European Journal of Oncology Nursing 18 (2014) 151–158

Contents lists available at ScienceDirect

European Journal of Oncology Nursing

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

Why a carefully designed, nurse-led intervention failed to meet expectations: The case of the Care Programme for Palliative Radiotherapy

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Keywords:
Oncology
Palliative
Outpatient
Radiotherapy
Nurse practitioner
Programme development
Intervention
Implementation
Evaluation
Action research

ABSTRACT

Purpose of the research: Implement and evaluate the Care Programme for Palliative Radiotherapy (CPPR) in the Outpatient Clinic of the Department of Radiotherapy, Erasmus MC-Cancer Institute, Rotterdam, The Netherlands.
Methods: Participatory Action Research (PAR). Qualitative descriptive design: participatory observations, semi-structured interviews with patients and professionals and focus groups with professionals; content analysis of documents.
Sample: Patients with impending paraplegia due to metastatic spinal cord compression, nurse practitioners (NPs), nurse manager, staff and ward nurses, radiographers, radiotherapists and medical doctors.
Key results: After a shift from inpatient to outpatient radiotherapy treatment, patients and healthcare professionals perceived shortcomings in the oncological chain care. The CPPR was developed in a participative way giving a key role to the NP. Evaluation after implementation of the programme showed that patients and professionals were predominantly positive about its effects. However, implementation was not sustained due to lack of institutional and managerial support.
Conclusions: The technological innovation far preceded the organisational changes needed to provide innovative, patient-centred care. Implementing this programme with a central role for the NP was seen as the solution to the problems identified. However, in spite of the systematic approach using PAR, the programme was not successful in bringing about sustained improvements. NPs fulfil a valuable role in the care and support of patients with palliative care needs but need institutional support. More attention should have paid to the organisational context. Involve all relevant actors; use a participatory approach to enhance commitment; ensure the support of management during the whole project.

Introduction

Advances in medical technology, such as laparoscopic surgery or breast tumour excisions, have had repercussions on oncological healthcare, including organizational consequences (Varkey and Antonio, 2010; de Veer et al., 2011). An important consequence is the need to provide more outpatient and day care services (Wasowicz-Kemps, 2008). A shift to outpatient treatment then implies that patients face more, though shorter, contacts and hospital visits – and consequently a greater number of transitions between the levels of care over the course of the illness. For healthcare organizations to guarantee continuity of care they should therefore be equipped to follow the patients' transitions.

Patients with impending paraplegia due to metastatic spinal cord compression (MSCC) urgently need palliative care because they may suffer severe pain and are at risk to partial or complete paraplegia. In these cases, immediate palliative radiotherapy is essential (Maranzano et al., 2005).

Being diagnosed with impending paraplegia implies an acute transition in illness. Transition in this context is defined as "a

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http://dx.doi.org/10.1016/j.ejon.2013.11.005

transition from one stage of life, physical or psychological condition or from one social role to another, which temporarily disrupts normal life and demands adjustment" (Schumacher and Meleis, 1994). Patients faced with such transitions need good psychosocial support, communication and information, especially when transitions are acute (Rainbird et al., 2009).

Until a few years ago, urgent palliative radiotherapy involved inpatient treatment with daily radiotherapy sessions for about two weeks. Nowadays therapy is provided on an outpatient basis, involving one, two or five sessions on hip, spine and pelvis. This innovative outpatient treatment has the same clinical results as conventional inpatient therapy, does not cause more side effects, but is less burdensome for patients (Hoskin et al., 2003; Maranzano et al., 2009; McKee, 2005). At the same time, the shift from inpatient to outpatient care may compromise the quality of care and the psychosocial support for these seriously, and often acutely, ill patients.

Organizational change in healthcare is hard to achieve and slow to take hold. This 'change management' is defined as "any action or process taken to smoothly transition an individual or group from the current state to a future desired state of being" (Varkey and Antonio, 2010).

It has become clear that the manner of interaction between actors determines whether influential factors will become facilitating factors or barriers (Fleuren et al., 2004; Greenhalgh et al., 2004). A stepwise approach to the implementation of innovations is recommended (Fleuren et al., 2004; Greenhalgh et al., 2004; Grol and Grimshaw, 2003; Varkey and Antonio, 2010).

The Department of Radiotherapy of the Erasmus MC – Cancer Institute, Rotterdam, The Netherlands, being confronted with long waiting lists, new insights in technological developments, undertook a shift from inpatient to outpatient radiotherapy in the early 2000s. This shift involved a drastic change in activities for both radiotherapists and ward nurses. The consequences of these changes for patients and professionals were investigated in our study initiated in 2004. On the basis of the findings from this study, healthcare professionals and researchers together developed a comprehensive care programme for palliative radiotherapy (CPPR) to provide more continuity of care and comprehensive support for outpatients. The nurse practitioner was given a prominent role in most of the phases of the innovation cycle. To promote constant interaction between the researchers and the health care professionals, the CPPR was developed along the principles of participatory action research (Bergdahl et al., 2010; Froggatt and Hockley, 2011; Gysels et al., 2012; Hall, 2006; Harrison and Graham, 2012; Hart, 1996; Kelly, 2005). Here we report on the design and evaluation of the CPPR. The leading research questions are as follows. (1) What were the reasons for developing a new care programme for patients receiving palliative radiotherapy? (2) How was it designed and implemented? (3) How did patients and healthcare professionals perceive the outcomes in terms of satisfaction, attention to patients' needs, and sustainability of the programme?

Methods

Design

An explorative, qualitative multi-method approach was arranged based on the principles of the regulative cycle as described by van Strien (1997) (Fig. 1). This cycle is usually applied to solve context-specific and unique problems in practice. Here, we refer to the subsequent stages of the regulative cycle applied to our study: (I) problem choice and diagnosis, (II) plan, (III) implementation, and (IV) evaluation. Activities and methods in the various research stages are summarized in Table 1.

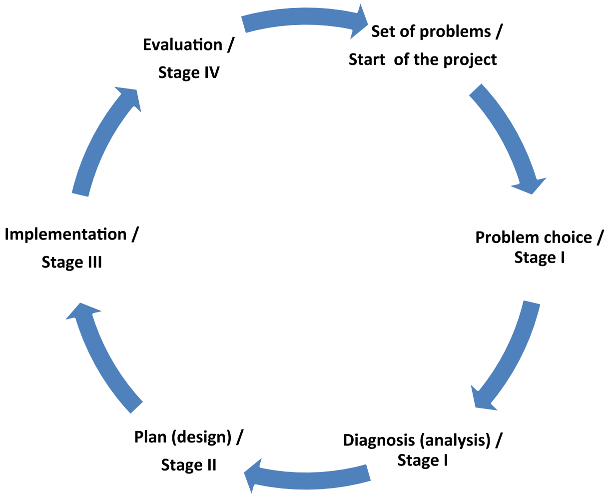

Fig. 1. The regulative research cycle by van Strien (1997), and the four stages of the current research.

Setting and participants

The project was carried out between 2004 and 2010 at the Department of Radiotherapy of Erasmus MC – Cancer Institute, a major oncological treatment centre in the Netherlands, with more than 500,000 outpatient visits annually (Erasmus MC, 2011). The multidisciplinary project team consisted of two researchers (AvS, MVN) from the Centre of Expertise for Innovations in Care, Rotterdam University, and eight healthcare professionals of the Department of Radiotherapy: a nurse manager, a staff nurse, a ward nurse, two radiotherapists, two radiographers and the nurse practitioner (project leader). The project team met every month. Purpose-trained nursing students of Rotterdam University participated as co-researchers, supervised by a researcher (MVN).

Data collection and analysis

Healthcare professionals and patients participated in observations, interviews and focus group discussions. Field notes were prepared the same day for preliminary analysis. Interviews and focus group discussions were recorded digitally and transcribed ad verbatim. One of the researchers (MVN) analysed the transcripts and field notes. From the initial open coding, some relevant themes emerged. Each next transcript was analysed in the same manner, revealing the same or some new themes.

The results of the subsequent stages of the regulative cycle were discussed in the project group and served as input for the next stage. Below, we describe each stage's aim and methods of data collection.

Stage I: problem choice and diagnosis

Aim: identifying the practice problem and identifying areas for improvement through collecting patients' and staff experiences with care provision, information supply and outpatient palliative radiotherapy in the cancer care chain.

Patients: participatory observations ($n = 8$) and semi-structured interviews ($n = 7$) with the same patients after the second radiotherapy session. One patient was not able to communicate in Dutch and was only involved in the participatory observations. Inclusion criteria were: risk of paralysis due to spinal metastasis, outpatient treatment, ≥ 18 years, and ability to communicate in Dutch. Participatory observations were held twice and lasted 2–3 h at the