed, the Master of Science in Nursing has been introduced relatively recently in Switzerland (since 2000 in the German-speaking part and since 2009 in the French-speaking part of Switzerland). Considering epidemiologic trends in lung cancer and the psychosocial and physical burden of these patients, it is imperative to develop the APLCN role in the Swiss context.

Globally lung cancer is the most common cancer, both in terms of new cases and deaths (Ferlay et al., 2014). Common physical complaints reported by lung cancer patients include dyspnea, fatigue, pain, anorexia, cough, and insomnia (Cooley, 2000; Iyer et al.,

* Corresponding author. Centre Hospitalier Universitaire Vaudois, Avenue Pierre Decker 2, 1011 Lausanne, Switzerland.
E-mail addresses: andrea.serena@unil.ch (A. Serena), pascale.castellani@chuv.ch (P. Castellani), nadia.fucina@chuv.ch (N. Fucina), anne-claude.griesser@chuv.ch (A.-C. Griesser), jacqueline.jeanmonod@chuv.ch (J. Jeanmonod), solange.peters@chuv.ch (S. Peters), manuela.eicher@hefr.ch (M. Eicher).
[1] Centre Hospitalier Universitaire Vaudois, Rue du Bugnon 21, 1011 Lausanne, Switzerland.
[2] Centre Hospitalier Universitaire Vaudois, Avenue Pierre-Decker 2, 1011 Lausanne, Switzerland.
[3] Centre Hospitalier Universitaire Vaudois, Rue du Bugnon 46, 1011 Lausanne, Switzerland.
[4] Haute école de santé Fribourg HES-SO, Route des Cliniques 15, 1700 Fribourg, Switzerland.

http://dx.doi.org/10.1016/j.ejon.2015.05.009
1462-3889/

2013). Importantly, the physical symptoms resulting from the disease and its treatment can cause significant psychological distress, including depression and anxiety (Brintzenhofe-Szoc et al., 2009; Carlsen et al., 2005; Cooley et al., 2003). In addition, lung cancer carries a high disease burden and patients report high levels of unmet supportive care needs related to psychological and physical aspects of daily life (Li and Girgis, 2006; Sanders et al., 2010).

In recognition of the needs of cancer patients, the European Partnership for Action Against Cancer (EPAAC) recommends a specialized Multidisciplinary Team (MDT) that includes an expert nurse to provide expert clinical advice to patients, exchange key patient information and care recommendations with the MDT (Borras et al., 2014). The APLCN supports and counsels patients and families during all stages of the disease providing emotional, informational and behavioral support. These activities focus on: i) developing patient self-management of symptoms, ii) improving communication within the care team and iii) ensuring continuity of care (Moore, 2002). To date, there are limited data on the effectiveness of such specialized nursing roles for improving outcomes or continuity of care (Aubin et al., 2012). Two initial studies on the clinical effect of specialist nurses (Bredin et al., 1999) and the role of APLCNs (Moore et al., 2002) point to positive outcomes on lung cancer patients, with decreased self-reported breathlessness, enhanced performance status, as well as improved emotional state and patient satisfaction.

In line with the EPAAC recommendations, the University Hospital of Lausanne (CHUV) has launched a Thoracic Cancer Center and we undertook a structured process to develop, implement and evaluate a novel APLCN role as key component of a MDT within this Thoracic Cancer Center. The APLCN focuses on delivering and coordinating care for patients complex care needs and thus the role includes expanded autonomy beyond the traditional scope of nursing practice. Accordingly, this role can be considered within the domain of Advanced Practice Nursing (APN) (Bryant-Lukosius et al., 2004).

Introducing a new APN role is a complex and dynamic process that must overcome a number of barriers including: i) lack of clearly defined role and goals/expectations, ii) stakeholders' confusion related to describing the APN role, iii) difficulty in identifying and addressing obstacles to role implementation and iv) lack of evidence-based strategies guiding role development, implementation and evaluation (Bryant-Lukosius et al., 2004). Some have posited that using a systematic approach is an effective means to overcome these barriers. One such approach is the "Participatory, Evidence-based, Patient-focused process, for guiding the development, implementation, and evaluation of advanced practice nursing" (PEPPA framework) (Bryant-Lukosius and DiCenso, 2004). The PEPPA framework was developed in the context of the Canadian health system for APN role development. However, to our knowledge, this framework has not been tested outside of North American context (McNamara et al., 2009). Therefore, we aim to describe the development of an APLCN model at a Swiss Academic Medical Center as part of a specialized Thoracic Cancer Center and to evaluate the applicability of the PEPPA framework in this process.

2. Method

The PEPPA framework was developed to address implementation challenges for APN roles (Bryant-Lukosius and DiCenso, 2004) and is designed to: i) use the best available evidence and relevant sources of data to identify needs and establish goals and clearly define the role, ii) support the development of patient-centered nursing practice, iii) use APN skills/knowledge in all role dimensions, iv) engage key stakeholders in the development and implementation process, and v) define outcomes and promote ongoing role development through monitoring and evaluation.

The framework comprises nine-phases: 1) define the patient population and describe current model of care; 2) identify stakeholders and recruit participants; 3) determine the need for a new model of care; 4) identify priority problems and goals to improve the model of care; 5) define the new model of care and the APN role; 6) plan implementation strategies; 7) initiate the implementation plan; 8) evaluate the APN role/new model of care; and 9) conduct long-term monitoring of the APN role/model of care. For the introduction of the APLCN role, we applied the first seven phases of the framework.

2.1. Phase 1: define the patient population and describe current model of care

The first phase intends to define the clinical pathway of a specific patient population and map how care providers interact with patients and families (Bryant-Lukosius and DiCenso, 2004). We defined the patient population as those undergoing treatment for lung cancer at the tertiary academic medical center. To describe the current model of care, we used a middle-range nursing theory, the Nursing Role Effectiveness Model (NREM) (Irvine et al., 1998) to guide the new model of care (see Method phase 5). This model is useful to depict a complex system of interrelated factors within a practice setting that impact role effectiveness (Sidani and Irvine, 1999). The NREM is based on the structure-process-outcome indicators of Donabedian's (1980) that has long been used to describe the relationship between patient characteristic variables, nursing interventions, and patient outcomes (Irvine et al., 1998).

The current model of care has been described by existing guidelines used in the hospital medical oncology and thoracic surgery departments. In addition, between January and May 2013, 22 exploratory, semi-structured interviews were conducted, with a convenience sample of expert-providers. Participants for exploratory interviews were purposefully selected from the departments of oncology, thoracic surgery (malignancies), pneumology, and radiation oncology. Health care professionals included head physicians and nurses of the respective services, clinical providers (physicians and nurses) staffing the inpatient and outpatients wards as well as data managers who help to coordinate patient flow through their services. The aim was to describe the current illness trajectory of lung cancer patients and existing supportive care infrastructures from the time of diagnosis through the end of oncology treatment or to the palliative phase and to determine the need for a new model of care. All interviews followed a self-developed interview guide (Supplemental Material 1, online only) and were conducted in the center by the Clinical Nurse Specialist (CNS) responsible for the APLCN role development project and lasted on average 45 min. The CNS took notes during the interviews that were coded by the CNS and clustered based on thematic analysis following an inductive approach to the data (Braun and Clarke, 2006; Sim, 1998). Thematic analysis followed the six phases proposed by Braun and Clarke (2006): 1) familiarizing with data, 2) generating initial codes, 3) searching for themes, 4) reviewing themes, 5) defining and naming themes, and 6) producing the report.

2.2. Phase 2: identify stakeholders and recruit participants

Role acceptance and the support of key stakeholders are fundamental for successful implementation of a new role. Further, stakeholder participation at the onset of the project is critical for ensuring commitment to the project, providing support for planned change and establishing a culture of shared values and beliefs