# Workplace learning for general practitioners in palliative care:
## suitable and feasible?

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Dit werk is opgedragen aan mijn ouders

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PhD-Thesis

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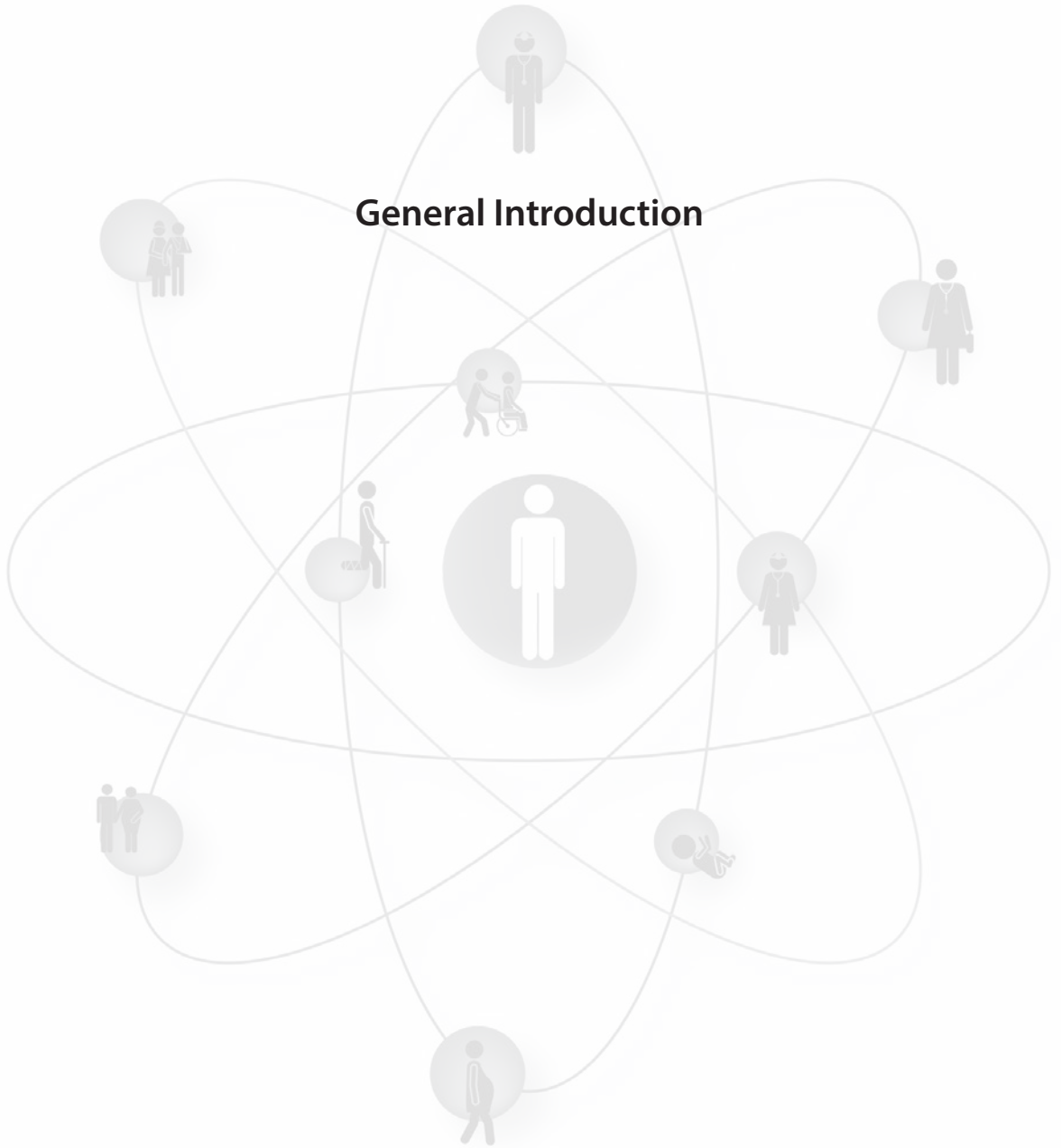Prof. dr. Nele Van Den Noortgate, Ghent University (Secretary)

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# General Introduction

## GENERAL INTRODUCTION

## Background

### 1. Palliative care

During the last decades population health care needs have been changing world-wide: people get older and live longer with chronic diseases[1,2]. These chronic diseases comprise malignant as well as non-malignant diseases. The WHO statistic reports describe approximately 57 million deaths a year worldwide. Thereof 36 million (63%) die of non-communicable diseases among which 17 million of cardiovascular diseases, 7,6 million of cancers, 4,2 million of chronic respiratory diseases and 1,3 million of diabetes[3]. All these patients could benefit from palliative care at some stage of their disease. We should add to this number the high number of HIV/Aids patients throughout the world.

In response to this changing global situation, the WHO published 'The World Health Organization's Global Perspective' thereby stressing the importance of palliative care[4]. They described the new WHO definition which has been altered on two levels[5]. Firstly the relevance of 'not being responsive to curative therapy' has been left out. Principles of palliative care, as it is stated in the report, should be applied as early as possible in the course of any chronic, ultimately fatal illness. The authors reasoned that the care problems at the end of life often originate at an earlier time in the disease trajectory and thus may be addressed earlier. Secondly the focus of palliative care has been broadened from solely caring for the patient to caring for family and carers working with the patient also. This has led to the following definition of palliative care[6]:

*Palliative care is an approach that improves the quality of life of patients and their families facing the problems associated with life-threatening illness, through the prevention and relief of suffering by means of early identification and impeccable assessment and treatment of pain and other problems, physical, psychosocial and spiritual. Palliative care:*

- *provides relief from pain and other distressing symptoms;*
- *affirms life and regards dying as a normal process;*
- *intends neither to hasten or postpone death;*
- *integrates the psychological and spiritual aspects of patient care;*

- *offers a support system to help patients live as actively as possible until death;*
- *offers a support system to help the family cope during the patients illness and in their own bereavement;*
- *uses a team approach to address the needs of patients and their families, including bereavement counselling, if indicated;*
- *will enhance quality of life, and may also positively influence the course of illness;*
- *is applicable early in the course of illness, in conjunction with other therapies that are intended to prolong life, such as chemotherapy or radiation therapy, and includes those investigations needed to better understand and manage distressing clinical complications.*

## 2. Primary palliative care

Literature shows that a majority of palliative patients prefers being cared for at home until death [7]. This recent review aggregated data from 210 studies reporting on preferences of 100.000 people from 33 countries, both patients and non-patients. The conclusion was that most people prefer to die at home and that four fifths of patients did not change preference as their illness progressed. Primary health care should be prepared for this task. Both health care providers (through education) and society (through establishing e.g. practical and financial support) have a major task ahead. Strengthening primary health care and promoting inter-professional colla-borative practice is being advocated as a way of addressing the future health care challenges [8]. Of course equal attention must go to specialist palliative care (specialist health care providers) and residential care (e.g. hospices or palliative care units) for those patients who cannot remain at home until death. This thesis however will only focus on primary palliative care.

## 3. Research

In 1988 the European Association for Palliative Care (EAPC) was established. The mis-sion statement of the organisation is 'to bring together many voices to forge a vision of excellence in palliative care that meets the needs of patients and their families'. It strives to develop and promote palliative care in Europe through information, education and research using multi-professional collaboration, while engaging with

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stakeholders at all levels (http://www.eapcnet.eu). Throughout the world, national and international organisations were established with similar objectives.

One of the aims of the EAPC is to promote and support research in palliative care. In line with the WHO definition of palliative care it can be stated that palliative care is somehow 'different' than the usual health care. First of all, there is the extra emphasis on 'care' instead of 'cure' and second palliative patients present with a range of symptoms and complications which might not be addressed by simply extrapolating the principles of medicine and health care in general[9,10]. The second argument has been addressed by a continuous development of scientific research worldwide. To illustrate this we performed a simple search in Pubmed. We used one search term ('palliative care') combined with a filter on article type 'RCT' as a standard for high quality research or 'systematic review' as a means of synthesising knowledge and evidence.

|  | 'palliative care' + RCT | 'palliative care' + systematic review |
|---|---|---|
| **1983 – 1993** | 164 | 22 |
| **1993 – 2003** | 430 | 420 |
| **2003 – 2013** | 500 | 1457 |

This rising number of hits does not show the quality or the content of the research but clearly indicates the growing interest in adding to the body of knowledge in palliative care and disseminating it.

This quickly growing field implies a challenge for health care professionals. The needs of this specific patient population saddles health care professionals with a major task. To prepare for this task, education and training should be developed according to the evolving body of knowledge[11].

## 4. Education and training

In primary care, general practitioners (GPs) are responsible for patient care and need a set of palliative care competences. Recently, palliative care core competences for all health care professionals have been defined by the EAPC[12,13]. Furthermore, a guide for curriculum development for physicians (both undergraduate and postgraduate) has been written by the EAPC[14,15]. To be effective, these guides have to be implemented in the educational institutions. General practitioners' formal education consists of undergraduate and postgraduate education. Thereafter they

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rely on continuing medical education (CME) to maintain their competences. In this thesis we will focus on how practicing GPs continue their education after graduation, during their lifelong career.

### Lifelong learning and quality assurance

The quality of patient care depends on the up to date knowledge of health professionals [16]. Therefore health care professionals need to engage in lifelong learning in order to maintain their professional competence [17]. This need for lifelong learning has internationally been operationalised into a time-limited revalidation and recertification procedure. This procedure differs greatly in compulsoriness, controlling body, requirements for recertification and the way it is assessed, and whether it is with or without an examination [16,18-23]. This recertification procedure may comprise different components like participation in continuing medical education (CME), development of personal, social and managerial skills as well as peer review (comparing practice with professionals of the same discipline), external evaluation and practice inspection. However CME sessions are always a major part of it.

### Classroom based learning

For CME sessions to be effective there are some requirements, the choice of didactical techniques used is an essential element. Several reviews describe the inappropriateness of lectures in changing physician's practice behaviour as opposed to more interactive sessions that seem promising [24-26]. A recent review confirms these general statements on the value of classroom-based education in the case of palliative care [27]. The authors conclude: 'Classroom-based education and training is useful for enhancing professionals' skills and perceived preparedness for delivering end-of-life care but should be reinforced by actual practice experience.'

### Practice based learning

During undergraduate and postgraduate education, classroom- based learning is being complemented with practice based learning [28,29]. Ward rotation, clerkship and traineeship provide the necessary practice experience to add meaning to knowledge. Newly qualified doctors state to learn about their job through the collaboration with experienced nurses [30]. These doctors report learning about attitudes towards working with nurses, about identifying with a professional's role, about professional hierarchy and learning certain clinical skills (with nurses in an educational role). It is

not known what happens with this teaching-learning relationship during later career stages[31]. Practice experience as such does not seem to bring about effective learning since literature suggests that the quality of care provided by a doctor is inversely proportional to the number of doctor's years in practice when assessing knowledge, adherence to standards of practice for diagnosis, screening and prevention, adherence to standards of appropriate therapy or health outcomes[32]. Nevertheless, practicing professionals' daily activities can be a major source for learning. A recent review showed that reflection on practice experiences, preferably with guidance or supervision, may constitute an effective learning moment[33].

## The context of palliative care in Belgium

Section 2-6 is based on 'The Organisation of Palliative Care in Belgium' by Karen Van Beek and Johan Menten in 'Assessing Organisations to Improve Palliative Care in Europe' Ahmedzai et al. (Eds), 2010 – Vantilt Publishers, Nijmegen & Martien Frijns, Doetinchem – the Netherlands with permission of Johan Menten.

### 1. Demographics

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As described earlier, worldwide people live longer with chronic diseases. The same demographic projection is to be made for Belgium. The total population will increase and the number of older people will increase even faster[34].

|  | 2010 | 2030 | 2060 |
|---|---|---|---|
| Population (thousands) | 10.839,9 | 12.286,1 | 13.515,0 |
| Mean age | 40,8 | 42,5 | 43,8 |
| 65+ (Index 2010=100) | 100 | 145 | 180 |
| 85+ (Index 2010=100) | 100 | 152 | 319 |

In the year 2009 in Belgium following causes of death were counted: (the same groups of causes are presented as the groups of worldwide mortality to show the comparison)[34]

- All deaths: 103.816
- Cancer deaths: 27.973
- Endocrine disorders: 2821
- Cardiovascular deaths: 32.599
- Respiratory deaths: 11.278

Based on a study performed by the Belgian Health Care Knowledge Centre and ordered by the Ministry of Public Health, the estimation was that between 10,000 - 20,000 patients were in need of palliative care in Belgium as of October 2009[35].

Combining these numbers with the population projections for the next decades will lead to a growing population of patients in need of palliative care.

## 2. Organisation of primary palliative care

Firstly, in Belgium, three Federations of Palliative Care have been established: one in Flanders, one in the Walloon Region and one in Brussels. These Federations were installed to develop palliative care and to sensitise health care providers by offering specialised training and education.

Secondly, Belgium is divided into 25 Palliative Care Networks: 15 in Flanders, 8 in the Walloon Region, 1 in Brussels and 1 in the German Speaking Community. The board of directors of each network represents the different intra and extramural institutions (home care teams, general practitioners, rest and nursing homes, hospitals, patients and caregivers) involved in health care within that area and are responsible for the development of palliative care within that area. A coordinator leads the network and a 0.5 FTE clinical psychologist is employed by it.

As this thesis is written in Flanders, we provide more details about the situation in that region.

The Federation Palliative Care Flanders has five major policy principles (www.palliatief.be):

- managing knowledge and expertise in palliative care
- creating a societal basis for palliative care by communication with the general population
- offering training and education to health care professionals
- negotiating with the government to further structure and finance palliative care
- being an intermediary between all health care settings and palliative care professionals, fostering communication and ameliorating quality of palliative care in Flanders.

The 15 palliative care networks in Flanders have a number of responsibilities:

- Informing the population on possibilities and offer of palliative care
- Promoting and supporting collaboration with all palliative care providers (primary care, hospital, palliative care units, homes for the elderly, volunteer organisations, families, …)
- Providing training and education to health care professionals
- Supporting and organising volunteer capacity
- Keeping records of palliative care offer

Each palliative care network supports a multidisciplinary palliative home care team (PHCT). The home care teams are usually led by a nurse and need to consist of minimal 2 FTE nurses (with special training or experience in palliative care) and have at least 4 hours per week support by a general practitioner (with special training or experience in palliative care) and an 0.5 FTE administrator. According to regulations, 2.6 FTE personnel per 200,000 inhabitants should care for at least 100 palliative patients a year. The primary task of this PHCT is to support and advise primary health care providers (GPs, community nurses, physiotherapists, …) in their job of caring for palliative patients. Therefore, the PHCTs are available 24/7.

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## 3. Organisation of hospital palliative care

Two initiatives have been taken for hospitalised palliative patients.

First we have the palliative care units (PCU). In Belgium there are 51 PCUs (379 beds): Flanders 29 PCU (209 beds or 7,7 beds/unit), Walloon Region: 17 PCU (116 beds or +- 7 beds/unit), Brussels 5 PCU (54 beds or 10,8 beds/unit). This means 3,5 PCU beds per 100.000 inhabitants in Belgium.

Patients with very complex palliative care problems can be hospitalised in the PCU. The unit is specialised in symptom control, provides psychological guidance, spiritual and social care and offers bereavement counselling. The PCU aspires a domestic atmosphere and is 24/7 accessible for family and friends. Physicians in charge of a PCU must be a medical specialist or a general practitioner with special experience in palliative care. A PCU should be able to rely on a physiotherapist, a social worker, a chaplain, a psychologist and psychiatrist, oncologists, anaesthesiologists and geriatricians. The ratio of nurses per bed is 1.5 FTE.

Secondly we have the palliative care hospital support team (PST)

In Belgium there are 116 PSTs. For every 500 beds a PST must consist of 0.5 FTE physician, 0.5 FTE specialist nurse and 0.5 FTE psychologist. The PST looks after hospitalised patients in need of palliative care, supports these patients emotionally, socially and spiritually and gives advice on symptom control. They secure continuity of care when the patient is discharged and free to go home or to a nursing home.

Furthermore, seven hospitals in Belgium (4 in Flanders, 3 in the Walloon region) have a hospital-based pediatric palliative home care team).

## 4. Organisation of nursing home palliative care

Every nursing home needs to have the necessary infrastructure to care for and support terminal patients and their next of kin. The coordinating physician and the head nurse need to implement the palliative care model, educate their personnel and point out a dedicated palliative expert within the institution who can give palliative care advice to their nurses, paramedics, physiotherapists and other caregivers. A small rest home will meet with the regional palliative home care team.

## 5. Organisation of palliative day care centres

Palliative day care centres are complementary to primary home care; a multidisciplinary team with a certain ratio of educated nurses gives patient support and can offer important support to family and informal caregivers. Only patients with an incurable, progressive and terminal disease with a maximum remaining life expectancy of one year that are not residents of a nursing home can come here. Belgium has six recognised palliative day care centres, five of them situated in Flanders and one in the Walloon region.

## 6. Volunteers in palliative care

Volunteers play an important role in different palliative care settings in Belgium.

In 24% of the hospitals volunteers are involved in the palliative care hospital support team. Volunteer work is complementary to that of the other caregivers; volunteers can spend more time with the patients. Thanks to volunteers, informal caregivers can get some rest and sometimes even 24h presence can be warranted in home

care, this way hospital admissions can be prevented.

In 2005, 354 volunteers were affiliated with 14 home care teams in Flanders. Palliative care units have a large network of volunteers (700 in Flanders 2005). Palliative Care Networks in Flanders provide basic training to volunteers, refresher courses, evaluation moments and fee for transportation costs. In some networks peer supervision is organised for volunteers. In Brussels the network organises training once or twice a year for all volunteers and they provide a day of continued training once a month. In the Walloon region volunteers are advised to first do an internship as an introduction to palliative care. The home care teams provide 30-40 hrs of training .

## 7. General practitioners and palliative care

The abovementioned well-structured palliative care organisations' main task is to support and advise regular health care professionals in caring for palliative patients (in PCUs the responsible physician often is in charge of medical policy).

In primary care, general practitioners are responsible for palliative care provision. As described, the PHCTs support and advise GPs in this task. Currently another initiative has been taken to support GPs: the Care Pathway for Primary Palliative Care (CPPPC), financed by the National Institute for Health and Disability Insurance of the federal government of Belgium [36]. The Research Group Palliative Care of the University of Antwerp investigates the implementation of this Pathway in 5 Belgian regions and evaluates whether it helps to improve the quality of delivered palliative care.

Amidst these supporting initiatives, GPs carry final responsibility for the patient. This thesis focuses on the possibilities for general practitioners in Flanders to acquire and maintain the necessary competences for this task.

## 8. Aims and outline of this thesis

This thesis aims at exploring the ways GPs acquire and maintain the necessary competences to deliver palliative care at home. It describes the teaching/learning methods that are currently used, the GPs' preferences for ways of learning, characteristics of workplace learning and a possible method to improve WPL for GPs.

Therefore, following research questions (RQ) have been formulated:

*RQ1: What is the current offer of continuing medical education (CME) in palliative care*

*for GPs in Flanders?*

*RQ2: What are the views and preferences of GPs towards lifelong learning in palliative care?*

*RQ3: What are the current characteristics of workplace learning in primary palliative care?*

*RQ4: Can GPs' workplace learning be enhanced by training PHCT nurses to be learning facilitators?*

To answer these questions, following studies have been conducted:

### Part I: Education and training in palliative care for general practitioners: current status

In this first part we evaluated the current status of training and education in palliative care for GPs. The purpose of **Paper 1** was to describe the offer of continuing medical education (CME) in palliative care in Flanders and to explore the way CME providers address the GPs' CME preferences. The aim of **Paper 2** was to explore the quality criteria that are used to organise CME and the accessibility of this information to compose and evaluate an individual learning trajectory for every GP. In **Paper 3** we aimed to put these results in an international perspective by searching literature for similar data in Europe.

The aim of **Paper 4** was to describe the GPs' views and preferences towards education and training in palliative care. Since the delivery of high quality palliative care frequently calls for inter-professional teamwork, we conducted a focus group study to learn about the GPs' views and preferences towards inter-professional collaboration. The results of this study are reported in **Paper 5**.

### Part II: Workplace learning in primary palliative care: a valuable complement?

The purpose of this part is to evaluate the GPs' learning during collaboration with specialised PHCT nurses. Literature on workplace learning indicates that health care professionals can act as facilitator for each other's learning. It may be hypothesized that the expert nurses act as facilitator for GPs' learning. We performed a chart review of PHCTs' patient charts to see whether such teaching/learning interactions have been noticed and written down by the nurses. This is described in **Paper 6**. To have an overview of workplace learning characteristics we performed a cross-sectional survey amongst GPs and PHCT nurses recording what, how and from whom is being

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learned during inter-professional collaboration. The results are presented in **Paper 7**.

Next we wanted to know if the GPs' learning could be enhanced by supporting the nurses in their role as facilitators. A train-the-trainers program was developed. The evaluation of it is described in **Paper 8**. Finally, we performed an interview study to explored the nurses' experiences in their new role as facilitators of GPs learning. This is reported in **Paper 9**.

## Overview of studies and used methods

| Research Question | Paper | Methods |
|---|---|---|
| Current offer of CME for GPs in palliative care in Flanders | Paper 1 | Quantitative study<br>Cross-sectional survey in CME providers (n=234)<br>Questionnaires exploring content, format and educational techniques of sessions, GPs' attendance rate, evaluation of the sessions and considerations providers have when organising CME sessions |
| | Paper 2 | Quantitative study<br>Database audit of national data bank of CME<br>Analysis of content, usefulness and accessibility of data |
| | Paper 3 | Literature review |
| Views and preferences of GPs towards lifelong learning in palliative care | Paper 4 | Qualitative study<br>Focus group with GPs, PHCT members and CME providers (n=29)<br>Exploration of experiences, views and preferences towards education and training |
| | Paper 5 | Qualitative study<br>Focus group with GPs, PHCT members and CME providers (n=29)<br>Exploration of experiences and views toward inter-professional collaboration during palliative home care |

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| Current characteristics of workplace learning in primary palliative care | Paper 6 | Quantitative study |
|---|---|---|
| | | Retrospect chart review (n=336) |
| | | Analysis of contacts between GPs and PHCT nurses, topics discussed and noted learning behaviour during contacts. |
| | Paper 7 | Quantitative study |
| | | Cross-sectional survey among GPs (n=267) and PHCT nurses (n=73) |
| | | Questionnaires about what, how and from whom is being learned during collaboration |
| Enhancing GPs workplace learning by training PHCT nurses to be learning facilitators | Paper 8 | Mixed Method study |
| | | Design, testing and evaluation of an educational intervention with PHCT nurses (n=33) |
| | | Process evaluation, quantitative summative assessment, qualitative evaluation with interviews |
| | Paper 9 | Qualitative study |
| | | Interview study with 21 PHCT nurses |
| | | Exploring factors influencing the professional behaviour of PHCT nurses towards their role as facilitator of GPs' learning |

# References

1. World Health Organization 2005: Preventing chronic disease: a vital investment Geneva: World HealthOrganization; 2005. http://www.who.int/chp/chronic_disease_report/en/

2. Mathers CD, Loncar D. Projections of global mortality and burden of disease from 2002 to 2030. PLoS Med 2006;3(11):e442.

3. Global status report on noncommunicable diseases 2010. World Health Organization; 2010. http://www.who.int/nmh/publications/ncd_report2010/en/

4. Sepúlveda C, Marlin A, Yoshida T, Ullrich A. Palliative care: the World Health Organization's global perspective. J Pain Symptom Manag 2002;24:91-96.

5. Cancer Pain Relief and Palliative Care. Report of a WHO Expert Committee. WHO Technical Report Series, No. 804. Geneva: World Health Organization; 1990.

6. National Cancer control programmes: policies and managerial guidelines, 2nd ed. Geneva: World Health Organization; 2002.

7. Gomes B, Calanzani N, Gysels M, Higginson IJ. Heterogeneity and changes in preferences for dying at home: a systematic review. BMC Palliative Care 2013;12:7.

8. Framework for Action on Interprofessional Education & Collaborative Practice (WHO/HRH/HPN/10.3). Geneva: World Health Organization; 2010. http://www.who.int/hrh/nursing_midwifery/en/

9. Verhagen CC, Niezink AG, Engels YY, Hekster YY, Doornebal JJ, Vissers KC. Off-label use of drugs in pain medicine and palliative care: an algorithm for the assessment of its safe and legal prescription. Pain Pract 2008 May-Jun;8(3):157-63.
doi: 10.1111/j.1533-2500.2008.00189.x. Epub 2008 Mar 27.

10. Culshaw J, Kendall D, Wilcock A. Off-label prescribing in palliative care: a survey of independent prescribers. Palliat Med 2013 Apr;27(4):314-9. doi:0.1177/0269216312465664.

11.    Frenk J, Chen L, Zulfiqar AB, Cohen J, Crisp N, Evans T, Fineberg H, Garcia P, Yang K, Kelley P, Kistnasamy B, Meleis A, Naylor D, Pablos-Mendez A,  Reddy S, Scrimshaw S, Sepulveda J, Serwadda D, Zurayk H. Health professionals for a new century: transforming education to strengthen health systems in an interdependent world. The Lancet 2010;376(9756):1923-1958.

12.    Gamondi C, Larkin P, Payne S. Core compentencies in palliative care: an EAPC White Paper on palliative care education – part 1. European Journal of Palliative Care 2013;20(2).

13.    Gamondi C, Larkin P, Payne S. Core competencies in palliative care: an EAPC White Paper on palliative care education – part 2. European Journal of Palliative Care 2013;20(3).

14.    Elsner F, Centeno C, De Conno F, Ellershaw J, Eychmuller S, Filbet M, Kaasa S, Larkin P. Recommendations of the EAPC for the Development of postgraduate Curricula leading to Certification in Palliative Medicine. EAPC 2009, ISBN: 978-88-902961-7-8.    http://www.eapcnet.eu/Themes/Organisation/Linkstoassociations.aspx 15.

15.    Elsner F, Centeno C, Cetto G, et al. Recommendations of the European Association for Palliative Care (EAPC) For the Development of Undergraduate Curricula in Palliative Medicine At European Medical Schools. EAPC 2013, ISBN: 978-88-902961-9-2.

16.    Costa A, Van Hemelryck F, Aparicio A, Gatzemeier W, Leer JW, Maillet B, Hossfeld DK. Continuing medical education in Europe: Towards a harmonised system. Eur J Cancer 2010;46:2340–2343.

17.    Marinopoulos SS, Dorman T, Ratanawongsa N, Wilson LM, Ashar BH, Magaziner JL, Miller RG, Thomas PA, Prokopowicz GP, Qayyum R, Bass EB. Effectiveness of continuing medical education. Evid Rep Technol Assess (Full Rep) 2007 Jan;149:1-69.

18.    Merkur S, Mossialos E, Long M, McKee M. Physician revalidation in Europe. Clin Med 2008;8:371-6.

19.    Horowitz SD. Invited Article: Maintenance of certification: the next phase in assessing and improving physician performance. Neurology 2008;71:605-9.

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20. Maisonneuve H, Matillon Y, Negri A, Pallarés L, Vigneri R, Young HL. Continuing medical education and professional revalidation in Europe: five case examples. J Contin Educ Health Prof 2009 Winter;29(1):58-62. doi: 10.1002/chp.20007.

21. Garattini L, Gritti S, De Compadri P, Casadei G. Continuing Medical Education in six European countries: a comparative analysis. Health Policy 2010 Mar;94(3):246-54. doi: 10.1016/j.healthpol.2009.09.017. Epub 2009 Nov 12.

22. Flannery MT. Trends in the History of Certification and Recertification of the American Board of Internal Medicine. Am J Med Sci 2013;0(0):1-4.

23. Buscemi D, Wang H, Phy M, Nugent K. Maintenance of certification in Internal Medicine: participation rates and patient outcomes. J Community Hosp Intern Med Perspect 2013 Jan 7;2(4). doi: 10.3402/jchimp.v2i4.19753. Print 2012.

24. Davis D, O'Brien MA, Freemantle N, Wolf FM, Mazmanian P, Taylor-Vaisey A. Impact of formal continuing medical education: do conferences, workshops, rounds, and other traditional continuing education activities change physician behavior or health care outcomes? JAMA 1999 Sep 1;282(9):867-74.

25. Bloom BS. Effects of continuing medical education on improving physician clinical care and patient health: a review of systematic reviews. Int J Technol Assess Health Care 2005 Summer;21(3):380-5.

26. Mazmanian PE, Davis DA, Galbraith R. Continuing medical education effect on clinical outcomes: effectiveness of continuing medical education: American College of Chest Physicians Evidence-Based Educational Guidelines. Chest 2009 Mar;135(3 Suppl):49S-55S. doi: 10.1378/chest.08-2518. American College of Chest Physicians Health and Science Policy Committee.

27. Pulsford D, Jackson G, O'Brien T, Yates S, Duxbury J. Classroom-based and distance learning education and training courses in end-of-life care for health and social care staff: A systematic review. Palliat Med 2013 Mar;27(3):221-235.

28.     Teunissen P. Unraveling learning by doing. A study of workplace learning in postgraduate medical education [PhD thesis]. Amsterdam, Vrije Universiteit Amsterdam; 2009.

29.     Dornan T, Littlewood S, Margolis SA, Scherpbier A, Spencer J, Ypinazar V. How can experience in clinical and community settings contribute to early medical education? A BEME systematic review. Med Teach 2006 Feb;28(1):3-18.

30.     Burford B, Morrow G, Morrison J, Baldauf B, Spencer J, Johnson N, Roth-well C, Peile E, Davies C, Allen M, Illing J. Newly qualified doctors' percep-tions of informal learning from nurses: implications for interprofessional education and practice. J Interprof Care 2013 Sep;27(5):394-400. doi: 10.3109/13561820.2013.783558. Epub 2013 May 9.

31.     Dornan T. Workplace learning. Perspect Med Educ 2012 Mar;1(1):15-23. doi: 10.1007/s40037-012-0005-4. Epub 2012 Feb 7.

32      Choudhry NK, Fletcher RH, Soumerai SB. Systematic Review: The Relation-ship between Clinical Experience and Quality of Health Care. Ann Intern Med 2005;142:260-73.

33.     Mann K, Gordon J, MacLeod A. Reflection and reflective practice in health professions education: a systematic review. Adv in Health Sci Educ 2009;14:595-621.

34.     http://statbel.fgov.be/nl/modules/publications/statistiques/bevolking/ Doodsoorzaken.jsp

35.     Keirse E, Beguin C, Desmedt M, Deveugele M, Menten J, Simoens S, Wens J, Borgermans L, Kohn L, Spinnewijn B, Cardinael A, Kutten B, Vanden Berghe P, Paulus D. Organisatie van de palliatieve zorg in België (Organisation of palliative care in Belgium). Health Services Research (HSR). Brussel: Fede-raal Kenniscentrum voor de Gezondheidszorg (KCE). 2009. KCE Reports 115A. https://kce.fgov.be/nl

36.     Pro-Spinoza Care Pathway for Primary Palliative Care (CPPPC) http://www.pro-spinoza.be/index.php/home/

# PART I

## Education and training in palliative care for general practitioners in Flanders:  current status

Are we prisoners of the system or prisoners of our own thinking?
(Senge 1990)

## Part I
## Education and training in palliative care for general practitioners in Flanders: current status

Introduction

Chapter 1: Continuing medical education for general practitioners.

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## INTRODUCTION TO PART I: THE SITUATION OF GPs AND CME IN FLANDERS

In part I of this thesis we will evaluate the current offer of continuing medical education (CME) in palliative care for general practitioners (GPs).

In Belgium GPs are licensed by the Minister of Public Health. Accreditation (the term used for revalidation in Belgium) is granted by the National Institute for Insurance Against Disease and Invalidity (INAMI/RIZIV) if the doctor meets additional requirements, including participation in CME (20 Credit Points a year) and peer review (at least twice a year). This accreditation is not obligatory, but enables GPs to charge higher reimbursable fees to patients. The re-evaluation and recertification of GPs in Belgium is currently limited to a mostly administrative regulation. Accreditation of GPs is based on the (non-controlled) presence on CME sessions. Additionally no learning outcome assessment is being performed. GPs rely on this offer of CME to keep their knowledge and skills up to date in order to provide high quality patient care. The European Association for Palliative Care (EAPC) has written curriculum suggestions (both undergraduate and postgraduate) for physicians, comprising the necessary competences a doctor should have to deliver high quality palliative care[1,2]. It is not known whether the current offer of CME in Flanders matches these curriculum suggestions. Literature also provides information on the effectiveness of different educational techniques. An overview is shown in table 1. It is not known to what extent CME providers in Flanders are using the most effective techniques. As such we do not know to what extent GPs can be trained and educated in palliative care by this CME. Our first study aims to answer this question.

Furthermore literature describes GPs ' wishes and preferences towards CME[3-6]. These preferences influence the attendance of CME sessions and must therefore be addressed when appropriate. We do not know whether these preferences are valid for the Flemish GP in the case of palliative care. Our focus group study will explore this item.

A recent Cochrane review shows that the quality of care for palliative patients is enhanced by collaboration with specialized palliative home care teams[7]. Considering the context of primary care in Flanders, with frequent and intense collaboration between GPs and Palliative Home Care Teams (PHCTs), we will explore the views and preferences of GPs towards this inter-professional collaboration in a third study.

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**Table 1 Effectiveness of different educational techniques**

| General conclusions on effectiveness of educational methods in literature |
|---|
| Interactive and mixed educational sessions, that enhance participant activity and provide the opportunity to practice skills, were associated with a significant effect on practice whereas single lectures show no effect[8]. |
| Live media was more effective than print, multimedia was more effective than single media interventions, and multiple exposures were more effective than a single exposure[9]. |
| Single live and multiple media appeared to be generally positive in their effect, print media much less so. Multiple educational techniques were more successful at changing provider performance than single techniques[10]. |
| Mixed interactive and didactic education meetings were more effective than either didactic meetings or interactive meetings. Strategies to increase attendance at educational meetings, using mixed interactive and didactic formats, and focusing on outcomes that are likely to be perceived as serious may increase the effectiveness of educational meetings. Educational meetings alone are not likely to be effective for changing complex behaviours[11]. |
| Feedback may be more effective when baseline performance is low, the source is a supervisor or colleague, it is provided more than once, it is delivered in both verbal and written formats, and when it includes both explicit targets and an action plan[12]. |
| Interactive techniques (audit/feedback, academic detailing/outreach, and reminders) are the most effective at simultaneously changing physician care and patient outcomes. Clinical practice guidelines and opinion leaders are less effective. Didactic presentations and distributing printed information only have little or no beneficial effect in changing physician practice[13]. |
| Community-based strategies such as academic detailing (and to a lesser extent, opinion leaders), practice-based methods such as reminders and patient-mediated strategies, and multiple interventions appeared to be most effective activities. Mixed results and weaker outcomes were demonstrated by audit and educational materials, while formal CME conferences without enabling or practice-reinforcing strategies, had relatively little impact[14]. |
| Interventions involving several modalities, instructional techniques and multiple exposures are more effective. New CME interventions must emphasize actual performance and should correlate with clinical outcomes. Improved CME practice must in turn lead to continuing critical reflection, practice modification and implementation with a focus towards excellent patient care[15]. |

# References

1.      Elsner F, Centeno C, De Conno F, Ellershaw J, Eychmuller S, Filbet M, Kaasa S, Larkin P.  Recommendations of the EAPC for the Development of post-graduate Curricula leading to Certification in Palliative Medicine EAPC 2009, ISBN: 978-88-902961-7-8

2.      Elsner F, Centeno C, Cetto G et al. Recommendations of the European Association for Palliative Care (EAPC) For the Development of Undergraduate Curricula in Palliative Medicine At European Medical Schools 2013 EAPC, ISBN: 978-88-902961-9-2

3.      Kelly MH, Murray TS. General practitioners' views on continuing medical education. Br J Gen Pract. 1994;44(387):469-71.

4.      Little P, Hayes S. Continuing professional development (CPD): GPs' perceptions of post-graduate education-approved (PGEA) meetings and personal professional development plans (PDPs). Fam Pract. 2003;20(2):192-8.

5.      Goodyear-Smith F, Whitehorn M, McCormick R. Experiences and preferences of general practitioners regarding continuing medical education: a qualitative study N Z Med J. 2003;116(1172):U399.

6.      Shipman C, Addington-Hall J, Barclay S, Briggs J, Cox I, Daniels L, Millar D. Educational opportunities in palliative care: what do general practitioners want?  Palliat Med. 2001;15(3):191-6.

7.      Gomes B, Calanzani N, Curiale V, McCrone P, Higginson IJ. Effectiveness and cost-effectiveness of home palliative care services for adults with advanced illness and their caregivers. Cochrane Database Syst Rev. 2013;6:CD007760. doi: 10.1002/14651858.CD007760.pub2.

8.      Davis D, O'Brien MA, Freemantle N, Wolf FM, Mazmanian P, Taylor-Vaisey A. Impact of formal continuing medical education: do conferences, workshops, rounds, and other traditional continuing education activities change physician behavior or health care outcomes? JAMA. 1999;282(9):867-74.

9.      Marinopoulos SS, Dorman T, Ratanawongsa N, Wilson LM, Ashar BH, Magaziner JL, Miller RG, Thomas PA, Prokopowicz GP, Qayyum R, Bass EB. Effecti-

veness of continuing medical education. Acad Med. 2008;83(3):274-83. doi: 10.1097/ACM.0b013e3181637925. Review.

10. Davis D, Galbraith R. 9. Continuing medical education effect on practice performance: effectiveness of continuing medical education: American College of Chest Physicians Evidence-Based Educational Guidelines. Chest. 2009;135(3 Suppl):42S-48S. doi: 10.1378/chest.08-2517. Review.

11. Forsetlund L, Bjørndal A, Rashidian A, Jamtvedt G, O'Brien MA, Wolf F, Davis D, Odgaard-Jensen J, Oxman AD. Continuing education meetings and workshops: effects on professional practice and health care outcomes. Cochrane Database Syst Rev. 2009;(2):CD003030. doi: 10.1002/14651858. CD003030.pub2. Review.

12. Ivers N1, Jamtvedt G, Flottorp S, Young JM, Odgaard-Jensen J, French SD, O'Brien MA, Johansen M, Grimshaw J, Oxman AD. Audit and feedback: effects on professional practice and healthcare outcomes. Cochrane Database Syst Rev. 2012;6:CD000259. doi: 10.1002/14651858.CD000259.pub3.

13. Bloom BS. Effects of continuing medical education on improving physician clinical care and patient health: a review of systematic reviews. Int J Technol Assess Health Care. 2005;21(3):380-5. Review.

14. Davis D. Does CME work? An analysis of the effect of educational activities on physician performance or health care outcomes. Int J Psychiatry Med. 1998;28(1):21-39. Review

15. Ahmed K1, Wang TT, Ashrafian H, Layer GT, Darzi A, Athanasiou T. The effectiveness of continuing medical education for specialist recertification. Can Urol Assoc J. 2013;7(7-8):266-72. doi: 10.5489/cuaj.378.

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**Continuing medical education for general practitioners.**

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**Paper 1:**

**The landscape of postgraduate education in palliative care for general practitioners: results of a nationwide survey in Flanders, Belgium**

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Medical Education

# The landscape of postgraduate education in palliative care for general practitioners: results of a nationwide survey in Flanders, Belgium

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ABSTRACT

*Objective:* To describe the offer of continuing medical education (CME) in palliative care in Flanders, Belgium and to explore the way providers of CME address the preferences of general practitioners (GP's) towards CME.
*Methods:* Questionnaire-survey among official providers of formal CME.
*Results:* The response rate was 43%, equally distributed over all 5 provinces of Flanders. Data show large content gaps, an under usage of appropriate educational techniques and an absence of evaluation of the impact of CME on clinical practice. Providers of CME explain how they take the preferences of GP's concerning education in palliative care into account.
*Conclusions:* The present offer of CME is insufficient to educate GP's in palliative care. The absence of quality criteria and the lack of coordination between different providers results in an unattractive labyrinth of courses leaving GP's and their patients in the cold.
*Practice implications:* A comprehensive offer of CME sessions should be installed in a coordination between all providers. This could render the use of means (logistics and speakers) more efficient. Further research could look into other ways of acquiring palliative care competences such as evaluating the learning effect of GP's working together with specialized palliative home care teams.

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## 1. Introduction

In most European countries the development of palliative care services has increased gradually during the last decades [1]. Home care teams, hospices, support teams in hospitals and specialized palliative care units have been established in most countries. An ageing population with increasing numbers of patients suffering from advanced cancer and severe non-malignant diseases will reinforce the need for palliative care. Delivering high quality palliative care is a difficult, complex and demanding task which should be executed by sufficiently educated and trained professionals [2]. Several countries have installed an undergraduate palliative care curriculum and suggestions are made to consider palliative medicine to be a medical (sub-) specialty [3]. A growing number of doctors acquire an official certification in palliative medicine [4].

A majority of palliative patients prefers to spend their final days in their own homes, expecting their general practitioner (GP) to take care of them [5–7]. GP's consider palliative home care as an essential part of their job responsibilities and are willing to undertake this challenge [8,9]. According to the palliative care philosophy of interdisciplinary teamwork GP's are working together with community nurses, palliative care specialists in hospitals and, in Belgium as in several other countries, with specialized palliative home care teams.

GP's play a key role in health care in Belgium. Patients are stimulated to enlist with a GP and to first contact him with medical problems instead of looking for specialist care directly. As for palliative care this way of promoting primary care is reinforced with financial incentives for the patient (full reimbursement of GP fees) and with support of specialized palliative home care teams which intervene free of charges for the patient. Furthermore specialized palliative care units (where patients are hospitalized) are insufficient to take care of all palliative patients (29 units with a mean of 10 beds per unit for 6 million people) and there are no hospices. A recent survey shows that approximately 90% of the palliative patients want to receive care by their GP (at home or in a nursing home) while only about 50% of the non-sudden deaths occur at home or in a nursing home indicating that GP's might need extra support in their palliative home care delivery [10,11]. Specific palliative care training can be part of that support.

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This training should be offered to all GP's since in Belgium 40% is still working alone. Even for those working in group practices it is necessary to acquire basic palliative care competences since patients can choose their GP, which they do. Moreover a lack of GP involvement in palliative care (often by lack of confidence in their own skills) may lead to high hospitalization rates which is against the preferred place of death by the patient [8,11].

Belgium, as several other European countries [1], does not have a mandatory undergraduate palliative care curriculum for medical students though universities voluntarily make efforts to fill this gap. They present undergraduate palliative care education as a single course without real integration in the medical curriculum. Practical experience during traineeship differs according to workplace environment and tutorship.

As a result GP's highly depend on continuing medical education (CME) to develop their palliative care competences. The importance of this CME cannot be overestimated. It should encompass theoretical knowledge and practical skills besides training in teamwork and communication [12]. In Belgium GP's are licensed by the Minister of Public Health. Accreditation is granted by the National Institute for Insurance Against Disease and Invalidity (INAMI/RIZIV) if the doctor meets additional requirements including participation in CME (20 credit points a year). This accreditation is not obligatory but enables GP's to charge higher reimbursable fees to patients. To be appropriate for accreditation a CME course has to be recognized by a Licensing Committee. These courses will further on be called 'formal CME'. To be effective in optimizing the quality of palliative care provided by GP's, the CME courses should reach as much GP's as possible and be of high quality. Reviews indicate that the format and educational techniques used in CME sessions partially account for the effects on professional practice and health care outcomes [13–15]. Furthermore literature provides strategies to evaluate educational interventions by measuring four different criteria: (a) satisfaction of the participant i.c. doctor, (b) increased knowledge of the doctor, (c) improvement of the professional behavior of the doctor and (d) effects on the health status of the patient [16,17]. The importance of these measurements and their use in evaluating CME have been described. Nevertheless in Flanders it is not known whether these courses are evaluated and if so, what the results are. Also the level of attendance of these palliative care CME courses is not known. Without this knowledge the necessary assessment of the effectiveness of CME on palliative care is not possible. If we want to optimize the offer of CME (e.g. according to the international curriculum suggestions of the European Association for Palliative Care) we must know the current offer. Furthermore previous research revealed preferences and barriers of GP's for attending CME sessions. It is not known if and how providers of CME take these preferences and barriers into account when organizing CME.

Therefore we planned a descriptive study to give an overview of the formal CME in palliative care for GP's in Flanders.

Aim of the study

The following questions are addressed:

- Who provides the CME?
- What is the content, the format and what are the educational techniques used during the sessions?
- How many GP's take part?
- Are the activities evaluated and if so, by which criteria?
- What considerations (towards attendance of GP's) do providers of CME have when organizing CME sessions?

## 2. Methods

A survey was held among providers of formal CME for GP's using a questionnaire developed based on literature about content and effectiveness of continuing medical education. The selected providers are organizations that have the official (legal) task to provide CME to GP's. A survey of the official national database of all CME activities of the same year shows that the selected providers cover the landscape of CME in palliative care [18].

### 2.1. Sample and procedure

234 providers of formal CME for GP's were included in the study: all GP organizations ($n = 91$), palliative care organizations ($n = 18$), hospitals ($n = 121$) and universities ($n = 4$) of Flanders. All members of the target sample received an email announcing the questionnaire, addressed to the chairman, secretary, superintendent, head physician, principal or training manager of each organization. Two weeks later they received the questionnaire by email. Non-responders received a reminder one month later by regular post [19].

### 2.2. Questionnaire

The questionnaire consisted of questions based on literature into palliative care curriculum content [20] and effectiveness of continuing medical education [16,17,21]. Questions were based on the CME initiative of 2007 and instructions for use were included.

An introductory question asked about the total number of courses for GP's and the number of courses in palliative care for GP's provided by the organization in 2007.

The questionnaire itself asked for following items about every course: subject (categorized according to the undergraduate curriculum suggestions of the European Association for Palliative Care (EAPC)) [20], duration (h), profession/discipline of lecturer, media methods [21], didactical techniques [21], methods and level of evaluation [16,17], nature (disciplines) and number of target population, number of attending GP's.

A final question asked: 'what are the three most important items you take into account when organizing CME in palliative care for GP's?'.

The questionnaire was piloted among a panel of experts (working both in palliative care and in education) who commented on content, comprehensibility of the questions, choice of words and layout [22].

### 2.3. Data analysis

Descriptive statistics (SPSS 17.0) were used to analyse the answers on the questions. Known barriers and preferences for attending CME were used as categories for content analysis of the answers to the final question [23–25]. New categories were created when answers did not fit one of these (concerning specific palliative care items).

## 3. Results

### 3.1. Preliminary results

The overall response was 43% (102 out of 234). All responders answered the questions concerning the course-items and 51 of them (50%) answered to the final question concerning the preferences of GP's. All palliative care organizations ($n = 18$) responded to the questionnaire while universities ($n = 4$), hospitals ($n = 121$) and GP organizations ($n = 91$) gave much less response (2/4 = 50%; 48/121 = 39% and 34/91 = 37% respectively). As can be seen in Table 1, 78% of the palliative care organizations provided palliative care CME for GP's during 2007, while a smaller proportion of the responding universities, GP organizations and hospitals offered palliative care education to GP's (50%, 35% and

**Table 1**
Type and number of CME providers in Flanders that responded to the questionnaire and provided CME to GP's during 2007.

| Type of organization (total number) | Responders (percentage) | Provided CME during 2007 (percentage of responders) |
|---|---|---|
| Pall care organizations (18) | 18 (100%) | 14 (78%) |
| GP organizations (91) | 34 (37%) | 12 (35%) |
| Hospitals (121) | 48 (39%) | 8 (17%) |
| Universities (4) | 2 (50%) | 1 (50%) |
| Total (234) | 102 (43%) | 36 (35%) |

**Table 2**
Content of the palliative care CME activities for GP's during 2007 in Flanders.

| Theme | Percentage |
|---|---|
| Introduction in palliative care | 3.9 |
| Pain management | 11.8 |
| Symptom management | 26.5 |
| Psychosocial/spiritual | 12.7 |
| Ethics and law | 29.4 |
| Communication | 8.8 |
| Teamwork | 6.9 |
| Total | 100 |

17% respectively). In total, 36 (35%) of the responders offered CME in palliative care to GP's during 2007.

These 36 organizations together offered 106 palliative care CME activities to GP's (with a range from 1 to 11). As can be seen in Fig. 1, palliative care organizations offer 67% of the CME. The second major providers are GP organizations (19%) with hospitals being the third largest providers of CME at 13%. Universities provided 1% of the CME. In 19% of the activities, only GP's were invited, whereas in 20% of the activities GP's with other medical disciplines were invited. In 44% GP's with nurses were invited (Fig. 2).

### 3.2. Content, format and didactical techniques

There are two major themes: 'ethics and law' and 'symptom management' (29.4% and 26.5% of all activities respectively). The least offered themes were 'communication' and 'teamwork' (8.8%



**Fig. 1.** type of organization providing CME in palliative care for GP in Flanders during 2007 Palliative care organizations (Federation Pall Care Flanders, Local networks Pall care, Leif Forum, Page) GP organizations (GP organizations, Domus Medica).



**Fig. 2.** distribution of CME activities for GP's according to disciplines in target population.

and 6.9% respectively). 'Introduction in palliative care', 'pain management' and 'psychosocial/spiritual problems' are themes with intermediate percentages (3.9%, 11.8% and 12.7% respectively) as can be seen in Table 2.

Data about format and educational techniques used during the sessions showed that 80% of all sessions were lectures with one or more speakers, often supported with power point presentations.

### 3.3. Number of participants in relation to target group

The number of attending GP's was low in comparison to the target population, seldom exceeding 15% (median 6.6; range 83.3; SD 22.7). The percentage of the target population that attended the courses was inversely correlated with the size of the target population (smaller target population – higher percentage) and with the number of disciplines invited (less disciplines – higher percentage). Topic (content) of the CME had no influence on the number of attending GP's.

### 3.4. Evaluation

The majority of the educational activities (73%) were not evaluated. The activities that were evaluated used a satisfaction questionnaire (70%) or a knowledge test (30%).

### 3.5. Answers to the final question (attention to preferences and barriers)

Providers of CME enumerate a range of items they take into account when organizing CME in palliative care for GP's. These items can be considered attempts to meet the preferences for GP's to attend CME in palliative care. The items were clustered around preferences and barriers as mentioned in literature: time, content, learning needs [23]. Location, contextual factors, speakers and ways of learning ('format') were added as new factors. The number of respondents that mentioned a theme is added between brackets.

- Time (18/51): Courses are scheduled in the evening or on Saturday to minimize the impact on daily practice.
- Location (5/51): Efforts are made to invite expert speakers to local organizations so that GP's do not have to drive large distances after hours.
- Contextual factors (10/51): CME providers consult local GP circles before developing their programs to prevent conflicts between agendas. When two different CME sessions are scheduled on the same day, often the CME in palliative care is not attended.
- Topic (18/51): Speakers are encouraged to restrict the share of theoretical knowledge.
- To focus on topics for direct application in clinical practice (25/51).
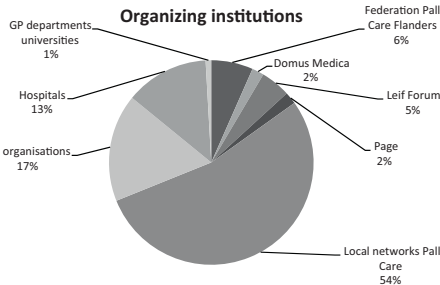- Speaker (15/51): must be an expert in the topic and a qualified speaker.
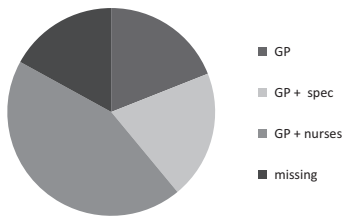
**Table 3**
The efforts CME providers make to meet the perceived preferences of GP's for CME attendance.

| 'What are the most important items you take into account when organizing CME in palliative care for GP's?' (number of responders that mention the item) | Examples of ways to meet the preferences |
|---|---|
| Time (18/51) | Timing: evening or Saturday/short programs |
| Location (5/51) | Decentralization (local organization) |
| Contextual factors (10/51) | Making agreements with local GP circle for program development/credit points/looking for known speakers/drinks and meal after session |
| Topic (18/51) Ready for use in clinical practice (25/51) | Practical information for direct use/case reports/new developments/all topics: somatic, spiritual, policy/local initiatives/on demand of GP's/to the point/scientific |
| Educational needs (5/51) | Unclear if multidisciplinary training has added value/looking at daily practice/session on evel of GP knowledge |
| Format (5/51) | Offering support and coordination to GP/explaining collaboration with palliative home care teams |

- Educational needs (5/51): The educational needs of GP's are considered important but are not objectively being assessed and can therefore not be addressed. Providers of CME are not convinced of the added value of offering multidisciplinary education.
- Format (5/51): Interactive sessions are considered more efficient. Palliative care organizations state that collaboration of GP's with palliative home care teams is an alternative way of supporting GP's in their daily practice besides offering palliative care courses in the CME programs which are already overloaded.

An overview of these items can be seen in Table 3.

## 4. Discussion and conclusion

### 4.1. Discussion

This is the first review describing continuing medical education about palliative care for general practitioners in Flanders focusing on the way it is organized, provided, attended and evaluated. The results show a heterogeneous landscape of CME provided by different organizations with large gaps in the content and inefficient use of didactical techniques. The impact of these poorly attended courses on clinical practice cannot be described because the evaluation is not undertaken by CME providers.

In lots of countries providing postgraduate education is not the exclusive task of one organization [1]. This is also the case for Belgium where multiple organizations can take initiatives to provide palliative care education without any central deliberation or co-ordination. A survey of the complete database of CME in Belgium of the same year shows that only 5.18% (755/14570) of activities concerned palliative care and about half of these activities targeted GP's [18]. This could reflect the small number of palliative patients GP's take care for but it requires good planning to cover the field of palliative care in a limited offer of courses. Most of the CME on palliative care is provided by palliative care organizations and not by GP organizations, or by universities. This is in strong contrast with most of the general CME activities for GP's which are offered by local GP organizations according to their official task. Local palliative care organizations often have GP's in their board and have strong connections with local GP organizations. It could be assumed that mutual agreements exist for the CME on palliative care to be delivered by palliative care organizations. Concerning the universities they do not have a strong established role in CME in Flanders. Moreover, Belgium as several other countries, has no mandatory undergraduate palliative care curriculum for medical students [1]. This lack of academic 'palliative care tradition' could account for the absence of universities in the CME landscape on palliative care. However, recently universities took a joint initiative to prepare a postgraduate curriculum in palliative care as suggested by the EAPC [12].

This means that most of the CME on palliative care for GP's is delivered by palliative care organizations. They share the same educational task towards GP's according to curriculum content and endpoints. Since these palliative care organizations are joined in one umbrella organization, central co-ordination of the offer should be possible but is still lacking today. This might be one of the reasons why lectures on some topics are presented by almost every provider of CME, while other topics are never presented at all. One could acknowledge that some topics are more important or attractive than others and are therefore offered by multiple organizations. Nevertheless this causes an unnecessary overlap which exhausts means in an inefficient way. Central deliberation between all concerned organizations could overcome this shortcoming.

Some topics are thus presented by every provider (e.g. pain and symptom control) whereas other topics are generally lacking in the offer of CME on palliative care. This study shows that almost 40% of the courses deal with 'symptom management' or 'pain management'. This seems logical since good palliative care depends on good symptom control and GP's mention this as one of their most important educational needs [8,26]. On the other hand the offer lacks some topics, such as teamwork and communication, which are fundamental skills in palliative care and which are also perceived by GP's as learning needs [8,26]. Whether these topics are covered in general CME cannot be concluded from this study. Training in communication and teamwork may require different skills from trainers than the skills that are required to give a lecture on pain and symptom control. This could be a barrier for some organizations or speakers to address these topics. Assessing the palliative care learning needs of GP's and matching the CME offer to these needs might render the courses more efficient though the topic of the CME on palliative care in this survey does not seem to influence the number of attendees.

Data about format and didactical techniques used during the sessions show that about 80% of the sessions use lectures as a didactical technique though literature shows that lectures alone do not influence professional behavior or the quality of patient care [13,21]. Lectures belong to the longstanding tradition of general practitioner postgraduate education and traditions are difficult to change. Since the format of CME courses partially accounts for the efficiency of the courses and therefore could have an impact on the quality of care provided by GP's, providers of CME should make efforts to adopt the appropriate format. Interactive courses have shown to be more efficient than lectures and should therefore be preferred keeping in mind that this may involve additional efforts and costs [13]. The last decade has witnessed a change of focus from classical postgraduate education (with knowledge transfer as a goal) to competency focused education (continuing professional development) [27]. Self directed learning (based on personal learning plans according to personal learning needs) has been proven to be efficient and should be tried out in palliative care education for GP's [28,29].

The number of GP's that attended the activities was low in comparison to the target population, seldom exceeding 15%. A smaller target population results in a higher percentage of attendees indicating that GP's prefer local courses instead of larger centralized courses. The attendance of GP's to the courses was even lower when more than one discipline was invited. This should yet be stimulated since multidisciplinary education can be of added value in changing practice [30,31]. GP's acknowledge their learning needs on palliative care. On the other hand GP's have to keep up their knowledge and skills on a wide range of topics considering the nature of their job. Preference of CME courses to attend may be given to other more frequently encountered medical topics than to palliative care.

Mostly the sessions were not evaluated. Formal approval of medical educational courses in Belgium is based on administrative requirements and not on quality criteria. Yet formal approval of educational courses does not always guarantee quality [32]. Therefore evaluation of the courses is necessary. Methods to measure the effectiveness of CME have been studied [17] and suggestions have been made to evaluate them by four different criteria: (a) satisfaction of the participant, (b) increased knowledge of the participant, (c) improvement of the professional behavior of the doctor and (d) effects on the health status of the patient [16]. Providers of CME should be encouraged to execute evaluations based on these criteria.

The answers to the final question show a range of barriers and preferences of GP's for CME attendance as perceived by CME providers. Since most of these providers are GP's or have GP's in their boards their insight into the barriers and preferences should be valuable. This assumption is supported by the fact that their insight resembles the results of previous studies on the same topic [23,24]. Efforts are being made to overcome the barriers. Preferences on timing, location and logistics (e.g. catering when evening session) can relatively easily be met by deliberating agendas together with GP representatives. Concerns about content can be resolved by questioning the target population of GP's. Whether this way of deciding on the content of the sessions is responsible for the content gaps in the offer could not be concluded from this study. Focus on practice based topics could render the content more applicable. Palliative care will always remain a smaller proportion of the daily work of GP's and therefore palliative care courses risk to remain less attractive for GP's than courses on, e.g. diabetes or cardiovascular diseases. Clarifying the palliative care concept as a total care approach meeting the needs of a lot more patients than just the terminally ill cancer patients might help to overcome this barrier.

Some remarks can be made about this study. First there is the low response rate of 43%. A survey of the official national database of CME activities of the same year shows that in Flanders 166 palliative care educational sessions were organized for GP's. Our review reports of 106 educational sessions representing almost 64% (106/166) of all palliative care courses. This makes the analysis of their attributes sufficiently representative for the way post-graduate palliative care education is organized. Secondly we used the undergraduate curriculum suggestions of the EAPC to categorize the content of the sessions instead of the postgraduate curriculum suggestions which were not yet developed at the time of our study. Recently the postgraduate curriculum suggestions have been published and comparison of both curricula shows that they can be categorized in the same way so this limitation had no substantial effect on the results of our study. Thirdly we did not look into other ways of acquiring palliative care expertise like working together with palliative home care teams or consulting palliative care specialists. This may be efficient ways for individual GP's to learn (completing or substituting formal CME) and should be evaluated separately.

## 4.2. Conclusion

This study investigated the landscape of formal continuing medical education in palliative care for general practitioners in Flanders. Data showed that the content was incomplete, the didactical technique used during the sessions was inappropriate, attendance was low and the quality of the sessions was not evaluated. Providers of CME were aware of the barriers and preferences of GP's to attend the sessions but were not able to meet all of them. Reflections are made to improve the offer.

## 4.3. Practice implications

The 'Federation Palliative Care Flanders' is an umbrella organization for all palliative care organizations in Flanders and should take a leading role in coordinating CME on palliative care. Based on existing guidelines (e.g. postgraduate curriculum suggestions of the EAPC) a comprehensive offer of CME sessions should be installed in a coordination between all providers of CME and communicated to all GP's. This could render the use of means (logistics and speakers) more efficient. The overall use of lectures as educational technique should make place for interactive small group discussions.

Since the current offer of CME seems inefficient further research could be performed towards other ways of acquiring palliative care competences such as evaluating the learning effect of GP's working together with specialized palliative home care teams.

## References

[1] Rocafort. EAPC review of palliative care in Europe. Milano: EAPC Press; 2008.
[2] Radbruch L, Payne S. White paper on standards and norms for hospice and palliative care in Europe 2009. Available from: http://www.eapcnet.eu [06.12.10].
[3] von Gunten CF, Lupu D. Recognizing palliative medicine as a subspecialty: what does it mean for oncology? J Support Oncol 2004;2:166–74.
[4] Centeno C, Noguera A, Lynch T, Clark D. Official certification of doctors working in palliative medicine in Europe: data from an EAPC study in 52 European countries. Palliat Med 2007;21:683–7.
[5] Deschepper R, Vander Stichele R, Mortier F, Deliens L, editors. Zorgzaam thuis sterven. Een zorgleidraad voor huisartsenDying at home. A guide to good careGent: Academia Press; 2003.
[6] Borgsteede S, Graafland-Riedstra C, Deliens L, Francke A, van Eijk J, Willems D. Good end-of-life care according to patients and their GPs. Br J Gen Pract 2006;56:20–6.
[7] Abarshi E, Onwuteaka-Philipsen B, Donker G, Echteld M, Van den Block L, Deliens L. General practitioner awareness of preferred place of death and correlates of dying in a preferred place: a nationwide mortality follow-back study in the Netherlands. J Pain Symptom Manage 2009;38:568–77.
[8] Mitchell G. How well do general practitioners deliver palliative care? A systematic review. Palliat Med 2002;16:457–64.
[9] Keirse EBC, Desmedt M, Deveugele M, Menten J, Simoens S, Wens J, et al. Organisatie van palliatieve zorg in België 2009 [The organisation of palliative care in Belgium 2009]. Available from: http://www.kce.fgov.be [23.01.10].
[10] Van den Block L, Deschepper R, Bilsen J, Van Casteren V, Deliens L. Transitions between care settings at the end of life in Belgium. J Amer Med Assoc 2007;298:1638–9.
[11] Van den Block L, Deschepper R, Drieskens K, Bauwens S, Bilsen J, Bossuyt N, et al. Hospitalisations at the end of life: using a sentinel surveillance network to study hospital use and associated patient, disease and healthcare factors. BMC Health Serv Res 2007;7:69.
[12] F. E. Recommendations of the EAPC for the development of postgraduate curricula leading to certification in palliative medicine 2008. Available from: http://www.eapcnet.org [23.01.10].
[13] Forsetlund L, Bjørndal A, Rashidian A, Jamtvedt G, O'Brien MA, Wolf F, et al. Continuing education meetings and workshops: effects on professional practice and health care outcomes. Cochrane Database Syst Rev 2009;CD003030. doi: 10.1002/14651858.CD003030.pub2.
[14] Flodgren G, Parmelli E, Doumit G, Gattellari M, O'Brien MA, Grimshaw J, et al. Local opinion leaders: effects on professional practice and health care outcomes. Cochrane Database Syst Rev 2007;CD000125. doi: 10.1002/14651858.CD000125.pub3.
[15] Jamtvedt G, Young JM, Kristoffersen DT, O'Brien MA, Oxman AD. Audit and feedback: effects on professional practice and health care outcomes. Cochrane Database Syst Rev 2006;CD000259. doi: 10.1002/14651858.CD000259.pub2.

40

[16] Kirkpatrick D. Great ideas revisited techniques for evaluating training programs. Revisiting Kirkpatrick's four-level model. Training Dev 1996;50:54–9.
[17] Tian J, Atkinson NL, Portnoy B, Gold RS, Tian J, Atkinson NL, et al. A systematic review of evaluation in formal continuing medical education. J Contin Educ Health Prof 2007;27:16–27.
[18] Pype P, Wens J, Deveugele M, Stes A, Van den Eynden B. Postgraduate education on palliative care for general practitioners in Belgium. Palliat Med 2011;25:187–8.
[19] Edwards PH, Roberts I, Clarke M, DiGuiseppi C, Pratap S, Wentz R, et al. Increasing response rates to postal questionnaires: systematic review. Brit Med J 2002;324:1183–91.
[20] M F Curriculum in palliative care for undergraduate medical education 2007. Available from: http://www.eapcnet.org [24.01.10].
[21] Marinopoulos SS, Dorman T, Ratanawongsa N, Wilson LM, Ashar BH, Magaziner JL, Miller RG, et al. Effectiveness of continuing medical education. Evidence report/technology assessment no. 149 (prepared by the Johns Hopkins evidence-based practice center, under contract no. 290-02-0018.) AHRQ publication no. 07-E006. Rockville, MD: Agency for Healthcare Research and Quality; January 2007.
[22] Frary RB. A brief guide to questionnaire development. Available from: http://ericae.net [24.01.10].
[23] Goodyear-Smith F, Whitehorn M, McCormick R, Goodyear-Smith F, Whitehorn M, McCormick R. Experiences and preferences of general practitioners regarding continuing medical education: a qualitative study. N Z Med J 2003;116:U399.
[24] Allen M, Ferrier S, O'Connor N, Fleming I, Allen M, Ferrier S, et al. Family physicians' perceptions of academic detailing: a quantitative and qualitative study. BMC Med Educ 2007;7:36.
[25] Heintze C, Matysiak-Klose D, Braun V, Heintze C, Matysiak-Klose D, Braun V. Perception of continuous medical education by primary care physicians. Z Arztl Fortbild Qualitatssich 2005;99:437–42.
[26] Meijler WJ, Van Heest F, Otter R, Sleijfer DT. Educational needs of general practitioners in palliative care: outcome of a focus group study. J Cancer Educ 2005;20:28–33.
[27] Seuntjens L, Vainiomäki P. Continuing professional development in primary health care. Quality development integrated with continuing medical education. Policy document of EQUIP and EURACT; 2002, Available from: http://www.euract.org [23.02.10].
[28] Norman G, Shannon S, Marrin M. The need for needs assessment in continuing medical education. Brit Med J 2004;328:999–1001.
[29] Tang GW. Continuing professional development—a surrogate for recertification? Ann Acad Med Singapore 2004;33:711–4.
[30] Quinn K, Hudson P, Ashby M, Thomas K, Quinn K, Hudson P, et al. Palliative care: the essentials: evaluation of a multidisciplinary education program. J Palliat Med 2008;11:1122–9.
[31] Wright I, Wake C, Anderson H, Graham S. Assessment of the multidisciplinary education for a major change in clinical practice; a prospective cohort study. BMC Health Serv Res 2009;9:28.
[32] Nicol, Patterson. Does formal approval of educational courses guarantee quality? Med Educ 1999;33:371–3.

**Paper 2:**

**Continuing medical education in palliative care for general practitioners in Flanders:  An audit of the registration system**

## CONTINUING MEDICAL EDUCATION IN PALLIATIVE CARE FOR GENERAL PRACTITIONERS IN FLANDERS: AN AUDIT OF THE REGISTRATION SYSTEM

## Abstract

***Introduction:*** The idea of periodic recertification has become generally accepted in the medical profession. The recertification requirements however vary widely and may comprise participation in continuing medical education (CME), peer review and practice performance assessment. An official examination could complete the requirements. Regulating bodies could be medical boards (self-regulation), insurance agencies, government ministries or a combination of aforementioned institutions. A well-managed database with information on such recertification programs could enable CME providers to establish a complete and comprehensive postgraduate educational landscape, doctors to select courses according to their educational needs and regulating bodies to supervise the individual trajectory of every doctor. Whether the current data banks are able to comply with these purposes is not known. The present study explores the Belgian CME data with regard to these purposes.

***Methods:*** The national CME data in Belgium were scrutinized on accessibility and details on the different courses.

***Results:*** The database is not accessible online. It contains information on date and title of the courses, name of the organizing body, the licensing committee which has granted the credit points and number of credit points. There are no registered data on quality criteria of the courses, number of participating doctors and conformity with the doctor's educational needs.

***Conclusion:*** The national database of CME in Belgium is insufficient to support GPs, CME providers and regulating bodies in their respective requirements concerning re-certification programs. Additional information should be included on quality criteria of the courses, number of participating doctors and detailed content descriptions to match individual educational needs. Linking the data to other programs such as registration of prescriptions by doctors (feedback reports from RIZIV) or prevention programs (e.g. mammography) could enhance the performance of the data bank.

***Keywords:*** continuing medical education; certification; revalidation; accreditation; continuing professional development.

## Introduction

Certified doctors have sufficient theoretical and actual knowledge to start a medical practice. A specific professional educational traineeship (general practitioner or specialist) secures practical experience. However, after a couple of years in practice the theoretical knowledge of doctors diminishes to below graduation level[1]. Literature suggests that the quality of care provided by a doctor is inversely proportional to the number of doctor's years in practice when assessing knowledge, adherence to standards of practice for diagnosis, screening and prevention, adherence to standards of appropriate therapy or health outcomes[2]. These findings reinforce the concerns of the general public as they ask for periodical re-evaluation and revalidation of doctors in order to guarantee high quality care[3,4]. In the past decades the idea of time-limited certification, followed by periodically retesting and recertification of doctors, has emerged in the United States as well as in Europe[5,6]. The requirements for recertification can be very diverse and may comprise participation in continuing medical education (CME), development of personal, social and managerial skills as well as peer review (comparing practice with professionals of the same discipline), external evaluation and practice inspection. All these items can be put together in a so-called portfolio which contains the registration of learning needs, the proposed educational trajectory to fulfil the learning needs and the efforts made to reach the learning objectives of the trajectory. Literature shows benefits of the use of portfolio-learning in professional development[7]. In Flanders, this system is being used by GP trainees only. The re-evaluation and recertification of GPs is currently limited to a mostly administrative regulation. Accreditation of GPs is based on the (non-controlled) presence on CME sessions. There is no evaluation of the quality of medical practice, which should be the final goal of continuing professional development. A comprehensive competencies-based maintenance of certification program (MOC) has been installed by the American Board of Medical Specialties6. This program comprises professional standing, lifelong learning and self-assessment, cognitive expertise and practice performance assessment. Control of the program by self-regulation (by professional medical bodies) can be seen as an expression of professionalism but is often combined with regulation by government ministries and insurers[8,5]. Such recertification programs generate an enormous amount of data concerning the provision of educational tools and their quality, participation of courses by doctors and results of eventual tests passed by doctors. Managing these data in an efficient way could enable CME providers to establish a complete

and comprehensive educational landscape for a certain specialty, enable doctors to select high quality courses according to their personal educational needs and enable regulating bodies to supervise the individual trajectory of every doctor.

One way to evaluate the practical usefulness of such a database is to search it for information concerning one medical specialty and see if it fits abovementioned purposes. This study focuses on the CME in palliative care for general practitioners (GPs) in Belgium as an example of total care, requiring extensive and differentiated training and therefore a suitable test case for the database. A recent survey shows that the landscape of CME in palliative care for GPs shows large gaps and that too many organizers are involved to be efficient[9]. Since all CME in Belgium is registered in the same way, the results of this study apply to all topics and all medical disciplines and not only to palliative care for GPs.

In Belgium GPs are licensed by the Minister of Public Health. Accreditation (the term used for revalidation in Belgium) is granted by the National Institute for Insurance Against Disease and Invalidity (INAMI/RIZIV) if the doctor meets additional requirements, including participation in CME (20 Credit Points a year) and peer review (at least twice a year). This accreditation is not obligatory, but enables GPs to charge higher reimbursable fees to patients. To be valid for accreditation a CME course has to be recognized by the Licensing Committee of General Practitioners (for medical topics) or the Licensing Committee of Ethics and Economics (for specific ethical and health economy related topics).

The national data bank of CME was investigated, asking the following questions:

- How can these data be accessed?
- Which information on CME courses do the data offer?
- Are these data useful to CME providers to match their own agenda with other providers?
- Are these data useful to GPs to select high quality courses according to their educational needs?
- Are these data useful to the accreditation body to supervise the learning trajectory of an individual doctor?

## Methods

The data bank of all accredited postgraduate education activities in Belgium for 2007 was sent to us by the regulating body as an Access-file. From this Access-file we wanted to extract the courses for palliative care for general practitioners in Flanders (Dutch speaking part of Belgium). First a list of keywords was created on theoretical grounds (palliative, morphine, euthanasia, pain, death, ethics, end-of-life). While manually scrolling through the first 2000 titles of the data, additional keywords such as 'terminal, DNR ('do not reanimate'), bad news, sedation' and 'dying' were added to the list. With these keywords the entire file was screened which resulted in an overview of all postgraduate educational activities for palliative care in Belgium. This overview was manually screened to delete the courses in the French and German speaking parts of the country and those focusing on medical specialists (according to title and organizing body).

Data fields of the remaining selection (CME on palliative care for GPs in Flanders) were extracted and descriptive statistical parameters were calculated.

The content topics of the selected educational activities were clustered around themes based on the curriculum suggestions of the European Association for Palliative Care (EAPC)[10].

## Results

At the time of this study the data bank of the postgraduate education activities was not accessible online. In light of this study, the responsible institution has sent us the data bank as an Access-file.

The data contained 14.570 postgraduate educational activities for Belgium in 2007. The following variables were described for each course: date and title of the course, name of the organizing body, Licensing Committee that has granted the credit points and the number of credit points.

755 of the 14.570 postgraduate activities (5.18%) had a keyword related to palliative care in the title; 423 of these 755 activities (56.03%) had general practitioners as their target group and 166 thereof took place in Flanders. Of these 166 postgraduate activities, 116 (69.88%) were submitted for accreditation to the Ethics and Economy Commission, while the others were submitted to the General Medicine Commission.

Some data of these selections are illustrated in figure 1.
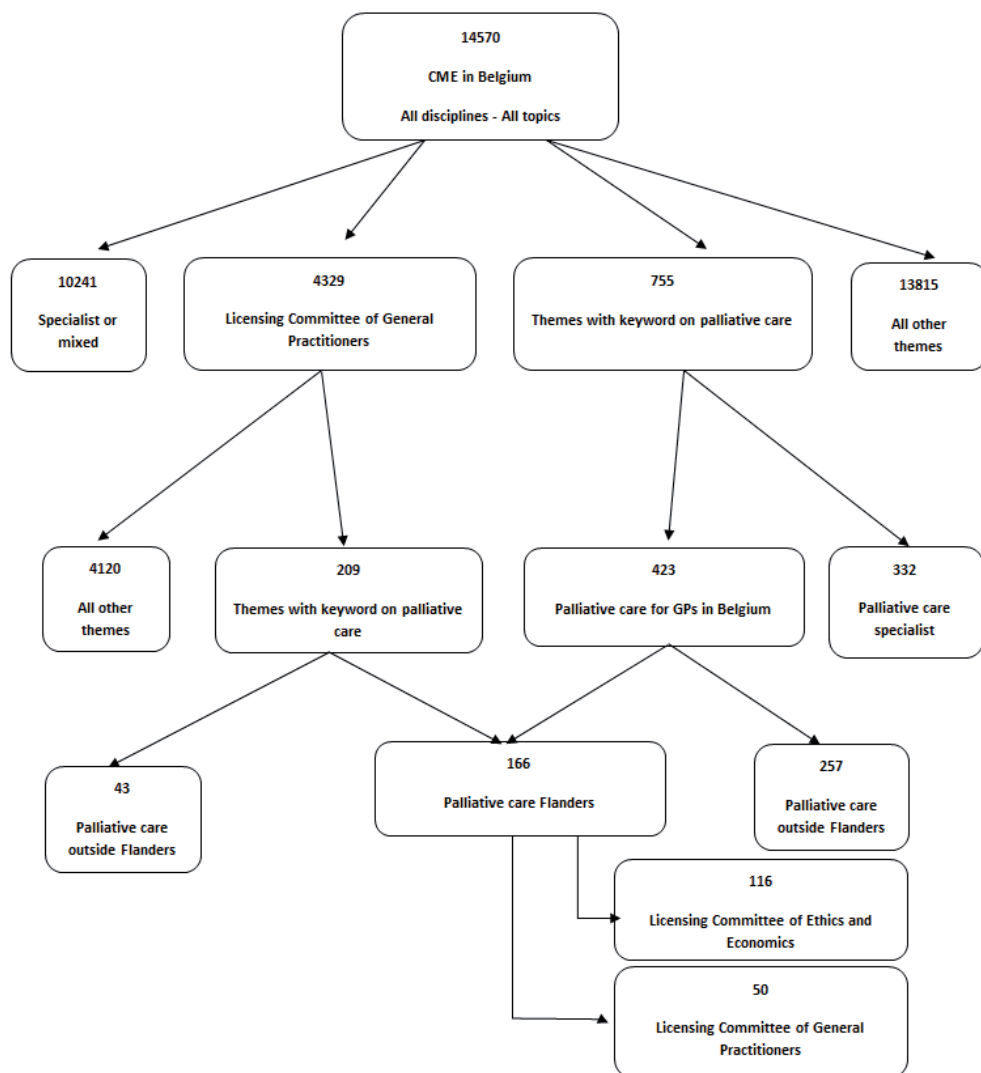
**Figure 1: All accredited CME courses for Belgium in 2007 according to Licensing Committee with focus on palliative care for general practitioners.**

According to the title of the courses the most frequently presented topic was 'medical decisions about the end-of-life care' (44/166 = 26.5%). Clustered with similar themes such as 'discussions regarding the end-of-life' (14/166 = 8.4%) and 'ethics and law' (16/166 = 9.6%), this was the most sizeable group. 'Symptom control' (21/166 = 12.6%) was the second most extensive theme, together with 'pain' (14/166 = 8.4%)

this made up the second largest group (35/166 = 21.08%). The least offered topics were 'communication' (11/166 = 6.6%), 'teamwork' (5/166 = 3%) and 'psychology' (3/166 = 2%). Some titles were not precise enough for coding (e.g. 'Palliative Care') and were therefore set apart. Some titles mention 'basics' and can be interpreted as an introduction to palliative care but this is speculative. These topics and their proportions are shown in figure 2.
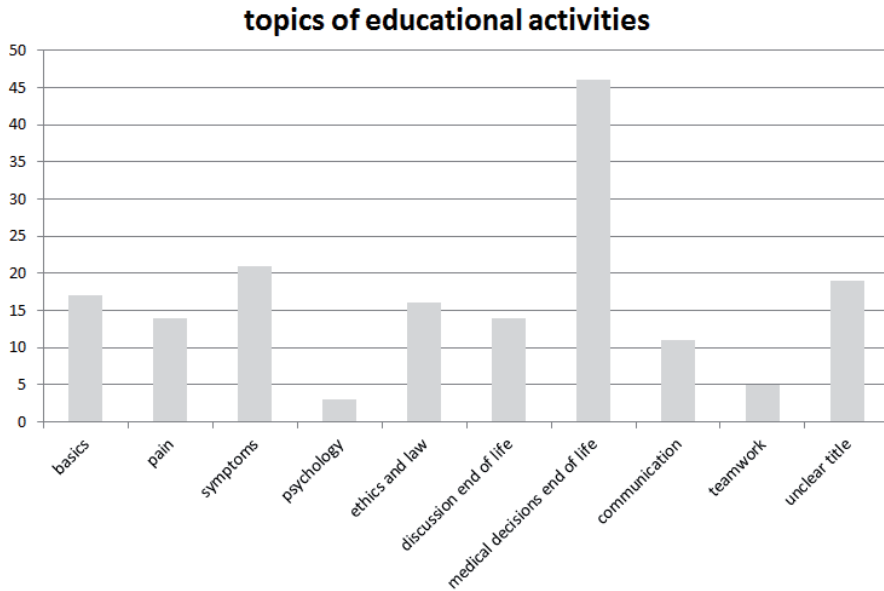


**Figure 2: Number of educational activities (total of 166 postgraduate educational activities on palliative care for GPs in Flanders, Belgium) according to topic.**

According to the organizing bodies the local organizations of general practitioners were the most important providers (58/34.94%), the regional 'Palliative Care Networks' were second (32/19.3%). Hospitals and universities were less active providers with 12% and 10% respectively. These organizations are presented in figure 3.

## organizing institutions



**Legend:**
- GP organisations
- Local networks Pall Care
- Hospitals
- GP departments universities
- Federation Pall Care Flanders
- LEIF forum
- Local organizations
- others
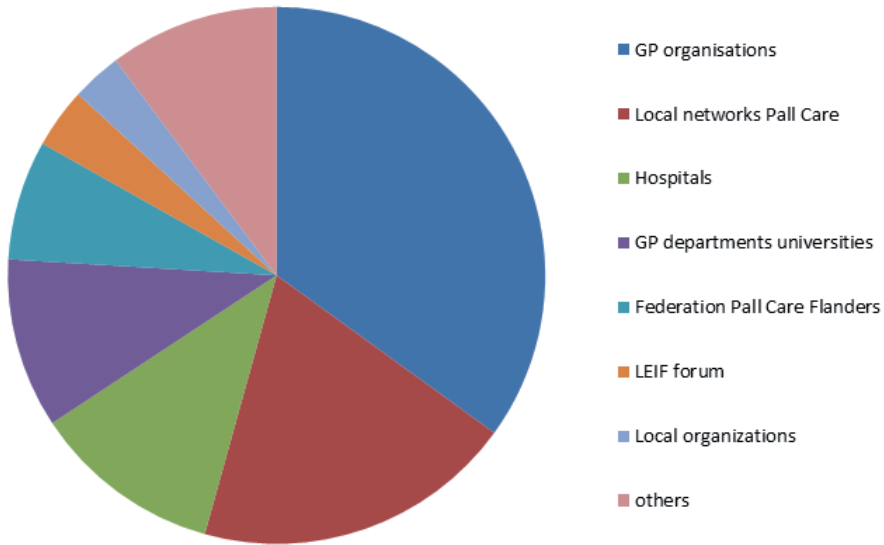
**Figure 3: Continuing medical education on palliative care for general practitioners in Flanders, Belgium (166 educational activities) according to organizing institutions.**

Information on format of the courses (e.g. lecture, seminar, workshops) and educational techniques (e.g. discussion after readings, questionnaires, communication trainings) used during the sessions was not found in the data.

Information on number or identity of the participants or on participants' satisfaction in relation to their personal educational needs was unavailable.

## Discussion

This is the first study to present an analysis of the national data bank of accredited continuing medical education in Belgium. It shows the restricted availability of information on CME and highlights the limited usefulness of the data for individual doctors, providers of CME and regulating bodies.

As to the first research question, data access was only possible upon request to the responsible authority in light of this study. Exploring the file manually was inefficient and time consuming. If the data bank would be accessible online, search engines using keywords would enhance the usefulness. Regular data consultation by providers of CME and by GPs is not possible at this moment and this constitutes a major obstacle for its usefulness.

But even when the data would be freely accessible online, there would still be some limitations to its usefulness.

The next research questions focused on content and usefulness of the data bank. With regard to the organization of CME, different organizations present courses to GPs. Some organizations like the local GP organizations and palliative care organizations have a legal obligation to do so. GP organizations have a lot of experience concerning practical organizational matters and palliative care organizations have the necessary expertise in palliative care topics. This combination leads to regional 'co-productions' sharing duties and responsibilities regarding logistics and content. This leads to a good organization and realization of every CME course individually, but it does not necessarily lead to a comprehensive regional or national offer. Some topics, like 'pain' and 'symptom control', are presented by almost every local organization while 'teamwork' and 'communication' are firmly underrepresented, although GPs state that they require training in this[11]. Regular consultation between both groups of providers, regionally or nationally, could be a good way to resolve this incomplete educational landscape by showing the content gaps. Easy access to the online data bank could optimise this co-operation. This could lead (see research question four) to a program with themes that every GP should master ('basic' or 'mandatory') and a program which is accessible for the more interested GPs ('advanced' or 'voluntary'). It is shown indeed that doctors are inclined to attend courses on themes that they already master well or that they are really interested in and that they tend to avoid courses on topics addressing their knowledge gaps[12].

With regard to planning of the educational trajectory for individual GPs the data have limited usefulness since they contain only minimal administrative data (date and title of the course, name of the organizing body, the Licensing Committee and the number of approved credit points). The data list the title of the education but do not divulge the entire program or any concrete content. In answer to the third research question, choosing a course to fit one's educational needs is therefore impossible since a title can cover different contents and the wording of the title can influence enrolment for courses[13]. Enabling GPs to select courses according to their educational needs could add value to the postgraduate education since, according to literature, this leads to the best results[14]. Connecting one's personal learning needs with the chosen educational trajectory and the progressive educational efforts that are made is one of the principles of portfolio learning. Portfolios can easily be registered electronically and supervised online[7].

Additional information on the speaker's qualifications and the educational techniques used during the courses could facilitate choices for participation because doctors may have different preferences according to personal learning styles[15]. Information on content and format of the courses is also important since formal approval of educational courses does not always guarantee quality[16].

With regard to the accreditation bodies (research question five) this data bank is of little use since participation of GPs is not registered. Online registration of participating GPs by the CME providers has started recently. Unfortunately, these data are held in another database. The peer review, which is required for accreditation, is registered in the same way but until now only participation is registered and quality or outcome criteria are unavailable. On top of these requirements the RIZIV/INAMI provides regular feedback to GPs concerning prescriptions of medication, radiology and laboratory testing and prescriptions for care by district nurses and physiotherapists. These feedback reports also contain comparisons with peers, resemble the 'practice performance assessment' part of the MOC program of the American Board of Medical Specialties and could thus make the accreditation more valuable if it was incorporated in the program[6]. To make it practical, all these data should be integrated in the same data bank. This would avoid duplicate registration and administration and it would enable different registrations to be linked and interpreted. Accredited online courses or online testing could reinforce this way of assessment[17]. The journal Minerva already took initiatives in this direction (http://www.minerva-ebm.be/accreditation/home.asp).

As we mentioned before, since all CME in Belgium is registered in the same way in this data bank, the results of this study (the shortcomings of the data bank) apply to all topics and all medical disciplines. Though until now, only limited data on each course is registered, this data bank contains the whole landscape of accredited postgraduate education and extending it with additional information or linking it to other programs could increase its usefulness. This will become even more important when the focus of the recertification program will be less on CME and more on more efficient educational formats and qualitative professional development[18]. Studies on specific educational interventions with specific target groups on a specific theme illustrate the added value of interactive educational methods, audits and feed-back, multimedia applications, case-based courses and repeated interventions[19-22]. Furthermore, literature suggests ways to evaluate educational courses[23]. The use of these study results in organizing continuing education should be documented and published. Until now it is unclear as to what extent this knowledge has been applied and whether it has an effect on the quality of care delivered by physicians[24].

The weight of continuing medical education in the recertification of doctors varies internationally. Studies comparing the recertification of doctors in Europe focus mostly on procedures and requirements of recertification but less on content and quality of the education[5, 25-28]. However, international agreements on the registration of recertification programs (and the creation of quality criteria) could render useful, educational tools for recertification programs in other countries than the organizing country and could additionally facilitate professional mobility[5]. Comparison of Belgian data with analogue data banks in other countries could be a first step.

## Conclusions

This study shows that the actual registration of the accredited medical education activities in Belgium is clearly insufficient for GPs to select courses according to their learning needs, for CME providers to optimize the educational offer and for accreditation bodies to keep track of the efforts made by doctors. Therefore this registration should at least be extended with the content and quality criteria of the courses and the data system should be made more accessible. Linking the data to other programs such as registration of prescriptions by doctors could enhance the performance of the data bank.

## References:

1.  van Leeuwen Y, Mol S, Pollemans M, Drop M, Grol R, van der Vleuten C. Change in knowledge of general practitioners during their professional careers. Fam Pract 1995     ; 12: 313-7.

2.  Choudhry NK, Fletcher RH, Soumerai SB. Systematic Review: The Relationship between Clinical Experience and Quality of Health Care. Ann Intern Med 2005; 142: 260-73.

3.  Norcini JJ. Where next with revalidation? BMJ 2005; 330: 1458-9.

4.  MORI. Attitudes to medical regulation and revalidation of doctors research among doctors and the general public. Research study conducted for Department of Health. 2005. http://www.ipsos-mori.com/researchpublications/researcharchive/poll.aspx?oItemId=443

5.  Merkur S, Mossialos E, Long M, McKee M. Physician revalidation in Europe. Clinical Medicine 2008; 8: 371-6.

6.  Horowitz SD. Invited Article: Maintenance of certification: the next phase in assessing and improving physician performance. Neurology 2008; 71: 605-9.

7.  Byrne M, Delarose T, King CA, Leske J, Sapnas KG, Schroeter K. Continued professional competence and portfolios. J Trauma Nurs 2007; 14: 24-31.

8.  Irvine D. Patients, professionalism, and revalidation. BMJ 2005; 330: 1265-8.

9.  Pype P, Stes A, Wens J, Van den Eynden B, Deveugele M. The landscape of postgraduate education in palliative care for general practitioners: results of a nationwide survey in Flanders, Belgium. Patient Educ Couns 2011; doi:10.1016/j.pec.2011.05.025

10. Filbet M, Centeno C, De Conno F, et al. Curriculum in Palliative Care for Undergraduate Medical Education 2007: <http://www.eapcnet.org/download/forTaskforces/PhysiciansTF/PC-Curr-UndergraduateMedEdu.pdf>.

11. Meijler WJ, Van Heest F, Otter R, Sleijfer DT. Educational Needs of General Practitioners in Palliative Care: Outcome of a Focus Group Study. J Cancer Educ 2005; 20: 28-33.

12.   Norman G, Shannon S, Marrin M. The need for needs assessment in conti-
      nuing medical education BMJ 2004; 328: 999-1001.

13.   Kemper K, Woods C, McBride A. What's in a Name? Impact of Marketing Dif-
      ferent Course Titles on Enrollment for Online Classes. Acad Med 2008; 83:
      1187-90.

14.   Bugge E, Higginson IJ. Palliative Care and the Need for Education - Do We
      Know What Makes a Difference? A Limited Systematic Review. Health Edu-
      cation Journal 2006; 65: 101-25.

15.   Grimshaw J, Eccles M, Walker A, Thomas R. Changing physicians' behavior:
      what works and thoughts on getting more things to work. J Contin Educ
      Health Prof 2002; 22: 237- 43.

16.   Nicol F, Patterson W. Does formal approval of educational courses guaran-
      tee quality? Med Educ 1999; 33: 371-3.

17.   Rohrich RJ, Stuzin JM, Lalonde DH. Maintenance of Certification in plastic
      surgery and the Journal: what you need to know. Plast Reconstr Surg 2008;
      121: 329-32.

18.   Seuntjens L, Vainiomäki P. Continuing Professional Development in Primary
      Healt Care. Quality Development integrated with Continuing Medical Edu-
      cation. Policy Document      of EQUIP and EURACT, 2002.

19.   Davis D, O'Brien MA, Freemantle N, Wolf FM, Mazmanian P, Taylor-Vaisey
      A. Impact of formal continuing medical education: do conferences, work-
      shops, rounds, and other traditional continuing education activities chan-
      ge physician behavior or health care outcomes? JAMA 1999; 282: 867-74.

20.   Forsetlund L, Bjorndal A, Rashidian A, Jamtvedt G, O'Brien MA, Wolf F, et
      al. Continuing education meetings and workshops: effects on professional
      practice and health care outcomes. Cochrane Database of Systematic Re-
      views 2009, Issue 2. Art. No.: CD003030. DOI: 10.1002/14651858.CD003030.
      pub2.

21.    Marinopoulos S, Dorman T, Ratanawongsa N, Wilson L, al e,. Effectiveness
      of Continuing Medical Education.  Evidence Report/Technology Assess-
      ment No. 149 (Prepared by the Johns Hopkins Evidence-based Practice

Center, under Contract No. 290-02-0018.) AHRQ Publication No. 07-E006. Rockville, MD: Agency for Healthcare Research and Quality. 2007.

22. Bloom BS, Bloom BS. Effects of continuing medical education on improving physician clinical care and patient health: a review of systematic reviews. Int J Technol Assess Health Care 2005; 21: 380-5.

23. Tian J, Atkinson NL, Portnoy B, Gold RS, Tian J, Atkinson NL, et al. A systematic review of evaluation in formal continuing medical education. J Contin Educ Health Prof 2007; 27: 16-27.

24. Vaughn HT, Rogers JL, Freeman JK. Does requiring continuing education units for professional licensing renewal assure quality patient care? Health Care Manag 2006; 25: 78-84.

25. Shaw K, Cassel CK, Black C, Levinson W. Shared medical regulation in a time of increasing calls for accountability and transparency: comparison of re-certification in the United States, Canada, and the United Kingdom. JAMA 2009; 302: 2008-14.

26. Maisonneuve H, Matillon Y, Negri A, Pallares L, Vigneri R, Young HL. Continuing medical education and professional revalidation in Europe: five case examples. J Contin Educ Health Prof 2009; 29: 58-62.

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**Paper 3:**

## Quality in continuing medical education: playing hide and seek

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# Quality in continuing medical education: playing hide and seek

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Certified doctors have sufficient theoretical and actual knowledge to start medical practice. Their vocational training (as a general practitioner or specialist) adds practical experience. However, after a couple of years in practice the theoretical knowledge of doctors decreases and literature suggests that the quality of care provided is inversely proportional to the number of years in practice.[1,2] These findings reinforce the concerns of the general public as they ask for periodical evaluation of doctors in order to guarantee high-quality care.[3,4] The concept of time-limited certification, followed by periodically retesting and recertification of doctors, has gained ground in the United States as well as in Europe.[5–7] The requirements for recertification may comprise participation in continuing medical education (CME), development of personal, social and managerial skills as well as peer review (i.e. comparing practice with professionals of the same discipline), external evaluation and practice inspection. Although continuing professional development (CPD) encompasses more than attendance to CME sessions, these sessions continue to play a vital role in the education of doctors.[8–10]

Ideally a national overview of the CME on offer for each specialty should be accessible to the different CME providers to establish a complete and comprehensive educational landscape. Access to the same database would enable doctors to select high-quality courses according to their personal educational needs and could enable regulating bodies to supervise the individual path of every doctor.

Literature provides criteria for the effectiveness of educational sessions[11–14] and ways to evaluate them.[14,15] It is not known to what extent these criteria are being implemented in the offer of CME.

We evaluated the accessibility and the content of Belgian national data regarding CME and compared the results with literature from other European countries. Belgium offers a convenient test-bed. All CME in Belgium is registered the same way, so that we were able to test the performance of the Belgian data bank in one area (palliative care) for a single discipline (general practice) and one geographical region (Flanders). The results can be extrapolated for other areas, disciplines and regions in Belgium.

Although the Belgian regulatory authority data bank of postgraduate education activities was not accessible online in 2008, the responsible institution sent us the data bank as an Access-file, containing 14 570 postgraduate educational activities. The following relevant variables were described for each course: (a) date and title of the course, (b) name of the providing institute and (c) the number of credit points granted

to the session. However, important variables were not included in the data: (a) real content of the session, (b) information on the format of the courses (e.g. lecture, seminar, workshops), (c) educational techniques (e.g. discussion after readings) used during the sessions, (d) qualifications of speakers and trainers, (e) number or identity of the participants and (f) evaluation of the session.

Our unprecedented analysis of the Belgian national data bank of CME (which is still not available online in 2011) depended on laborious manual data trawls for the information on CME and highlights the limited usefulness of the data for individual doctors, for providers of CME, and for regulatory bodies.

Course providers, keen to enhance enrolment for courses, give attractive titles which may impede doctors' choice of courses to fit their educational needs, as one title can cover many different contents.[16] There should be more details available about the content and the learning objectives.

Without evaluation it is impossible to judge quality of educational provision, since formal approval of educational courses doesn't always guarantee quality.[17] Studies mostly on the effectiveness of specific educational interventions targeting a specific profession and a specific theme show the advantages of interactive teaching methods, audit and feedback, multimedia materials, case-based approaches, more interventions and longer durations.[11–14] Suggestions have been made on how to evaluate educational sessions.[15] The way these superior teaching methods are being implemented in the organisation of CME should be documented and published. Until now the level of implementation and the impact on the quality of care provided by doctors are not clear.[18] This should, however, be carefully documented and evaluated in the same way as 'post marketing surveillance' evaluates new drugs on the market. Revalidation of doctors is designed not only to guarantee a minimum standard of competence but also to ensure ongoing quality improvement.[7,19] Undoubtedly there is a lot of quality education available throughout Europe. Transparent assessment of educational impact, involving scientific reporting of quality improvement markers in populations of doctors, going beyond the level of small-scale trials and interventions, could effectively act as a form of revalidation for the CME process.

The place and value of CME in the comprehensive revalidation procedure may change but the quality of the CME must rely on scientific standards.[19–21] Comparative articles on revalidation in Europe are based on questionnaires in selected countries.[5,7,22–24] These articles focus on procedures and requirements of CPD and revalidation but don't describe the content and quality of CME nationwide.

Setting European standards on quality of education could offer opportunities to compare the effects of education in different healthcare structures and in different populations. In the light of the growing professional mobility a mapping of CME throughout Europe could stimulate a harmonisation of education and care for all doctors and patients.

## Conflicts of interest

## References

1 van Leeuwen Y, Mol S, Pollemans M, Drop M, Grol R and van der Vleuten C (1995) Change in knowledge of general practitioners during their professional careers. *Family Practice* **12**: 313–17.

2 Choudhry NK, Fletcher RH and Soumerai SB (2005) Systematic review: the relationship between clinical experience and quality of health care. *Annals of Internal Medicine* **142**: 260–73.

3 Norcini JJ (2005) Where next with revalidation? *BMJ* **330**: 1458–9.

4 MORI (2005) *Attitudes to Medical Regulation and Revalidation of Doctors Research Among Doctors and the General Public*. Research study conducted for Department of Health. www.ipsos-mori.com/researchpublications/researcharchive/poll.aspx?oItemId=443

5 Merkur S, Mossialos E, Long M and McKee M (2008) Physician revalidation in Europe. *Clinical Medicine* **8**: 371–6.

6 Horowitz SD (2008) Maintenance of certification: the next phase in assessing and improving physician performance. *Neurology* **71**: 605–9.

7 Shaw K, Cassel CK, Black C and Levinson W (2009) Shared medical regulation in a time of increasing calls for accountability and transparency: comparison of recertification in the United States, Canada, and the United Kingdom. *JAMA* **302**: 2008–14.

8 Agius S and Baron R (2008) The current state and value of continuing professional development in primary care: the deanery perspective. *Education for Primary Care* **19**: 580–9.

9 Youngson GG, Knight P, Hamilton L *et al* (2010) The UK proposals for revalidation of physicians: implications for the recertification of surgeons. *Archives of Surgery* **145**: 2–5.

10 Mahmood T (2010) Recertification and continuing professional development: the way ahead. *Best Pract Res Clin Obstet Gynaecol* **24**: 807–18.

11 Bloom BS and Bloom BS (2005) Effects of continuing medical education on improving physician clinical care and patient health: a review of systematic reviews. *International Journal of Technology Assessment in Health Care* **21**: 380–5.

12 Marinopoulos S, Dorman T, Ratanawongsa N *et al* (2007) *Effectiveness of Continuing Medical Education*. Evidence Report/Technology Assessment No. 149 (prepared by the Johns Hopkins Evidence-based Practice Center, under Contract No. 290-02-0018) AHRQ Publication No. 07-E006. Rockville, MD: Agency for Healthcare Research and Quality.

13  Davis D, O'Brien MA, Freemantle N, Wolf FM, Mazmanian P and Taylor-Vaisey A (1999) Impact of formal continuing medical education: do conferences, workshops, rounds, and other traditional continuing education activities change physician behavior or health care outcomes? *JAMA* **282**: 867–74.

14  Forsetlund L, Bjorndal A, Rashidian A *et al* (2009) Continuing education meetings and workshops: effects on professional practice and health care outcomes. *Cochrane Database of Systematic Reviews.* Art. No.: CD003030. DOI: 10.1002/14651858.CD003030.pub2.

15  Tian J, Atkinson NL, Portnoy B *et al* (2007) A systematic review of evaluation in formal continuing medical education. *Journal of Continuing Education in the Health Professions* **27**: 16–27.

16  Kemper K, Woods C and McBride A (2008) What's in a name? Impact of marketing different course titles on enrollment for online classes. *Academic Medicine* **83**: 1187–90.

17  Nicol and Patterson (1999) Does formal approval of educational courses guarantee quality? *Medical Education* **33**: 371–3.

18  Vaughn HT, Rogers JL and Freeman JK (2006) Does requiring continuing education units for professional licensing renewal assure quality patient care? *Health Care Management* **25**: 78–84.

19  Chambers R (2008) Professional regulation in primary care: improving quality and safety . . . we hope. *Quality in Primary Care* **16**: 235–8.

20  Garattini L, Gritti S, De Compadri P and Casadei G Continuing medical education in six European countries: a comparative analysis. *Health Policy* **94**: 246–54.

21  Seuntjens L and Vainiomäki P (2002) *Continuing Professional Development in Primary Health Care. Quality Development Integrated with Continuing Medical Education.* Policy Document of EQUIP and EURACT.

22  Maisonneuve H, Matillon Y, Negri A, Pallares L, Vigneri R and Young HL (2009) Continuing medical education and professional revalidation in Europe: five case examples. *Journal of Continuing Education in the Health Professions* **29**: 58–62.

23  Villanueva T (2010) Revalidation wave hits European doctors. *CMAJ* **182**: E463–4.

24  Peck C, McCall M, McLaren B and Rotem T (2000) Continuing medical education and continuing professional development: international comparisons. *BMJ* **320**: 432–5.

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## Conclusion chapter 1:

### Research Question 1: What is the current offer of continuing medical education in palliative care for GPs in Flanders?

We evaluated the current opportunities for GPs to acquire and maintain their palliative care competences throughout their clinical career.

Firstly the results show hat the CME offer is insufficient in many ways. There are too many different CME providers without efficient coordination. There are gaps in the offer, especially on the topics of 'teamwork', 'communication' and 'organisation of care'. The sessions mostly comprise lectures and their quality and effectiveness are seldom evaluated.

Secondly the database of all accredited CME sessions revealed only administrative information and lacked information on content and quality criteria of the sessions. Therefore it was not suitable for GPs to plan their educational trajectory according to their learning needs.

As the CME sessions on palliative care were poorly attended by GPs, we aimed in the next chapter to explore the preferences of GPs towards lifelong learning in palliative care.

**Chapter 2:**

**Preferences of general practitioners towards lifelong learning in palliative care.**

*Paper 4: Health care professionals' perceptions towards lifelong learning in palliative care for general practitioners: a focus group study*

*Paper 5: Healthcare professionals' perceptions toward inter-professional collaboration in palliative home care: a view from Belgium*

**Paper 4:**

**Health care professionals' perceptions towards lifelong learning in palliative care for general practitioners: a focus group study**

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BMC
Family Practice

**RESEARCH ARTICLE**                                                            **Open Access**

# Health care professionals' perceptions towards lifelong learning in palliative care for general practitioners: a focus group study

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**Abstract**

**Background:** There is a growing need for palliative care. The majority of palliative patients prefer their general practitioner (GP) to organize their palliative home care. General practitioners need a range of competences to perform this task. However, there has been no general description so far of how GPs keep these competences up-to-date. The present study explores current experiences, views and preferences towards training and education in palliative care among GPs, palliative home-care professionals and professionals from organizations who provide training and education.

**Methods:** Five focus groups were brought together in Belgium, with a total of 29 participants, including members of the three categories mentioned above. They were analysed using a constant comparison method.

**Results:** The analysis revealed that undergraduate education and continuing medical education (CME) while in practice, is insufficient to prepare GPs for their palliative work. Workplace learning (WPL) through collaboration with specialized palliative home-care nurses seems to be a valuable alternative.

**Conclusions:** The effectiveness of undergraduate education might be enhanced by adding practical experience. Providers of continuing medical education should look to organize interactive, practice-based and interprofessional sessions. Therefore, teachers need to be trained to run small group discussions. In order to optimize workplace learning, health care professionals should be trained to monitor each other's practice and to provide effective feedback. Further research is needed to clarify which aspects of interprofessional teamwork (e.g. professional hierarchy, agreements on tasks and responsibilities) influence the effectiveness of workplace learning.

**Keywords:** Interprofessional learning, Workplace learning, Interprofessional collaboration, Primary care, Continuing professional development

## Background

Over the last few decades there has been an increase worldwide in the number of patients suffering from advanced cancer and severe non-malignant diseases. The majority of these palliative patients prefer to spend their final days at home being cared for by their general practitioner (GP) rather than in a hospice or hospital setting [1-6]. In general, GPs accept this task as an important part of their lifelong commitment to patients [7]. To be able to deliver high-quality care, GPs need a specific set of palliative-care competences. The European Association for Palliative Care (EAPC) has listed these competences in their undergraduate and postgraduate curriculum suggestions [8,9]. Medical schools can make use of these suggestions to implement palliative-care education in medical curricula. They can also be used as an information source for providers of continuing medical education (CME). Within the framework of this study, we made use of the word 'CME' to appoint the officially organized educational sessions required for the periodic recertification of doctors.

In many countries there is no comprehensive undergraduate or postgraduate palliative-care curriculum for medical students [10]. In EAPC's recent 'Atlas of Palliative Care in Europe', the development of palliative care in 30

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European countries is described. Among these 30 countries, 13 are reported to have some palliative-care teaching in all medical schools, while for 15 countries it is reported that in part of the medical schools there is some teaching (0-64% of medical schools). For 2 countries nothing is reported on it at all [10]. Therefore, it is not known how GPs acquire the necessary competences to deliver high-quality palliative care. One might think that practical experience leads to a higher level of competence but the literature suggests that the quality of care provided (measured by the adherence to guidelines as a proxy indicator) is inversely proportional to the number of years in practice [11,12]. Moreover, GPs only have a small number of palliative patients a year so the occasions to gain experience are limited [13,14]. This lack of experience and the associated lack of self-confidence is internationally recognized [7]. Nevertheless, it is worthwhile to consider learning through experience in more detail.

In many countries, GPs collaborate with community-based palliative home-care teams (PHCTs) to provide effective palliative home care [10,15,16].

The literature on workplace learning (WPL) acknowledges that working and learning are inseparable and fundamental [17,18]. Interprofessional learning is 'learning arising from the interaction between members of two or more professions' and may happen spontaneously, in an implicit way, when health-care providers from different disciplines work together in taking care of the same patient [18,19]. In our case, we expect GPs to learn through collaboration with the more experienced PHCT nurses.

The two ways of learning we have mentioned (classroom-based learning and workplace learning) draw on different learning perspectives [20]. Whereas classroom-based learning is primarily intended for knowledge transmission (even though some formats such as workshops, small-group discussions and role play incorporate the putting into practice of theory), workplace learning occurs through actively engaging in the activities of the workplace [17,21,22]. The interaction between the individuals and the environment thereby offers situated learning opportunities where new knowledge is co-constructed. To be able to gain the most comprehensive insight into GPs' preferences for acquiring palliative-care competences, we sought the views and ideas of all the different parties involved in GPs' palliative-care learning: GPs, CME providers and PHCT members. Therefore we conducted focus groups with GPs only and focus groups comprising both PHCT members and CME providers. The research questions of this study were:

- What are the current experiences of GPs, CME providers and PHCT members with palliative-care education for GPs?

- What are the views on and preferences for future palliative-care education for GPs according to GPs, CME providers and PHCT members respectively?

## Methods
### Setting
In Belgium, GPs have a central position in primary care. They deliver medical care and coordinate the involvement of other health-care professionals e.g. community nurses. Near the end of a patient's life, during palliative home care, GPs remain responsible. With respect to education, both on the undergraduate and the postgraduate levels, medical schools offer some palliative-care curriculum items but there are no official recommendations as to content or didactics. Most undergraduate palliative-care education is classroom-based. During traineeships, GP trainees gather clinical experience under the supervision of an experienced GP, but no official requirements are provided. A recent survey of continuing medical education (CME) in palliative care has uncovered large content gaps, an under-usage of appropriate educational techniques and an absence of evaluation of the impact of CME on clinical practice [23].

Palliative-care services are well-developed in both home care and hospital care. Palliative home-care teams cover the entire country, and every GP can have recourse to a PHCT when needed. These PHCTs comprise specialized palliative-care nurses, physicians with specialist training in palliative care, and psychologists. The nurses generally undertake the majority of home visits, and in doing so support the GPs in their job. The PHCT physicians and psychologists mainly advise and support the nurses during team meetings.

### Design
A qualitative design using focus group discussions was chosen because the interaction between participants was expected to elicit the richest thoughts and ideas in an area where knowledge is scarce. Our main goal was to gather the GPs' views and preferences on maintaining competences and not merely facts on how they maintained them.

### Recruitment and selection
In Belgium, each GP belongs to a peer review group which must meet four times a year as part of the recertification process. Two peer groups of GPs (one urban, one rural) were invited to participate in this research (n = 12) as a convenient sample choice near the hometown of two researchers. The main topics explored in these focus groups were: the acquisition of basic palliative-care competences, maintaining competences and collaboration with other professionals. The topics are listed in Table 1.

In addition, members of PHCTs and providers of CME were contacted. Mail surveys were sent out to every

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**Table 1 Topics discussed in the focus groups**

| Topics discussed in the focus groups with GPs | Topics discussed in the focus groups with PHCTs and CME providers |
|---|---|
| Acquisition of basic palliative-care competences | Interactions between participants of the focus groups and GPs |
| *(Where did you get your basic knowledge and competences?; How did you handle your first palliative patients? What did you miss during your education?)* | *(How do you come into contact with GPs?; What are the questions they put to you?; Which needs do GPs formulate to you? Are these the same needs that you see as collaborating professionals?)* |
| Maintaining competences | Continuing medical education |
| *(Where and how have you been learning about palliative care?; Which kind of learning do you prefer and why?; How does the learning influence your practice as a GP?)* | *(How do you organize CME; How do you take into account the needs and preferences of GPs with respect to CME? What are your preferences with respect to CME?)* |
| Collaboration with other professionals. | Collaboration with GPs |
| *(With whom do you collaborate in palliative care?; Which contacts with other professionals have been most educational?; How does this influence your practice as a GP?)* | *(What is your perception of the collaboration with GPs?; Are GPs communicating to you about the collaboration?; Are you instructing GPs on interdisciplinary collaboration?)* |

CME provider in Flanders as part of a larger study, and they were asked whether they would agree to participate in a focus group study [23]. Since PHCTs also provide education for GPs, they were included in this mailing. These focus groups explored the following issues: interactions between participants of the focus groups and GPs; continuing medical education and collaboration with GPs. The topics are listed in Table 1.

### Data generation

All focus group meetings lasted for approximately two hours. The participants gave their informed consent and were assured of their confidential participation and of the anonymization of any published quotes. Apart from the participants, other people taking part in the discussions were the facilitator (LS) and a clinical researcher (PP), who made field notes. All discussions were audio-taped and transcribed verbatim.

### Data analysis

An inductive approach was used to analyse the data, making use of a "constant comparison" method and its related open and axial coding techniques in which the emerging concepts are firmly grounded in the collected data [24]. Using open coding, two researchers (PP and LG) independently analysed a first transcript. Both researchers chose their codes independently. Afterwards, the codes were compared and discussed until a consensus was reached. After this, the next transcript was analysed and discussed in the same way. Using the resulting coding scheme, the first transcript was then reviewed again to check the validity of the codes. This was done by comparing codes and themes within and between transcripts. In this iterative way, all transcripts were analysed and discussed until a final set of themes was obtained. This final set of themes was presented for discussion to the other co-authors of this paper. The analysis was done using NVivo 8 software.

### Ethical approval

Ethical approval was granted by the ethical committee of the Gasthuiszusters Antwerp Hospital, Belgium.

### Results

In total, five focus group discussions were held with a total of 29 participants, all based in the Dutch-speaking part of Belgium.

Firstly, two focus groups were convened with seven and five GPs in each group. All invited GPs of the two peer review groups agreed to participate and were present.

Secondly, three focus groups were convened with PHCT members and CME providers (with six, six and five participants, respectively). The analysis of the last focus group transcript did not reveal any new themes but additional insights into the existing set of themes emerged.

The characteristics of the participants are shown in Table 2.

Quotes have been provided on the basis of their being representative of the wider data and are labelled using the number of the focus group and the number of the participant within the group (e.g. FG1, P2). The quotes were translated from Dutch into English. The accuracy of the translations was verified by discussing the meaning of the quotes with one or more of the authors. The three participating groups shared opinions on many themes. Differing opinions will be highlighted.

### What are the current experiences of GPs, CME providers and PHCT members with palliative-care education for GPs?

a) Insufficiently prepared on graduation

Similarly to primary care in general, palliative care is considered as total care that is patient-centred and relationship-based. Consequently, GPs were willing to invest time and energy in delivering palliative care as they regarded this as being a full aspect of their job. Therefore, they need a certain set of palliative care competences, the

**Table 2 Characteristics of the participants of the focus groups**

| Focus group | Participant | Gender | Age | Profession | Years in practice* | Practice setting** |
|---|---|---|---|---|---|---|
| Nr 1 (GPs) | 1 | Male | 48 | GP | 21 | Solo |
| | 2 | Male | 59 | GP | 34 | Solo |
| | 3 | Male | 45 | GP | 18 | Solo |
| | 4 | Male | 51 | GP | 24 | Solo |
| | 5 | Male | 36 | GP | 9 | Solo |
| | 6 | Male | 33 | GP | 6 | Solo |
| | 7 | Male | 56 | GP | 30 | Solo |
| Nr 2 (GPs) | 1 | Female | 33 | GP | 6 | Duo |
| | 2 | Female | 47 | GP | 19 | Duo |
| | 3 | Male | 59 | GP | 33 | Duo |
| | 4 | Male | 43 | GP | 16 | Duo |
| | 5 | Male | 45 | GP | 20 | Group |
| Nr 3 (PHCTs and CME providers) | 1 | Male | 51 | GP | 20/11 | CME/PAL |
| | 2 | Male | 60 | GP | 14 | PAL |
| | 3 | Female | 43 | Nurse | 12 | PAL |
| | 4 | Female | 43 | Nurse | 1 | CME |
| | 5 | Male | 47 | Nurse | 8 | PAL |
| | 6 | Male | 54 | GP | 30/14 | CME/PAL |
| Nr 4 (PHCTs and CME providers) | 1 | Male | 40 | GP | 4 | CME |
| | 2 | Male | 50 | GP | 7 | PAL |
| | 3 | Male | 37 | Neurologist | 2 | PAL |
| | 4 | Male | 54 | Psychologist | 11 | PAL |
| | 5 | Female | 33 | Nurse | 11 | PAL |
| | 6 | Male | 52 | GP | 3 | PAL |
| Nr 5 (PHCTs and CME providers) | 1 | Female | 46 | GP | 2 | PAL |
| | 2 | Female | 46 | Master in medical-social sciences | 8 | CME |
| | 3 | Male | 36 | Palliative-care physician | 5 | PAL |
| | 4 | Male | 44 | Geriatrician | 5 | PAL |
| | 5 | Male | 53 | Anaesthetist | 24 | PAL |

***years in practice:** for GP groups = years of GP practice; for PHCT and CME providers groups = years working in this organization.
****practice setting:** for GP groups = solo, duo or group practice; for PHCT and CME providers groups = PHCT (palliative home-care team), CME (providers of continuing medical education), PAL (palliative-care organization).

acquisition of which should be initiated as part of the undergraduate curriculum. GPs stated unanimously that the undergraduate palliative-care curriculum was insufficient for acquiring basic competences to start their medical practice in palliative care.

*'It is still a leap into the unknown. You may have had ten hours of theory or twenty hours of theory, but sooner or later you'll have to take the plunge and deal with it in practice.'* (FG1, P4)

Some GPs reported a deficiency in theoretical knowledge upon graduation e.g. with respect to pharmacology, because of an excess of attention and lectures on psychology and communication skills.

*'Ultimately that's the most important aspect I think. The wish of the patient is to be free of pain, to die as comfortable as possible. Therefore you need medication, not conversation. '* (FG1, P6)

Others stressed the necessity to adopt a palliative-care attitude (shifting the focus 'from cure to care') to ensure good care and pointed out the lack of it in undergraduate training.

*'At a given time, you have a point where you go beyond the usual framework of a diagnosis, a therapy, making somebody better. That logic – which is fed to us during our training – has to be left behind and you see: now I am just going to look at what makes a*

*person comfortable. It is a completely different logic…'*
(FG2, P2)

b) Task description and professional choice

Although participants unanimously agreed that palliative-care delivery is part of the GP's job, task perception and the level of involvement clearly varied. All physicians wished to acquire basic palliative-care competences. Some GPs limited their involvement in palliative care because of its time-consuming and emotionally exhausting nature. Others deliberately confined themselves to patient care within their general primary-care competences and questioned the benefits of acquiring advanced competences since PHCTs and medical specialists are easily accessible for advice. As a result there was a spectrum ranging from GPs who performed palliative care 'on their own' to GPs handing over most of the tasks to others, especially PHCT nurses.

*'If you have had a patient for 20 or 30 years and he has to die, we are never going to be able to let him, we try to keep him alive for as long as possible, you should really have special doctors for that.' (FG1, P5)*

Consequently, not all GPs needed the same competences and this was reflected in their expectations towards the medical curriculum.

*'Honestly, it doesn't appeal to me … I think for example, if you want to know how a syringe driver works. You can call the PHCT for a syringe driver. You have to know that there is such a thing and what the indications are for its use. But all the practical aspects, I don't need to know that, honestly, I really don't need to know that.' (FG2, P3)*

The notion that not all GPs needed to have specialist palliative-care competences was confirmed in the focus groups of CME providers and PHCT members. They stated that skilled GPs can act as consultants for their colleagues.

*'I used to be upset about that: we're not reaching the ones we should be reaching. On the other hand it becomes more and more like a 'dripping effect'. If we have a core group of 50, 60 GPs in a region who regularly attend courses, that will drip through to the others. You'll notice other GPs turning to them… And colleagues knowing that… I think that's a good way of circulating things.' (FG3, P1)*

c) Two distinct ways of lifelong learning

The participants agreed that GPs do not necessarily need to become palliative-care specialists but mostly require knowledge and skills to handle common actual patient-care needs. As the knowledge base of palliative care continuously changes, participants from all groups expressed the need for lifelong education and training, thereby distinguishing two ways of learning: formal educational sessions (CME) and learning by doing (workplace learning).

Most of the GPs were not enthusiastic about the CME sessions. Courses were often considered to be too theoretical and did not match their actual (on-the-spot) learning needs. CME providers, PHCTs and GP organisations all state that they often prepare courses collaboratively. This may enhance the effectiveness of the courses by emphasizing a focus on the GPs' educational needs and preferences. This strategy may cover 'general educational needs' of a local group of GPs but is insufficient to address every individual GP's learning needs.

Some education providers share these ideas and are very pessimistic about CME in general. They state that GPs have to 'sense' what good palliative care is all about and that it cannot be put into words or training.

*'I don't really believe in education. I don't really believe in training. I don't believe in that. I have spent lots of time lecturing GPs on pain and symptom control. But after you've finished, and one month later they have forgotten already… then I get this feeling: we can offer them hundreds of hours of training in palliative care, it won't work. Experiencing this collaboration, that will make a click.' (FG3, P1)*

As mentioned earlier, as GPs are confronted with patient-care needs, their on-the-spot learning needs manifest themselves. These learning needs are to be resolved instantly, which cannot be done by scheduled CME sessions, distanced in time. A much better way to address these learning needs is through workplace learning.

*'…and then you learn through trial and error. Of course. So you make mistakes. You… I remember patient cases, palliative cases, where I've been thinking 'oops I really overlooked that. I really should have done this differently'. I've also dealt with people the wrong way. Learning through trial and error. I think that has been my principal teacher.' (FG2, P2)*

For GPs, learning by doing is the most natural way of learning, often with the help or 'under the supervision' of experienced nurses. As such, doctors expressed no reluctance or barriers towards asking for these nurses' advice.

*'OK, fortunately there is nursing at home, people who have been on the go for 20 years, who know the ropes, who push you to allow that, to try it at home,*

*administering morphine, you know what I mean, all those things.'* (FG1, P7)

*'There has been resistance in the beginning, but as they experience that the palliative nurses also have the expertise and the ability, they (the nurses) are able to reach a good position to negotiate with those GPs.'* (FG3, P3)

Working together with PHCTs in a structured way accentuates different aspects of palliative care on top of the mere medical aspects, and this also creates learning moments for GPs. In such collaboration, GPs learn to shift from a reactive style (treating emerging problems) to a proactive style of caring (comprehensive assessment of the situation to prevent problems).

*'There is more structure to it now, while, yeah, 15 years ago, I mean, people did come home to die but without this structure. You were on your own. Palliative care is more like a structured way* [of delivering care] *now, yes. Before, it used to be, yeah, mere symptom control... when something came up, you had to take care of it, you had to treat it.'* (FG1, P1)

Observing palliative-care nurses' relationships with palliative patients teaches GPs how to deal with complex situations.

*'You have to experience it in order to learn. That's something you can see in the relationship between the nurse and the patient. Gee, that's some relationship! You can learn something from that, how does she* [the nurse] *handle it? You have to see how she goes about it. You can't write it down. I mean, it is almost a sort of parenting moment.'* (FG5, P1)

This observation was confirmed by the PHCT members:

*'Yeah, a very important thing in this matter is that the learning moment for GPs is mostly situated in the contacts with palliative home-care teams, at the patient's home. This is the greatest learning moment for most of them.'* (FG3 P3)

In addition to professional growth (acquisition of professional competences), learning through collaboration also seems beneficial to the GPs' personal growth. A general feeling of safety and trust in the PHCTs enables GPs to discuss their own problems and weaknesses.

*'I suppose it has something to do with safety, and with relying on experience and expertise and on communication. Not judging or condemning them, like:*

*that doctor seemed to struggle, and now he's going to share this with us so to speak... because of working with the team nurses for years they dare to admit that they need assistance.'* (FG4, P6)

When considering the composition of a care team for the patient, most GPs were not restrictive and valued the involvement of all caregivers, both professional and non-professional.

In that way, in addition to learning from specialist PHCT nurses, GPs stated they learn a lot from observing the family members' way of delivering care.

P3:*'I think the conduct of the family is, on the human aspects, sometimes very educational...sometimes everything works out just fine and then you say: well done!'*

P1: *'You learn mostly how families are functioning'* (FG1)

The GPs' learning trajectory follows the patient's actual (on-the-spot) care needs. The patient can even play an active role in stimulating GPs' learning.

*'I have a feeling change might come from the patient himself. He's becoming more empowered, he reads more and he sees more. (He) goes to the GP and says: 'look, I've heard that, I would like that...' And pushes him to become skilled and experienced in it.'* (FG5, P2)

Palliative-care team participants acknowledge the expressed value of practice-based learning by the GPs and are willing to accept the responsibility of being a facilitator of GPs' learning.

*'...and that's one of our positions actually, that we, palliative-care physicians and nurses, are a kind of trainer or coaching team to them.'* (FG4, P2)

Complementary to the bedside learning moments for GPs, learning opportunities are readily available during meetings on the planning of patient care.

*'A care consultation, that hasn't been installed to educate, but if you want, you can learn a lot on how you would do it and what possibilities you have in your discipline and your organization. I always pass on to my nurses that, if you are invited to a care consultation, first of all for the well-being and continuing care of the patient, you also have to stay alert for learning aspects, and that you can pass things on to the GP at that moment.'* (FG3, P6)

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Nevertheless, these meetings are hard to organize since bringing together health-care professionals in primary care is a difficult task.

*'I think that one of the big problems in home care is the fragmentation. I mean, these are all individuals that end up in one and the same situation and they hardly ever meet in person...and maybe we should see how we can link agendas, but I find that practical obstacles can be enormous in a fragmented home situation.' (FG3, P1)*

**What are the views on and preferences for future palliative-care education for GPs according to GPs, CME providers and PHCT members?**

a) The need for clinical exposure

As mentioned earlier, the current experiences have led to differing views on the required content of the undergraduate curriculum but there was consensus over the need for clinical experience as part of the education.

All participants believed that the undergraduate curriculum can never be sufficient to prepare a physician for practice, because some aspects of palliative care cannot be learned without clinical experience. Some respondents from palliative-care organisations would like to integrate a palliative-care-unit internship into undergraduate education. Others note the large differences between a palliative-care unit and the home-care situation and fear that this would not be an ideal preparation for GPs.

*'A couple of days is OK, but it surely isn't easy, coming from a home-care situation and going to a (palliative care) unit to learn and discover new things. Often, it's a disillusion when you go back to home care, because of the occasional team set-up and other things you struggle with at home and that work effortlessly in the unit.... I think that's all valuable indeed but it shouldn't raise the expectation that it'll be the same in your work field at home.' (FG3, P6)*

b) Practice-oriented learning

Palliative-care education should mirror palliative-care practice. This has consequences for the content, the format and the organization of CME.

GPs expressed unanimously a strong preference for education on practical issues and concrete advice on how to implement clinical guidelines. Concerning the importance of communication training, however, there was disagreement. Some participants (especially CME providers) stated that repeated and continuous participation in communication training was necessary while others (primarily GPs)

doubted this. They stated that only basic training was needed and further skills should be gained through personal experiences.

*'One of the major needs is communication. And communication is something that you don't learn by going to a lecture. And you don't learn it by watching videos, but you do learn by practising and training in small groups, and role-play, and with simulated patients.' (FG3, P5)*

*'Bad news discussion version 36 ... you have your basic techniques, and it can beuseful to learn those. But I found my way of applying that technique.' (FG1, P3)*

According to the GPs the best way of delivering CME is by having case-based discussions in small group sessions to see how theories can be put into practice.

*'Knowledge transfer, and that has been studied, knowledge transfer doesn't last long. It never changes attitudes. But case-based discussions and peer discussions indeed, those are lasting. And feedback. Doing something and receiving feedback on it.' (FG3, P5)*

Although CME providers agree with this, they mostly use lecturing as an educational format for CME sessions. They justify this by stating that techniques such as interactive workshops require too much preparation (for which they do not have time), cost too much and require skilled trainers. According to providers of education, teaching is a 'profession', and not all good clinicians are good teachers. The art of teaching should be learned during a specific training program.

Some trainers seriously attempted to give this a try but went back to lecturing after having had some disappointing experiences.

*'I think it's difficult, you know, outside the palliative care, everyone is giving lectures. In all general courses you can find 90 percent are lectures. The really interactive sessions that took place over the last years...it's more like a downfall instead of an increase. I sometimes try to get people involved during my talks but it really depends on the group whether it works out or not. Ultimately, case discussions, some will be interesting and some won't.' (FG5, P1)*

Participants from all groups mentioned the importance of multidisciplinary training but profession-specific courses are required too, since physicians might have a different level of interest in e.g. pharmacology than nurses. General practitioners acknowledge the benefits of professionals from other disciplines (e.g. nurses) acting as trainers/

educators. Getting to know each other in this manner facilitates working together as a team afterwards.

> *'What's proven beneficial to learning is putting a group together, I mean putting people from different disciplines together in a shared team to do a training module.' (FG3, P6)*

> *'Well the advantage lies in having a broad view… you get to know other people's capacities to support you in caring* [for the patient].*' (FG3, P3)*

The focus on interprofessional collaborative practice is emphasized by the PHCT members, who state that team working skills are essential for all disciplines.

> *'I think that the poor collaboration between disciplines is something that needs to be put right. Perhaps we should start, in our continuing training, to study with them: how do you work together? And what advantages does it have.' (FG3, P5)*

c) Workplace learning conditions

According to the GPs, for collaboration to be effective as a learning moment, there must first of all be readiness to learn.

> *'It also depends a lot on your attitude… You have to be open to it, to learn. And not be embarrassed that you don't know it yet.' (FG2, P1)*

PHCT members realize that this readiness to learn is not at all self-evident. They see it as an attitude which has to grow gradually, as many GPs are not used to this way of learning.

> *'General practitioners often tell me that interprofessional collaboration in a respectful manner is such an important learning moment. They learn from 'doing things together'. And then returning to it is much easier the next time.' (FG4, P3)*

> *'Then there is also the issue of whether these people can effectively open themselves up, through this co-operation, to learn new things, see new elements and new perspectives. Then it is more about an uncertainty and an anxiety about judgments that are going to be shaped rather than an offer that is there and where you have the liberty to use it or not.' (FG3, P6)*

This readiness to learn requires a climate of safety and trust, requiring a careful approach of the learning situation by the PHCT nurses. It may be better to organise

a 'teaching moment' before or after the bedside encounter and not to display the GPs' learning need in front of the patient's family members.

> *'Yes, that was very annoying, the syringe driver was there and then he [the palliative-care nurse]… started to give explanations whilst the whole family was present… he'd better come to our practice beforehand … but then you're there with the whole family…' (FG2, P1)*

Although most participants agreed that field training in palliative care (through collaboration with home-care teams) was more effective than attending courses, some PHCT participants report the experience of GPs coming back again and again with their questions because they have forgotten the advice that had been given.

> *'I have a feeling that GPs like bedside training. At least in our team, we see them coming to the team, picking up some items, probably they don't remember them any longer after one year, and then coming back to the team.' (FG5, P4)*

This was acknowledged by some GPs but others stated that they remembered some information e.g. on practical issues, indicating that workplace learning is not appropriate for all palliative-care content or competences .

> *'Practical stuff like using a nasogastric tube or comfort items, yeah, you'll remember that.' (FG2, P1)*

## Discussion and conclusions

Our study has elicited the experiences and preferences of GPs, PHCT members and CME providers with respect to undergraduate and postgraduate education in palliative care for GPs. Workplace learning has been suggested by participants as a complementary form of lifelong training, with its own specific requirements and conditions.

A first emerging theme is the wish for education to focus on clinical practice, in terms of format as well as content. Upon graduation, GPs do not feel fully prepared to deliver high-quality palliative home care as they lack clear insights in to what palliative care really entails and what will be expected of them in their practice. This reflects the intentions of coordinators of UK medical schools who formulate a concern towards a palliative-care attitude and an awareness of the palliative-care philosophy as an important topic of undergraduate education [25]. The lack of exposure and clinical experience during undergraduate education is mentioned as a major cause of insufficient preparation for practice in our study, confirming the results of a similar study in the UK [26]. The literature describes various ways of introducing practice experience in education with hospice rotation [27-29]. Participants in

our study, however, suggest that hospital/hospice training experience cannot easily be transferred to the specific requirements of home-based care. Therefore, it might be interesting to seek for ways of organizing practice rotation in primary care.

Expanding the undergraduate palliative-care curriculum enhances the perception of self-efficacy among students [30]. A valuable alternative, with possibly less impact on the organization of medical schools, might be to analyse the complete medical curriculum for 'hidden palliative-care content' (e.g. 'therapy withdrawal in end-stage cardiac failure' during lessons in cardiology) and fill in the gaps with a minimum of palliative-care courses [31].

With respect to CME there were clear preferences for interactive, practice-based, small group sessions, thereby confirming literature suggestions on the efficiency of educational formats [32,33]. Unfortunately, as confirmed by a recent review, lecturing remains the primary way of education due to a lack of financial and practical support to provide more interactive training modules [23]. It is worthwhile, however, to make efforts to optimize CME sessions as it has shown the ability to enhance practice [34]. When questioned on the content of CME, GPs preferred it to mirror the complex reality of palliative home care, as is also suggested by the literature [35-37]. With respect to the importance of communication training there was disagreement among the participants. While PHCTs and CME providers call for explicit and repetitive training in communication, GPs prefer to develop their own ways of communication through experience rather than through training sessions. The latter contrasts with the literature, which refers to the positive effects of training on doctors' communication and promotes interactive training sessions [38,39]. This might be due to the GPs' reluctance to engage in role-play sessions [40]. The educational outcomes have been shown to be enhanced by practice reinforcement [34].

Workplace learning is the second theme of interest emerging from the results. Practice reinforcement is easily accessible in the case of bedside teaching [41]. This is in line with participants' preferences for learning by doing. All participants preferred this way of learning to classroom-based learning, especially when addressing GPs' on-the-spot learning needs. Both GPs (who can be considered the 'learners') and PHCT nurses (who can be considered the 'teachers', since they are more experienced than the GPs) acknowledge this. The literature on workplace learning (WPL) indicates that this is a reciprocal relationship (both are learning from each other), but the focus of our study was limited to the learning experiences of GPs [42,43]. Participants in our study see WPL as a valuable way of learning, both for practical issues (hands-on training) and for honing a holistic, person-centred attitude towards palliative care (PHCT nurses acting as a 'role model'). Although the literature supports the idea that a palliative-care attitude

should preferably be acquired early in undergraduate medical education in order for GPs to be well-prepared for practice [35,44], participants in our study declare that the PHCT nurses' role modelling changed their attitude towards palliative patients.

Learning through collaboration offers different ways of learning (e.g. implicit learning, disseminating tacit knowledge) through different learning activities (e.g. observation, receiving feedback) which are difficult to incorporate in CME sessions. Both ways of learning are therefore complementary [17,45]. Opinions on the effectiveness of WPL, however, differ among the participants: while GPs were convinced of the enduring change in competences after a learning experience in a PHCT, the PHCT nurses doubted the effectiveness of it, having witnessed GPs raising the same problems and questions over and over.

A third important theme is the GPs' self-perception of the tasks and position towards palliative care during interprofessional collaboration. Our study results indicate that palliative care is an integral part of primary care and GPs are willing to make efforts for it, although workload can sometimes limit the GPs' involvement [14]. Gibbins equally concluded that palliative care is 'part of being a doctor' and that the same skills are needed for primary care in general, which is pleaded for in other publications as well [25,46]. PHCTs are a major support for GPs when care becomes too complex. Newly qualified doctors seek support from nurses and the palliative-care team and not from their usual medical team [26,47]. Our study confirms and extends this observation to experienced practicing doctors.

GPs state that they learn from the PHCT nurses through collaboration. Creating opportunities for shared learning and education is a clear indicator that a good partnership between specialist palliative-care services (e.g. PHCTs) and generalists has been established [48]. In our study, the PHCT nurses are willing to take up this responsibility. Professionals positioning themselves as learners, can learn from the more experienced colleagues positioning themselves as learning facilitators [21,49]. As the learner must show a willingness to learn, the facilitator must show a willingness to share knowledge and expertise [50]. The overall concepts of personal identity and professional identity influence the way professionals engage in their work and consequently in workplace learning [51-53]. This means that job perception (the way you define your job and task responsibilities) and self-conception as a practitioner are important [54].

The literature shows that for feedback to be effective, it should be authoritative [55]. Our study shows that authority does not necessarily need to be diploma-based but can also originate from expertise.

An emerging suggestion from some CME providers was to train some interested GPs who can act as an informal reference for their colleagues. In Belgium and other

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countries there is a lot of experience with formal reference physicians in palliative care who are easily accessible. Some GPs might hesitate to take this 'official route' and might prefer to consult a fellow colleague.

Further research is needed to gain insight in the interaction between GPs and PHCT nurses to enhance interprofessional workplace learning.

This study's greatest strength lies in the integration of the views of all parties involved in palliative home care: GPs, PHCTs and CME providers.

Some limitations have to be mentioned, such as the fact that GPs in Belgium have been used to working with PHCT for many years. This might have influenced their views on learning through collaboration with these teams. Generalizing their views on health-care providers to those from countries without these traditions must be done cautiously. Two different sampling strategies were used: CME providers and PHCT members responded to an invitation to participate in a mail survey, whereas GPs were recruited through a convenience sample of two peer groups. We do not think this has had a major impact on the results since the diversity of participants from CME providers and PHCT members guarantees a broad view on the topic. As for the GPs, since the two groups as a whole agreed to participate, proponents as well as opponents of palliative-care education were present. The predominance of males in the GP groups might have had an influence but reflects the male predominance in the GP workforce (at the time of our study, there were twice as many male GPs in Belgium as female GPs). Fourth, the differing probing questions in the various focus groups might seem to interfere with the analysis of the results but in our view they served to elicit different viewpoints (participants from different backgrounds) on the same topics. The same moderator led all the focus group discussions and ensured that the same topics were discussed in all focus groups. The viewpoint of our study participants may not be representative of the current situation at medical schools (since some participants graduated many years ago) but the expectations they articulate on undergraduate education are probably representative as they were based on current daily work needs (which will always be the patients' care needs).

In summary, after finishing their undergraduate education, GPs feel unprepared to deliver high-quality palliative care. They also feel insufficiently supported by official CME providers to keep up palliative-care competences. To address their on-the-spot learning needs (induced by specific patient care needs) they turn to PHCTs. While collaborating with these teams, workplace learning occurs. Further research is needed to clarify the dynamics and efficiency of this kind of workplace learning.

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**References**
1. Gomes B, Calanzani N, Gysels M, Hall S, Higginson IJ: Heterogeneity and changes in preferences for dying at home: a systematic review. *BMC Palliat Care* 2013, **12**:7.
2. Baillargeon L: Palliative care at home. Dying at home: an increasingly important trend. *Can Fam Physician* 2003, **49**:1581–1582.
3. Chvetzoff G, Garnier M, Pérol D, Devaux Y, Lancry L, Chvetzoff R, Chalencon J, Philip T: Factors predicting home death for terminally Ill cancer patients receiving hospital-based home care: the Lyon comprehensive cancer center experience. *J Pain Symptom Manag* 2005, **30**(6):528–535.
4. Plonk W, Arnold R: Terminal care: the last weeks of life. *J Palliat Med* 2005, **8**(5):1042–1054.
5. Borgsteede S, Graafland-Riedstra C, Deliens L, Francke A, van Eijk J, Willems D: Good end-of-life care according to patients and their GPs. *Brit J Gen Pract* 2006, **56**:20–26.
6. Barclay J, Kuchibhatla M, Tulsky J, Johnson K: Association of hospice patients' income and care level with place of death. *JAMA Intern Med* 2013, **173**(6):450–456.
7. Mitchell G: How well do general practitioners deliver palliative care? A systematic review. *Palliat Med* 2002, **16**:457–464.
8. Elsner F, Centeno C, Cetto G, De Conno F, Ellershaw J, Eychmuller S, Filbet M, Larkin P, Mason S: Recommendations of the European association for palliative care (EAPC) for the development of undergraduate curricula in palliative medicine at European medical schools. 2013. EAPC, ISBN: 978-88-902961-9-2 [http://www.eapcnet.eu/Themes/Education/Physicians/Recommendations.aspx]
9. Elsner F, Centeno C, De Conno F, Ellershaw J, Eychmuller S, Filbet M, Kaasa S, Larkin P: Recommendations of the EAPC for the development of postgraduate curricula leading to certification in palliative medicine. http://www.eapcnet.org.
10. Centeno C, Pons JJ, Lynch T, Donea O, Rocafort J, Clark D: *EAPC Atlas of Palliative Care in Europe 2013.* Milano: EAPC Press; 2013.
11. van Leeuwen Y, Mol S, Pollemans M, Drop M, Grol R, van der Vleuten C: Change in knowledge of general practitioners during their professional careers. *Fam Pract* 1995, **12**:313–317.
12. Choudhry N, Fletcher R, Soumerai S: Systematic review: the relationship between clinical experience and quality of health care. *Ann Intern Med* 2005, **142**:260–273.
13. Keirse C, Beguin C, Desmedt M, Deveugele M, Menten J, Simoens S, Wens J, Borgermans L, Kohn L, Spinnewijn B, Cardinael A, Kutten B, Vanden Berghe P, Paulus D: *Organisatie van Palliatieve Zorg in België 2009*, [The Organisation of Palliative Care in Belgium 2009]. http://www.kce.fgov.be.
14. Shipman C, Gysels M, White P, Worth A, Murray S, Barclay S, Forrest S, Shepherd J, Dale J, Dewar S, Peters M, White S, Richardson A, Lorenz K, Koffman J, Higginson IJ: Improving generalist end of life care: national consultation with practitioners, commissioners, academics, and service user groups. *BMJ* 2008, **337**:a1720.

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15. Mitchell G, Del Mar C, O'Rourke P, Clavarino A: **Do case conferences between general practitioners and specialist palliative care services improve quality of life? A randomised controlled trial.** *Palliat Med* 2008, **22**(8):904–912.

16. Pype P, Symons L, Wens J, Van den Eynden B, Stes A, Cherry G, Deveugele M: **Health-care professionals' perceptions towards interprofessional collaboration in palliative home care: a view from Belgium.** *J Interprof Care* 2013, **27**(4):313–319. doi: 10.3109/13561820.2012.745488. Epub 2012 Nov 27.

17. Eraut M: **Learning from other people in the workplace.** *Oxf Rev Educ* 2007, **33**:403–422.

18. Parboosingh J: **Physician communities of practice: where learning and practice are inseparable.** *J Contin Educ Health Prof* 2002, **22**:230–236.

19. Hammick M, Olckers L, Campion-Smith C: **Learning in interprofessional teams: AMEE Guide no 38.** *Med Teach* 2009, **31**(1):1–12.

20. Mann K: **Theoretical perspectives in medical education: past experience and future possibilities.** *Med Educ* 2011, **45**(1):60–68.

21. Lave J, Wenger E: *Situated Learning: Legitimate Peripheral Participation.* Cambridge: Cambridge University Press; 1991.

22. Billet S: **Toward a workplace pedagogy: guidance, participation, and engagement.** *Adult Educ Quart* 2002, **53**:27–43.

23. Pype P, Stes A, Wens J, Van den Eynden B, Deveugele M: **The landscape of postgraduate education in palliative care for general practitioners: results of a nationwide survey in Flanders, Belgium.** *Pat Educ Couns* 2012, **86**:220–225.

24. Corbin J, Strauss A: *Basics of Qualitative Research.* Thousand Oaks, California: Sage; 1990.

25. Gibbins J, McCoubrie R, Maher J, Wee B, Forbes K: **Recognizing that it is part and parcel of what they do: teaching palliative care to medical students in the UK.** *Palliat Med* 2010, **24**:299.

26. Gibbins J, McCoubrie R, Forbes K: **Why are newly qualified doctors unprepared to care for patients at the end of life?** *Med Educ* 2011, **45**:389–399.

27. Ellman M, Rosenbaum J, Bia M: **Development and implementation of an innovative ward-based program to help medical students acquire end-of-life care experience.** *Acad Med* 2007, **82**:723–727.

28. Goldberg G, Gliatto P, Karani R: **Effect of a 1-week clinical rotation in palliative medicine on medical school graduates' knowledge of and preparedness in caring for seriously ill patients.** *J Am Geriatr Soc* 2011, **59**:1724–1729.

29. Head B, Earnshaw L, Greenberg R, Morehead R, Pfeifer M, Shaw M: **"I will never forget": what we learned from medical student reflections on a palliative care experience.** *J Palliat Med* 2012, **15**:535–541.

30. Mason S, Ellershaw J: **Undergraduate training in palliative medicine: is more necessarily better?** *Palliat Med* 2010, **24**:306.

31. Meekin S, Klein J, Fleischman A, Fins J: **Development of a palliative education assessment tool for medical student education.** *Acad Med* 2000, **75**(10):986–992.

32. Forsetlund L, Bjørndal A, Rashidian A, Jamtvedt G, O'Brien MA, Wolf F, Davis D, Odgaard-Jensen J, Oxman AD: **Continuing education meetings and workshops: effects on professional practice and health care outcomes.** *Cochrane Database Syst Rev* 2009, Issue 2. Art. No.:CD003030. doi:10.1002/14651858.CD003030.pub2.

33. Alvarez M: **Systematic review of educational interventions in palliative care for primary care physicians.** *Palliat Med* 2006, **20**:673–683.

34. Pulsford D, Jackson G, O'Brien T, Yates S, Duxbury J: **Classroom-based and distance learning education and training courses in end-of-life care for health and social care staff: a systematic review.** *Palliat Med* 2013, **27**:221–235.

35. Meijler W, Van Heest F, Otter R, Sleijfer D: **Educational needs of general practitioners in palliative care: outcome of a focus group study.** *J Cancer Educ* 2005, **20**:28–33.

36. Esteva M, Llobera J, Miralles J, Bauza M: **Management of terminal cancer patients: attitudes and training needs of primary health care doctors and nurses.** *Support Care Cancer* 2000, **8**:464–471.

37. Shipman C, Addington-Hall J, Barclay S, Briggs J, Cox I, Daniels L, Millar D: **Educational opportunities in palliative care: what do general practitioners want?** *Palliat Med* 2001, **15**:191–196.

38. Shaw K, Clifford C, Thomas K, Meehan H: **Review: improving end-of-life care: a critical review of the gold standards framework in primary care.** *Palliat Med* 2010, **24**:317–329.

39. Slort W, Blankenstein A, Wanrooij B, van der Horst H, Deliens L: **The ACA training programme to improve communication between general practitioners and their palliative care patients: development and applicability.** *BMC Palliat Care* 2012, **27**(11):9.

40. Lane C, Rollnick S: **The use of simulated patients and role-play in communication skills training: a review of the literature to August 2005.** *Pat Educ Couns* 2007, **67**:13–20.

41. Wee B, Hughes N: *Education in Palliative Care. Building a Culture of Learning.* Oxford: Oxford University Press; 2007.

42. Shershneva M, Carnes M, Bakken L: **A model of teaching-learning transactions in generalist-specialist consultations.** *J Cont Edu Health Prof* 2006, **26**:222–229.

43. Nilsen L, Moen A: **Teleconsultation – collaborative work and opportunities for learning across organizational boundaries.** *J Telemed Telecare* 2008, **14**:377–380.

44. Ostgathe C, Voltz R, Nauck F, Klaschik E: **Undergraduate training in palliative medicine in Germany: what effect does a curriculum without compulsory palliative care have on medical students' knowledge, skills and attitudes?** *Palliat Med* 2007, **21**:155–156.

45. Eraut M: **Informal learning in the workplace.** *Stud Contin Educ* 2004, **26**:247–273.

46. McCormick E, Chai E, Meier D: **Integrating palliative care into primary care.** *Mt Sinai J Med* 2012, **79**:579–585.

47. Burford B, Morrow G, Morrison J, Baldauf B, Spencer J, Johnson N, Rothwell C, Peile E, Davies C, Allen M, Illing J: **Newly qualified doctors' perceptions of informal learning from nurses: implications for interprofessional education and practice.** *J Interprof Care* 2013, **27**(5):394–400.

48. Gardiner C, Gott M, Ingleton C: **Factors supporting good partnership working between generalist and specialist palliative care services: a systematic review.** *Br J Gen Pract* 2012. doi:10.3399/bjgp12X641474.

49. Li L, Grimshaw J, Nielsen C, Judd M, Coyte P, Graham I: **Evolution of Wenger's concept of community of practice.** *Implement Sci* 2009, **4**:11.

50. Ellinger A, Cseh M: **Contextual factors influencing the facilitation of others' learning through everyday work experiences.** *J Work Learn* 2007, **19**:435–452.

51. Öhlen J, Segesten K: **The professional identity of the nurse: concept analysis and development.** *J Adv Nurs* 1998, **28**:720–727.

52. Johnson M, Cowin L, Wilson I, Young H: **Professional identity and nursing: contemporary theoretical developments and future research challenges.** *Int Nurs Rev* 2012, **59**:562–569.

53. Lucey C: **Medical education: part of the problem and part of the solution.** *JAMA Intern Med* 2013, **173**(17):1639–1643. doi:10.1001/jamainternmed.2013.9074.

54. Phelan A, Barlow C, Iversen S: **Occasioning learning in the workplace: the case of interprofessional peer collaboration.** *J Interprof Care* 2006, **20**:415–424.

55. Veloski J, Boex J, Grasberger M, Evans A, Wolfson D: **Systematic review of the literature on assessment, feedback and physicians' clinical performance: BEME Guide No. 7.** *Med Teach* 2006, **28**(2):117–128.

**Paper 5:**

**Healthcare professionals' perceptions toward interprofessional collaboration in palliative home care: a view from Belgium**

Pype P, Symons L, Wens J, Van den Eynden B, Stess A, Cherry G, Deveugele M.

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healthcare

# Healthcare professionals' perceptions toward interprofessional collaboration in palliative home care: A view from Belgium

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There is a growing need for palliative care, with the majority of palliative patients preferring palliative home care from their general practitioner (GP). GPs join specialized palliative home care teams (PHCTs) to perform this task. GPs' views on this collaboration are not known. This study explores the perceptions and preferences of GPs toward interprofessional collaboration. By employing a grounded theory approach, five focus groups were conducted in Flanders, Belgium with a total of 29 participants (professionals from PHCTs; professionals from organizations who provide training and education in palliative care and GPs who are not connected to either of the aforementioned groups). Analysis revealed that GPs considered palliative home care as part of their job. Good relationships with patients and families were considered fundamental in the delivery of high quality care. Factors influencing effective interprofessional collaboration were team competences, team arrangements (responsibilities and task description) and communication. GPs' willingness to share responsibilities with equally competent team members requires further research.

**Keywords:** Focus groups, interprofessional collaboration, role clarity, team-based care

## INTRODUCTION

There has been an increase in the number of patients suffering from advanced cancer and severe non-malignant diseases worldwide over the last few decades. As a result, services which provide active total care of patients whose diseases are not responsive to curative treatment have been developed. These services are known as palliative care services, and include palliative home care teams (PHCTs), hospices, support teams in hospitals and specialized palliative care units.

Despite these varied services, the majority of palliative patients prefer to spend their final days at home under the care of their general practitioner (GP) rather than in a hospice or hospital setting (Borgsteede et al., 2006; Deschepper, Vander Stichele, Mortier, & Deliens, 2003). Despite research findings suggesting that GPs are able to deliver sound and effective care when provided with appropriate specialist support and facilities, GPs have reported a lack of confidence in their own competence (Mitchell, 2002; Shipman et al., 2002), leading to debate within the research literature as to GPs' suitability to provide adequate palliative home care. Researchers have investigated factors such as GPs' motivation and willingness, the level of training that they need in order to be competent providers (Kenyon, 1995) and their perceptions as to the barriers to adequate facilitation of palliative home care.

Several such barriers to the delivery of adequate palliative home care have been proposed, including personal factors relating to GPs' knowledge, skills and emotions; relational factors concerning communication and collaboration and organizational factors relating to the organization of care and compartmentalization in healthcare (Groot et al., 2005, 2007; Mitchell, 2002). This has led to increased interest in the role of multidisciplinary, community-based PHCTs, which increasingly work in close collaboration with the patients' GP (Mitchell, Del Mar, O'Rourke, & Clavarino, 2008) to ensure effective palliative home care provision and to overcome some of the barriers outlined above (Yuen, 2003).

In Belgium, PHCTs contain GPs with specialized training in palliative care, specialized palliative care nurses and psychologists. The nurses generally undertake the majority of home visits to the patient, while the GPs and psychologists mainly advise and support the nurses during team meetings. The efficacy of such interprofessional team working in

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Table I. Characteristics of the participants of the focus groups.

| Focus group | Participant | Gender | Age | Profession | Years in practice[*] | Practice setting[†] |
|---|---|---|---|---|---|---|
| GP group 1 | 1 | Male | 48 | GP | 21 | Solo |
| | 2 | Male | 59 | GP | 34 | Solo |
| | 3 | Male | 45 | GP | 18 | Solo |
| | 4 | Male | 51 | GP | 24 | Solo |
| | 5 | Male | 36 | GP | 9 | Solo |
| | 6 | Male | 33 | GP | 6 | Solo |
| | 7 | Male | 56 | GP | 30 | Solo |
| GP group 2 | 1 | Female | 33 | GP | 6 | Duo |
| | 2 | Female | 47 | GP | 19 | Duo |
| | 3 | Male | 59 | GP | 33 | Duo |
| | 4 | Male | 43 | GP | 16 | Duo |
| | 5 | Male | 45 | GP | 20 | Group |
| Teams and organizations group 1 | 1 | Male | 51 | GP | 20/11 | CME/PAL |
| | 2 | Male | 60 | GP | 14 | PAL |
| | 3 | Female | 43 | Nurse | 12 | PAL |
| | 4 | Female | 43 | Nurse | 1 | CME |
| | 5 | Male | 47 | Nurse | 8 | PAL |
| | 6 | Male | 54 | GP | 30/14 | CME/PAL |
| Teams and organizations group 2 | 1 | Male | 40 | GP | 4 | CME |
| | 2 | Male | 50 | GP | 7 | PAL |
| | 3 | Male | 37 | Neurologist | 2 | PAL |
| | 4 | Male | 54 | Psychologist | 11 | PAL |
| | 5 | Female | 33 | Nurse | 11 | PAL |
| | 6 | Male | 52 | GP | 3 | PAL |
| Teams and organizations group 3 | 1 | Female | 46 | GP | 2 | PAL |
| | 2 | Female | 46 | Master in medical-social sciences | 8 | CME |
| | 3 | Male | 36 | Palliative care physician | 5 | PAL |
| | 4 | Male | 44 | Geriatrician | 5 | PAL |
| | 5 | Male | 53 | Anesthetist | 24 | PAL |

* *Years in practice*: for GP groups = years in practice as GP; for teams and organizations groups = years working in this organization; † *Practice setting*: for GP groups = solo, duo or group practice; for teams and organizations groups = PAL (palliative home care organization), CME (providers of continuing medical education).

primary care and community care is influenced by a number of factors, including team premises, team size and composition, organizational support, team meetings, clear goals and objectives and team audit (Xyrichis et al., 2007). Role understanding and effective communication are mentioned as core competencies for collaborative practice (Suter et al., 2009). Within primary care, palliative care is a complex and integrated multidisciplinary care, and it is not known how GPs experience and perceive the interprofessional collaboration during palliative home care. This study aims to describe the views of GPs toward interprofessional teamwork in palliative care.

## METHODS

By employing a grounded theory approach, this study gathered focus group data from three groups of healthcare professionals in primary care located in Flanders, Belgium. Three groups were sampled to provide data from individuals *delivering* palliative care (GPs), data from individuals responsible for *supporting* those delivering palliative care (professionals from PHCTs) and data from those whose role is to maximize the *educational offerings* to those delivering palliative care (organizations who provide training and education). Analysis and triangulation of data from these three distinct subgroups were thought to maximize the educational and clinical implications arising from this work.

The study had two research questions: (1) what are the experiences and the views of healthcare professionals toward interprofessional collaboration during palliative home care? (2) What are the factors that influence the quality of interprofessional collaboration during palliative home care according to healthcare professionals?

### Sampling and data collection

In total, five focus group discussions were held with a total of 29 participants based in Flanders, Belgium. The characteristics of the participants are shown in Table I.

First, two focus groups were held with seven and five GPs, respectively. In Belgium, each GP is required to belong to a peer review group which must meet four times yearly as part of their recertification process. Two peer groups (one urban, one rural) of GPs were approached to participate in this research (*n* = 12), and all GPs agreed and were present. The main topics explored in the GP focus groups included definitions regarding palliative care; reflections on a recent palliative patient (these topics served to clarify the terminology and characteristics of palliative care); acquisition of basic palliative care competences and maintaining competences and collaboration with other professionals.

Second, three focus groups were held with members of PHCTs and members of providers of continuing medical education (CME; with six, six and five participants, respectively). Mail surveys were sent out to every CME

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provider for GPs in Flanders as part of a larger study, and respondents were asked to indicate whether they would agree to separately participate in the focus group study (Pype et al., 2012). Seventeen respondents indicated a willingness to participate. These focus groups explored the following issues: definitions regarding palliative care (to clarify terminology); relations between participants and palliative patients and their GPs and CME and collaboration with GPs.

All focus groups lasted approximately one hour. Participants gave their informed consent to the research, and were assured that their participation would be confidential and that any quotes published from the focus groups would be anonymized. Apart from the participants, the only other people present during the focus groups were the facilitator (LS) and a clinical researcher (PP) who made field notes. All discussions were audiotaped and transcribed verbatim.

### Data analysis

An inductive approach was used to analyze the data, with a "constant comparisons" method and its related open and axial coding techniques (Corbin & Strauss, 1990). No model or theory on this topic was used to analyze the transcripts, instead open coding was used and constant comparison within the data grounded the emerging concepts. During open coding, two researchers (PP and LS) independently read a transcript and analyzed it. The resulting codes were compared and discussed until agreement. Then NVivo 8 software was used to facilitate further axial and selective analysis. Throughout the coding process, both investigators reviewed theme exemplars as a check on coding validity. During axial coding, the researchers developed further conceptual domains by comparing themes within and between transcripts. Themes were developed independently, and discrepancies were discussed.

### Ethical considerations

Ethical approval has been granted from the ethical committee of the Gasthuis Zusters Antwerpen University Hospital, Belgium.

### FINDINGS

This paper presents the themes emerging from the focus groups with specific reference to interprofessional collaboration. Quotes are provided on the basis of their being representative of the wider data, and are labeled by the number of focus group and the number of participant (e.g. FG1, P2). The opinions that differed between the three participant groups are highlighted in the following sections.

### General view of GPs

GPs regarded palliative care as a fulfilling but demanding aspect of their job due to its time-consuming and emotionally exhausting nature. They clearly stated their willingness to invest time and energy as needed in delivering palliative care. They interpreted palliative care as being total care which is patient centered and relation based, and in this

respect, GPs considered palliative care to be fundamentally similar to primary care. Variation was found in GPs' attitudes and views toward palliative care, and GPs recognized that this may have an impact on their quality of care. Some GPs acknowledged the specificity of palliative care and the lack of opportunities to gain experience and perceived competence. They recognized the logical process of collaborating with PHCTs to overcome these barriers:

P5: "But no two situations are the same, you think you've seen it all, and next time, it'll be something different."

P3: "It's a safe situation because you know that these people [the members of the PHCT], yeah, they're constantly into it." (FG1)

"It's getting difficult as a GP to do all that. It's not only about palliative care, there is so much to do and we can't handle it anymore. And we should be glad that there is a palliative home care team that we can rely on." (FG3, P1)

Some GPs regarded the current organization of palliative home care as unnecessarily complicated and stated a preference to deliver "care as usual" on their own unless problems (e.g. intractable pain) emerge:

"In my experience, people just simply die without too much effort…those difficult pain problems, they're difficult, those pain patients. But all the rest, that's no problem at all." (FG1, P1)

When considering the composition of a care team for the patient, most GPs were not restrictive and valued the involvement of all caregivers, professional and non-professional:

"Working together, you do that with everyone. GPs are in charge of their patients and everyone around the patient, everyone can be taken on board." (FG4, P1)

Participants of PHCTs acknowledged the necessity to join other professionals but stressed the need for training in teamwork for collaboration to become effective.

"I think that the fact [that] we're not collaborating well between disciplines is something that needs to be put right. Perhaps we should start learning how to work with them during our training and the advantages it has." (F3, P5)

### Collaboration with family members

Installing efficient interprofessional collaboration requires good communication which GPs' viewed to be partially a function of the quality of the relationship between the GP, the patient and the patient's family. A good relationship with family members was seen by GPs to be essential to the provision of successful palliative home care. If family members refuse to cooperate with the GP or the PHCT (through perceived fear of failure or for other reasons), then GPs described feeling unable to deliver high quality palliative home care.

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"I always say to them 'if you can't come to an agreement then I need to see you (in a family meeting).' Then you have two diametrically-opposed viewpoints, putting you in a very difficult position. You already know beforehand that it won't work. If they agree [on the care goals], then there is no problem." (F2, P2)

Despite the importance of a good relationship between the family and the GP, GPs reported a tendency to follow the patient's wishes when there is disagreement between the family and the patient. This patient–doctor relationship was valued higher than any other aspect of palliative care:

"At that moment, we had another meeting and we explained what it was all about. And in the end she was only partially reconciled with the idea [of palliative sedation], but it was her husband who said it has to be that way and I said 'I will follow the wishes of your husband and we will start the procedure to eventually, um, let it happen' . . . so she wasn't very happy with that. But in fact, her husband was the patient, not her. So of course I followed the viewpoint of that man." (FG1, P1)

Others warned about the risk of neglecting the view of the family by accentuating the care burden that lies upon them. "Dying at home" has become increasingly more common, which GPs' felt could lead to families feeling compelled to persevere even beyond their capabilities:

"There are families that are not competent to let people die at home . . . sometimes patients are better off in hospital, but it is fashionable to die at home." (F1, P5)

In addition, good relationships between professional caregivers were felt, by the physicians of PHCTs, to be equally important as good patient–doctor relationships, and were seen as being fostered by trust and good collaboration:

"One important element is good experiences and the personal contacts that grow out of those good experiences with other professionals, from whatever discipline . . . this helps me do it again, work together again. You have to be open minded to learn from each other." (FG5, P3)

### Factors influencing the quality of interprofessional collaboration

According to the GPs interviewed in this study, three major factors influence the quality of interprofessional collaboration and also the quality of patient care: the competence of their team members, their current team arrangements and the communication within the team. These three factors are individually discussed below.

### Competence of team members

It was stressed that every professional caregiver preparing to join the PHCT must have an awareness of palliative care and a solid educational grounding in palliative care in order to facilitate discussion of viewpoints within the PHCT and deliver high quality care:

"What's proven beneficial to learning is putting a group together, I mean putting people from different disciplines together on a shared team to do a training module." (FG3, P6)

"I really like people to have an idea about palliative care and nurses need to be educated in it too. I think a nurse who respects herself gets the training. So I really don't like working with someone who barely knows what morphine is and surely you can pick your own people." (FG2, P3)

On the other hand, some participants from the PHCTs do not rate high levels of education regarding palliative home care as important in themselves, given the ready availability of the nurses of the PHCTs, should help or advice be required.

"So you don't often hear GPs say 'we need extra training [in palliative care]' . . . maybe because palliative home care teams are directly accessible to you if you need a hand." (FG4, P4)

### Team arrangements

GPs considered team coordination to be a part of their job and were aware that other professionals expect them to execute that task. Some GPs in the sample raised concerns about taking responsibility for the PHCT due to their own lack of training in the coordination of an interprofessional team:

"And that's something that still has to be learned, that 'I carry the final responsibility, but I know how to consult with team members and caregivers and other disciplines to give my decision more colour, make it more holistic and give it more vision." (FG3, P6)

GPs regard interprofessional teamwork as a supporting factor for their job and they welcome suggestions for care from other team members:

"So palliative care nurses, having acquired expertise and competence, are getting on the right level to negotiate (about medical policy) with the GP." (FG3, P3)

However, it was stated that nurses who refuse to execute an order from the GP were seen as trying to provoke unnecessary conflict, with negative effects on team spirit:

"One hour later I got a telephone call from the elderly home: 'yes, the palliative care nurse refuses to do that.' I say 'she refuses?!' 'Yes, she says that the doses you prescribed are too high.' I say 'okay, I'm going to calculate again, and I'll get advice from the anesthetist who cared for the patient in the hospital.' I call back and say 'the patient is going to die within 24 h so you should give the medications to make him comfortable' . . . she left without doing anything. She abandoned the patient. Kind of unnecessary conflict of competences. And the family was amazed: such chaos!." (F1, P3)

### Task descriptions

Unanimously GPs reported delegating some technical tasks to palliative home care nurses or to community nurses:

"If you're confronted with such a problem . . . nurses say: look, do you want us to go with aspiration instruments? So they kind of propose it themselves. It's a great help." (FG1, P1)

However, participants of organizations providing training to GPs reported feelings of regret that task descriptions sometimes lack clarity and as a result GPs sometimes do not know whom to address for a certain task:

"There has been some obscurity. As a GP it wasn't always clear what the position and the actual tasks of palliative care nurses were. And in fact what is the task of community nurses? It wasn't always clear for everyone who would deliver regular care and who we could address for the purely palliative care matters." (FG5, P2)

Performing technical tasks together with a palliative care specialist (doctor or nurse) can be helpful for GPs, such as when performing paracentesis (drainage of fluid from the abdomen). Most GPs reported a preference for not being "instructed" near the patient on how to perform the task for fear of appearing unskilled:

"Yes what was very annoying, the syringe driver was there and then he [the palliative care nurse] . . . started to give explanations whilst the whole family was present. Afterwards we, yes, he'd better come to our practice beforehand . . . but then you're there with the whole family . . . " (FG2, P1)

Difficult communication topics can be addressed together with palliative care nurses who provide support when handling personal emotions or when overcoming family barriers:

"And every time it was one step closer to the truth which she suppressed until there was a new step. And that was hard, it's hard working like that . . . every time there was a conflict, every time something changed, there was a conflict. That weighs you know . . . But the nurse experienced the same. So we both had something, we had to get together, the nurse and me, with the patient and the family, to try to convince her." (FG1, P4)

### Communication

As stated earlier, when describing relationships, good agreements with family members were viewed as fundamental for the delivery of high quality care. The general impression of "good care" depends highly on GPs' previous communication with the family:

"I would say, the feeling at the end, when the patient finally has died, the idea of 'was this okay or not' highly depends, I guess, on the level of communication you had with the patient and his family." (FG1, P3)

Good communication skills seem to be very important during interprofessional collaboration. There was a general consensus among participants that to provide good palliative care, agreements on care goals and clear task descriptions must be reached between all team members:

"I think it is important to talk about the same message, and that you at least have to meet together or... Once you are thinking palliative and have filled in your form for palliative care, then you have at least to make arrangements: we all agree." (F2, P1)

Despite this importance of good communication, GPs reported not always finding the time to be present during team deliberation and sometimes communication goes through telephone calls or chart notes at the home of the patient. GPs stated not to prefer regular team meetings and thought it was sufficient for team members to be accessible for deliberation in case of problems. This was also confirmed by the members of the PHCT:

" . . . like for instance a small notebook where one notes the changes, if there is no exchange of information on every topic every time, at least in case of an intervention, the things you need to know are in there." (FG5, P2)

"It was a small notebook, with all necessary telephone numbers in it, even from the specialists and professors. I just had to say the name (of the patient) and all the doors opened as a matter of speaking . . . " (FG2, P2)

### DISCUSSION

This study aimed to provide an insight into three groups of primary healthcare professionals' perceptions and preferences toward interprofessional collaboration in the delivery of palliative care: GPs, professionals from PHCTs and professionals from organizations who provide training and education in palliative care. Despite the differing participants' backgrounds, no major divergence of ideas emerged between the three groups studied, perhaps due to each individual's close working proximity with GPs providing palliative home care. The one notable difference between participants' views was in the call for training in teamwork and the need for explicit task descriptions and role clarity, a notion stressed by the PHCTs and organizations providing training but not by the GPs themselves.

Several notable findings emerged from this study. Firstly, GPs stated in this study that they consider palliative home care to be part of their job responsibilities, which confirms what is already known in the literature (Mitchell, 2002). GPs stated that delivering palliative home care is a satisfying task, both professionally and personally. Nevertheless, they consider it to be very demanding (emotionally and intellectually) and time- and energy-consuming task, particularly as patients and their families expect a wide range of skills from their GPs (Curtis et al., 2001). These differing perceptions can lead to differences in GPs' willingness to collaborate with PHCTs.

Secondly, the importance of good working relationships both with the patient and the patient's family was raised. In particular, the importance of a coherent and stable family attitude to the success of palliative home care was stressed. Society already supplies (mostly financial) measures to enable family members to take care of their loved ones at

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home. Above this GPs feel families could benefit from extra psychological support or family counseling to be prepared for this demanding task, particularly given the frequency by which palliative patients are transferred to hospitals as a result of caregiver exhaustion. Additional "training courses" for family members could overcome this shortcoming. Research findings from other work suggest that family caregivers are able to clearly define and articulate their needs and that educational programs for informal caregivers seem to better prepare them for the task of palliative caregiving (Boucher et al., 2010; Hudson, Thomas, Quinn, Cockayne, & Braithwaite, 2009).

Thirdly, the influencing factors on the quality of the collaboration between the GP and the PHCT were discussed. This study confirms the position of family members as important caregivers in palliative care, as described in the literature (Funk et al., 2010; Stajduhar et al., 2010). Nevertheless, this study found that GPs generally follow the wishes of the patient when they conflict with the wishes of the family. This is in contrast with the findings of other studies (not limited to the palliative care literature) which state that the values of the family members may have more influence on the decision-making than the patient's own preferences (Chambers-Evans, 2002). This discrepancy might be explained by the fact that a palliative care situation constitutes the last opportunity to meet patient's preferences.

A requirement for interprofessional collaboration is that professionals must be familiar with each other's expertise, roles and responsibilities (Légaré et al., 2011). According to the GPs in our study, knowing each other's expertise is not sufficient. They formulate conditions for the expertise of team members: all must equally be trained in palliative care in order to be of added value to the multidisciplinary team. This add-on requirement might indicate that GPs, who state a lack of experience in palliative care, prefer the assistance of skilled team members in the delivery of care.

In this study, specific competences, e.g. technical skills present in nurses, are of great value since GPs often delegate specific technical tasks to those nurses as has been described elsewhere (e.g. Whitehead, 2007). Literature limits the responsibilities of nurses to the execution of delegated tasks (Beales et al., 2011), whereas our study supports the idea that hierarchy can sometimes be overruled by competence. GPs acknowledge the high competences of specialized palliative care nurses and allow them to get involved in decision-making processes concerning the patient's health status. This sharing of responsibilities was not reported to occur with community nurses; therefore, it is possible that GPs do not consider palliative care nurses as "nurses" but rather view them as specialists in the field of palliative care and treat them accordingly.

This study identifies the perceptions and preferences toward interprofessional collaboration from healthcare professionals in palliative home care. The findings might help policy-makers in preparing healthcare professionals for practice. The perceptions of the participants toward palliative care might have influenced their reporting on collaboration with PHCTs. It is not clear from the discussions if there were

participants with a negative attitude toward palliative care. GPs in Belgium are used to work with PHCT for many years. This might have influenced their views on interprofessional collaboration. Generalizing these views to healthcare providers from countries without these traditions must be done cautiously.

In summary, GPs appear to willingly deliver palliative care at home. To guarantee high quality care GPs look for other healthcare professionals to collaborate with. This interprofessional collaboration is most effective when all team members are trained in palliative care and when task descriptions and sharing of responsibilities are made clear by continuous communication between team members. A good relationship with patients' family members is essential for both family and GP, given that families undertake a large amount of informal care tasks. While GPs are willing to share responsibilities with the specialized nurses from PHCTs, further research is needed to clarify whether these nurses are willing to accept this task.

## Declaration of interest

The authors report no conflicts of interest. The authors alone are responsible for the content and writing of the paper.

## REFERENCES

Beales, J., Walji, R., Papoushek, C., & Austin, Z. (2011). Exploring professional culture in the context of family health team interprofessional collaboration. *Health and Interprofessional Practice*, *1*(1), eP1004, 1–12.

Borgsteede, S., Graafland-Riedstra, C., Deliens, L., Francke, A., van Eijk, J., & Willems, D. (2006). Good end-of-life care according to patients and their GPs. *British Journal of General Practice*, 56, 20–26.

Boucher, J., Bova, C., Sullivan-Bolyai, S., Theroux, R., Klar, R., Terrien, K., & Kaufman, D. (2010). Next-of-kin's perspectives of end-of-life care. *Journal of Hospice and Palliative Nursing*, *12*(1), 41–50.

Chambers-Evans, J. (2002). The family as window onto the world of the patient: Involving patients and families in the decision-making process. *Canadian Journal of Nursing Research*, *34*(3), 15–31.

Corbin, J., & Strauss, A. (1990). *Basics of qualitative research*. Thousand Oaks, CA: Sage.

Curtis, J., Patrick, D., Shannon, S., Treece, P., Engelberg, R., & Rubenfeld, G. (2001). The family conference as a focus to improve communication about end-of-life care in the intensive care unit: Opportunities for improvement. *Critical Care Medicine*, *29*(Suppl. 2), N26–N33.

Deschepper, R., Vander Stichele, R., Mortier, F., & Deliens, L. (2003). *Zorgzaam thuis sterven. Een zorgleidraad voor huisartsen*. Gent: Academia Press.

Funk, L., Stajduhar, K.I., Toye, C., Aoun, S., Grande, G.E., & Todd, C.J. (2010). Part 2: Home-based family caregiving at the end of life: A comprehensive review of published qualitative research (1998–2008). *Palliative Medicine*, 24, 594–607.

Groot, M., Vernooij-Dassen, M., Crul, B., & Grol, R. (2005). General practitioners (GPs) and palliative care: Perceived tasks and barriers in daily practice. *Palliative Medicine*, *19*(2), 111–118.

Groot, M., Vernooij-Dassen, M., Verhagen, S., Crul, B., & Grol, R. (2007). Obstacles to the delivery of primary palliative care as perceived by GPs. *Palliative Medicine*, *21*(8), 697–703.

Hudson, P., Thomas, T., Quinn, K., Cockayne, M., & Braithwaite, M. (2009). Teaching family carers about home-based palliative care: Final results from a group education program. *Journal of Pain and Symptom Management*, *38*(2), 299–308.

Kenyon, Z. (1995). Palliative care in general practice. *British Medical Journal*, *311*, 888–889.

Légaré, F., Stacey, D., Pouliot, S., Gauvin, F.P., Desroches, S., Kryworuchko, J., Dunn, S., et al. (2011). Interprofessionalism and shared decision-making in primary care: a stepwise approach towards a new model. *Journal of Interprofessional Care*, *25*, 18–25.

Mitchell, G. (2002). How well do general practitioners deliver palliative care? A systematic review. *Palliative Medicine*, *16*, 457–464.

Mitchell, G., Del Mar, C., O'Rourke, P., & Clavarino, A. (2008). Do case conferences between general practitioners and specialist palliative care services improve quality of life? A randomised controlled trial. *Palliative Medicine*, *22*(8), 904–912.

Pype, P., Stess, A., Wens, J., Van den Eynden, B., & Deveugele, M. (2012). The landscape of postgraduate education in palliative care for general practitioners: Results of a nationwide survey in Flanders Belgium. *Patient Education and Counseling*, *86*(2), 220–225.

Shipman, C., Addington-Hall, J., Barclay, S., Briggs, J., Cox, I., Daniels, L., & Millar, D. (2002). How and why do GPs use specialist palliative care services? *Palliative Medicine*, *16*(3), 241–246.

Stajduhar, K.I., Funk, L., Toye, C., Grande, G.E., Aoun, S., & Todd, C.J. (2010). Home-based family caregiving at the end of life: A comprehensive review of published quantitative research (1998–2008). *Palliative Medicine*, *24*, 573–593.

Suter, E., Arndt, J., Arthur, N., Parboosingh, J., Taylor, E., & Deutschlander, S. (2009). Role understanding and effective communication as core competencies for collaborative practice. *Journal of Interprofessional Care*, *23*(1), 41–51.

Whitehead, C. (2007). The doctor dilemma in interprofessional education and care: How and why will physicians collaborate? *Medical Education*, *41*, 1010–1016.

Xyrichis, A., & Lowton, K. (2007). What fosters or prevents interprofessional teamworking in primary and community care? A literature review. *International Journal of Nursing Studies*, *45*, 140–153.

Yuen, K., Behrndt, M., Jacklyn, C., & Mitchell, G. (2003). Palliative care at home: General practitioners working with palliative care teams. *Medical Journal of Australia*, *179*(6), S38–S40.

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## Conclusion chapter 2

### Research Question 2: What are the views and preferences of GPs towards lifelong learning in palliative care?

Firstly, GPs acknowledge the need for lifelong learning in palliative care. Together with the CME providers they are pessimistic towards the efficiency of the way CME is currently organised: the courses do not match GPs actual learning needs. GPs believe in workplace learning as a valuable complement or alternative. The collaboration with palliative home care teams offers opportunities for on-the-spot learning which matches the actual learning needs.

Secondly, this workplace learning requires good interprofessional collaboration. For this collaboration, some prerequisites are mentioned: team competences, good coordination, clarity on tasks and responsibilities and respectful and open communication.

Following these ideas, part II will focus on workplace learning.

# PART II

## Workplace learning in primary palliative care: a valuable complement?

"We can't solve problems by using the same kind of thinking we used when we created them"
*(Albert Einstein)*

"An individual without information cannot take responsibility, but an individual who is given information cannot help but take responsibility"
*(Jan Carlson – Scandinavian Airlines)*

## Part II
## Workplace learning in primary palliative care: a valuable complement?

Introduction

Chapter3: Features of workplace learning – a baseline measurement

> *Paper 6: Patients' Nursing Records Revealing Opportunities for Interprofessional Workplace Learning in Primary Care:  a Chart Review Study.*

> *Paper 7: Exploring the learning impact of collaboration in interprofessional health care teams (ELICIT-study): A cross-sectional study in primary palliative care*

Chapter4: Design and evaluation of a training program to facilitate workplace learning

> *Paper 8: Training nurses to act as facilitators for physicians' learning: development and evaluation of a training program – a mixed method study*

> *Paper 9: 'I beg your pardon?' Nurses' experiences in facilitating doctors' learning process – an interview study*

## INTRODUCTION TO PART II:

> "Essentially all models are wrong, but some are useful"
>
> *George Box (1919-2013)*

### Aspects of workplace learning in primary palliative care

#### A. Introduction

In the first part of this thesis we evaluated the possibilities for general practitioners (GPs) to develop and maintain their palliative care competences through the official circuit of continuing medical education (CME). The results show that the CME on offer is overall insufficient for this purpose (Paper 1 and 2). General practitioners have suggested 'learning by doing' through collaboration with Palliative Home Care Team nurses (PHCT) as a valuable alternative and complement (Paper 4). In the second part of this thesis we will study the suitability and feasibility of 'learning by doing', also called workplace learning (WPL) in primary palliative care.

To guide us in our research we looked for theories or models of workplace learning. Although much has been published on workplace learning in general, there is no WPL model for primary health care. PubMed's MeSH-database (http://www.ncbi. nlm.nih.gov/pubmed) defines 'workplace' *(Place or physical location of work or employment)* and 'learning' *(Relatively permanent change in behaviour that is the result of past experience or practice. The concept includes the acquisition of knowledge).* There is however no MeSH-term for 'workplace learning'. Authors who publish on WPL use different definitions and descriptions, thereby making comparisons of research results difficult. The ERIC database (Education Resources Information Center: http://eric.ed.gov/) has 'workplace learning' in its thesaurus and defines the scope as: *'Processes or outcomes associated with the work-related learning experiences of individuals or groups within their work environment. May include, but is not limited to, self-directed learning, experiential learning, on-the-job training, staff development programs, informal and nonformal education. Related activities may occur off-site.'*

The purpose of this chapter is not to comment on these definitions nor to add any but to describe the WPL features and the factors influencing its occurrence and outcomes.

As a result of the limited literature on WPL for the established GPs in practice, this chapter contains references from undergraduate and postgraduate education as well

as from disciplines other than medicine. The aim was to provide a comprehensive overview of WPL features.

At the end of this chapter we will account for the choices we made to set up the studies described in the second part of this thesis.

## B. Description of the workplace learning concept with an illustration of the primary palliative care context in Flanders

The concept of WPL has four major components: the persons, the context, the learning process and the outcomes. We will provide a brief literature-based description for each of these components and complete them by putting them in the context of primary palliative care in Flanders.

### 1. The persons

Workplace learning opportunities which occur during participation in daily activities arise from the necessary knowledge and skills to perform those activities[1]. Learning enhances the actual and current knowledge and experience of a professional by adding knowledge shared by other, more experienced collaborating professionals. In their theory of 'situated learning', Lave and Wenger initially described how novices participated in practice, became socialised into the practice and developed an identity within the practice community, with the support of the complex relationship between novices and experts[1]. Later, the concept of 'Community of Practice' has been broadened beyond the novice-expert relationship by focussing on the interaction between all individuals sharing a common interest and engaging in working and learning together to co-create new knowledge[9]. The overall concepts of personal identity and professional identity influence the way professionals engage in their work and consequently in workplace learning[3-5]. This means that job perception (the way you define your job and task responsibilities) and self-conception as a practitioner is important[6]. Having explicit objectives, competencies and standards as outcomes encourages self-directed learning[7]. Recognising knowledge gaps and learning needs may help to focus, for it is known that doctors are spontaneously inclined to learn on themes that they already master well and that they tend to avoid courses on topics addressing their knowledge gaps[8]. To fill these knowledge gaps and to respond to these learning needs, motivation, a willingness to learn, adopting the 'identity of a learner' is needed[9]. Not being open to learning probably results

in no learning. Professionals positioning themselves as learners can learn from the more experienced colleagues positioning themselves as learning facilitators [1,2]. As the learner has to show a willingness to learn, the facilitator has to show a willingness to share knowledge and expertise [10]. Both parties' personal commitment to elect and respond to the opportunities that occur in the workplace is a condition for learning [11]. Billett summarized this in his 'Workplace Pedagogy' by defining three key interdependent elements: intentional structuring and provision of guided participation in activities; acknowledging the consequences of different kinds of workplace affordances; emphasizing the role of individuals' agency in shaping how they engage in workplace activities [11].

*The context of primary palliative care in Flanders:*

> *A recent KCE report states that 93,4% of GPs participating in their study labels palliative care to be one of their important tasks, enriching their profession (89,4%) and their personal life (82,1%) [12]. Due to a lack of adequate undergraduate training in palliative care and the insufficiency of CME in this area , it is not clear how GPs maintain the necessary palliative care competences for this task. A certain motivation towards workplace learning can be assumed since GPs call it their preferred way of learning (paper 4). This is however the result of one focus group study and may not be generalisable to the whole GP population.*

## 2. The context

Three contextual dimensions influence the occurrence and outcomes of WPL: the practice organisation, the interpersonal relationships and the broader sociocultural environment [13].

### a. Practice organisation

Workplace learning by definition takes place during daily work activities, as a result of the natural opportunities to learn [11,14]. Therefore this learning process is informal [10,15]. Practice organisation increases learning opportunities by enabling encounters with other professionals through participation in ad hoc or organised teams [16-19]. Time (workload) and space has to be provided in order to reflect on learning experience [5,15,20,21].

As such, the acquired knowledge and skills are shared and distributed across the practice through colleagues and through mediation of artifacts like patient records, guidelines, handover notes, whiteboards, computers etc[22-24]. This idea is developed in the 'Theory of distributed cognition' which emphasizes how cognition is distributed in a wider system between social actors and the physical environment[24]. Managing this knowledge in an efficient way (e.g. keeping it up to date, making it accessible for everyone, allowing for time to exchange ideas) creates learning moments for all professionals involved[25,26]. Orzano et al. describe 'Knowledge Management' as a process of sharing and making existing knowledge available or by developing new knowledge among practice members and patients. Knowledge management affects performance by influencing work relationships to enhance learning, decision making, and task execution[26].

*The context of primary palliative care in Flanders:*

*A large part of GPs in Flanders is still working in single-handed practice structures. Collaboration with palliative home care teams is based on loose arrangements. The ad hoc professional team is composed of the GP, PHCT nurses and additional professionals like community nurses, physiotherapists or others when invited to provide comprehensive patient care. PHCTs use electronic patient records as do GPs. Until now they do not have access to each other's records.*

### b. Interpersonal relationships

During daily work activities, professionals actually learn from each other and stimulate each others' learning in a reciprocal way[27,28]. This kind of learning is sometimes called 'interdependent learning' where one's learning depends on the others' learning[29]. Professionals can be learners on one topic one day and facilitators on another topic the next day. Experts are encouraged to step back from their usual expert role and to act as facilitators and co-participants in daily practice instead. There are some prerequisites for inter-professional interactions to be motivating towards learning[17]. The relationships have to be based on feelings of trust and safety in the team. This enhances the engaging in an interprofessional dialogue. A prerequisite in WPL is that professionals must be able to give and receive feedback[30,31]. Honest feedback can be an efficient strategy to initiate the learning process[31-34]. In health care a special place is reserved for the patient and his family. Doctors' WPL is partially defined by patients' care needs and the way doctors respond to it[27,35].

*The context of primary palliative care in Flanders:*

> *The 2009 KCE report on the organisation of palliative care states that most of the GPs in the study (89.3%) wanted to share the care for palliative patients with other professionals[12]. Continuous registration shows that the percentage of GPs collaborating with PHCTs is growing yearly. It is not known what the intensity and the climate is of this collaboration. It is not clear how interprofessional contacts are scheduled and whether health care professionals are ready and able to facilitate each other's workplace learning. Families can be regarded as part of the care team and may be involved in the WPL process[36]. Their care responsibilities may include complex physical and medical tasks, financial administration, patient advocacy, decision making, emotional support and care coordination[37]. Results from focus group research show that GPs acknowledge the involvement of patients and family members in the care team[35]. Details on how this works in daily practice or the impact of it on WPL are not known.*

### c. Sociocultural environment

This paragraph considers the broader context WPL is situated in. Firstly some external structures control the professionals beyond their immediate responsibility[29]. National health care policy for instance has guidelines, impacting on daily work circumstances. On the other hand, a global call for more interprofessional teamwork in primary care might influence local policy[38]. For example, the WHO definition of palliative care promoting inter-disciplinarity is internalised in many palliative care organisations worldwide trying to implement this in daily practice. Furthermore, public demands for high quality of care reinforce the efforts of the health care workforce to set and evaluate its own quality standards[39]. Secondly there is a culture of hierarchy between disciplines and professions. The classical doctor-nurse hierarchy often dominates interactions in daily practice. Doctors have final responsibility for patient care and this sometimes hinders effective communication. Trying to look at each other as interprofessional peers (each with his own expertise, tasks and responsibilities) may facilitate communication[6]. Well-trained professionals may use their expertise to overrule professional hierarchy when patient care demands it[40]. Thirdly, people belong to different organisations simultaneously. These may be professional, non-professional or religious organisations. Each of them has its own culture, its own set of beliefs and values. Working on the intersection of two organisations may entail that conflicting beliefs and values ensue. This complex interplay between individuals and their environment and between different environments draws on the insights of

complexity science and complex adaptive systems which will further be commented on in the 'General Discussion'[41].

*The context of primary palliative care in Flanders:*

*The 2012 KCE report on the organisation of care for chronic diseases in Belgium ad-vocates the installment of interdisciplinary teamwork as an answer to the changing care needs of a growing population of chronic patients with multi-morbidity[42]. It can-not be anticipated how this will influence daily practice in primary care. Professional hierarchy is explicitly present in primary care by official arrangements e.g. the right to write prescriptions is reserved to GPs, community nurses have to implement doctors' prescriptions and PHCT nurses can only visit a patient after the GP's consent. It has not yet been described how this official hierarchy influences daily practice and WPL.*

### 3. The learning process

Workplace learning can be put into an individual cognitive perspective or into a sociocultural perspective. The former accentuates the accumulation of knowledge and skills by an individual whereas the latter emphasises the distribution and co-construction of knowledge (constructing knowledge through relational interactions) by a collaborative team. Recently attempts have been made to join the best of both worlds and look at WPL through the eyes of sociocognitive theories [e.g.43-45]. Whatever theoretical view is taken, people can respond to the learning opportunities of daily practice in different ways. Eraut describes a typology of learning activities which may happen during work processes[17]. These activities include: Asking questions, Getting information, Locating resource people, Listening and observing, Reflecting, Learning from mistakes, Giving and receiving feedback, Using mediating artifacts. The multitude of ways in which knowledge is being handled reflects the coinciding occurrence of personal and social learning theories in WPL[46]. When one of these lear-ning activities is demonstrated, other professionals or team members may respond, thereby influencing the learning effect of the activity. Close interactions and peer discussions are necessary aspects for learning through collaboration[6,19]. Stimulating each other in the workplace to be critical creates insights, and team-based reflections (e.g. on moments of conflict, incident analysis or breakdowns in practice) create learning moments in a reciprocal way for all involved[6,47,48].

*The context of primary palliative care in Flanders:*

> *Contacts between GPs and PHCT nurses are mostly via telephone calls or joint home visits. It is not known which learning activities are most used by GPs and how PHCT nurses respond to them.*

### 4. The outcomes

The learning outcome is situated on three levels: individual, team and organisational level. The individual outcomes are enhanced competences, e.g. knowledge, skills and professional growth. In contrast with classroom-based learning, the outcome of WPL can be implemented and tried out instantly, which might result in boosting new learning processes[14]. As such, every day thinking and acting in the workplace will reinforce or change what is already known[11]. Participation in daily work activities as part of the socialisation process into a new profession leads to the acquisition of skills needed to perform the professional tasks[1]. However, developing explicit knowledge through experience alone is difficult. WPL requires some existing theoretical pre-knowledge to build on. Another difficulty is that knowledge being organised into 'uniprofessional knowledge silos', is difficult to share[29]. The contexualised knowledge resulting from inter-disciplinary WPL is of a kind that is transferable across professional boundaries[6]. Considering the professional growth, reflecting on what happened in practice invites professionals to think about their self-conception as practitioners and to further develop their professional identity[6]. The outcome on team level is the co-construction of new knowledge and competences benefiting the whole team. Workplace learning is a reciprocal process where everyone who is involved, is learning. Changes in team dynamics like renegotiation of tasks, responsibilities and leadership may result from the team learning. As such a team is constantly evolving. The outcome on the organisational level involves making agreements towards work organisation and the redesigning of practice environments. The CanMEDS Physician Competency Framework describes learning outcomes for physicians. Currently the Framework is being revised and competency milestones will be integrated within every existing role of the Framework, designating the importance of continuous learning throughout a physician's career from residency to retirement[49].

*The context of primary palliative care in Flanders:*

> *GPs work together with PHCTs and with other primary care professionals according to the patient needs in an ad hoc team. Until now it is not known what the outcomes of WPL in primary palliative care in Flanders on the individual, team and organisational level are.*

## C. Choices we made for the following studies

As no literature has been published on WPL in primary palliative care in Flanders until now, we will start with a descriptive exploration of the WPL features as it is currently taking place, respecting the theoretical components described above.

> *The study for paper 6 is a chart review study to see whether PHCT nurses (inter-relational context) use the patient charts (practice and organisational context) to make notes on learning opportunities and activities (the learning) of GPs (the learner)*
>
> *The study for paper 7 is a cross-sectional survey to study what (the outcomes), how (the learning) and from whom (inter-relational context) is being learned as well as the GPs' readiness to learn (the learner).*

As GPs look at PHCT nurses to facilitate their learning, we will evaluate whether training the nurses in their facilitators' role is feasible.

> *The study for paper 8 is the development and evaluation of a training program for PHCT nurses to support them in their role as facilitator (inter-relational context) of GPs' WPL (the learner).*
>
> *The study for paper 9 is an interview study of the PHCT nurses after their first experiences with their new role as facilitator of GPs' learning to evaluate the barriers and facilitators of this role on a personal (inter-relational context), organisational (practice and organisation context) and sociocultural (sociocultural context) level.*

## References

1.      Lave J, Wenger E. Situated Learning: Legitimate Peripheral Participation, Cambridge University Press; 1991.

2.      Li L, Grimshaw J, Nielsen C, Judd M, Coyte P, Graham I. Evolution of Wenger's concept of community of practice. Implement Sci 2009;  4:11.

3.      Öhlen J, Segesten K. The professional identity of the nurse: concept analysis and development. J Adv Nurs 1998; 28: 720-727.

4.      Johnson M, Cowin L, Wilson I, Young H. Professional identity and nursing: contemporary theoretical developments and future research challenges. Int Nurs Rev 2012; 562-569.

5.      Lucey C. Medical Education: Part of the Problem and Part of the Solution. JAMA Intern Med 2013;173(17):1639-1643. doi:10.1001/jamainternmed.2013.9074

6.      Phelan A, Barlow C, Iversen S. Occasioning learning in the workplace: The case of interprofessional peer collaboration. J Interprof Care 2006; 20: 415-424.

7.      Colquhoun M, Munro K. Work based Learning. In Education in Palliative Care, Building A Culture of Learning. Edited by Wee B, Hughes N Oxford University Press; 2007.

8.      Norman G, Shannon S, Marrin M. The need for needs assessment in continuing medical education. BMJ 2004; 328: 999-1001.

9.      Boud D, Solomon N. 'I don't think I am a learner': acts of naming learners at work. Journal of Workplace Learning 2003; 15: 326-331.

10.     Ellinger A, Cseh M. Contextual factors influencing the facilitation of others' learning through everyday work experiences. Journal of Workplace Learning 2007; 19: 435-452.

11.     Billet S. Toward a Workplace Pedagogy: Guidance, Participation, and Engagement. Adult Educ Quart 2002; 53: 27-43.

12. Keirse E, Beguin C, Desmedt M, Deveugele M, Menten J, Simoens S, Wens J, Borgermans L, Kohn L, Spinnewijn B, Cardinael A, Kutten B, Vanden Berghe P, Paulus D. Organisatie van de palliatieve zorg in België (Organisation of palliative care in Belgium). Health Services Research (HSR). Brussel: Federaal Kenniscentrum voor de Gezondheidszorg (KCE). 2009. KCE Reports 115A. https://kce.fgov.be/nl

13. Durning S, Artino A, Pangaro L, van der Vleuten C, Schuwirth L. Redefining Context in the Clinical Encounter: Implications for Research and Training in Medical Education. Acad Med 2010; 85: 894-901.

14. Parboosingh J. Physician Communities of Practice: Where Learning and Practice Are Inseparable. J Cont Edu Health Prof 2002; 22: 230-236.

15. Wagter J, van de Bunt G, Honing M, Eckenhausen M, Scherpbier A. Informal interprofessional learning: Visualizing the clinical workplace. J Interprof Care 2012; 26: 173-182.

16. Billet S. Workplace participatory practices. Conceptualizing workplaces as learning environments. Journal of Workplace Learning 2004; 16: 312-324.

17. Eraut M. Learning from other people in the workplace. Oxford Rev Educ 2007; 33: 403-422.

18. Fuller A, Unwin L, Felstead A, Jewson N, Kakavelakis K. Creating and using knowledge: an analysis of the differentiated nature of workplace learning environments. Brit Educ Res J 2007; 33: 743-759.

19. Lundgren S. Learning opportunities for nurses working within home care. Journal of Workplace Learning 2011; 23: 6-19.

20. Sargeant J, Mann K, Sinclair D, Ferrier S, Muirhead P, van der Vleuten C, Metsemaker J. Learning in Practice: Experiences and Perceptions of High-Scoring Physicians. Acad Med 2006; 81: 655-660.

21. Maddocks I. Communication – an essential tool for team hygiene. In: Speck P ed. Teamwork in palliative care. Fulfilling or frustrating? Oxford University Press; 2006.

22. Xiao Y. Artifacts and collaborative work in healthcare: methodological, theoretical, and technological implications of the tangible. J Biomed Inform 2005; 38: 26-33.

23. Bhatt GD. Knowledge management in organizations: examining the interaction between technologies, techniques, and people. Journal of Knowledge Management 2001; 5: 68-75.

24. Pimmer C, Pachler N, Genewein U. Reframing clinical workplace learning using the theory of distributed cognition. Acad Med 2013 ; 88: 1239-45. doi: 10.1097/ACM.0b013e31829eec0a.

25. Reed V, Schifferdecker K, Homa K. Improving information management in primary care: the proof is in the pudding. Informatics in Primary Care 2008; 16: 213-220.

26. Orzano A, McInerey C, McDaniel R, Meese A, Alajmi B, Mohr S, Tallia A. A medical home: Value and implications of knowledge management. Health Care Manage Rev 2009; 34: 224-233.

27. Shershneva M, Carnes M, Bakken L. A model of teaching-learning transactions in generalist-specialist consultations. J Cont Edu Health Prof 2006; 26: 222-229.

28. Nilsen L, Moen A. Teleconsultation – collaborative work and opportunities for learning across organizational boundaries. J Telemed Telecare 2008; 14: 377-380.

29. Allan H, Bryan K, Clawson L, Smith P. Developing an interprofessional learning culture in primary care. J Interprof Care 2005; 19: 452-464.

30. Colthart I, Bagnall G, Evans A, Allbutt H, Haig A, Illing J, McKinstry B. The effectiveness of self-assessment on the identification of learner needs, learner activity, and impact on clinical practice: BEME Guide no. 10. Med Teach 2008; 30: 124-145.

31. Sargeant J, Eva K, Armson H, Chesluk B, Dornan T, Holmboe E, Lockyer J, Loney E, Mann K, van der Vleuten C.  Features of assessment learners use to make informed self-assessments of clinical performance. Med Educ 2011; 45: 636-647.

32. Veloski J, Boex JR, Grasberger MJ, Evans A, Wolfson DB. Systematic review of the literature on assessment, feedback and physicians' clinical performance: BEME Guide No. 7. Med Teach 2006; 28: 117-28.

33. Kilminster S, Cottrell D, Grant J, Jolly B. AMEE Guide No. 27: Effective educational and clinical supervision. Med Teach 2007; 29: 2–19.

34. Hammick M, Olcker L, Campion-Smith C. Learning in interprofessional teams: AMEE Guide no 38. Med Teach 2009; 31: 1–12.

35. Pype P, Symons L, Wens J, Van den Eynden B, Stess A, Cherry G, Deveugele M. Healthcare professionals' perceptions toward interprofessional collaboration in palliative home care: a view from Belgium. J Interprof Care 2013; 27: 313-319.

36. Oliviere D. User involvement – the patient and carer as team members? In: Speck P ed. Teamwork in palliative care – fulfilling or frustrating? Oxford University Press; 2006.

37. Stajduhar K, Cohen R: Family caregiving in the home. Family Carers and Palliative Care Oxford University Press Hudson P, Payne S 2009.

38. Gilbert J, Yan J, Hoffman S et al. (2010) Framework for Action on Interprofessional Education & Collaborative Practice. [http://www.who.int/hrh/resources/framework_action/en/]

39. Norcini, J. Where next with revalidation? BMJ 2005; 330: 1458-9.

40. Speed S, Luker K. Getting a visit: How district nurses and general practitioners 'organise' each other in primary care. Sociol Health Ill 2006; 28: 883-902.

41. Sweeney K, Griffiths F eds. Complexity and Healthcare: An introduction, Radcliffe Medical Press; 2002.

42. Paulus, D., Van den Heede, K., Mertens, R. (2012) Organisatie van zorg voor chronisch zieken in België: ontwikkeling van een position paper. (Organisation of care for chronic diseases in Belgium: development of a position paper) Health Services Research (HSR). Brussel: Federaal Kenniscentrum

voor de Gezondheidszorg (KCE). KCE Reports 190A. D/2012/10.273/79. https://kce.fgov.be/nl

43.  Bleakley A. Broadening conceptions of learning in medical education: the message from teamworking. Med Educ 2006; 40: 150-157.

44.  Patel V, Yoskowitz N, Arocha J. Towards evaluation and reform in medical education: a cognitive and learning sciences perspective. Adv in Health Sci Educ 2009; 14: 791-812.

45.  Mann K. Theoretical perspectives in medical education: past experience and future possibilities. Med Educ 2011; 45: 60-68.

46.  Pimmer C, Pachler N, Nierle J, Genewein U. Learning through inter- and in- tradisciplinary problem solving: using cognitive apprenticeship to analyse doctor-to-doctor consultation. Adv in Health Sci Educ 2012; 17: 759-778.

47.  Walker R, Cooke M, Henderson A, Creedy D. Using a critical reflection pro- cess to create an effective learning community in the workplace. Nurse Educ Today 2013; 33: 504-11.

48.  Shaw E, Howard J, Etz R, Hudson S, Crabtree B. How Team-Based Reflection Affects Quality Improvement Implementation: A Qualitative Study. Qual Manag Health Care 2012; 21: 104-113.

49.  CanMEDS 2015: Evolving the CanMEDS Framework. http://www.royalcol- lege.ca/portal/page/portal/rc/canmeds/canmeds2015/overview

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**Chapter  3:**

**Features of workplace learning – a baseline measurement.**

*Paper 6: Patients' Nursing Records Revealing Opportunities for Interprofessional Workplace Learning in Primary Care:  a Chart Review Study*

*Paper 7: Exploring the learning impact of collaboration in interprofessional health care teams (ELICIT-study): A cross-sectional study in primary palliative care*

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**Paper 6:**

**Patients' Nursing Records Revealing Opportunities for Inter-professional Workplace Learning in Primary Care:  a Chart Review Study**

Pype P, Wens J, Stes A, Grypdonck M, Van den Eynden B, Deveugele M.

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## PATIENTS' NURSING RECORDS REVEALING OPPORTUNITIES FOR INTERPROFESSIONAL WORKPLACE LEARNING IN PRIMARY CARE: A CHART REVIEW STUDY

## Abstract

*Background:*

Working and learning go hand in hand during interprofessional collaborative practice. Patients' nursing records are designed to record patient care and health status. It is not known whether these records are also used to keep track of interprofessional contacts or interprofessional learning between team members. This study explored the usefulness of patients' nursing records in optimising interprofessional workplace learning for general practitioners.

*Methods:*

We utilized a descriptive retrospective chart review. All palliative home care teams of the Dutch speaking part of Belgium were involved. Throughout the year 2010, a representative sample of patient charts was selected. Characteristics of encounters between general practitioners and palliative care nurses were extracted from the charts.

*Results:*

Detailed accounts of interprofessional contacts were found in the charts. Palliative care nurses recorded number and type of contacts, topics discussed during contacts and general practitioner's learning activities.

*Discussion:*

Palliative care nurses are sensitive and open towards the general practitioners' learning needs. Patients' nursing records provide useful information for interprofessional team discussions on workplace learning. Healthcare professionals should be trained to respond to each other's learning needs.

*Keywords:* workplace learning, interprofessional collaboration, interprofessional learning, chart review, patient charts, nursing records

## Background:

Over the last decades, changing population needs called for a change in care delivery by healthcare professionals [1]. A central position of primary health care with interprofessional collaborative practice is advocated as the best approach to improve health outcomes [2]. Interprofessional collaborative practice occurs when multiple healthcare workers from different professional backgrounds deliver comprehensive services to secure the highest quality of care across settings [2]. Literature on workplace learning acknowledges that working and learning are inseparable and fundamental [3, 4].

Eraut describes a set of learning activities for people during work, resulting in learning as a by-product of the working activities [3]. The learning activities are: Asking questions; Getting information; Locating resource people; Listening and observing; Reflecting; Learning from mistakes; Receiving feedback; and Use of mediating artifacts. If healthcare professionals are able to recognise learning needs (something the other person does not know) and learning behaviour (displaying learning activities) of other professionals in the team and if they are able to respond adequately to it, a learning opportunity is created [5].

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In Belgium, as in several other countries, an example of multidisciplinary collaboration in primary care is the collaboration of general practitioners (GPs) with nurses from specialised palliative home care teams (PHCTs). PHCT nurses keep records of every palliative patient they care for and make notes of all activities, including encounters with patients' GPs. PHCT nurses work in teams and a single patient is often cared for by different nurses. The need to share information results in extensive activity reports in the electronic Patient Nursing Record (PNR). GPs carry the final care responsibility and PHCT nurses deliberate with them whenever changes in care policy are required. As a result, the nurses' encounters with GPs are reported in the PNR.

The aim of this study was to explore the attention PHCT nurses pay to GPs' learning needs, learning activities and the usefulness of PNRs in reporting interprofessional interactions with reference to workplace learning. The following questions were addressed:

What do PHCT nurses report on:

- number and type of contacts (telephone or face-to-face) between PHCT nurses and GPs
- topics discussed during these contacts
- learning activities of GPs as perceived by the nurses during those contacts

## Methods:

We used a descriptive retrospective chart review methodology. All fifteen PHCTs in the Dutch speaking part of Belgium were invited and agreed to participate. They were asked to collect charts for the first and second newly assigned patient of every month in 2010.

*Data collection:* Patient characteristics (age, gender, social situation, duration of care and diagnosis) were extracted from the patient chart. PHCT nurse characteristics (gender, age, working experience) were delivered on request by all nurses. Ethical approval has been granted by the Ethical Committee of the University Hospital Ghent – registration number: B670201213298.

One researcher (a PHCT nurse) examined the charts for accounts of contacts between GPs and PHCT nurses. The following information was extracted: number and type of contacts (telephone or meeting), contact initiator, broached topics during the contact. All these aspects were registered in the PNR in a standardised manner (tick boxes) during practice by the PHCT nurses and were extracted by the researcher without subjective interpretation. The use of a uniform nationwide electronic nursing record with tick boxes to record information minimised subjective interpretation of researchers extracting data from the records. This record, based on Microsoft Access, has been purposefully designed for these PHCTs.

A second researcher (GP, palliative care physician working in a PHCT) scanned the reports of GP-nurse contacts for descriptions of GPs' learning needs. Only literal annotations of learning needs were considered (e.g. 'the doctor said he didn't know how to calculate the dose of subcutaneous morphine and asked us to explain it'). Non-specific annotations were excluded (e.g. 'the doctor asked us to perform the calculation …'), since this could mean that the GP was perfectly able to calculate it himself but did not have the time. These learning needs were categorised according

to topic. For each described learning need, annotations of learning activities were identified and categorised according to Eraut's typology of learning (see Introduction) [3]. The same rigour towards verbatim descriptions was applied (e.g. 'the doctor asked me to show how the syringe driver works, so I did' was coded as 'observing as learning activity' while 'I installed the syringe driver with the doctor in the room' was not categorised as learning activity of the doctor).

Eraut's typology of learning is a well-described, practice based scheme. By limiting the extraction to literal annotations of learning needs and learning activities, over-estimation was prevented. The researchers who extracted the data both have fifteen years of experience in PHCTs and are used to working with this PNR.

*Data analysis:* Descriptive statistics were calculated for all results.

## Results:

*PHCTs:* 14 PHCTs charts were suitable for analysis, resulting in 336 charts (14 PHCTs x 24 patients). The 15th PHCT had staffing problems during 2010 and the records were left almost blank.

*Patient characteristics:* Patients (n = 336; male: n = 181, 53.9%; age over 70: n = 205, 61.1%) most frequently had an oncological diagnosis (n = 287, 85.4%) and lived with their families (n = 269, 80%). Duration of care provided by PHCT was less than one week in 30% (n = 101) of the patients.

*Nurse characteristics:* Over the period of this study, 72 nurses (female 82%) were working in the PHCTs with a working experience of 1-5 years (48%), 6-10 years (29%), 11-15 years (19%) and more than 15 years (4%). The working experience did not significantly differ between the PHCTs (p=0.541). Age was between 31-40 years (19%), 41-50 years (39%), 51-60 years (42%) and over 60 (6%).

*Characteristics of contacts between GPs and PHCT nurses:* In total, we found 2,061 contacts between GPs and nurses with a mean of 6.1 (SD 5.4) contacts per patient. The majority of contacts were by telephone (n=1,459; 70.8%). In 66.5% (n=1,371) of the contacts, the initiative was taken by the palliative care nurse. The topics discussed during the contacts covered different care domains of palliative care (e.g. physical symptoms, psychosocial topics) where almost one-half (n=972; 47.6%) required an explicit need for deliberation to 'decide the care goals'. In 23.7% (n=489) of the contacts, a learning activity was reported.

*Learning activities of GPs during GP-nurse encounters:* Nurses described a range of learning activities in the GPs' behaviours. The most frequently described learning activities were 'discussion and reflection' (n=246; 50.3%), getting information (n=69; 14.1%) and 'asking questions' (n=61; 12.5%). All different learning activities, with clarifying examples, are presented in Table 1.

Table 1: General Practitioners learning activities during GP-nurse encounters

| Type of learning activity | n (%) 489 (100) | Example from record |
|---|---|---|
| Discussion and reflection | 246 (50.3) | 'deliberation between GP and palliative care nurse over drug regimen to minimise side effects'. |
| Getting information | 69 (14.0) | 'GP received a hard copy of the new guideline on pain treatment to inform him on how clinical reasoning can be done'. |
| Asking questions | 61 (12.6) | GP asking: 'can I combine morphine with scopolamine in a syringe driver?'. |
| Locating resource people | 51 (10.5) | 'GP received the phone number of a palliative care specialist in answer to a complex question'. |
| Listening and observing | 24 (4.9) | 'GP was present when the PHCT nurse had a difficult conversation with the patient. He learned a new way of addressing a patient's fear'. |
| Giving and receiving feedback | 21 (4.3) | 'GP questioned the patient on his pain syndrome. Afterwards the PHCT nurse explained to him what other questions could have been asked'. |
| Learning from mistakes | 14 (2.8) | 'GP made a mistake when calculating the equivalent dose between oral morphine and transdermal fentanyl. The patient was stuporous afterwards and the nurse explained the correct way of calculating'. |
| Using mediating artefacts | 3 (0.6) | 'GP received a tool for pain measurement he was not used to work with'. |

## Discussion:

This study explored what PHCT nurses report on GPs' learning needs and learning activities in PNRs. In about one-quarter of interprofessional contacts, GPs engaged in different kinds of learning activities, focusing on the broad spectrum of patient care. Nurses were able to give detailed accounts which could be categorised and analysed.

The answer to the first research question is that PHCT nurses have a mean number of 6.1 contacts with patient's GPs during the care period. These nurses have an advisory role which accounts for the high percentage of nurses' initiated contacts (70%) as they cannot change care or treatment plans without the GP's consent. Approximately 70% of the contacts were telephone contacts. It is easier to call someone than to arrange a meeting. There are several drawbacks to telephone contacts: the absence of nonverbal communication; deliberation is most often limited to two professionals; the call receiver might be busy with other patients and therefore not fully concentrated on the call [6]. These limitations are described by Bolle et al. who suggest video-conferencing as an alternative [7].

In response to the second research question, the topics discussed during the contacts covered the different domains of palliative care. Psychosocial as well as physical problems are just as frequently discussed. One-half of the contacts are initiated with the purpose of reaching a joint decision on care goals. By sharing viewpoints with others, team members can create learning opportunities [8]. Our study does not indicate the outcome of these discussions, but at least a prerequisite for team learning exists.

Regarding the third research question, in 23.7% (n=489) of the contacts a GP's learning opportunity was reported. This means that PHCT nurses have picked up on GP's learning needs and have recognised a learning activity. Both are described in the nursing record.

Receiving feedback may enhance the effectiveness of self-assessment towards identification of learning needs and this is perfectly feasible between team members [9]. Recognising GPs' learning needs and adequately responding to them can therefore be part of an educational role for the expert palliative care nurses. Since most contacts are telephone contacts, learning activities like 'asking questions' and 'discussion and reflection' seem logical and appropriate. Other learning activities, like 'receiving feedback', require direct contact and observation in order to be efficient

[5]. Therefore, joint home visits should be organised. The effectiveness of different methods of workplace learning has to be studied before actual advice can be given towards promoting specific actions.

In a recent literature review, Häyrinen describes the use of patients' electronic records [10] and puts the focus on patient-related matters. Our study suggests that the records can also be used to describe interprofessional interactions. The reports on encounters with GPs can be used as discussion material during team meetings as a component of team dynamics. The quality of interprofessional relationships is important for the quality of a team's patient care. Reporting on these relationships and subsequently discussing them may benefit mutual trust and understanding. The GPs' learning needs that are described can be used to detect general gaps in GPs' knowledge. Getting back to the GP, and discussing the observed learning need, may create an on-the-spot learning moment.

The overall message of this study is that nurses are able to notice and identify GPs' learning needs and learning activities. Since the nurses in our study were not trained as educators, our results might indicate that these skills are present with nurses in other settings and other countries. For developing countries where nurses often are the major workforce, this is an important message. Besides enhancing patient health outcomes, collaborative practice can thus contribute to the continuing professional development of all healthcare providers. Future research needs to be done to evaluate the best way of addressing the observed learning needs of team co-workers.

A strength of this study lies in the fact that this is the first time a nationwide review of a widely used patient nursing record has been done with focus on interprofessional contacts in primary care. The implementation of change, supported by this study (e.g. agreement on definitions of categories), can be done in other areas of collaboration and can be evaluated quantitatively. A second strength concerns the transferability of the results. This study has been executed in Belgium. It might be assumed, however, that healthcare professionals from other countries, working together and keeping records, can benefit from the ideas expressed in this study. Focusing on each other's learning needs is an integral part of interprofessional collaboration and learning.

This study has one major limitation. The interpretation and categorisation of nurses' reports is done by one researcher only. By restricting the data extraction to literal

and explicit reports, overestimation and misinterpretation of the topic under study was eliminated as much as possible.

Overall, patient nursing records can be useful to record team dynamics, especially when clear and unequivocal agreements are made on definitions and terms when describing interprofessional interactions. PHCT nurses seem sensitive to GPs' learning needs and should be trained to respond to these needs in an efficient way in order to optimise the learning effect of interprofessional collaboration. Further research is needed to evaluate the outcome of interprofessional discussions based on these learning needs. Aggregating themes of GPs' learning needs can reveal knowledge gaps and may inform educational organisation in adaptation of their curriculum.

## Funding

## References

1.    Frenk J, Chen L, Bhutta ZA, Cohen J, Crisp N, Evans T, et al. Health profes-
      sionals for a new century: transforming education to strengthen health
      systems in an interdependent world. Lancet 2010;376:1923-58.

2.    Gilbert J, Yan J, Hoffman S. Framework for Action on Interprofessional Edu-
      cation & Collaborative Practice. Retrieved April 1, 2013, from http://www.
      who.int/hrh/resources/framework_action/en/

3.    Eraut M. Learning from other people in the workplace. Oxford Rev Educ
      2007;33:403-22.

4.    Williams C. Understanding the essential elements of work-based learning
      and its relevance to everyday clinical practice. J Nurs Manag 2011;18:624-32.

5.    Kilminster S, Cottrelli D, Grant J, Jolly B. AMEE Guide No. 27: Effective edu-
      cational and clinical supervision. Med Teach 2007;29:2-19.

6.    Visvanathan A , Gibb AP, Brady RR. Increasing clinical presence of mobile
      communication technology: Avoiding the pitfalls. Telemed J E-Health
      2011;17:656-61.

7.    Bolle S, Larsen F, Hagen O, Gilbert M. Video conferencing versus telephone
      calls for team work across hospitals: A qualitative study on simulated emer-
      gencies. BMC Emerg Med 2009;9:22.

8.    Hammick M, Olckers L, Camion-Smith C. Learning in interprofessional
      teams: AMEE Guide no 38. Med Teach 2009;31:1-12

9.    Cushing A, Abbott S, Lothian D, Hall A, Westwood O.M. Peer feedback as an
      aid to learning--what do we want? Feedback. When do we want it? Now!
      Med Teach 2011;33:105-12.

10.   Häyrinen K, Saranto K, Nykänen P. Definition, structure, content, use and
      impacts of electronic health records: A review of the research literature. Int
      J Med Inform 2008;77:291-304.

**Paper 7:**

**Exploring the learning impact of collaboration in inter-professional health care teams (ELICIT-study):**
A cross-sectional study in primary palliative care

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## EXPLORING THE LEARNING IMPACT OF COLLABORATION IN INTER-PROFESSIONAL HEALTH CARE TEAMS (ELICIT-STUDY):

### A cross-sectional study in primary palliative care

## Abstract:

**Objective:** Palliative care often requires inter-professional collaboration, offering opportunities to learn from each other. General practitioners often collaborate with specialized palliative home care teams. This study seeks to identify what, how and from whom is learned during this collaboration.

**Methods:** Cross-sectional survey in Belgium. All palliative home care teams were invited to participate. General practitiners (n = 267) and palliative care nurses (n = 73) filled in questionnaires.

**Results:** General practitioners and palliative care nurses learned on all palliative care aspects, but more about patient related topics (e.g. physcical and psychosocial symptoms) than non-patient related topics (e.g. teamwork, palliative care organisation). Different learning activities were used. Participants learned from all others involved in patient care. Multiple linear regression shows significant association of gender with amount of learning by GPs (M<F; p=0,042) and nurses (M>F; p=0,019). Age category, years in practice, type of practice and previous education in palliative care did not significantly influence the learning. The profession influences the content, the way of learning and from whom is learned.

**Conclusions:** This study is the first to reveal what, how and from whom is learned during collaboration in palliative care. Training professionals could optimise this way of learning.

**Practice implications:** Health care professionals should be trained in sharing expertise during practice and in detecting and adequately responding to others' learning needs.

**Keywords:** workplace learning, interdisciplinary communication, physician-nurse relations, primary health care, palliative care

## Introduction

Palliative care is complex care. To address different needs of palliative patients and their families, interdisciplinary collaboration is advised [1]. When caring for terminally and chronically ill patients at home, collaborative practice results in higher satisfaction, fewer clinic visits, fewer symptoms and patients' overall improved health [2]. Joining competences of professionals from different disciplines in a well-organised home care team results in a more comprehensive and holistic approach [3]. Care coordination and interdisciplinary teamwork has been listed as one of the ten core competencies in palliative care [4,5]. In primary care, general practitioners (GP) often collaborate with specialised palliative home care teams (PHCT), resulting in high quality palliative care [6,7]. Besides improving patient care quality, working together offers learning opportunities where professionals learn with, from and about each other [8-11]. Knowledge and expertise is shared and professionals not only 'learn from' each other but also 'teach' each other in a reciprocal way: workplace learning (WPL). Many known definitions of WPL state following aspects: mostly informal, embedded in daily practice, requires personal engagement and knowledge is socially constructed [12-16]. Furthermore WPL is driven by actual learning needs, it offers immediate possibility to put learning into practice, it is a continuous and natural process which requires less or no planning and (peer) mentors are readily available [9,17-19]. Therefore WPL might be a valuable complement to current education and training for health care professionals as it seems to address knowledge gaps and skills required for patient care directly. Before promoting this way of learning, we need to further explore it, as it is unclear to what extent WPL occurs in primary palliative care. This study seeks to fill this gap by answering following research questions:

Primary questions:

- What do GPs and PHCT nurses learn during collaborative practice?
- How do GPs and PHCT nurses learn during collaborative practice?
- From whom do GPs and PHCT nurses learn during collaborative practice?

Secondary questions:

- Is there an association between what, how and from whom GPs and PHCT nurses learn during collaborative practice?
- How much do GPs and PHCT nurses learn during collaborative practice?
- Which variables influence the amount of learning during collaborative practice?

## Methods

### Design

A cross-sectional design was used.

### Settings, sample and procedure

In Belgium, GPs often collaborate with PHCTs. Specialised team nurses visit the palliative patient at home. A palliative care physician and a psychologist make up the rest of the team and support the nurses in their task during team meetings without making home visits themselves. The GPs' main contact with PHCTs is through the nurses via telephone or through joint home visits. The Dutch speaking part of Belgium is covered by 15 PHCTs. All fifteen were asked to participate. All patients (taken care of by the PHCTs) that died during a three month period (May–July 2012) were included in the study. The attending GP and PHCT nurse were asked to fill in online questionnaires for each patient. A written informed consent was obtained by all participants. Ethics approval was obtained from the Ghent University Hospital (B670201213298).

### Questionnaires

- Demographics of participating GPs and nurses (age, gender, profession, type of practice, years in practice, previous education in palliative care) and characteristics of patients (diagnosis, length of care period, place of death) were registered.

- To answer the question whether and what participants learned, a list was presented with palliative care topics based on the postgraduate curriculum suggestions of the European Association for Palliative Care (physical items: 28 questions; psychosocial items: 29 questions; religious and cultural items: 7 questions; teamwork: 2 questions; care set-up: 7 questions) [20]. The list was discussed and approved by an interuniversity group of educators and palliative care physicians. Participants were asked to answer 'yes' or 'no' to indicate if they had learned anything during the previous collaboration. These answers allowed us to count the items learned per participant and per collaboration period. See appendix A for the list.

- On the "how" question, a list of possible learning activities was presented based on Eraut's typology of workplace learning [16].These activities are: Asking questions; Getting information; Locating resource people; Listening and observing; Reflecting; Learning from mistakes; Receiving feedback; and Use of mediating artefacts. A list of these activities was accompanied by clarifying examples. For each acquired topic, they were asked to denote the learning activity they used.

- On "from whom" question, a list was presented with all health care providers present (primary care and hospital based) as well as the patient and his family. For each learned topic , they were asked to indicate from whom they had learned it.

- In order to clarify which variables influence the total amount of learning, demographics of the participants and  the Readiness for Inter-professional Learning Scale (RIPLS) were used. This is a 23-item scale with three factors: 1: Teamwork and Collaboration; 2: Patient Centeredness; 3: Sense of Professional Identity. The scale has been validated for use in primary care and examines the attitude of health care professionals towards inter-professional learning [21-23]. A higher score is associated with higher readiness for inter-professional learning.

All questionnaires were pre-tested for feasibility and understanding using cognitive interviews [24]. Interviewees in two rounds were GPs (n=8) and nurses (n=8), not involved as participants in the study.

## Analysis

Analysis was done using SPSS 20. Descriptive statistics (mean, standard deviation) were calculated of demographics, RIPLS score, number of items learned, content of learning, learning activity and source of learning. Chi squared test was used to detect differences between GPs and nurses in the content of learning, learning activities and sources of learning. An independent sample t-test was conducted to compare the total count of learned items between GPs and PHCT nurses, between male and female and between GPs with or without previous palliative care education. A one-way ANOVA was used to test the effect of type of practice and age category on the amount of items learned. Simple linear regression was used to evaluate the effect of the RIPLS score and years in practice on the number of items learned. Multiple linear

regression analysis was used to gauge the influence of participants' demographics (gender, age, previous palliative care education, type of practice, years in practice and RIPLS score) on the number of items learned.

## Results

### *Participants*

Twelve out of 15 PHCTs agreed to participate. During the three-month registration period, 267 GPs and 73 PHCT nurses completed the questionnaires (response rate 34% and 100% respectively). Characteristics of participants are shown in table 1.

**Table 1: Characteristics of participants**

| | | GPs (n = 267) |
|---|---|---|
| **Gender** | | |
| | Male | 185 (69,3 %) |
| | Female | 78 (29,2 %) |
| | Missing | 4 (1,5 %) |
| **Age category** | | |
| | < 31 | 17 (6,4 %) |
| | 31-40 | 31 (11,6 %) |
| | 41-50 | 68 (25,4 %) |
| | 51-60 | 91 (34,1 %) |
| | > 60 | 60 (22,5 %) |
| **Type of practice** | | |
| | Solo | 120 (44,9 %) |
| | Duo | 60 (22,5 %) |
| | Group | 83 (31,1 %) |
| | Missing | 4 (1,5 %) |
| **Pall care education** | | |
| | Yes | 59 (22,1 %) |
| | No | 203 (76,0 %) |
| | missing | 5 (1,9 %) |
| | | **PHCT nurses (n = 73)** |
| **Gender** | | |
| | Male | 14 (19,2 %) |
| | Female | 57 (78,1 %) |
| | Missing | 2 (2,7 %) |

| Age category | | |
|---|---|---|
| | < 31 | 0 (0 %) |
| | 31-40 | 9 (12,3 %) |
| | 41-50 | 28 (38,4 %) |
| | 51-60 | 32 (43,8 %) |
| | > 60 | 4 (5,5 %) |
| **Years in practice** | | |
| | Mean | 7,15 |
| | Standard deviation | 5,1 |
| | | **Patients n = 626** |
| **Diagnosis** | | |
| | Oncological | 530 (84,8%) |
| | Non-oncological | 96 (15,4%) |
| **Length of care period** | | |
| | Days 0-7 | 169 (27%) |
| | 8-14 | 83 (14,3%) |
| | 15-30 | 101 (16,2%) |
| | 31-60 | 126 (20,2%) |
| | 61-90 | 56 (9,0%) |
| | 91-180 | 52 (8,3%) |
| | >180 | 38 (6,1%) |
| | missing | 1 |
| **Place of death** | | |
| | Home | 477 (76,6%) |
| | Not at home | 146 (23,3%) |
| | missing | 3 |

### What do GPs and PHCT nurses learn during collaborative practice?

Both GPs and PHCT nurses learned most about psychosocial and physical issues. The percentages differed in a statistically significant way (p = 0,001). GPs learned about psychosocial (40,6%) and physical (35,5%) items in an almost equal number. Nurses mainly learned about psychosocial items (50,9%) and secondly about physical items (26,2%). Religious and spiritual items (13,2%/11,6%), teamwork items (7,0%/9,2%) and organisational items (3,6%/2,1%) were much less mentioned by GPs and nurses, respectively.

### How do GPs and PHCT nurses learn during collaborative practice?

Both groups of professionals listed the same two learning activities as the ones most used: 'discussion and reflection' and 'listening and observing'. Percentages however differed significantly between professions (p < 0,001). GPs stated to learn most by discussion and reflection (29,4%) and by listening and observing (28,2%). Learning from mistakes (3,0%) and using mediating artefacts (1,8 %) were the least mentioned. Nurses predominantly learned by listening and observing (37,0%), followed by discussion and reflection (19%). Learning from mistakes (1,0%) and using mediating artefacts (1,5 %) were the least mentioned.

### From whom do GPs and PHCT nurses learn during collaborative practice?

GPs as well as PHCT nurses indicated patients and their family members as the most frequent source of information. Percentages however differed in a statistically significant way (p < 0,001). GPs mostly learned from patient and family (38,3%), from PHCT nurses (29,2%) and through self-study (10,5%). PHCT nurses learned from patient and family (47,6%), others (14,4%) and GPs (9,9%).

An overview is shown in figure 1.

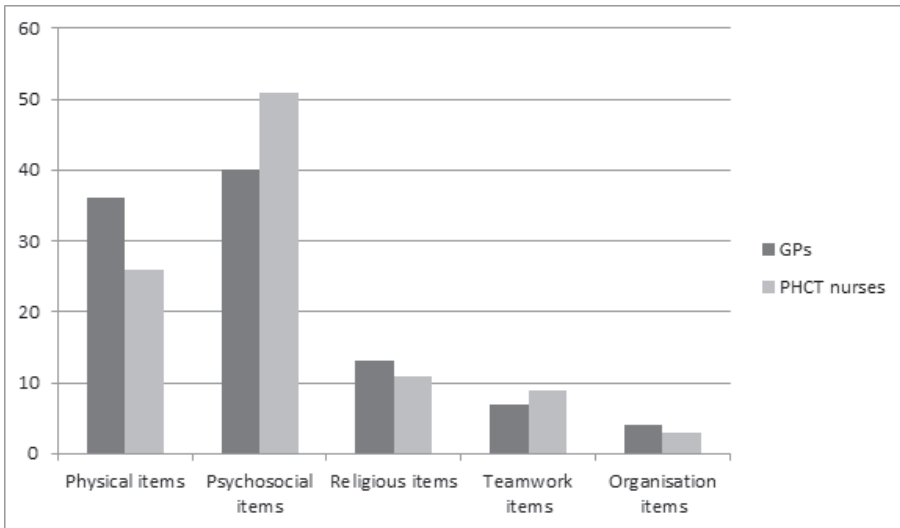**Figure 1a: Learning content by GPs and PHCT nurses (%)**

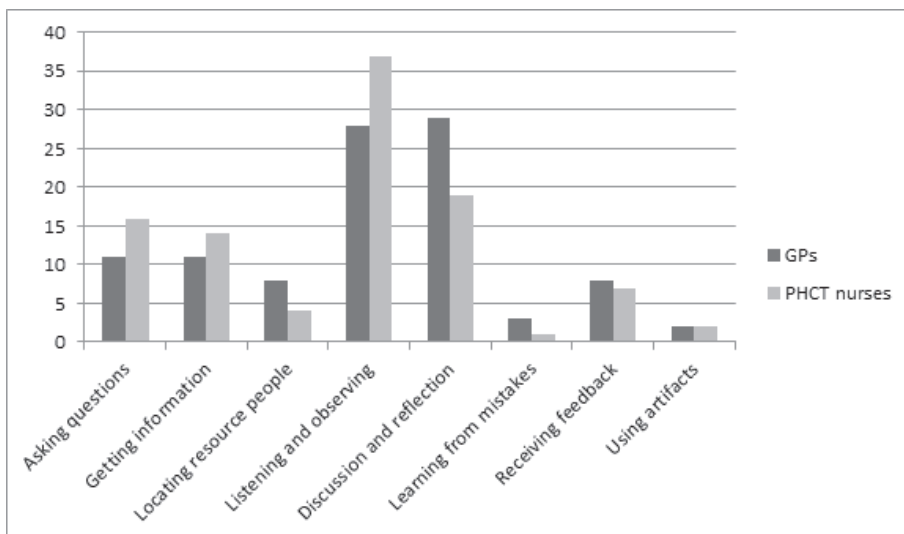**Figure 1b: Which learning activities are used (%) by GPs and PHCT nurses?**



**Figure 1c: Who do GPs and PHCT nurses learn from?**
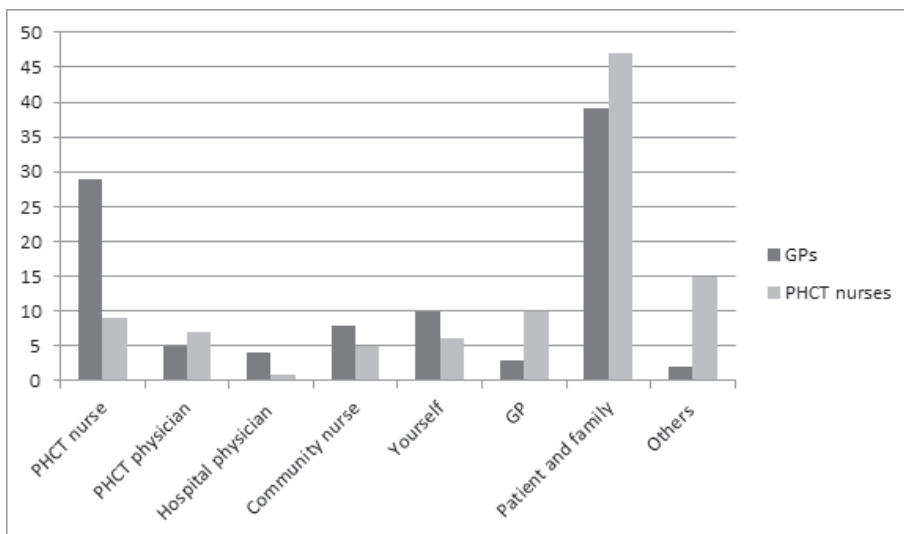
*Is there an association between what, how and from whom GPs and PHCT nurses learn during collaborative practice?*

The content of learning influenced the way and source of learning in a statistically significant way (p<0.001). Participants reported to use different learning activities and to address different sources of learning according to the topic in question. Patient-related topics and non-patient related topics (like 'teamwork' and 'organisation') seem to differ in this. Details are shown in table 2.

**Table 2: Way of learning and source of learning according to learning topic for GPs and PHCT nurses**

| Way of learning / learning topic | Asking Questions | Getting Information | Locating Resource People | Listening and Observing | Discussion and Reflection | Learning from mistakes | Receiving Feedback | Use of mediating Artifacts |
|---|---|---|---|---|---|---|---|---|
| **General Practitioners** | | | | | | | | |
| Physical topics | 12,60% | 16,30% | 12,10% | 13,80% | 29,00% | 3,80% | 8,70% | 3,70% |
| Psychosocial topics | 6,70% | 4,30% | 3,30% | 42,00% | 32,00% | 3,80% | 7,80% | 0,20% |
| Religious – cultural topics | 20,10% | 19,10% | 5,30% | 46,90% | 2,40% | 0,50% | 5,30% | 0,50% |
| Teamwork topics | 7,60% | 10,80% | 12,10% | 53,50% | 0,00% | 1,30% | 12,70% | 1,90% |
| Organisational topics | 15,40% | 35,20% | 18,70% | 20,90% | 0,00% | 0,00% | 8,80% | 1,10% |
| **PHCT nurses** | | | | | | | | |
| Physical topics | 17,20% | 15,10% | 6,50% | 17,20% | 30,10% | 1,10% | 9,70% | 3,20% |
| Psychosocial topics | 15,10% | 11,20% | 2,40% | 48,60% | 16,70% | 1,20% | 4,40% | 0,40% |
| Religious – cultural topics | 23,10% | 23,10% | 11,50% | 23,10% | 0,00% | 0,00% | 11,50% | 7,70% |
| Teamwork topics | 7,10% | 7,10% | 7,10% | 28,60% | 0,00% | 0,00% | 42,90% | 7,10% |
| Organisational topics | 0,00% | 60,00% | 0,00% | 40,00% | 0,00% | 0,00% | 0,00% | 0,00% |

| Source of le-arning/ lear-ning topic | PHCT nurse | PHCT physi-cian | Hos-pital physi-cian | Com-munity nurse | yourself | GP | Patient and family | Others |
|---|---|---|---|---|---|---|---|---|
| **General Practitioners** | | | | | | | | |
| Physical topics | 47,80% | 9,00% | 6,90% | 10,80% | 7,30% | 3,70% | 13,10% | 1,40% |
| Psychosocial topics | 13,60% | 1,60% | 2,20% | 6,50% | 13,60% | 2,60% | 58,50% | 1,40% |
| Religious – cultural topics | 11,00% | 7,90% | 2,80% | 1,00% | 7,90% | 6,60% | 55,50% | 7,20% |
| Teamwork topics | 20,50% | 4,90% | 2,70% | 35,20% | 1,90% | 19,70% | 8,30% | 6,80% |
| Organisatio-nal topics | 16,00% | 3,40% | 5,90% | 9,20% | 10,90% | 4,20% | 24,40% | 26,10% |
| **PHCT nurses** | | | | | | | | |
| Physical topics | 16,90% | 22,50% | 0,00% | 4,50% | 5,60% | 9,00% | 33,70% | 7,90% |
| Psychosocial topics | 8,00% | 0,70% | 0,70% | 0,70% | 7,30% | 7,30% | 58,50% | 16,70% |
| Religious – cultural topics | 12,90% | 16,10% | 0,00% | 0,00% | 3,20% | 6,50% | 41,90% | 19,40% |
| Teamwork topics | 3,40% | 10,30% | 0,00% | 41,40% | 0,00% | 31,00% | 6,90% | 6,90% |
| Organisatio-nal topics | 0,00% | 14,30% | 0,00% | 14,30% | 14,30% | 0,00% | 28,60% | 28,60% |

### How much do GPs and PHCT nurses learn during collaborative practice?

General practitioners reported a mean total number of items learned of 5,1 (SD=4,1) and PHCT nurses of 4,6 (SD=3,8). There was no significant difference between the means of the two professional groups (p=0,302).

### Which variables influence the amount of learning during collaborative practice?

### Bivariate analysis

Female GPs significantly learned more during collaboration (M=6,15; SD=4,31) than male GPs (M=4,73; SD=3,99); p=0,01. Previous palliative care education did not affect the results.

For PHCT nurses there was no significant difference in gender in the count of items.

There was no significant difference in count for age category (for GPs and PHCT nurses) and type of practice (for GPs).

There was a significant effect on RIPLS score on total count of items learned for GPs; p=0,024 (higher score on RIPLS associated with more items learned) but not for PHCT nurses.

For PHCT nurses there was a significant difference in the amount of items for years in practice; p=0,041 (more years in practice associated with less items learned).

Gender and age category had no significant effect on the total amount of learning when calculated for GPs and PHCT nurses together (p=0,126 and p=0,218 respectively), the RIPLS score was significantly effecting the total number of learning (higher score correlated with higher amount of learning p=0,02).

These results are shown in table 3.

**Table 3: Factors associated with total count of items learned – bivariate analysis:**

|  | N | Mean (SD) | P |
|---|---|---|---|
| **Profession** |  |  |  |
| GP | 267 | 5,1 (4,1) | NS |
| PHCT nurse | 73 | 4,6 (3,8) |  |
|  | **GPs (n = 267)** | **Mean (SD)** | **P** |
| **Gender** |  |  |  |
| Male | 185 (69,3 %) | 4,7 (4,0) | 0,01 |
| Female | 78 (29,2 %) | 6,1 (4,3) |  |
| Missing | 4 (1,5 %) |  |  |
| **Age category** |  |  |  |
| < 31 | 17 (6,4 %) | 7,1 (4,2) | NS |
| 31-40 | 31 (11,6 %) | 6,4 (4,3) |  |
| 41-50 | 68 (25,4 %) | 5,0 (4,0) |  |
| 51-60 | 91 (34,1 %) | 4,6 (4,2) |  |
| > 60 | 60 (22,5 %) | 4,9 (3,8) |  |

| | | | |
|---|---|---|---|
| **_Type of practice_** | | | |
| Solo | 120 (44,9 %) | 4,7 (4,2) | NS |
| Duo | 60 (22,5 %) | 6,1 (4,1) | |
| Group | 83 (31,1 %) | 5,2 (3,9) | |
| Missing | 4 (1,5 %) | | |
| **_Pall care education_** | | | |
| Yes | 59 (22,1 %) | 5,3 (4,1) | NS |
| No | 203 (76,0 %) | 5,2 (4,1) | |
| Missing | 5 (1,9 %) | | |
| **_RIPLS score_** | | B: 0,058 | 0,024 |
| | | 95% CI: 0,008; 0,108 | |
| | **PHCT nurses (n = 73)** | **Mean (SD)** | **p** |
| **Gender** | | | |
| Male | 14 (19,2 %) | 5,6 (4,2) | NS |
| Female | 57 (78,1 %) | 4,5 (3,6) | |
| Missing | 2 (2,7 %) | | |
| **Age category** | | | |
| < 31 | 0 (0 %) | 5,1 (3,3) | NS |
| 31-40 | 9 (12,3 %) | 4,6 (3,6) | |
| 41-50 | 28 (38,4 %) | 4,2 (4,0) | |
| 51-60 | 32 (43,8 %) | 6,2 (5,0) | |
| > 60 | 4 (5,5 %) | | |
| **Years in practice** | | | |
| Mean | 7,15 | B: -0,176 | 0,041 |
| Standard deviation | 5,1 | 95% CI: -0,345; -0,00 | |
| **RIPLS score** | | B: 0,026 | NS |
| | | 95% CI: -0,104; 0,157 | |

NS : not significant

### _Multiple linear regression_

For both GPs and PHCT nurses, multiple linear regression showed that only gender significantly influenced the number of learned items with male GPs learning less than female GPs and male nurses learning more than female nurses. The effects of years in practice (for the PHCT nurses) and RIPLS score (for the GPs) as shown in the bivariate analysis are not confirmed in the multiple linear regression analysis.

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Table 4 shows the results of the multiple linear regression.

**Table 4: Factors associated with total count of items learned – multiple linear regression:**

| GPs | | | |
|---|---|---|---|
| **Independent variables** | **B** | **95% CI for B** | **p value** |
| Gender (female) | -1.32 | -2.59, -0.049 | 0.042 |
| Age cat. <31 (>60) | 2.08 | -.47, 4.63 | 0.110 |
| Age cat. 31-40 (>60) | 1.47 | -.53, 3.47 | 0.150 |
| Age cat. 41-50 (>60) | -.62 | -2.21, .97 | 0.441 |
| Age cat. 51-60 (>60) | -.39 | -1.82, 1.03 | 0.589 |
| RIPLS score | .053 | -.003, .109 | 0.065 |
| Practice org. 1 (group) | .49 | -.82, 1.79 | 0.462 |
| Practice org. 2 (group) | 1.48 | -.05, 3.01 | 0.058 |
| Pall. care education (no) | .15 | -1.13, 1.43 | 0.820 |
| Model statistics | Adj R2 = 0.07,  p = 0.004 | | |

| PHCT nurses | | | |
|---|---|---|---|
| **Independent variables** | **B** | **95% CI for B** | **p value** |
| Gender (female) | 3.64 | .62, 6.66 | 0.019 |
| Age cat. <31 (>60) | NA | NA | NA |
| Age cat. 31-40 (>60) | 1.02 | -4.15, 6.19 | 0.692 |
| Age cat. 41-50 (>60) | .46 | -3.92, 4.86 | 0.832 |
| Age cat. 51-60 (>60) | .83 | -3.52, 5.18 | 0.703 |
| RIPLS score | .01 | -.12, .15 | 0.829 |
| Years in practice | .01 | -.27, .29 | 0.943 |
| Model statistics | Adj R2 = 0.01,  p = 0.386 | | |

CI: confidence interval

Independent variables: gender (male/female), age category (<31, 31-40, 41-50, 51-60, >60), RIPLS score (continuous), type of practice (solo, duo, group), previous palliative care education (yes/no), years in practice (continuous).

## Discussion

Since there is no well-designed mandatory undergraduate education in palliative care for medical students in Belgium and as the offer of CME in palliative care is insufficient, GPs have to rely on workplace learning for keeping up to date [25]. Our study shows that GPs and PHCT nurses do learn during inter-professional collaboration, thereby confirming that working and learning are inseparable as found in literature.

In answer to our first research question, both GPs and PHCT nurses learn more about patient related topics (physical and psychosocial) than non-patient related topics (e.g. teamwork, palliative care organisation), although all topics are mentioned. This is in line with national surveys on quality of dying and the difficulties to control patients' symptoms in the final stage of life, thereby identifying physicians' learning needs on this [26]. GPs' preferences of palliative care education confirm the importance of dealing with patient related symptoms [27,28]. However, other research identifies care coordination as a major learning need for GPs [29]. Our study participants do not mention teamwork and collaboration that much as something they learn through collaboration. Communication as a means to optimise both teamwork and care coordination however is an important learning need in some studies [30]. The EAPC curriculum advises GPs to dedicate more study-time to patient related topics [20]. This falls in with our study results on the relative frequency of topics mentioned in the learning through collaboration process.

The second research question examines the way participants learned through collaboration. The most used learning activities were 'listening and observing' and 'discussion and reflection'. Both activities can be part of the daily collaboration between professionals and are therefore easy-to-use learning activities. Other strategies, like 'receiving feedback' and 'learning from mistakes', are effective educational strategies [31,32]. It is regrettable that they are used less often. A high level of trust is required between team members to use practice mistakes as learning moments. A health care team with ever changing members, as often occurs in primary care, should make special efforts to accomplish this since 'mutual performance monitoring' is a core component to successful teamwork [33,34]. Training in techniques of clinical incident analysis could be useful to stimulate health care professionals to adopt this way of learning [35,36].

In answering the third research question (whom they learned from), both GPs and PHCT nurses state to learn most from the patient and his family. This sounds logical since palliative care is very much patient-centred and therefore problems and solutions are patient focused. Health care professionals but also educators should be aware of the learning aspect for professionals of communicating with patients. As family members are a major source of learning for professionals, we should regard them as part of the care team and appropriately prepare them for this task [37]. A drawback might be that the acquired knowledge is tied up with patient details. Making knowledge transferable to other patient situations requires a de-contextualisation of the knowledge which is not always easy [38-40]. GPs also learn from PHCT nurses. Being the experts, the nurses have an advisory role and GPs seem to learn from it. This confirms results from previous focus-group research where GPs describe the collaboration as a teaching/learning interaction [42]. This is supported by literature, describing the newly qualified doctors' informal learning from nurses. Our study shows that even experienced doctors (though not all of them and not always) acknowledge the nurses' expertise and declare to learn from them [42]. Next to patient and family, PHCT nurses also learn from 'others'; mostly palliative health care professionals from hospitals. GPs are ranked thirdly as a source of new knowledge. This cannot be explained through the results of our study. A possible hypothesis might be that the expert role which GPs bestow on PHCTs hinders the reciprocity of the teaching/learning dynamic. Another hypothesis is that PHCT nurses are so competent that their knowledge gaps are of a specialist kind and that they therefore turn to specialists for advice.

In answer to the fourth research question, the mastered topic is associated with the type of learning activity and with the person from whom is learned. This indicates that participants are able to switch between different learning activities when needed and find expertise among different stakeholders. This makes sense since certain topics are more suited to certain ways of learning than others, e.g. learning to handle a syringe driver by observing a PHCT nurse versus learning about patient's fear through discussions with family members.

The fifth and sixth research questions consider the amount of learning which is acquired. The gender difference in the total amount of learning cannot be explained from our study. It is not clear whether the doctor-nurse hierarchy influences the learning differently between genders. There is no significant difference between the

amount of learning by GPs and by PHCT nurses, although the latter are considered to be the experts. Nurses mostly mention to have learned psychosocial issues from patients and their families. This might account for the high amount of learning they mention since the individual contextual characteristics of palliative patients require continuous attention and learning despite their general expertise in palliative care. Proxy criteria of high expertise, like years of experience, age and previous education in palliative care are not associated with the amount of learning. This can be explained in various ways. Positively we could state that even experienced professionals stay eager to learn and to gain new knowledge and expertise through collaboration, on a deeper level. Negatively we might presume that professionals forget what they have learned and need to 'learn it again' on the next occasion. A third hypothesis is that the science of palliative care is quickly evolving and requires continuous learning. Our study however does not allow us to draw conclusions on this. The $R^2$ of 0,07 and 0,01 (see table 4) indicate that the amount of learning is almost independent of the variables included in the model. It is not sure whether there are other health care professionals' variables (e.g. the quality of the inter-professional relationships) to be evaluated or whether workplace learning is more depending on patient and context variables.

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## Strengths and limitations

Strengths: This is the first study to document what, how and from whom is learned through inter-professional collaboration in primary palliative care. A retrospective cross-sectional design enabled reporting of actual WPL through collaboration, since no intervention or information was delivered beforehand which might have interfered with the natural way of collaboration.

Limitations: Self-reported learning has its limitations. It shows us the participants' perception of the learning at that moment but it does not guarantee effective learning over time. However our study shows that professionals are open to learn through collaborative practice on many topics. This can inform providers of education on the possibilities of this way of learning. Learning through collaboration is strongly linked to the quality of inter-professional and interpersonal dynamics. This aspect has not been captured in our study. Throughout the years, GPs have built good relationships with PHCT nurses and literature shows us that good relationships are fundamental in workplace learning. We need to be careful however to transfer the results of our

study to other settings without such a history of collaboration. The RIPLS has been validated, taking formal education and training into account. This is the first time the scale is being used in workplace learning. Therefore it is difficult to interpret the meaning of the fact that the RIPLS score has no effect on the amount of learning.

## Conclusion and implications

Conclusion: Both GPs and PHCT nurses state to learn a lot during collaboration in primary palliative care. Different learning activities are used and all caregivers, professional and non-professional, share their expertise.

Practice implications: Identifying the content of WPL might help providers of training and education to adapt their curriculum in an anticipatory way. Getting insight into the characteristics of WPL can inform future studies investigating the effectiveness of it. All health care professionals should be aware of this kind of learning and adopt the attitude of sharing expertise during collaboration.

Future research: The effect of workplace learning has to be objectively assessed by means of measuring competence of health care providers and quality of patient care.

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## Declaration of conflicting interests

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# References

[1]     Sepúlveda C, Marlin A, Yoshida T, et al. Palliative Care: the World Health Organization's global perspective. J Pain Symptom Manage 2002;24:91-6.

[2]     WHO 2010 Framework for action on interprofessional education & collaborative practice.  http://www.who.int/hrh/resources/framework_action/en/ (Accessed 08 October 2013).

[3]     Gomes B, Calanzani N, Curiale V, et al. Effectiveness and cost-effectiveness of home palliative care services for adults with advanced illness and their caregivers. CochraneDatabase of Systematic Reviews 2013, Issue 6. Art. No.:CD007760. DOI: 10.1002/14651858.CD007760.pub2.

[4]     Gamondi C, Larkin P and Payne S. (a) Core competencies in palliative care: an EAPC White Paper on palliative care education – part 1. EJPC 2013;20(2).

[5]     Gamondi C, Larkin P and Payne S. (b) Core competencies in palliative care: an EAPC White Paper on palliative care education – part 2. EJPC 2013;20(3).

[6]     Centeno C, Pons JJ, Lynch T et al. EAPC Atlas of Palliative Care in Europe 2013 – Full Edition. Milan: EAPC Press, 2013.

[7]     Mitchell G. How well do general practitioners deliver palliative care? A systematic review. Palliat Med 2002;16:457-64.

[8]     Lave, J. and E. Wenger. Situated Learning: Legitimate Peripheral Participation, Cambridge University Press, 1991.

[9]     Parboosingh, J.  Physician communities of practice: where learning and practice are inseparable. J Contin Educ Health Prof  2002;22:230-236.

[10]    Hammick M, Olckers L, Campion-Smith C. Learning in interprofessional teams: AMEE Guide no 38 Med Teach 2009;31:1-12. doi: 10.1080/01421590802585561.

[11]    Kilminster S , Cottrell D, et al. AMEE Guide No. 27: Effective educational and clinical supervision. Med Teach 2007;29:2-19.

[12]    Goldman E, Plack M, Roche C, et al. Learning in a chaotic environment. Journal of workplace learning 2007;21:555-574.

[13]    Boud D and Middleton H. Learning from others at work: communities of practice and informal learning. Journal of workplace learning 2003;15:194-202.

[14]    Berg S and Chyung S. Factors that influence informal learning in the workplace. Journal of workplace learning 2008;20:229-244.

[15]    Le Clus M.  Informal learning in the workplace: a review of the literature. Australian journal of adult learning 2011;51:355-373.

[16]    Eraut, M. Learning from other people in the workplace. Oxford Review of Education 2007;33:403.

[17] I  lleris K. A model for learning in working life. The journal of workplace learning 2004;16:431-441.

[18]    Billet S. Workplace participatory practices – conceptualizing workplaces as learning environments. The journal of workplace learning 2004;16:312-324.

[19]    Williams C. Understanding the essential elements of work-based learning and its relevance to everyday clinical practice. Journal of nursing management 2010;18:624-632.

[20]    Elsner, F et al. Recommendations of the EAPC for the development of postgraduate curricula leading to certification in palliative medicine 2009. Available from: http://www.eapcnet.org (accessed 08 October 2013).

[21]    Parsell G, Bligh J. The development of a questionnaire to assess the readiness of health care students for interprofessional learning (RIPLS). Med Educ 1999;33:95-100.

[22]    Reid R, Bruce D, Allstaff K et al. Validating the Readiness for Interprofessional Learning Scale (RIPLS) in the postgraduate context: are health care professionals ready for IPL? Med Educ 2006;40:415-22.

[23]    Thannhauser J, Russell-Mayhew S, Scott C.  Measures of interprofessional education and collaboration. J Interprof Care 2010;24: 336-49. doi: 10.3109/13561820903442903.

[24]    Beatty P and Gordon B. The Practice of Cognitive Interviewing. The Public Opinion Quarterly 2007;71:287-311.

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[25]    Pype P, Stes A, Wens J, et al. The landscape of postgraduate education in palliative care for general practitioners: results of a nationwide survey in Flanders, Belgium. Patient Educ Couns 2012;86:220-5. doi: 10.1016/j.pec.2011.05.025.

[26]    Leemans K, Van den Block L, Bilsen J, et al. Dying at home in Belgium: a descriptive GP interview study. BMC Fam Pract 2012;19:13-4. doi: 10.1186/1471-2296-13-4.

[27]    Shipman C, Addington-Hall J, Barclay S, et al. Educational opportunities in palliative care: what do general practitioners want? Palliat Med 2001;15:191-6.

[28]    Low J, Cloherty M, Wilkinson S, et al. A UK-wide postal survey to evaluate palliative care education amongst General Practice Registrars. Palliat Med 2006;20:463-9.

[29]    Meijler WJ, Van Heest F, Otter R, Sleijfer DT. Educational Needs of General Practitioners in Palliative Care: Outcome of a Focus Group Study. J Cancer Educ 2005;20:28-33.

[30]    Barclay S, Todd C, Grande G, et al.  How common is medical training in palliative care? A postal survey of general practitioners. Br J Gen Pract 1997;47:800-4.

[31]    Veloski J, Boex JR, Grasberger MJ, Evans A, Wolfson D et al. Systematic review of the literature on assessment, feedback and physicians' clinical performance: BEME Guide No. 7. Med Teach 2006;28:117-28.

[32]    Cantillon, Peter Sargeant, Joan England Clinical research ed. BMJ 2008 Nov 10;337:a1961. doi: 10.1136/bmj.a1961.

[33]    Alonso A, Baker D, Holtzman A, et al. Reducing medical error in the Military Health System: How can team training help? Hum Resour Manage R 2006;16:396–415.

[34]    Bedwell WL, Ramsay PS, Salas E. Helping fluid teams work: A research agenda for effective team adaptation in healthcare. Transl Behav Med 2012;2:504-9. doi: 10.1007/s13142-012-0177-9.

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[35]     Klemenc-Ketis Z, Vanden Bussche P, Rochefort A, et al.  Teaching quality improvement in family medicine. Education for primary care 2012;23:378-381.

[36]     Bowie P, Skinner J, de Wet C. Training health care professionals in root cause analysis: a cross-sectional study of post-training experiences, benefits and attitudes. BMC Health Serv Res 2013;13:50. doi: 10.1186/1472-6963-13-50.

[37]     Henriksson A, Arestedt K. Exploring factors and caregiver outcomes associated with feelings of preparedness for caregiving in family caregivers in palliative care: A correlational, cross-sectional study. Pall Med 2013;27:639-646.

[38]     Tennant M.  Is learning transferable? Understanding Learning at Work, D. Boud, J. Garrick (Eds.),  Routledge, London ,1999.

[39]     Crebert G, Bates M, Bell B, et al. Developing generic skills at university, during work placement and in employment: graduates' perceptions. Higher Education Research and Development 2004;24:147–165.

[40]     Kalyuga S. Instructional designs for the development of transferable knowledge and skills: A cognitive load perspective. Computers in Human Behavior 2009;25:332–338.

[41]     Pype P, Symons L, Wens J, et al. Healthcare professionals' perceptions toward interprofessional collaboration in palliative home care: a view from Belgium. J Interprof Care 2013;27:313-9. doi: 10.3109/13561820.2012.745488.

[42]     Burford B et al. Newly qualified doctors' perceptions of informal learning from nurses: implications for interprofessional education and practice. J Interprof Care 2013;27:394-400.

## Appendix A: Questionnaire used in the ELICIT study

This questionnaire concerns your recent collaboration with the palliative home care team.

The list shows relevant symptoms and care aspects of palliative care.

### a. Physical aspects

Answer 'yes' if you have learned something about diagnosis or treatment of each symptom.

1.  Pain
2.  Sore mouth
3.  Anorexiae, cachexia
4.  Nausea and vomiting
5.  Constipation
6.  Intestinal obstruction
7.  Swallowing problems
8.  Breathlessness
9.  Cough
10. Hiccups
11. Anxiety
12. Depression
13. Delirium, acute confusional states
14. Weakness, lethargy
15. Sexual problems
16. Incontinence
17. Hypercalcaemia
18. Spinal cord compression
19. Superior vena cava obstruction
20. Massive haemorrhage
21. Wound care, wound care materials (including pressure sores)
22. Management of stomas
23. Raised intracranial pressure
24. Restlessness in the last few days of life
25. Indications for use of syringe driver
26. Syringe driver set up

27.  Drug use in syringe drivers – stability and miscibility

28.  Other: complete

## b. Psychosocial aspects

### I. Family and social background

I have learned :

1.  To question and discuss the views of family members towards patient's disease and treatment

2.  To understand the importance of family meetings by participating in such a meeting

3.  To recognise the impact of illness on interpersonal relationships in the family

### II. Communication

I have learned :

4.  To estimate the patient 's knowledge on his/her prognosis

5.  To conduct a bad news conversation in a way the patient accepts

6.  To conduct a bad news conversation in a way the family accepts

7.  To adequately respond to the fears of the patient

8.  To adequately respond to the fears of family members

9.  To give information to the patient appropriate to his/her wishes and needs

10.  To involve the patient in discussions on treatment and medical policy

### III. Psychological responses to life-threatening illness and loss

I have learned :

11.  To handle patiënt' s grief

12.  To handle family members' grief

13.  To discuss 'hope' with the patient other than 'hope to be cured'

14.  To handle specific needs of children

15.  To handle feelings of anger from patients and family members

16.  To handle feelings of guilt with patients and family members

17.  To handle feelings of denial with patients and family members

18.  To handle  'conspiracy of silence'

### IV. Sexuality

I have learned:

19. To handle the changed self-perception of patients towards his body
20. To handle sexual problems with patients and family members

### V. Grief

I have learned:

21. To support someone in grief
22. To prepare family members to grief
23. To recognise complex and pathological grief
24. To recognise the special needs of grief with children

### VI. Being aware of personal and professional feelings

I have learned:

25. To recognise and handle my own emotional stress
26. To recognise and handle emotional stress of team members
27. To respect that others' values and belief systems can be different than mine
28. To handle my own feelings of guilt after shortcomings in care delivery
29. To recogniseand acknowledge the effect of personal loss and grief on (quality of) care delivery

## c. Religious, cultural and ethical aspects

I have learned:

30. To handel patients' spiritual needs
31. To  handel the impact of religious and cultural background towards preferences of care delivery
32. To discuss treatment options with the patient and jointly writing a care plan
33. Not to keep information from the patient on a third person's request
34. To respect and acknowledge a patient's wish to refuse treatment
35. The legal aspects of questions towards active life ending
36. To explore a euthanasia request and accompany the patient during his journey

### d. Multidisciplinary teamwork

I have learned:

1. To respect the skills and contributions of other members of the multipro-fessional team
2. To share my own tasks and responsibilities with other team members when appropriate

## e. Organisation of care

### I. Legal frameworks

I have learned:

1. What the procedures for relatives are following a death
2. How cultural aspects can influence procedures after death
3. To know how to access benifits, grants and allowances available to patients and families

### II. Practical support for patients and families

I have learned:

4. How other settings (hospital, palliative care unit, home for the elderly) can offer high quality palliative care
5. How to access practical help for the patient (e.g. hospital beds, mattresses,…)
6. How physiotherapy can benefit the patient
7. How to access supplementary support for the patient (day care, night care, volunteers)

## Conclusion chapter 3

In this chapter we evaluated the current characteristics of workplace learning in primary palliative care.

A chart review study revealed that palliative care nurses were sensitive to learning opportunities during interprofessional collaboration and that they reported on this in their patient records.

A cross-sectional survey showed that both GPs and palliative care nurses learned a lot from each other. Additionally all people involved (professionals as well as the patient and his family) were mentioned as sources of learning.

This survey constitutes the baseline measurement of a randomised controlled trial. In the next chapter (paper 8) we will describe the intervention (a training) that was administered to the intervention group of the RCT and the evaluation of it by the participants (paper 9).

The outcome measurement of the intervention (post-measurement of the RCT) is not included in this thesis.

**Chapter 4:**

**Design and evaluation of a training program to facilitate workplace learning.**

*Paper 8: Training nurses to act as facilitators for physicians' learning: development and evaluation of a training program – a mixed method study*

*Paper 9: 'I beg your pardon?' Nurses' experiences in facilitating doctors' learning process – an interview study*

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**Paper 8:**

**Training nurses to act as facilitators for physicians' learning: development and evaluation of a training program – a mixed method study**

Pype P, Mertens F,  Wens J, Stes A,  Van den Eynden B, Deveugele M.

## TRAINING NURSES TO ACT AS FACILITATORS FOR PHYSICIANS' LEARNING: DEVELOPMENT AND EVALUATION OF A TRAINING PROGRAM – A MIXED METHOD STUDY.

## Abstract:

***Aims and objectives.*** To describe the development and evaluation of a training program for nurses in primary health care. The program aimed to prepare specialised nurses from palliative home care teams to act as facilitators for general practitioners' workplace learning.

***Background.*** Palliative care is a complex and multidisciplinary care. General practitioners often ask specialised palliative home care teams for support. Working side by side with specialised nurses offers learning opportunities for general practitioners, also called workplace learning. This workplace learning can be enhanced by the presence of a learning facilitator.

***Design.*** A one group posttest only design (quantitative) and semi-structured interviews (qualitative) were used.

***Methods.*** A multifaceted train-the-trainer program was designed and attended by 35 palliative home care nurses. Evaluation was done through homework assignments with individual feedback, videotaped encounters with simulation-physicians and individual interviews after a one-month period of practice implementation of the trained skills.

***Results:*** The overall satisfaction with the training was high. Homework assignments sometimes interfered with the practice workload but showed to be fundamental in translating knowledge into practice. Median score on the summative assessment was 7,0 on 14 with range 1-12. Interviews revealed some aspects of the training to be too difficult for implementation or to be in conflict with workplace procedures or with personal preferences.

***Conclusions.*** Training PHCT nurses to act as facilitator of GPs' workplace learning is a feasible but complex intervention. Personal characteristics, interpersonal relationships and contextual variables have to be taken into account to optimise the uptake and implementation of new skills.

Relevance to clinical practice. Training expert palliative care nurses to facilitate general practitioners' workplace learning can improve the latters' knowledge and skills by sharing and spreading knowledge and expertise. This may enhance patient care.

What does this paper contribute to the wider global clinical community?

- Expert palliative care nurses can be trained to act as facilitators for general practitioners' workplace learning

- A period of mentoring the nurse during the implementation of the new role must complement the training program

- Contextual variables (e.g. attitude of the general practitioner, actual patient care needs) influence the way the facilitator's role is being executed

## INTRODUCTION

Inter-professional collaboration brings about inter-professional learning (learning with, from and about each other). Literature on workplace learning indicates that professionals can facilitate others' learning during practice. Much research has been done on facilitation and on mentorship from the more to the lesser experienced professional but mostly within the same profession. In palliative home care, nurses from specialised palliative teams are more experienced than general practitioners. This paper reports on original research evaluating if these nurses can be trained to facilitate general practitioners' workplace learning.

## BACKGROUND

Most palliative patients want to stay at home until death (Gomes et al. 2013). General practitioners are willing to take on the responsibility and perform well, often with the help of specialised palliative home care teams (PHCT) (Mitchell 2002). These PHCTs have been established in many countries (Centeno 2013). Literature on inter-professional collaboration and workplace learning (WPL) shows that working together leads to learning with, from and about each other, whilst fostering collaborative relationships (Parboosingh 2002, Bleakley 2006, Li 2009, Hammick et al. 2009). This learning is often unscheduled, informal and implicit or encompasses the use of tacit knowledge (Eraut 2004). Furthermore, PHCT nurses are not trained to act as facilitator of GPs' learning. Therefore we do not know whether the workplace learning opportunities are being used in the most efficient way. Efforts are being made to improve WPL through facilitation by collaborating professionals. Both in the nursing and in the medical profession, this facilitation (also called preceptorship or mentorship) is mostly considered intra-professionally. Experienced nurses mentor junior nurses and experienced physicians mentor newly qualified physicians (McClure 2013, Kashiwagi 2013). Little is known about inter-professional facilitation. Burford et al. describe newly qualified doctors' informal learning from nurses (Burford 2013). These doctors report acquiring certain clinical skills, with nurses in the educational role. In addition they report learning about attitudes on working with nurses (mostly reports of positive experiences), and about roles (understanding their role as a doctor in response to the nurses' attitudes and behavior towards them), and about professional hierarchy (a normative structural hierarchy based on medical dominance

versus a pragmatic hierarchy recognising nurses' expertise). It is not known how this teaching-learning relationship evolves during later career stages.

As in many countries, in Belgium the PHCTs have been installed to support primary health care professionals in their task of caring for palliative patients. Their primary task is to give advice to the regular health care professionals without actually delivering care. A secondary task of the PHCTs is to provide training and education in palliative care. Over the years an increasing number of GPs are counting on the support of the PHCTs, leading to a growing workload for the nurses. Considering the close collaboration between the highly specialised PHCT nurses and the GPs, it is worthwhile considering if nurses could act as facilitators of GP's learning. General practitioners themselves acknowledge these learning opportunities (Pype 2012). Training PHCT nurses to be facilitators would mean to teach them how to convert the workplace interaction with the GPs to a facilitation moment of the GPs' learning (Thompson 2006). Exploration of learning opportunities aims at focusing on the knowledge gaps or skill deficiencies by discussing difficult situations during or after daily practice (Tennant 1999, Branch 2005, Vachon 2011, Tannenbaum 2013). Literature suggests that following aspects are important: detecting the learning opportunities for GPs during collaboration (indicated by cues and hints from GPs' lacking certain knowledge or skills), addressing them adequately and stimulating GPs' reflective practice whilst fostering good working relationships (Loughran 2005, Kilminster 2007, Norcini 2007, Ramani 2008, ter Maten-Speksnijder 2012). Discussing directly observed practice experiences enhances the feedback efficiency (Tochel 2009, Andrews 2013, Sandars 2009, Henderson 2005, Norcini 2007, Ramani 2012). We did not find any publication reporting on a training program for nurses to act as facilitators for physicians' learning. This study aims to fill in this gap.

## AIM AND PURPOSE OF THE STUDY

This study describes the development and evaluation of a training program for palliative care nurses to act as facilitators of GPs' workplace learning.

## METHODS

### Design

This study used a one-group posttest only design and is the first step of an Extended-

Term Mixed-Method evaluation study (Chatterji 2005). This kind of research is being conducted in response of specific field needs and explores the moderating and mediating variables in the implementation sites before evidence of effects can be sought with more quantitative designs.

### Participants and data collection

The training program we describe is part of a study (the ELICIT-study) in primary palliative care in Belgium. The study explores the learning impact of inter-professional collaboration and has been designed as a randomised controlled trial. Fifteen PHCTs cover the entire Dutch speaking part of Belgium. All PHCTs were invited to participate, twelve of them agreed. After randomization, the six PHCTs from the intervention group received the training program that is reviewed in this paper.

## THE PROGRAM

### Designing the program

The training program was designed according to the outcome-based education principles: the educational outcomes are clearly specified and they determine the learning content, the teaching methods, the timetable of the course, the assessment methods, the educational environment and the evaluation of the curriculum (Harden 1999). According to the intended educational outcome described in the introduction, the content of the program therefore encompassed these skills: 1) recognising learning opportunities; 2)shifting specific questions to generic ones; 3) giving positive and negative feedback; 4) analysing clinical incidents; 5)debriefing the collaboration. The learning process also contained homework assignments and progress reports illustrated with personal practice examples; and individual feedback. Real-practice and recognisable scenarios were being used to stimulate interactivity and to promote implementation of newly acquired skills afterwards.

The program consisted of a full day's training and a half day booster session three months later. A mixture of didactical techniques was used with a minimum on lectures but mostly small group discussions, role play and practice based reflections. During the three months between the two training sessions, participants implemented the trained skills in daily practice while elaborating homework assignments and writing progress reports based on daily practice. The homework assignments

consisted of five practice-based conversations between a PHCT nurse and a GP, written by the trainers. Participants were asked to mark the different (medical, psychosocial, organisational) learning opportunities in the transcripts and to describe how they would respond in a conversation with the GP. The homework was sent to the trainers by email and feedback was given. The progress reports consisted of four weekly descriptions of the trained skills' implementation in daily practice, illustrated by real cases, and were sent to the trainers by email for feedback and support. Participants were asked to describe the exploration of learning opportunities, feedback conversations, a clinical incident analysis and the way team dynamics were used for skills' implementation. A mouse pad with key messages of the program was sent to the participants as a practice reminder (Pearce 2012). Halfway the three months of the practice period, a Skype call was held between one of the trainers and each nurse separately to discuss personal experiences (as an evaluation of the implementation of the trained skills) and to give fine-tuning advice on program topics. The topic list for the interviews is shown in table 1. On the final half day of training a video-recorded consultation from each participant with a trained simulation GP was used as a summative assessment. The simulation GP used a standardised script containing cues for learning opportunities, possibilities to give positive and negative feedback and to ask specific questions which had to be turned into generic ones. On this final day, a booster of the training was given and a group discussion was held on possibilities for team support to ensure enduring change.  More details on the program are shown in table 2.

**Table 1: Topic list for the participants' interview halfway the practice period.**

| Topics | Probing questions |
| --- | --- |
| Implementation of the trained skills | What has been easy to put into practice?<br>    How and when did you try it?<br>    Why do you think this was easy?<br>What was difficult to put into practice?<br>    How and when did you try it?<br>    Why do you think this was difficult? |
| Permanence of  the implementation | What helped you to continue putting it into practice?<br>What made it difficult to continue putting it into practice? |

**Table 2: Content and format of the training program for PHCT nurses**

| Full day | |
|---|---|
| **Content** | **Format** |
| Recognising learning opportunities<br>Shifting specific questions to generic ones<br>Giving positive and negative feedback<br>Clinical incident analysis<br>Debriefing the collaboration | Minimum of lectures<br>Small group discussions<br>Individual and group reflection on personal practice<br>Role play |
| **Three months in-between time** | |
| **Content** | **Format** |
| Putting training into practice<br>Case reports in homework assignments<br>Personal practice examples in progress reports<br>Individual feedback | Daily practice with weekly team meetings to discuss patients and practice<br>Email with trainers<br>Skype interview<br>Mouse pad as reminder |
| **Half day** | |
| **Content** | **Format** |
| Rehearsal of all content of first day<br>Implementation of skills as a team | Summative assessment: Video consultation with simulation GP<br>Small group discussions<br>Individual and group reflection on personal practice |

## Outcome measures and data analysis

Homework and progress reports were analysed using content analysis with the program components (namely: Recognising learning opportunities; Shifting specific questions to generic ones; Giving positive and negative feedback; Clinical incident analysis; Debriefing the collaboration) as an analytical framework. The video-recordings of consultations with simulation GPs were scored independently by two GPs who were not involved in the training. A scoring system to capture the educational outcomes of the training has been created for this purpose. Scores per item were 0 (participant did not address the item), 1 (address was incomplete or inadequate) or 2 (address was complete and adequate). The scoring system was tested for content validity, and inter-rater agreement was calculated by the Intraclass Correlation Coefficient and Cronbach's alpha. Total scores (maximum of 14) and sub-scores per item (7 items) were calculated. Influence of nurses' demographics on scores was calculated

using Mann-Whitney U-test (gender) and simple linear regression (age and years in practice). The interviews were transcribed verbatim and analysed independently by two researchers according to the principles of constant comparative method and using Nvivo software.

## Ethics approval

The Ethics Committee of Ghent University Hospital approved the study (B67020123863). Written informed consent was obtained from each participant prior to the training.

## RESULTS

### Participants and completion of the program parts

Thirty-five PHCT nurses were enrolled in the program on day 1 (Male 8, age M=46,3 (SD=7,8); years in PHCT practice M=6,7 (SD=5,1)). Thirty-three completed their homework. Eighteen wrote the progress report. Twenty-one participants did the interview, 25 participated in the final training day. The main reason reported by the participants for not participating in one or more components was the high workload during wintertime (the time of the study). Non-compliance was consistent among participants, this means that participants not attending day 2 were those who did not do the interview and did not write progress reports. One team integrally skipped the progress report and interview parts of the program due to excessive workload. Eighteen participants completed all the program components. Details are shown in table 3.

**Table 3: Program parts and completion by participants (n = 35)**

| Program components | n of participants (N= 35, male 8, age M=46,3 (SD=7,8); years in PHCT practice M=6,7 (SD=5,1)) | Comments |
|---|---|---|
| Day 1 | 35 | All present |
| Homework assignments | 33 | 1 reason unknown/1 change of job |
| Progress report | 18 | 1 change of job/ 2 long term sick leave / 14 workload too high |
| Interview | 21 | 1 change of job/ 2 long term sick leave / 11 workload too high |
| Day 2 | 25 | 1 change of job / 2 long term sick leave / 7 workload too high |

### Homework and progress reports

Participants (33/35) were able to denote the learning opportunities in the homework assignments. They also made comments and suggestions on how to address them and how to communicate with the GP. Some participants (13/33) discussed the homework with their PHCT colleagues and reported on these discussions. Trainers provided written feedback to all participants which resulted in back and forth emailing with 7 out of 33 participants. The personal progress reports (18/35) showed that giving positive feedback and asking explorative questions were handled easily by most nurses. The most difficult items to implement were the clinical incident analysis (time consuming) and the 'turning specific questions to generic ones' (some did not understand how this works). Both were done by about half of the nurses. Nobody reported systematic debriefings with the GP due to time restraints and conflicting house rules and procedures, as teams only invited GPs when there had been major problems. Trainers' feedback induced an email dialogue on difficult items with 3 of the 18 participants.

### Summative assessment (video exam)

Twenty-five participants took part in the exam (Male: 6; age M=45,8 (SD=7,3); years in practice M=7,7 (SD=5,2)). Seven components were rated (score 0-2) resulting in a total score of maximum 14. The inter-rater agreement between the two independent

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scorers was high for all components of the assessment (Cronbach's alpha ,847 - ,987 and Intraclass Correlation Coefficient ,732 - ,974).

Participants' scores on different components of the assessment are presented in table 4.

**Table 4: Participants' scores per component of the video assessment**

| Components of the assessment | Score (n participants) | |
|---|---|---|
| Cue for learning opportunity 1 | 0 (14) 1 (8) 2 (3) | |
| Cue for learning opportunity 2 | 0 (8) 1 (14) 2 (3) | |
| Cue for learning opportunity 3 | 0 (16) 1 (6) 2 (3) | |
| Negative feedback | 0 (3) 1 (14) 2 (8) | |
| Positive feedback 1 | 0 (13) 1 (2) 2 (10) | |
| Positive feedback 2 | 0 (6) 1 (2) 2 (17) | |
| Specific to generic | 0 (3) 1 (11) 2 (11) | |
| Total score (0-14) | 1 (1) 2 (0) 3 (2) 4 (4) 5 (3) 6 (1) 7 (2) | 8 (5) 9 (4) 10 (0) 11 (2) 12 (1) 13 (0) 14 (0) |

Female nurses had higher total scores (M=7,5; SD=2,5) than male nurses (M=4,5; SD=2,7) although the difference was not significant (p = 0,05). There was no significant difference in total scores for age (p=0,762) and years in practice p=0,959). These results are presented in table 5.

**Table 5 : Factors associated with total score on video assessment – bivariate analysis:**

| | Participants N=25 (100%) | Mean (SD) | P |
|---|---|---|---|
| Gender | | | |
| Male | 6 (24) | 4,5 (2,7) | 0,05 |
| Female | 19 (76) | 7,5 (2,5) | |
| | Participants N=25 (100%) | B (Standard Error) | P |
| Age | | | |
| Mean (Standard deviation) | 45,8 (7,3) | -,024 (-,077) | 0,762 |
| Years in practice | | | |
| Mean (Standard deviation) | 7,7 (5,2) | ,006 (,113) | 0,959 |

## Results from the interviews

Twenty-one nurses were interviewed (Male 3, age M=46,0 (SD=7,7); years in PHCT practice M=6,8 (SD=5,3)). All interviews took 30 to 60 minutes with a mean of 41 minutes.

### *General comments*

The evaluation of the training program revealed an overall enthusiasm for the content and format of the training. Participants recognised the case scenarios that were used as exemplars of difficult situations they encountered in practice. Receiving handholds to overcome these difficulties was experienced as 'the most practical and useful' training in years.

*'I gained a lot of new insights during this training. I've had a lot of training on communication before, on having a conversation, euhm, and all about coaching techniques … but always the same things came back…the handholds you gave us, and the*

*insights, made it so easy to apply right away '*

<div align="right">

(P2: Female; 51 years; 1,5 years in practice)

</div>

Although the heavy workload of their job interfered with the writing of homework and progress reports, participants valued the writing down of personal practice experiences and the receiving of individual feedback as fundamental for a deeper understanding of the training's content.

*'Just by writing it down, it became clear! At the time of the conversation, when he (the GP) said it, I didn't recognise it like that, so by writing it down you can see a lot more.'*

<div align="right">

(P 15: Female; 49 years, 12 years in practice)

</div>

### Changed attitude of PHCT nurses towards other professionals

Participants reported changed feelings and behaviors since the training.

One nurse stated that her way of interacting with GPs has changed since the training. Before, contacts used to be one-direction with her receiving a mere briefing of observations or orders. Now, she reported to be a more active listener and thereby responding better to the GP.

*'You can't prepare for that. During a conversation you don't see the learning opportunities coming beforehand, they come unexpectedly. And if you don't hear it, then your moment is gone! Your ear has to be prepared for it. Before, in a conversation, you just received things, now it's more like a dialogue. When you hear something from a GP, you ask questions about it.'*

<div align="right">

(P8: Female; 52 years; 10 years in practice)

</div>

Simultaneously the enhanced communication with the GPs since the training program changed the way they look at them. Nurses feel as if GPs are more part of the team now and 'take care of them like team members'.

*'Now I see the doctor more like a team member, while before, I felt him to be more of an outsider. There is more taking care of him now, between colleagues eh.'*

<div align="right">

(P12: Female; 54 years; 7 years in practice)

</div>

Deepening the contact with GPs made nurses realise that all GPs want the best for their patients and just have different ways of expressing themselves whereas before, some used to categorise GPs as a 'good or bad doctor'.

*'Of course every doctor has his own personality but they all, euhm, the aim of all doctors is to give good care just like we do. Everyone wants to see things going well for the patient and his family. That's something I learned now.'*

(P1: Female; 40 years; 2,5 years in practice)

The training program not only seemed to influence the way nurses addressed the GPs but also the communication with other professionals, e.g. community nurses changed. Some participants reported that community nurses were excellent for a try-out of the skills since there was no hierarchical interference.

*'I also try it with the community nurse, yes, yes, maybe it's even easier to practice with them. I've worked for years in a hospital where hierarchy euh… that's something you maintain in your contacts… I still feel more comfortable with nurses. It works more spontaneously with nurses than with GPs, yes.'*

(P7: Female; 41 years; 5 years in practice)

### First experiences with the implementation of the trained skills in daily practice

#### a. Personal hindering and promoting factors

Personal characteristics seemed important for the implementation of the trained skills. One nurse who described himself as a real doer found it difficult to wait for the GP's reflection and  exploration of a problem. He had a hard time keeping himself from answering a question promptly.

*'It requires alertness not to walk into a trap of 'okay, I will solve it myself straight away, let's get over with it'. It demands an effort to be alert to that, not to just solve it yourself.'*

(P11: Male; 40 years, 0,5 years in practice)

The way nurses were looking at their own tasks and responsibilities strongly influenced their professional and inter-professional behavior. Being used to the role of clinical expert for years and being focused on the quality of patient care sometimes hindered the assimilation of the new mentor role for GPs' learning.

*' We're not constantly talking about it…the focus should remain with the patient. We have to stimulate GPs in their learning, true, it's okay to be attentive to that but the patient, the focus has to be on the patient!'*

(P 7: Female; 41 years, 5 years in practice)

Some skills like giving positive feedback were easily done by most of the nurses as they reported this to suit their usual working style.

*'Actually I've always done that. I always looked for something positive to affirm. Yes very consciously. Because I believe in that, I'm a strong proponent of that, in my private life as well. I think it's more valuable to acknowledge the good things and not always highlight the bad things.'*

(P6: Female; 35 years; 2,5 years in practice)

It takes some time and practice before the skills of the training program can be applied in a natural and spontaneous way.

*'During the training it all sounded so very self-evident that I thought, yes this will work, but now that I'm trying to do it in daily practice I'm theorising in my head and I can't bring it in a spontaneous way'.*

(P7: Female; 41 years; 5 years in practice)

### b. Interpersonal hindering and promoting factors

A good working relationship (based on previous collaborations) between nurses and GPs facilitated trying out the trained skills. Some nurses hesitated to address GPs they know less well and felt obstructed by a GPs perceived lack of interest.

*'I don't know if I would try it or if it would work out with all GPs. Sometimes there is this feeling of GPs obstructing me or not being open to it. I know it would be difficult for me … I have the tendency to back off'.*

(P1: Female; 40 years; 2,5 years in practice)

Obstacles to use certain communication techniques (like exploration of the GPs' thoughts) were the nurses' fear of irritating the GPs and their anxiety that GPs would question their expertise as they did not came up with solutions straightaway. Providing negative feedback on GPs actions in order to initiate reflection and learning was done very cautiously as nurses feared to harm their inter-professional relationship. When asked what makes this so difficult to do one of the nurses answers:

*'The doctor still remains the captain, the one who is better… yes, the one with more prestige… a bit afraid to contest him'*

(P18: Female; 38 years; 4 years in practice)

Others stated that their expert knowledge helped them in providing negative feedback. One nurse explained how she would tackle the problem of correcting a GP's mistake in calculating a medication dose.

*'I just say: look doctor, is it okay to recalculate it together? I wouldn't feel uncomfortable saying that because I'm a hundred percent sure that I'm right. And yes, then I know they can't contradict me and now the exercise is to bring it calm and softly.'*

(P21: Female; 55 years; 14 years in practice)

### c. Importance of team colleagues

The support of the PHCT team was a strong promoting factor for the implementation of the trained skills. Talking about the training during weekly team meetings helped to stay alert. Observing colleagues and providing each other with feedback induced self-confidence.

*'I wouldn't have the inclination to call that GP again, after being attacked by him that way, but she (referring to her colleague) actually did! She called him back and talked things over. I learned a lot from hearing that.'*

(P1: Female; 40 years; 2,5 years in practice)

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Preparing a difficult conversation together with colleagues is very helpful. One nurse who was very emotional after a bad experience wanted to call the GP immediately. She was being retained by her colleague. Together they analysed the situation and afterwards the nurse calmly made her phone call.

*'My colleague and I sat together and did the incident analysis. Afterwards I made the call (to the GP). Because then I had the feeling: okay, now you can call, now it's okay and we can bring it to the doctor in a good way. And it went very well indeed.'*

(P4: Female; 45 years; 9 years in practice)

### d. Contextual hindering and promoting factors

Besides nurses' personal characteristics (hindering and promoting) and interpersonal factors (GPs' attitudes and behaviours, importance of colleagues), participants report that there are some practical issues to consider.

Some general barriers for the implementation of the skills were reported like workload, time management or urgent situations requiring quick advice instead of

shared decision making. Time was seen as a major barrier for preparing a conversation properly as well as having a conversation in a learning-facilitating way which is felt to be more time consuming than a regular conversation.

*'Especially doctors who don't have much time for deliberation, when you have to say everything in two sentences. If I really think it's necessary then I ask for some more time to talk things over. And mostly they agree to that but some really don't have time to exchange more than three words with you.'*

(P4: Female; 45 years; 9 years in practice)

Participants reported a major difference between personal contacts and telephone contacts regarding the teaching/learning conversations.

*'You're sure about it and you feel it that they (GPs) have more time at the bedside. Otherwise on the phone, you don't know, you often disturb them and always, yes, always these are different conversations and learning moments… When you meet in person, all goes well but on the phone it's mostly very superficial. When you are together and you can talk and think quietly and deliberate, that interaction is more worthwhile and you can go deeper than on the phone.'*

(P21: Female; 55 years; 14 years in practice)

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## DISCUSSION :

This study describes the design and evaluation of a training program for PHCT nurses to act as a facilitator of GPs' workplace learning. The results show that it is a feasible but complex intervention. The median total score on the summative assessment of 7 (possible maximum is 14) seems low though no benchmark was available. The very high inter-rater agreement and the broad range of scores (1-12) between participants (suggesting discriminating properties of the assessment method) makes the scores trustworthy. There was no statistically significant difference in scores according to gender, age or years in practice. The educational outcomes of the training seem independent of nurses' previous practice experience.

It seems important however to participate in all components of the training. The PHCT team (five nurses) which integrally skipped the progress report and interview components had the lowest five scores of all participants. This calls for a reflection on the value of the program components in between the training days. As stated earlier in this paper, personalized support and mentoring is required for this role transition

from clinical nurse expert to facilitator of others' learning (Cangelosi 2007, Weid-man 2013). Participants' overall assessment of the progress report (and associated personalised feedback by the trainers) revealed its necessity for acquiring a deeper understanding of the trained skills and a higher self-confidence for implementation. This is confirmed by literature indicating that this kind of mentorship fosters profes-sional development (Tochel 2009). Furthermore, these nurses may be expert in their clinical job, but regarding the facilitator's role we must consider them a novice in need of mentoring towards expert level (Culleiton 2007, Cangelosi 2009, McClure 2013, Weidman 2013). The dialogue of discussing the progress reports between trainer and trainee can be part of such a mentorship interaction.

Personal characteristics, interpersonal relationships and contextual variables have to be taken into account to optimise the uptake and implementation of new skills. To begin with, personal characteristics influence the easiness and comfort by which someone broadens his professional role with a new task. The focus on daily activities (e.g. quality of patient care versus quality of collaboration) and the self-confidence in one's own expertise influence the adoption of this new role. Progress reports men-tioned some items to be easier to implement in daily practice (e.g. giving positive feedback) than others (e.g. clinical incident analysis). Participants explained this by stating that giving positive feedback is part of their usual way of working whereas clinical incident analysis was a new method to them and therefore required a certain amount of time and practice to be mastered. Next, the interpersonal relationship between nurses and GPs influences the way nurses address them in their new role. A good relationship fosters nurses trying out their new skills whereas previous conflicts or not well-known GP block nurses' initiatives. As nurses depend on GPs' collaboration in delivering patient care, they are reticent to harm the inter-professional relationship. Nurses report higher self-confidence in addressing GPs when difficult conversations are prepared jointly with team colleagues. In this way, PHCT members are monito-ring and discussing each other's functioning with regard to the trained skills. This way of mutual performance monitoring has been called a core item of teamwork and is effective as a learning method (Ellinger 2007, Hammick 2009, Bedwell 2012). Lastly, contextual factors influencing the application of the new skills were time restraints and the way GPs are contacted. Initiating a GP's learning is easier during a real bedside encounter than during a phone call. A real bedside encounter allows feedback to be based on direct observation which has been shown to be more ef-ficient in stimulating one's learning (Veloski 2006). Furthermore nurses perceived

GPs to have more time available when meeting at the patient's home than when speaking to each other on the phone.

Two other effects of this training are noteworthy. Firstly, nurses report that, although the training was focused on the interaction with the GPs, they also applied the same communication skills with other professionals e.g. community nurses and physiotherapists. Secondly, while focusing on changing others, nurses reported being changed themselves. They report a changed attitude towards GPs. Prejudices and categorisation of doctors ('the good and the bad ones') are abandoned and interchanged by a belief in doctors' overall good intentions resulting in an openness to listen and collaborate. As a result of this changed feeling, GPs are increasingly welcomed as team members, instead of outside collaborators, and are taken care of accordingly. One nurse reported to have called a GP after the death of a patient 'to ask if he was alright', something she has never done before.

## Strengths and limitations

Some strengths of this study can be brought to attention. The selection of participants through randomization of the population excludes selection bias and as such enhances generalizability to the population. The mixed-method evaluation with attention for the context, the process and outcome of the program reveals a deeper understanding of the way things work and thereby facilitates the adaptation and transferability to other settings (Chen 2010, Frye 2012, Craig 2012).

This study has several limitations. The nurses' high workload in daily practice interfered with the participation in some parts of the training. Previous to the training, agreements had been made with the PHCTs to allow for protected time to attend the training days. No consideration has been given to the necessary time allocation to fulfil the homework and progress report requirements. This might account for the number of non-compliant participants. A second limitation concerns the summative assessment of the participants, which was done immediately after the training. The purpose of this study was to evaluate whether clinical nurses could be trained to adopt a new role of GPs learning facilitator. For that purpose an immediate assessment sufficed but as a result, our study does not allow to make any statements on long term effects or on effects on GPs' learning or quality of patient care.

Further research into this is needed.

## CONCLUSION

Training PHCT nurses to act as facilitator of GPs' workplace learning is a feasible but complex intervention. Personal characteristics, interpersonal relationships and contextual variables have to be taken into account to optimise the uptake and implementation of new skills.

## RELEVANCE TO CLINICAL PRACTICE

Clinical experts can be trained to act as facilitator of collaborators' workplace learning, thereby sharing their expertise. Facilitator's expertise thereby seems to level professional hierarchy. This may enhance the competences of the whole team and the quality of patient care.

## AUTHORS' CONTRIBUTIONS

Study design: PP, FM, MD; data collection and analysis: PP, FM, MD and manuscript preparation: PP, FM, MD, AS, JW, BV.

## REFERENCES

- Andrews CE, Ford K (2013) Clinical facilitator learning and development needs: Exploring the why, what and how. Nurse Education in Practice 13, 413-417.

- Bedwell W, Ramsay P, Salas (2012) E Helping fluid teams work: A research agenda for effective team adaptation in healthcare. Transl Behav Med 2, 504–509.

- Bleakley A (2006) Broadening conceptions of learning in medical education: the message from teamworking. Medical Education 40, 150-157.

- Burford et al. (2013) Newly qualified doctors' perceptions of informal learning from nurses: implications for interprofessional education and practice. Journal of interprofessional care 27, 394-400.

- Cambon L, Minary L, Ridde V and Alla F (2012) Transferability of interventions in health education: a review. BMC Public Health 12, 497.

- Cangelosi P, Crocker S, Sorrell J (2009) Expert to Novice. Clinicians Learning New Roles as Clinical Nurse Educators. Nursing Education Research 10, 367-371.

- Centeno C, Pons JJ, Lynch T, Donea O, Rocafort J & Clark D (2013) EAPC Atlas of Palliative Care in Europe – Full Edition. EAPC Press, Milan.

- Chatterji M (2005) Evidence on 'What Works': An Argument for Extended-Term Mixed-Method (ETMM) Evaluation Designs. Educational Researcher 34, 14-24.

- Chen HT (2010) The bottom-up approach to integrative validity: A new perspective for program evaluation. Evaluation and Program Planning 33, 205–214.

- Craig P, Dieppe P, Macintyre S, Michie S, Nazareth I, Petticrew M (2013) Developing and evaluating complex interventions: The new Medical Research Council guidance. International Journal of Nursing Studies 50, 585–592.

- Culleiton A, Shellenbarger T (2007) Transition of a Bedside Clinician to a Nurse Educator. Medsurg Nursing 16, 253-257.

- Ellinger A, Cseh M (2007) Contextual factors influencing the facilitation of others' learning through everyday work experiences. Journal of Workplace Learning 19, 435-452.

- Eraut M (2004) Informal learning in the workplace. Studies in Continuing Education 26, 247-273.

- Freye AW, Hemmer PA (2012) Program evaluation models and related theories: AMEE Guide No. 67. Medical Teacher 34, e288–e299.

- Gomes B, Calanzani N, Gysels M & Higginson IJ (2013) Heterogeneity and changes in preferences for dying at home: a systematic review. BMC Palliative Care 12, 7.

- Hammick M, Olckers L & Campion-Smith C (2009) Learning in interprofessional teams: AMEE Guide no 38. Medical Teacher 31, 1-12.

- Harden R, Crosby J & Davis M (1999) AMEE Guide No. 14: Outcome-based education: part 1 – An introduction to outcome-based education. Medical Teacher 21, 7-14.

- Henderson P, Ferguson-Smith AC, Johnson MH (2005) Developing essential professional skills: a framework for teaching and learning about feedback. BMC Medical Education 5,11.

- Kashiwagi DT, Varkey P, Cook DA (2013) Mentoring programs for physicians in academic medicine: a systematic review. Academic Medicine 88, 1029-37.

- Kilminster S, Cottrell D, Grant J, Jolly B (2007) AMEE Guide No. 27: Effective educational and clinical supervision. Medical Teacher 29, 2-19.

- Li LC, Grimshaw JM, Nielsen C, Judd M, Coyte PC & Graham ID (2009) Evolution of Wenger's concept of community of practice. Implementation Science 1, 4-11.

- Loughran JJ (2002) Effective Reflective Practice: In Search of Meaning in Learning about Teaching. Journal of Teacher Education 53, 33-43.

- McClure E, Black L (2013) The role of the clinical preceptor: an integrative literature review. Journal of Nursing Education 52, 335-41.

166

- Mitchell GK (2002) How well do general practitioners deliver palliative care? A systematic review. Palliative Medicine 16, 457-464.

- Norcini J, Burch V (2007) Workplace-based assessment as an educational tool: AMEE Guide No. 31. Medical Teacher 29, 855–871.

- Parboosingh JT (2002) Physician communities of practice: where learning and practice are inseparable. Journal of Continuing Education in the Health Profession 22, 230-236.

- Pearce J, Mann M, Jones C, van Buschbach S, Olff M & Bisson J (2012) The most effective way of delivering a train-the-trainers program: a systematic review. Journal of Continuing Education of the Health Professions 32, 215-226.

- Pype P, Symons L, Wens J, Van den Eynden B, Stes A, Cherry G, Deveugele M (2013) Healthcare professionals' perceptions toward interprofessional collaboration in palliative home care: a view from Belgium. Journal of Interprofessional Care 27, 313-9.

- Ramani S, Leinster S (2008) AMEE Guide no. 34: Teaching in the clinical environment. Medical Teacher 30, 347–364.

- Ramani S, Krackov SK (2012) Twelve tips for giving feedback effectively in the clinical environment. Medical Teacher 34, 787–791.

- Tannenbaum SI, Cerasoli CP (2013) Do team and individual debriefs enhance performance? A meta-analysis. Human Factors 55, 231-45.

- Tennant M (1999) Is learning transferable? In Understanding Learning at Work (Boud D, Garrick J Eds.), Routledge, London.

- ter Maten-Speksnijder AJ, Grypdonck MHF, Pool A, Streumer JN (2012) Learning Opportunities in Case Studies for Becoming a Reflective Nurse Practitioner. Journal of Nursing Education 51, 563-9.

- Tochel C, Haig A, Hesketh A, Cadzow A, Beggs K, Colthart I, Peacock H (2009) The effectiveness of portfolios for post-graduate assessment and education: BEME Guide No 12. Medical Teacher 31, 299-318.

- Veloski J, Boex JR, Grasberger MJ, Evans A, Wolfson DB (2006) Systematic review of the literature on assessment, feedback and physicians' clinical performance: BEME Guide No. 7. Med Teach 28, 117-28.

- Weidman N (2013) The lived experience of the transition of the clinical nurse expert to the novice nurse educator. Teaching and Learning in Nursing 8, 102-109.

**Paper 9:**

**'I beg your pardon?' Nurses' experiences in facilitating doctors' learning process – an interview study**

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## 'I BEG YOUR PARDON?'
## NURSES' EXPERIENCES IN FACILITATING DOCTORS' LEARNING
## PROCESS – AN INTERVIEW STUDY

**Objective:** Working alongside specialized palliative care nurses brings about learning opportunities for general practitioners. The views of these nurses towards their role as facilitator of learning is unknown. The aim of this study is to clarify the views and preferences of these nurses towards their role as facilitator of physicians' learning.

**Methods:** Qualitative study based on semi-structured interviews. We interviewed 21 palliative care nurses in Belgium who were trained in the role of learning facilitator. Data were analyzed using Grounded Theory principles.

**Results:** Firstly all interviewees shared the conviction that patient care is their core business. Secondly two core themes were defined: nurses' preferences towards sharing knowledge and their balancing between patient care and team care. Combining these themes yielded a typology of nurses' behavioral style: the clinical expert-style, the buddy-style, the coach-style and the mediator-style.

**Conclusions:** Palliative care nurses' interpretation of the role as facilitator of general practitioners' learning diverges according to personal characteristics and preferences.

**Practice implications:**

Asking clinical expert nurses to become a facilitator of other professional's learning requires personal mentoring during this transition. Nurses' preferences towards practice behavior should be taken into account.

**Keywords:** workplace learning; palliative care; primary health care; interprofessional relations; professional role

## 1. Introduction

Most palliative patients prefer to be cared for at home by their general practitioner (GP) until death [1]. To tackle this complex task, GPs need a set of palliative care competences [2,3]. In many countries, GPs can appeal to specialized nurses from palliative home care teams (PHCTs) to support them when care becomes too complex or exceeds their own competences [4]. Besides being supported in the delivery of patient care, GPs state to learn through this collaboration [5,6]. They mention to gain new knowledge by asking on-the-spot advice. Furthermore they state to acquire practical skills by performing technical tasks (e.g. handling a syringe driver) together and under the supervision of the PHCT nurses. This 'learning by doing' is also called workplace learning (WPL). Literature on WPL describes characteristics of the learner (who is learning?), the learning context (the practice environment where the working and learning takes place), the learning process (which learning activities are used?), and the learning facilitator (from whom has been learned or who is helping the learning process?) [7-12]. To have an effective learning process, ideally the learner needs the willingness to learn, has to be aware of his own learning needs and needs to seize learning opportunities actively [13, 14, 10, 15]. Since most of the WPL occurs during daily work activities, the practice organization should ideally offer a wide range of challenging activities and opportunities to learn, while providing time and space for reflection [11, 8, 16, 10, 17]. The learning process is often unscheduled, informal and implicit or encompasses the use of tacit knowledge, therefore it can be hypothesized that not all learning opportunities are seized [9]. The learning facilitator can be any colleague on the work floor. He can help the learner with his needs assessment, solve problems jointly, share materials and resources and give feedback [8, 18, 14, 19]. Essential for facilitators is the need to be skilled (both as an expert in the job and as a facilitator) and motivated to act as a facilitator. Since GPs indicate the collaboration with PHCT nurses to be a learning moment, it is worthwhile to explore the views of the nurses towards their role as facilitator of GPs' learning.

The aim of this study was to

- Describe the views and preferences of PHCT nurses towards sharing their knowledge and expertise with GPs
- Describe the views and preferences of PHCT nurses towards the balance between care for the patient and care for the team

- Describe how these views and preferences influence the uptake of a role as facilitator of GPs' learning

## 2. Methods

### 2.1. Setting and sample

This interview study is part of a larger study (the ELICIT-study) on primary palliative care in Belgium. The ELICIT-study explores the learning impact of inter-professional collaboration and has been designed as a randomized controlled trial. The entire Dutch speaking part of Belgium is covered by fifteen PHCTs. All PHCTs were invited to participate, twelve of them agreed. After randomization, the six PHCTs from the intervention group received a training program (35 nurses). The focus of the program was to train the PHCT nurses to be facilitators of GPs' learning by teaching them how to improve the learning effect of the workplace interaction. Part of the training comprised reflecting on the nurses' roles and responsibilities. As a result they were able to explicitly articulate personal views on their professional identity and behavior. Therefore these nurses (from the 6 PHCTs of the intervention group) were selected to participate in this interview study.

Two months after the initial training day, all nurses were invited for semi-structured interviews during the period of February – March 2013. Informed consent was obtained before the interviews were conducted.

*Ethical approval*

The Ethics Committee of Ghent University Hospital approved the study. (B67020123863)

### 2.2. Data collection

An interview guide was developed based on literature on teamwork (essential elements for effective teamwork), interprofessional relationships (the importance of relationships regarding quality of patient care) and implementation of change (how to change practice through training) [20-23]. To validate the content, this interview guide has been discussed with the program's trainers and with external experts (a coordinator and a psychologist of a PHCT not involved in the training). The resulting interview guide comprised four topics: the implementation of the trained skills, the

permanence of the implementation, the effect of the new role on nurses' personal feelings and the effect on collaboration with other professionals (see table 1 for details). All interviews were held by the first author (GP and palliative care physician), audiotaped and transcribed verbatim.

**Table 1: Topic guide used for semi-structured interviews with PHCT nurses**

| Topics | Probing questions and relationship to the research questions (RQ) |
|---|---|
| Implementation of the trained skills | What has been easy to put into practice? (RQ 1) |
| | How and when did you try it? |
| | Why do you think this was easy? |
| | What was difficult to put into practice? (RQ 1) |
| | How and when did you try it? |
| | Why do you think this was difficult? |
| Effect on collaboration with other professionals | Did this change the way in which you collaborate with others? (RQ 2) |
| | Did this change the way in which you care for the patient? (RQ 2) |
| Permanence of the implementation | What helped you to continue putting it into practice? (RQ 3) |
| | What made it difficult to continue putting it into practice? (RQ 3) |
| Effect on nurses personal feelings | How did you feel adopting this new behaviour? (RQ 3) |
| | Did you notice others reacting to your new behaviour? (RQ 3) |
| | How did that make you feel? |

## 2.3. Analysis

The interviews were analysed following a Grounded Theory approach with different coding phases. The first five interviews were open-coded (free coding without pre-existing codes) by two researchers (PP an MF) separately. Differences in coding were resolved by discussion. The next 16 interviews were coded independently (8 each). On a regular basis, the two researchers engaged in discussions on the codes. This second phase, the axial coding phase, resulted in the codes being allocated to categories and concepts. Intermediate discussions on these concepts were held with a third researcher (DM). Interviews were conducted and coded until data saturation was reached. During the last phase, the selective coding phase, core categories were

defined. These core categories served as framework for the final description of the results. Analysis was done using NVivo 10 software.

## 3. Results

Twenty-one nurses participated (Male 3, age M=46,0 (SD=7,7); years in PHCT practice M=6,8 (SD=5,3)). Fourteen nurses did not participate in the interviews due to change of job (n = 1), long term sick leave (n = 2) and workload too high (n = 11). All interviews took 30 to 60 minutes with a mean of 41 minutes. Details on the participants are shown in table 2.

**Table 2: Characteristics of participants**

| Case number | PHCT number* | Age (years) | Gender | Experience in PHCT (years) |
|---|---|---|---|---|
| 1 | 1 | 40 | F | 2,5 |
| 2 | 1 | 51 | F | 1,5 |
| 3 | 1 | 34 | F | 5 |
| 4 | 1 | 45 | F | 9 |
| 5 | 2 | 56 | F | 15 |
| 6 | 2 | 35 | F | 2,5 |
| 7 | 1 | 41 | F | 5 |
| 8 | 2 | 52 | F | 10 |
| 9 | 1 | 35 | F | 1 |
| 10 | 2 | 57 | F | 14 |
| 11 | 3 | 40 | M | 0,5 |
| 12 | 4 | 54 | F | 7 |
| 13 | 4 | 42 | F | 1,5 |
| 14 | 3 | 45 | F | 12 |
| 15 | 4 | 49 | F | 12 |
| 16 | 5 | 50 | M | 2 |
| 17 | 5 | 45 | F | 6 |
| 18 | 4 | 38 | F | 4 |
| 19 | 5 | 59 | F | 17 |
| 20 | 1 | 44 | M | 2 |
| 21 | 2 | 55 | F | 14 |

*PHCT 6 did not participate due to high workload in practice

The following results are presented with illustrative quotes from participants. Each quote is identified by gender, age and years of experience.

All interviewees agreed that patient care is their core business. They unanimously declared the quality of patient care to be their main concern. In the midst of their complex set of tasks comprising patient care, family care, team coordination and an advisory role towards other professionals, quality of the patient care comes first. When asked if they tried to take up the role of facilitator of GPs' learning a nurse answered:

*'The focus should remain with the patient. We have to stimulate GPs, true, it's okay to be attentive to that but the patient, the focus has to be on the patient!'*

(P 7: Female; 41 years, 5 years in practice)

## Research question 1: Describe the views and preferences of PHCT nurses towards sharing their knowledge and expertise with GPs

Some nurses prefer to share their knowledge when GPs are looking for expert advice, i.e. on demand. Giving advice is, as they explain, what they have been doing all the time and what they feel they do best. In answer to the question if it was possible to reflect on a GP's question instead of answering immediately (one of the aims of the training) one nurse stated:

*'I try to but it's difficult, you know. I'm a person who's giving the solutions in a conversation. And just answer straightforward. I find it difficult to ask that open question. Sometimes after a conversation I realize …. , I am, yes, too straightforward, I think. Yes, I'm offering the solution instead of asking 'what do you think?"*

(P 4: Female; 45 years, 9 years in practice)

Contrarily, some nurses like to share their knowledge in order to improve the competence of others. These nurses actively and persistently tried to share their knowledge with others arguing that the whole care team should be competent in order to provide good care.

*'Today I've met such a GP, I've known him for ten years now and he has never understood it. He still doesn't. And then I try to explain it again 'doctor, now this and now that.' But some GPs still hold on to injections for pain control and I have repeatedly explained*

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*that we try to avoid that in palliative care … and then I explain it again. I never give up!'*

<div align="right">(P 19: Female; 54 years; 17 years in practice)</div>

Teaching GPs to reflect on palliative care is a satisfying and reciprocal way to facilitate others' learning to some nurses.

*'Reflecting on it together with the GP is nice because they might have another line of thought that I haven't come up with.*

<div align="right">(P 13: 42 years; 1,5 years in practice).</div>

These positions are the extremes of a continuum with a whole range of positions in between. Nurses express their preferences but they can also navigate along the continuum during practice, depending on the patient's context and the GPs' attitude.

## Research question 2: Describe the views and preferences of PHCT nurses towards the balance between care for the patient and care for the team

A second continuum can be defined with regard to nurses' main focus during their daily work. Patient care is the core business for all PHCT nurses but some explicitly position themselves as the patient's advocate, thereby opposing other professionals if necessary. In the next case, the nurse had noticed that a patient wanted to talk to the GP. The GP did not intend to have that conversation as he was not convinced that it would benefit the patient. The nurse then called the GP:

*'I had to push it a bit, I had to pull rank, yes, yes! I really had to put emphasis on it: that patient needs a talk with you, you really have to go, it's a patient's right to get a conversation. I told him he cannot ignore this request.'*

<div align="right">(P 11: Male; 40 years, 0,5 years in practice)</div>

Others were more inclined to attend to the wellbeing of all people involved and took care not to harm the interprofessional relationships. Good working relationships are a guarantee for good future collaboration and future patients may benefit from this. One nurse contacted a GP again in the evening, after having had a conflict with him during a telephone call in the afternoon.

*'I felt that he was under pressure (by my question in the afternoon) and so I called him in the evening and again I sensed his defense. But then, I named the problem: 'doctor*

*I think that you were under pressure.' And yes, that made him feel acknowledged: 'yes, I was …'. And then I got him on board. We started talking about the problem and we reached an agreement on how to handle it, what does the patient need? And then we also agreed on the best moments to call each other.*

<div align="right">(P 7: Female; 41 years, 5 years in practice)</div>

### Research question 3: Describe how these views and preferences influence the uptake of a role as facilitator of GPs' learning

These two continuums (sharing of knowledge and care focus) were subsequently used to define four styles of behavior: the clinical expert-, the buddy-, the coaching- and the mediator-style. This is shown in figure 1.

**Figure 1: Typology of PHCT nurses' practice behavioural style**
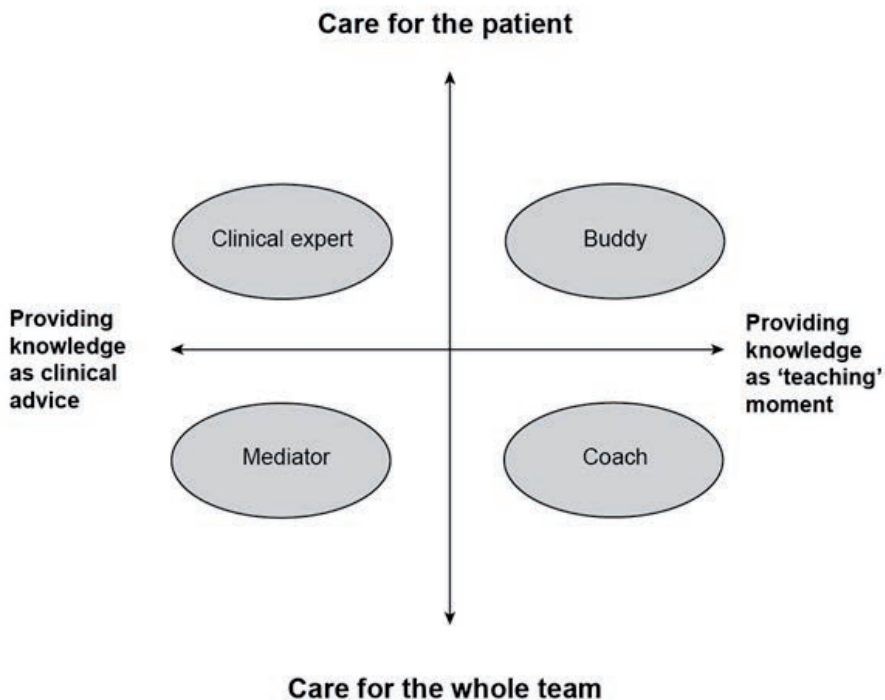
### 1. The clinical expert-style

Nurses with the clinical expert-style feel most comfortable when there is 'something to do'. With their efficient and practical approach of problems, they readily take action.

*'I think that's just it. We are very practice-oriented. We like to see immediate results when we arrive somewhere. Especially in the medical domain. For the social and psychological aspect we can… but we do have to intervene in the medical field hum!'*

(P 5: Female; 56 years; 15 years in practice)

They are eager to be seen as the expert and as such they fear negative comments on any of their actions losing the argument during a discussion. Being the advocate of the patient, they zealously deliberate and discuss patient care matters with other professionals. They value a good working relationship with the GP but don't hesitate to confront when quality of care is at stake. In their view every team member takes responsibilities according to their expertise. They will advise others when asked to but have no intention of taking up the 'teacher role'.

*I: 'Did you go through the guidelines together with the GP?'*
*N: 'No, I had him on the phone and I just referred him to the website of the guidelines'*

(P 14: Female; 45 years; 12 years in practice)

### 2. The buddy-style

A nurse with the buddy-style is perceived as a gentle person. His preferred way of caring for the patient is to work 'hand in hand' with other team members, joining knowledge and skills.

*'I try to engage community nurses actively! When I'm discussing something with … (name of the community nurse) then he says: 'Will you call the GP or should I?' And then I let him handle the call because he knows the situation best and afterwards it's so nice to talk things over and exchange things.'*

(P 13: Female; 42 years, 1,5 years in practice)

As such he will easily advise others whenever needed or asked for. Contesting the GP's treatment plans makes him feel uncomfortable. Therefore he looks for guidelines to support his opinion or to substantiate it by mentioning the team's expertise. Acting as a teacher is done rather implicitly by 'thinking aloud' during decision making,

thereby evoking joint reflection with the GP. A typical think-aloud question is: 'Are we doing well?'.

*'There was this doctor, who was really involved and we were with one of his patients and he said to me 'I really don't know what I should do right now.' And then together, yes, 'what do we have?' and 'what is the social context?' and 'what's the position of the son?' and finally we decide to install a syringe driver. We didn't put much into it but … then there really was peace.'*

(P 15: Female; 49 years; 12 years in practice)

### 3. The coach-style

The nurse with a coach-style behavior is characterized by a cautious and respectful attitude towards others. One of his main interests is the continuous growth and wellbeing of all team members. He stimulates and encourages all caregivers involved to take up their responsibility and practice their expertise. He accepts and explores others' knowledge gaps.

*'Then you feel that he's (the GP) open to take a step into the unknown. Concerning the rise of the morphine dose, I observe that GPs are somewhat hesitant, or some GPs very hesitant .. it surprises me sometimes. Then I think 'hey, you have all the signs here, let's adjust the pain medication.'*

(P 2: Female; 51 years; 1,5 years in practice)

Even 'teaching' is done cautiously by giving hints and cues rather than explaining or correcting the problem. Gaining knowledge and new expertise from other team members is considered a voluntary process: no one is forced, achievements are ap-plauded. Coach-nurses do not like to contradict others.

*' I'm mostly afraid of getting a wrong answer from them, or that they have a completely different idea of morphine for instance and that I'll have to say 'no it's wrong, it's not like that."*

(P 3: Female;34 years; 5 years in practice)

### 4. The mediator-style

A nurse with a mediator-style has a down-to-earth and analytic way of looking at patient care. Team meetings as well as occasional contacts with other professionals are well-prepared. Taking care of team members is regarded as part of the job. This

also involves being the liaison between GPs and other professionals during practice coordination as well as taking initiatives to handle team conflicts.

*' Well I think, well yes, I just think it's important, and it has to, the collaboration of the community nurse, our team and the GP, it should run like clockwork. We really should work as a team. So it's important that nurses report to us, that we could be the mediator with the GP if that's the heavy part.'*

(P 14: Female; 45 years; 12 years in practice)

Mediator-nurses restrict themselves in giving advice, out of respect of others' expertise and actions. taking up teaching opportunities is done when there are no risks of harming interprofessional relationships and if there is a reasonable chance to succeed.

*' I think, coaching GPs, well, if at least they would accept it, but you know, they're hardly open to advice', let alone being coached!'*

(P 16: Male; 50 years; 2 years in practice)

### Contextual variables influencing nurses' behavior

Next to nurses' personal preferences, some contextual variables (e.g. the patient's actual needs and the GPs' attitude towards collaboration) also affected nurses' professional practice behavior. As a result, nurses were able to deviate from their personal preferred behavior and act differently if circumstances required it.

*'With those GPs it's different, yes it is. They delimit themselves. You can feel that, they clearly show you ' ho, hum, you're trespassing', then you know that you can't go any further, then you, yes, you look for other ways (of communicating).'*

(P3: Female, 34 years, 5 years in practice)

## Discussion and conclusion

### Discussion

The strong focus on quality of patient care, identifiable among all participants, is a well-known aspect of the nurses' profession. Graduating nurses, early career nurses and experienced nurses have been shown to share this focus as their core business [24-26]. Our study shows that even highly specialized nurses with a specific task (supporting and advising other health care professionals) keep valuing this objective.

In answer to the first research question, analysis reveals how the preferences towards sharing knowledge and expertise diverged among the participants. Some regarded their knowledge and expertise as a professional tool in the execution of their job and made little efforts to disseminate it through 'teaching' or 'educating' GPs. Some nurses saw it as part of their job to 'teach others' and to facilitate others' learning by sharing their expertise. Weidman described the 'desire to teach' as a necessary characteristic for turning a clinical nurse into a nurse educator, although their study was situated in faculty development and not in the workplace [27]. Literature on workplace learning indicates that sharing and dissemination of knowledge and expertise during practice facilitates learning [28]. This could mean that nurses who were 'willing to share knowledge' were more prone to adopt the facilitator's role than others.

In answer to the second research question we found a range of preferences, stretching from caring mostly for the patient on one end to caring mostly for the whole team on the other end. Nurses who are almost completely focused on the patient do not hesitate to challenge the GP when views on patient care diverge. Others invest more in the relationship with the GP, reasoning that in the long run a good professional relationship may benefit future patients. Literature clearly states that interprofessional relationships are important for effective teamwork to deliver high quality patient care [22, 23, 5]. In teams with good interprofessional relationships, views on patient care and shared care goals can be discussed.

In answer to the third research question, we found that nurses' preferences towards both themes described above affect their professional behavior. The broad spectrum of professional behavior and attitudes could be grouped into four general behavioral styles. This typology of practice behavioral styles, emerging from our data, is a new way of looking at the nurse-physician interaction. Each group has its preferences

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towards the two main themes and displays a specific conduct towards the facilitation of GPs' workplace learning. Nurses can adapt their professional behavior, and steer along the main axes, according to contextual demands. Despite their natural tendencies towards a certain position on both continuums, nurses navigate along the lines according to situational demands (e.g. other professionals' behavior, patient needs) in order to deliver the best possible patient care since this remains their core business and point of interest. Adopting a new task or role, like we asked our participants to do during the training may require a change of style away from their natural tendencies. Care is needed when the new role is far removed from their actual professional identity. This role transition may therefore be too difficult for some nurses [29, 30, 27]. This may explain the accounts of some nurses (e.g. the 'clinical experts' types) of having difficulties adopting the role of a facilitator of GP's learning.

The four styles account for differences in the nurses' behavior towards the teaching/learning aspect of collaboration. Some prefer not to take the teacher's stance (e.g. the 'clinical expert-style') but to restrict to giving advice. The 'buddy-style' shows an implicit intention to teach , namely through reflection, together with the GP. The 'coach-style' on the other hand explicitly displays the willingness to teach. Teaching is not a natural byproduct of clinical expertise but requires a skill set of its own [29, 31].

A nurse may be excellent as a clinical expert but a novice in teaching and education [32]. It is a pitfall to think that experts in one domain (e.g. clinical experts) automatically have expertise in another domain (e.g. teaching). Giving a new role/responsibility to a professional demands careful mentoring of the process from novice to expert [29, 30, 27, 33]. Our study adds to this a typology of styles showing different ways of coping with the challenge of the new role as an educator. This may instruct mentors on personalizing the process.

Strengths and limitations: literature describes the role and the characteristics of preceptorship/mentorship in nursing and in medical education but always between mentor and mentee of the same profession [34,35]. The strength of our study is to add insights on views and preferences towards interdisciplinary mentoring. A limitation of our study is that we do not know the effect of different styles on GPs' learning . Therefore we can only ask for care and respect towards the nurses during their role transition but we cannot promote one style or the other. Although our results are sustained by literature, they might not be generalisable to countries with a different organization of palliative care .

## Conclusion

This study explores the views and preferences of PHCT nurses towards a role as facilitator of GPs' workplace learning. Preferences towards sharing knowledge and towards the focus of care (just the patient or the whole team) leads to different behavioral styles. These must be taken into account when training nurses as a facilitator of learning.

## Practice Implications

Training nurses to become a facilitator of GPs' learning should acknowledge the nurses' preferences towards practice behavior. Asking clinical nurses to become a facilitator of other professionals' learning requires personal mentoring during this transition.

Further research is needed to evaluate the best way to mentor nurses in their role transition and to study the effect of the different behavioral styles on GPs' learning.

## Funding

## Conflicts of interest

No conflicts reported.

## References

[1]     Gomes B, Calanzani N, Gysels M, et al. Heterogeneity and changes in prefe-rences for dying at home: a systematic review. BMC Palliat Care 2013;12:7.

[2]     Gamondi C, Larkin P and Payne S. (a) Core competencies in palliative care: an EAPC White Paper on palliative care education – part 1. EJPC 2013;20(2).

[3]     Gamondi C, Larkin P and Payne S. (b) Core competencies in palliative care: an EAPC White Paper on palliative care education – part 1. EJPC 2013;20(3).

[4]     Centeno C, Pons JJ, Lynch T et al. EAPC Atlas of Palliative Care in Europe 2013 – Full Edition. Milan: EAPC Press, 2013.

[5]     Pype P, Symons L, Wens J et al. Healthcare professionals' perceptions to-ward interprofessional collaboration in palliative home care: A view from Belgium. J Interprof Care 2013(a);27:313-9.

[6]     Pype P, Symons L, Stes A  et al. Lifelong learning for general practitioners – the case of palliative care: a focus group study  2013 (b).

[7]     Lave, J. and E. Wenger. Situated Learning: Legitimate Peripheral Participa-tion. Cambridge University Press, 1991.

[8]     Billet S. Toward a Workplace Pedagogy: Guidance, Participation, and Enga-gement. Adult Educ Quart 2002;53:27-43.

[9]     Eraut, M. Informal learning in the workplace. Studies in Continuing Educa-tion 2004;Vol. 26, No. 2.

[10]    Eraut, M. Learning from other people in the workplace. Oxford Rev Educ 2007;33:403-422.

[11]    Parboosingh JT. Physician communities of practice: where learning and practice are inseparable. J Contin Educ Health Prof 2002;22(4):230-6.

[12]    Tynjälä P. Toward a 3-P Model of Workplace Learning: A Literature Review. Vocations and Learning 2013;6:11-36.

[13]    Boud D, Solomon N. "I don't think I am a learner": acts of naming learners at work. Journal of Workplace Learning 2003;15:7/8:326-331.

[14]    Sargeant J, Eva KW, Armson H, Chesluk B, Dornan T, Holmboe E, Lockyer JM, Loney E, Mann KV, van der Vleuten CP. Features of assessment learners use to make informed self-assessments of clinical performance. Med Educ 2011;45:636-47.

[15]    Lundgren S. Learning opportunities for nurses working within home care. Journal of Workplace Learning 2011;23: 6-19.

[16]    Billett, S. Workplace participatory practices. Conceptualising workplaces as learning environments. Journal of Workplace Learning 2004;16:312-324.

[17]    Fuller A, Unwin L, Felstead A, Jewson N, Kakavelakis K. Creating and using knowledge: an analysis of the differentiated nature of workplace learning environments. Br Educ Res J 2007;33:743.

[18]    Colthart I, Bagnall G, Evans A, Allbutt H, Haig A, Illing J, McKinstry B. The effectiveness of self-assessment on the identification of learner needs, learner activity, and impact on clinical practice: BEME Guide no. 10. Med Teach 2008;30:124-145.

[19]    Ellinger A, Cseh M. Contextual factors influencing the facilitation of others' learning through everyday work experiences. Journal of Workplace Learning 2007;19: 435-452.

[20]    Grol R, Grimshaw J. From best evidence to best practice: effective implementation of change in patients' care. Lancet 2003;362:1225-1230.

[21]    Speck P. (Ed) Teamwork in Palliative Care. Fulfilling or frustrating? Oxford University Press New York, 2006.

[22]    Xyrichis A, Lowton K. What fosters or prevents interprofessional teamworking in primary and community care? A literature review. Int J Nurs Stud 2008;45:140-153.

[23]    Sargeant J, Loney, E, Murphy G. Effective interprofessional teams: 'contact is not enough' to build a team. J Contin Educ Health Prof 2008;28:228-234.

[24]    Hensel D. Typologies of Professional Identity Among Graduating Baccalaureate-Prepared Nurses. J Nurs Scholarsh 2013;1-9.

[25]    Barrow M, McKimm J, Gasquoine S. The policy and the practice: early-career doctors and nurses as leaders and followers in the delivery of health care. Adv Health Sci Educ Theory Pract 2011;16:17-29.

[26]    Graham I, Partlow C. Introducing and developing nurse leadership through a learning set approach. Nurse Educ Today 2004;24:459-465.

[27]    Weidman NA. The lived experience of the transition of the clinical nurse expert to the novice nurse educator. Teaching and Learning in Nursing 2013;8:102-109.

[28]    Pimmer C, Pachler N, Genewein U. Reframing clinical workplace learning using the theory of distributed cognition. Acad Med 2013;88(9):1239-45. doi: 10.1097/ACM.0b013e31829eec0a.

[29]    Cangelosi P, Crocker S, Sorrel J. Expert to novice: clinicians learning new roles as clinical nurse educators. Nurs Educ Perspect 2009;30(6):367-371.

[30]    Anderson J. The work-role transition of expert clinician to novice academic educator. J Nurs Educ 2009;48:203-208.

[31]    Horton C, DePaoli S, Hertach M, Bower M. Enhancing the effectiveness of nurse preceptors. J Nurses Staff Dev 2012;28(4) E1-E7. Doi: 10.1097/NND.0b013e31825dfb90.

[32]    Benner P. From novice to expert. Am J Nurs 1982; 82:402-407.

[33]    Henderson A, Eaton E. Assisting nurses to facilitate student and new graduate learning in practice settings: what 'support' do nurses at the bedside need? Nurse Educ Pract 2013;13(3):197-201. doi: 10.1016/j.nepr.2012.09.005. Epub 2012 Nov 9.

[34]    Sambunjak D, Straus S, Marusic A. A systematic review of qualitative research on the meaning and characteristics of mentoring in academic medicine. J Gen Intern Med 2009;25(1):72-78.

[35]    McClure E, Black L. The role of the clinical preceptor: an integrative literature review. J Nurs Educ 2013;52(6): 335-341.

# General Discussion
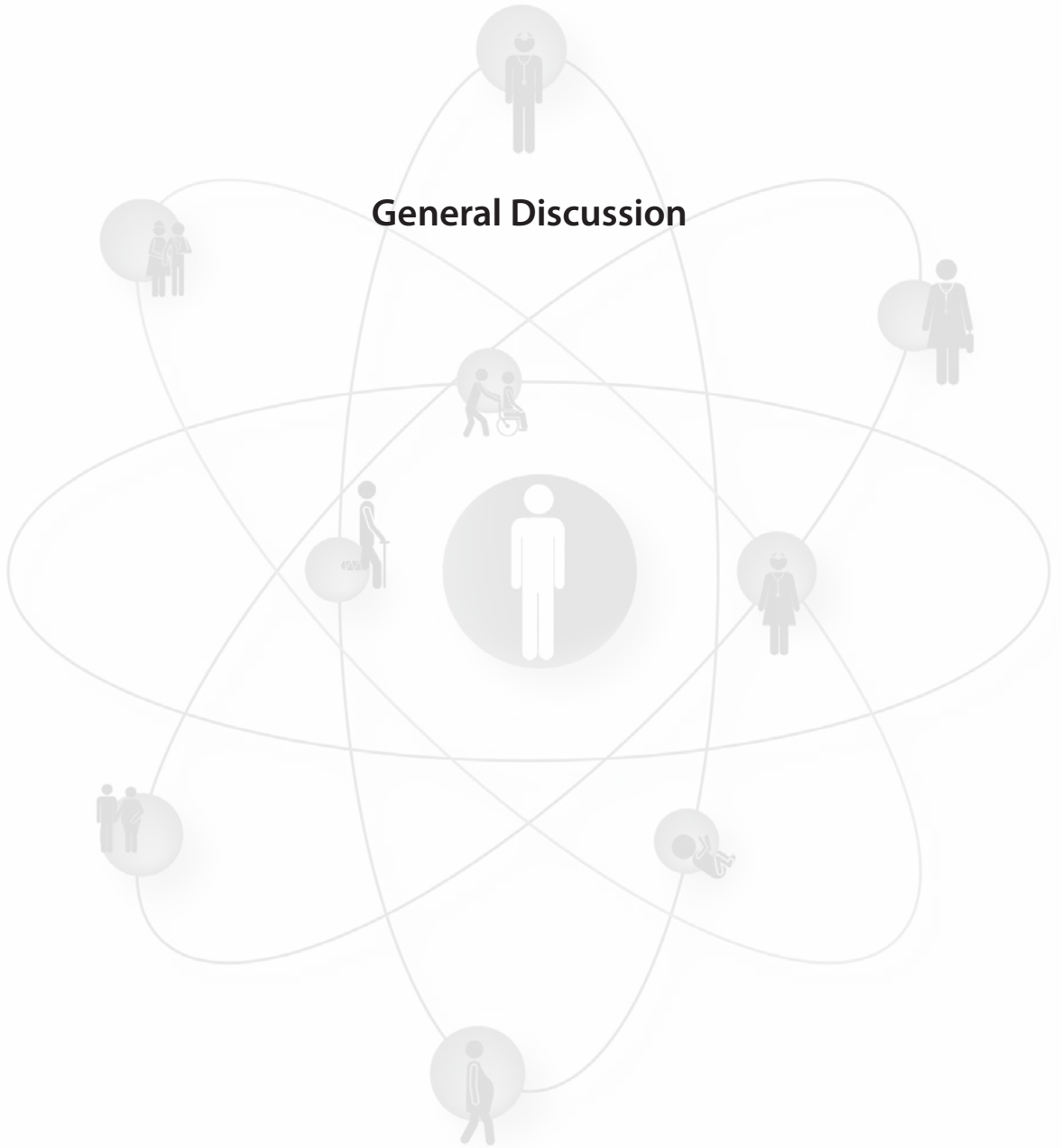
## GENERAL DISCUSSION

### Introduction

Most palliative patients prefer to stay at home until death entrusting the general practitioners (GPs) and the primary health care team with the major task of delivering high quality palliative care. The rapidly increasing knowledge base of palliative medicine challenges GPs to become and stay competent in this field. This thesis aims at exploring the ways in which GPs acquire and maintain the necessary competences to deliver palliative care at home. It describes the teaching/learning methods that are currently used, the GPs' preferences for learning strategies, characteristics of workplace learning (WPL) and a possible method to improve WPL for GPs.

In this chapter we will discuss the main findings of the separate studies, and describe WPL in light of complexity science.

Then we will discuss the practice implications, suggestions for policy change and the themes for further research.

### 2. Part I Education and training in palliative care for general practitioners:  current status

In part I we aimed at describing and evaluating the current opportunities for GPs to acquire and maintain their palliative care competences throughout their clinical career. Secondly we wanted to gain an insight into GPs' preferred ways of being trained and educated to see if these preferences can be addressed. Therefore we formulated these research questions:

> *RQ1: What is the current offer of continuing medical education (CME) in palliative care for GPs in Flanders?*
> *RQ2: What are the views and preferences of GPs towards lifelong learning in palliative care*?

### 2.1. Summary of main findings

An overview of continuing medical education (CME) in palliative care for general practitioners in Flanders showed that the offer is insufficient in many ways:

- There are too many different CME providers without efficient coordination

- Large content gaps with themes like 'teamwork', 'communication' and 'organisation of care' are almost not addressed in many regions

- Ineffective didactic methods are used: lectures are used in 80% of the sessions

- There is a low attendance rate of GPs: approximately 10% of the target group. Even less when the target group is multidisciplinary

- Most CME sessions (73%) are never evaluated, and if evaluated, then mostly through process-oriented satisfaction questionnaires

- CME providers are aware of GPs preferences in relation to content and organisation that could lead to attending courses but are not able to address them properly

The official CME database is an insufficient tool for providers as well as for attenders:

- The database is neither online nor free accessible

- The database contains mainly administrative information (information on date and title of the courses, name of the organising body, the licensing committee which has granted the credit points and number of credit points)

- There are no registered data on quality criteria of the courses, number of participating doctors or detailed content of the course

- This is an international problem in Europe: articles on recertification in Europe focus on procedures and requirements of continuing professional development and revalidation but do not describe the content and quality of CME nationwide

The preferences of GPs towards lifelong learning in palliative care can be summarised as follows:

- All GPs acknowledge the need for lifelong learning.

- GPs agree on the need for basic knowledge, but some question the personal need for expert knowledge

- Both GPs and CME providers are pessimistic about the efficiency of the way CME is currently organised: the courses are too theoretical and do not match GPs actual learning needs

- GPs believe in workplace learning (WPL) as a valuable alternative: the collaboration with palliative home care teams (PHCT) is established so

opportunities for WPL are present. On-the-spot learning matches the learning needs. According to GPs, WPL is comprehensive as knowledge, skills and attitudes can all be acquired.

- PHCTs recognise this way of learning (WPL) and are willing to make efforts for its development

- Some prerequisites for good interprofessional collaboration have been mentioned: team competences (every member needs training), team arrangements (explicit coordination of care and agreements on collaboration), responsibilities and task description (clarity needed to know 'who does what') and communication (respectful and open communication).

## 2.2. Discussion of the findings

Considering the GPs' responsibility in providing palliative care in the primary care setting, appropriate attention is needed towards lifelong learning in this matter.

The European Association for Palliative Care (EAPC) has published three important documents regarding education for physicians: one on general competences for all health care professionals, one on undergraduate education for physicians and one on postgraduate education for physicians[1-4].

In the first document the EAPC has described ten core competences which are considered to reflect the most important domains that are common for all professional groups. These competences are considered relevant for the delivery of high-quality clinical practice (see box 1).

**Box 1: Ten core competences in palliative care[1,2]**

| | |
|---|---|
| 1. Apply the core constituents of palliative care in the setting where patients and families are based | 7. Respond to the challenges of clinical and ethical decision-making in palliative care |
| 2. Enhance physical comfort throughout patients' disease trajectories | 8. Practise comprehensive care co-ordination and interdisciplinary teamwork across all settings where palliative care is offered |
| 3. Meet patients' psychological needs | |
| 4. Meet patients' social needs | 9. Develop interpersonal and communication skills appropriate to palliative care |
| 5. Meet patients' spiritual needs | |
| 6. Respond to the needs of family carers in relation to short-, medium- and long-term patient care goals | 10. Practise self-awareness and undergo continuing professional development |

Furthermore, these competences are also meant to serve as a framework for the development of palliative care education programmes. Suggestions for developing educational programs are made in the aforementioned documents two and three. The second document describes the goals, content and educational strategies of the basic palliative care education that every physician should receive. This education can be delivered on the undergraduate level. The third document describes the goals, content and educational strategies for the development of postgraduate curricula leading to certification in palliative care. As this third document focuses on specialisation in palliative care, it falls out of the scope of this thesis and we will leave it out of our discussion. Box 2 and 3 show the suggested content of the syllabus and the linked educational strategies for the undergraduate or basic education in palliative care.

**Box 2: Suggested content of the syllabus for undergraduate education in palliative care - (40 hours in total - % of time for each topic is mentioned)[4]**

| |
|---|
| 1. Basics of palliative care 5% |
| 2. Pain and symptom management 50% |
| 3. Psychosocial and spiritual aspects 20% |
| 4. Ethical and legal issues 5% |
| 5. Communication 15% |
| 6. Teamwork and self-reflection 5% |

**Box 3: Suggested educational strategies for undergraduate education in palliative care[4]**

| Methods for achieving knowledge | - Problem based learning<br>- Small group work<br>- Lectures<br>- Role plays |
|---|---|
| Methods for achieving skills | - Supervised clinical experience<br>- Simulations (simulated patients, role plays)<br>- Audio or visual review of skills |
| Methods for achieving attitudes | - Exposure (experiential learning) followed by discussion<br>- Role models<br>- Role plays<br>- Individual and group supervision: promote openness, introspection and reflection |

Comparing the current CME offer in Flanders with these EAPC curriculum suggestions, reveals some important findings.

First some remarks on the content. The prevalence of some items in the current offer mirror the curriculum suggestions: Introduction in palliative care (3,9 %), physical symptoms (38,3 %) and Teamwork (6,9%). This is an apt situation, as problems like 'pain and symptom control' are very important for good quality care and thus cannot be skipped during education. It is questionable however whether every provider in every town should organise the same sessions because this creates an overload of the educational program, leaving insufficient space for other topics. As we know that the complete CME offer in palliative care constitutes only 5,18% of all CME activities in Flanders, care should be taken in choosing topics for these sessions (Chapter 1 - paper 2). The prevalence of other topics is more worrying: 'Psychosocial symptoms' (12,7%) and 'Communication' (8,8%) are offered too little whereas 'Ethical and legal issues' (29,4%) are offered far too much in comparison with the EAPC curriculum suggestions. This can be explained by the fact that the euthanasia topic was taking up a lot of educational time. At the time of our study the practice of euthanasia was being developed and media were full of it. Therefore the overrepresentation in the results of our study may not be representative for the offer in other years.

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Secondly some remarks can be made on the educational strategies. We found that 80% of CME sessions used lectures as didactics. Often this is a lecture supported by a PowerPoint presentation. For some topics this is a good choice, for instance to disseminate new knowledge (e.g. information on a new law). However, as can be seen in box 3, there are many more educational strategies, mostly interactive ones, to be used in palliative care education. Literature clearly states that lecturing alone has no effect on changing physicians' practice behaviour[6-7]. Adding more interactive teaching methods, audit and feedback, multimedia materials, case-based approaches, as well as more interventions and longer durations have shown more promise. Participants of our focus group study (Chapter 2 – paper 4) reinforce this by stating their preferences towards small group, case based discussions. The issue of full-time clinicians being the teachers on most CME sessions may partially account for the overdose of lecturing. Clinicians use teaching methods that seem feasible for someone who is not trained to be a teacher. Training clinicians to be skilled moderators of interactive didactical sessions might be part of the solution but requires time and effort. The use of e-learning modules, available 'on demand',

might help to overcome this barrier.

Thirdly there are some comments to make on the attendance rates of GPs which is seldom exceeding 10% of the target group. A problem with CME in general as it is organised now is that evening sessions, after a day's work are not always attractive, let alone workable when e.g. in wintertime clinical work has not yet finished. Providing for protected time might enhance the attendance, e.g. in Scotland, all GP practices close a half day a month during the week (with out-of-hours services available) for well-attended courses (personal communication professor Scott Murray). Another reason for the low attendance rate, as stated by the GPs in our focus group study (Chapter 2 – paper 4), is the mismatch between topics addressed during the session and the GPs' actual learning need. They declare that an interval of several months between a CME session and the opportunity to put theory into practice (by caring for a palliative patient with that specific problem) is too long to remember the messages of the session, therefore some GPs state not to attend these sessions. A recent systematic review on education in end-of-life care concludes that practice experience seems to reinforce the outcomes of classroom-based education[8]. Enabling GPs to put theory into practice during educational sessions might help to overcome the interval between education and practice.

Noteworthy is the fact that sessions, aiming at an inter-professional target group, reach less GPs than sessions for GPs only. Our study does not clarify the reasons for this. A hypothesis could be that there is a dominance of mono-disciplinary practice settings and insufficient experience with interprofessional working and learning. It has to be further explored since literature has suggested that inter-professional education can foster inter-professional collaboration, which is important in palliative care[9-13]. Preparing undergraduate students through inter-professional education might be a good start[14].

Lack of coordination and communication between different providers may be partially  responsible for the aforementioned problems. A well-managed and accessible database of all registered CME sessions could be a useful tool for this coordination.

Contrary to the mismatch between the topic of CME sessions and the actual learning needs of GPs, there is a better match in workplace learning[15]. Participants of our study (Chapter 2 – paper 4) confirm this by stating that problems and learning needs are solved 'on the spot' by the easy-to-access expert PHCT nurses. This is considered a

major learning moment.

Despite the professional hierarchical relationships GPs declare to accept advice and explanations from these nurses. In the classical 'doctor-nurse game', in the sixties, the relationship between doctors and nurses was explicitly hierarchical[16-18]. As Stein puts it: 'Nurses were supposed to communicate recommendations without appearing to make them while physicians requesting a recommendation needed to do so without appearing to be asking for it'. In the nineties, nurses stopped 'playing the game'. Changes in nursing education and a changed public view on both professions has led to a generation of nurses and physicians actively attempting to change the relationship with other health professionals, creating environments for interprofessional work[17]. Now, another two decades later, maybe it is time for a second change. What if doctors would agree to stop playing the game? What if we could move on from an equal relationship to a mutually interdependent relationship? Doctors accepting advice from nurses, like in our study, might be a sign that this second change is going to take place. Buford describes the newly qualified physicians' learning from nurses[19]. It is not known however how this works between practicing physicians and nurses: it is not sure if the advice given by the PHCT nurse benefits only the patient concerned or if it constitutes a real learning moment where transferable knowledge is acquired.

The workplace learning which has been advocated by the GPs, is happening during daily work activities of collaborative practice. Therefore we asked GPs about their views and preferences towards inter-professional collaboration (Chapter 2 – paper 5). They summed up a number of requirements for good interprofessional collaboration: the competence of the team members, the current team arrangements (team coordination, clarity on roles and responsibilities) and the communication within the team. These reflect some of the main themes in literature[20-22]. In light of this thesis, one topic merits further attention. GPs declare that, in order to collaborate effectively in caring for palliative patients, each member should be adequately trained in palliative care. This is logical and needs to be strived for, as each team member needs the competence to execute his own tasks. We can even go further by stating that team members not only need competences to execute their own task but need additional competences to share tasks among each other whereby the same task (e.g. temporarily leadership) can be executed by different professionals, irrespective of their discipline[20,23,24]. This way of complementing each other by sharing tasks across professional boundaries (overlapping roles) has been called role blurring. Role

blurring, the demarcations between roles becoming vague, is a common feature of inter-professional teams. This may have advantages for the team as tasks can rotate between team members. Rotating tasks may benefit the quality of the team work as different viewpoints from different professionals may improve the clarity of the task at hand. Furthermore, sharing the same knowledge and interests, and being able to understand what the others do, promotes the 'mutual performance monitoring'. This monitoring means that team members watch over each other, take responsibility for patient care together, and provide feedback on each other's performance. This has been called one of the core elements of teamwork[24]. Monitoring (observing without controlling) each other and providing feedback on team members' performance is a prerequisite for workplace learning and will be discussed in part II of this chapter[25].

## 2.3. Conclusion of part I

CME has its merits but also its deficiencies (e.g. mismatch between the offer and the learning needs, lack of quality control).

Therefore, complementary to CME, the concept of workplace learning requires more attention.

## 3. Part II Workplace learning in primary palliative care: a valuable complement?

In part II of this thesis we further investigated the opportunities for workplace learning in primary palliative care. This option has been pointed out by the GPs in our focus group study (Chapter 2 – paper 4) and the discussion of the results in part I distinctly leads to the necessity for further exploration. For that purpose we formulated these research questions:

RQ3: What are the current characteristics of workplace learning in primary palliative care?
RQ4: Can GPs' workplace learning be enhanced by training PHCT nurses as learning facilitators?

## 3.2. Summary of the main findings

A survey among GPs and PHCT nurses revealed a number of characteristics of WPL in primary palliative care:

- Both groups of professionals, GPs and PHCT nurses, declare to learn during collaboration, in about the same order of magnitude
- All domains of palliative care are subject to this kind of learning
- Content-related items (physical symptoms, psychosocial problems) are more frequently addressed during WPL than process-related items (team-work, organisation of care)
- Both professional groups state to learn most from the patient and his family
- All professionals involved in the care of the patient can act as a learning resource for others
- For GPs, the PHCT nurses are the second major resource for learning, after the patient and his family
- Participants use diverse learning activities, mostly 'listening and obser-ving' and 'discussion and reflection'. Strategies like 'feedback' or 'learning from mistakes' (two forms of reflective learning) are mentioned less often

As GPs regard PHCT nurses as facilitators for their workplace learning, we performed a review of the PHCTs' patient charts to look for annotations on learning moments during collaboration:

- PHCT nurses describe their contacts contacts with GPs (mean of 6,1 during a collaboration period) in detail in the patient charts.
- In 23,7 % of the GP-nurse contacts a GPs' learning activity has been des-cribed (mostly 'discussion and reflection', 'getting information' and 'asking questions')
- The other description details include the initiator of the contact (PHCT nurses in 60,5 % of the cases), the way of contacting each other (70,8 % by telephone) and the subject of the contact (all palliative care domains; in 47,6 % a deliberate wish to jointly (GP and PHCT nurse) decide on care goals)

We tried to enhance the learning effect of the GP-nurse collaborative setting by training the PHCT nurses to act as facilitators of GPs' learning. The evaluation of the training program resulted in these findings:

- Nurses approved of the training as it addressed their daily work problems (the workshop themes were acknowledged as major issues of their work)

- During the period of putting theory into practice, the trainers' personal mentoring of the nurses seems important for success

- Personal attitudes influence the way the new role as facilitator is executed: nurses' diverse preferences towards initiating the sharing of their expert knowledge, and their balance between caring for the patient and caring for the (quality of the) whole team

- Based on a combination of these preferences and attitudes, four distinctive styles of practice behaviour can be defined: the clinical-expert style, the buddy-style, the coach-style and the mediator-style. Adopting one of these styles has consequences towards addressing the GP from a teaching/learning perspective.

- Contextual features (the actual patient care needs and the GP's behaviour) can temporarily drive PHCT nurses from their personal preferred style towards a style which is more appropriate for the situation at hand.

- Nurses state to have a different view towards other professionals after being trained: they consider GPs more like team members rather than occasional collaborators

## 3.2. Discussion of the findings

We ended part I with pointing at the GPs' preferences towards workplace learning as an alternative for continuing medical education. GPs describe how their on-the-spot learning needs are addressed by the easy-to-access PHCT nurses.

As WPL mostly occurs in an informal, opportunistic and unstructured manner, we tried to enhance its effectiveness. In order to investigate the statements GPs made in our focus group study (Chapter 2 – paper 4) about their preferences, a cross-sectional survey was conducted (Chapter 3 – paper 7). The registration during 'work as usual' can be seen as a baseline measurement on this topic, since neither GPs nor nurses were trained in workplace learning. It revealed the spontaneous behaviour

during collaboration. The results indicate that workplace learning indeed is part of daily practice.

Three major findings of this cross-sectional survey merit further attention.

Firstly, as expected, GPs reported a lot of learning through the collaboration. Our hypothesis, that GPs would learn from PHCT nurses, was confirmed, although the patient and his family were considered the major source of learning. Palliative care being strongly focused on patient involvement may account for this. PHCT nurses as learning facilitators came second, followed by all other professionals (both from primary care and hospital) involved in the care. All people involved in the patient care were mentioned as a source of learning. Our study does not give insight in the decision on how the source of learning is chosen.

GPs learned on varying topics although there was a preponderance of content-related items. Sharing care goals is a frequent topic of discussion between professionals (Chapter 3 - papers 6 and 7). This deliberation yields opportunities to exchange expertise and support each other. Other tasks (process-related) like e.g. 'coordination of care' might be designated to one of the team members instead of being shared. In that case, no deliberation, no exchange of thoughts nor learning from each other will occur. It might also be that items like 'coordination' or 'teamwork' are more difficult to report on since they are less visible or tangible than pain or nausea. GPs were able to display a range of different learning activities. There was a predominance of easy-to-use learning activities belonging to daily work (e.g. listening and observing, asking questions) which can be performed without training or support. More efficient activities (in terms of learning) like giving and receiving feedback, and learning from mistakes (examples of reflective learning) require a more explicit learning intention and may be more difficult to use[26,27].

A second and unexpected result of our study (probably because we started from a traditional learning/teaching concept) was that the PHCT nurses reported an equal amount of learning through the collaboration. Like the GPs, nurses stated to learn mostly from the patient and his family. Thereafter they mentioned the learning from their palliative care colleagues from hospitals; learning from GPs came third. The high level of nurses' expertise might account for their seeking advice with equally experienced professionals, or that they perceived the hospital as a safer environment for asking advice. The learned items were mostly content-related. Contrary to the GPs,

who mostly mentioned the care of physical symptoms, the PHCT nurses mentioned more psychosocial symptoms as care aspects they learned on. It might be that, since they are experts in palliative care knowledge and technical skills, they were able to focus more on non-physical items during daily work like e.g. the psychosocial situation of the patient and his family.

Thirdly, we found that age, years of experience and previous education in palliative care (as proxy criteria of expertise) did not significantly influence the total amount of learning. This can be explained in various ways. Positively we could state that even experienced professionals stay eager to learn and to gain new knowledge and expertise. Negatively we might presume that professionals forget what they have learned and need to 'learn it again' on the next occasion. This 'forgetting' might be explained by the fact that the acquired knowledge is tied up with patient details. Making knowledge transferable to other patient situations requires a de-contextualisation of (or a meta-perspective towards) the knowledge which is not always easy[28-30]. A third hypothesis is that the science of palliative care is quickly evolving and requires continuous learning. A fourth hypothesis is that, whenever you start to create a new 'learning community', there is always an increase of mutual learning, irrespective of the former expertise and training.

Generally, this survey corroborated the existence of WPL during PHCT-GP collaboration. In a next study (Chapter 4 – papers 8 and 9) we looked for a way to enhance this by training the PHCT nurses to act as facilitators of GPs' learning.

The evaluation of the training showed that it is possible to train PHCT nurses for the new role as facilitator, although finishing the training in all its components was hard work for most nurses as it interfered with the heavy daily work-load, as there was only protected time for the two workshop days. In the interviews, nurses explained how the implementation of some aspects (e.g. critical incident analysis) was too time-consuming to do it regularly. They hoped that getting experienced in it by continuing practice would make it easier and quicker to apply in the future.

Not all nurses performed at the same level during the summative assessment or reported similar success of the skills implementation in daily practice. Some explanations can be formulated.

First personal characteristics influenced the way nurses behave during practice and hence the way they were able to implement the trained skills. Different personal

preferences of behaviour during practice have been mentioned ranging along two main axes: first of all the way nurses share their expert knowledge with other professionals and secondly the way nurses' professional attention is divided between the patient and the other health care professionals. Combining these two axes defines four distinctive styles of practice behaviour: the clinical-expert style, the buddy-style, the coach-style and the mediator-style. Adopting one of these styles has consequences towards addressing the GP from a teaching/learning perspective. Nurses have personal preferences for one style but they can use a mixture of aspects and parts from all styles. They adapt their style to the situation: patient needs and the GP's behaviour are modifying factors for the nurses' style. A GP calling the nurse for a quick answer or advice evokes a different communication style than a GP making an appointment to deliberate on care goals. Equally, the way GPs display a willingness to learn influences the facilitator function of the nurse. The description of nurses' practice behaviour according to this typology of styles is a new theoretical view on the nurse-GP interaction emerging from our studies. Inter-professional interaction can be evaluated and described from different viewpoints and with different purposes, e.g. quality of relationships and quality of patient care delivered. The definition of nurses' behavioural styles in our way, from the viewpoint of the teaching/learning aspect of the collaboration, is new. It raises opportunities for research aiming at matching GPs' learning styles with nurses' facilitator styles.

Secondly the longest component of the training program was the interval between the two training workshops. During that interval, nurses could practice the trained skills while being mentored by the trainers through continuous contact via email (for feedback on the progress reports) and a personal Skype session to elaborate on practice experiences. Nurses stressed the importance of this mentoring period as essential for the effectiveness of the training. They stated that this period of emailing back and forth with the trainers enabled them to fine-tune their knowledge and understand difficult components of the training. Also, some nurses stated the reporting of practice experiences and receiving feedback to be encouraging to continue the implementation of their new role as facilitator of GPs' learning. Differences between nurses in the intensity of actively benefiting from this mentorship period might partially account for the way the facilitator role has been implemented.

It is known that mentorship is needed during the trajectory from novice to expert[31]. The role transition to which our training program prepared the nurses equally re-

quired a mentorship, since these PHCT nurses are 'expert' clinical nurses but they are 'novice' educator/facilitator nurses[31-35]. It is a pitfall to think that experts in one domain (e.g. clinical experts) automatically have expertise in another domain (e.g. teaching)[36].

As mentioned earlier, personal characteristics (ways of sharing knowledge and ways of caring for others) influenced the uptake of the new facilitator role since nurses have different styles of coping with this challenge. Therefore it is important that the mentoring is individualised. Careful and personal exploration and discussion should be undertaken with the nurses as to define their barriers and facilitators, motivations and restraints to take on their new role.

A final remark made by the nurses is that the implementation of the trained skills evolves with team-support. The moral support nurses feel from colleagues when preparing a difficult conversation together, helps to persevere with the effort of taking up the facilitators' role. Equally, observing each other's communication strategies, e.g. during phone calls with a GP, creates opportunities for joint reflections. Besides receiving peer support by their nurse colleagues, nurses emphasize the role of the PHCT physician (GP with special training in palliative care) as part of the team. The physician supports the nurses in their task during team meetings and is available for them whenever they have questions or problems. The PHCT physicians can also take over the communication with GPs when problems cannot be handled by the nurses.

The program evaluation revealed some unexpected findings. Firstly PHCT nurses seemed able to 'translate' the trained skills towards other professionals. Although the training solely focused on the interaction with GPs, some nurses applied the acquired skills within their interaction with the community nurse as well. Secondly the PHCT nurses' mentioned a changed attitude towards GPs. They reported considering them and caring for them more as team members than before.

Overall the study results described in part II confirm our hypothesis of WPL as a valuable and acceptable way of learning during PHCT-GP interaction.

Understanding these findings requires explicit attention for the interactions and relationships between everyone involved in palliative patient care. Nurses in our study (Chapter 4 – paper 9) describe the complex interactions and the sometimes unpredictable resulting effects of them between individuals and between individuals and the environment. Studying these interactions and their effects can be

done through the lens of complexity and Complex Adaptive Systems (CAS), thereby opening a new perspective to workplace learning.

### 3.3. Workplace learning and complex adaptive systems

Complexity science can be named the latest generation systems thinking (theories investigating patterns in relationships) and has emerged from the research on the subatomic world and quantum physics[37]. A unit of analysis for this science is a complex adaptive system (CAS) which has been defined by Plsek as[38]:

*'A complex adaptive system is a collection of individual agents with freedom to act in ways that are not always totally predictable, and whose actions are interconnected so that one agent's actions changes the context for other agents. Examples include the immune system, a colony of termites, the financial market, and just about any collection of humans (for example, a family, a committee, or a primary healthcare team).'*

A CAS has a number of features which are shortly described below[37-42]. In health care literature, many illustrations of CAS key features can be found : 'health care teams', 'health care knowledge', 'health care systems, 'care models' and 'health care research' all have been described according to the complexity principles[40,43,44].

Following these examples we like to designate workplace learning behaviour, apparent in the results of our studies, as an example of 'emergent adaptive behaviour' in the CAS of an interprofessional health care team.

Therefore we will add an explanatory illustrative note to each description of the CAS features below:

#### - CAS consists of an ensemble of many elements

These components may be similar (e.g. a group of professionals) but do not all have to be of the same kind (e.g. a health care team).

*In primary palliative care, PHCT nurses are collaborating with GPs, community nurses, PHCT physicians, patients and their families, and others. This is illustrated in Chapter 2 - paper 5 and Chapter 3 - 7 where qualitative and quantitative results reveal the number and diversity of health care team members.*

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### - Each component can act autonomously

Each component of the system can act in an autonomous way, guided by basic internalised rules. These rules can be expressed as instincts, constructs, and mental models.

*In primary palliative care, each team member can take initiatives and act autonomously during the execution of his task. The team members' activities (professional practice as well as inter-personal behaviour) are influenced by their personal and professional identity, team arrangements and attitudes towards palliative care (patient-centered, goal-oriented care). On top of these personal 'rules' we can add the shared care goals as a distinct set of internalised team rules.*

### - The interactions between the components are non-linear

Each component can act autonomously but the actions have an effect on other components (and vice versa). This is called the interdependence of the system's components. These interactions encompass an exchange of information. An important aspect of the interactions is their non-linearity: small inputs may have large effects and vice versa.

*A team member who forgets to make a note in the patient's chart (input) about changing the pain therapy may receive a simple instruction by his colleagues to adjust his error ( small effect). On the other hand, if no one notices the error, the patient may receive the wrong dose of e.g. morphine and suffer major side effects (large effect) followed by a major team dispute (large effect).On the contrary, accidently administering a major overdose of a sedating drug to a patient in a sub-coma (large input) may lead to no effect (e.g.no team dispute or formal complaint of the family) if the death of the patient was an expected or an agreed upon event.*

### - CAS has a history and is sensitive to initial conditions

The non-linear effects observed in a CAS result from the modifying influence of initial conditions on the interactions between components. As a result of evolution in the system, the 'initial conditions' for future interactions will be different. As such, CAS has a history and a memory, which means that changed conditions are 'remembered' by the system.

*The interactions between PHCT nurses and GPs depend on the way previous collabo-*

*rations went. The same interaction (e.g. a GP's request to perform a nursing task) can cause different emotions and behaviour in nurses depending on the interprofessional relationship. This relationship can evolve with each subsequent collaborative period. On the next occasion (even with many months of interval), the 'system' (the collaboration between GP and PHCT) will remember the status of the relationship and as such influence the interactions. The effect extends even beyond this one interprofessional relationship. The interaction between the nurse and a next physician, behaving similarly as the first one, will be influenced by the earlier experiences.*

### - The interaction between components can produce unpredictable behaviour

As the interactions can cause non-linear effects, it is impossible to always predict the behaviour resulting from the interactions. Secondly, the internalised rules are not necessarily the same for all components, therefore the influencing factors for a cause-effect mechanism are not always clear.

*A PHCT nurse reporting to a GP the status of a palliative patient who is still in pain after raising the pain medication three times may cause different reactions by different GPs. One GP may send the patient to the hospital for advice while the other GP may arrange for a joint home visit with the PHCT nurse to re-evaluate the patient and jointly deliberate a change in therapy. This all depends on the self-confidence of the GP, the relationship with the patient, the goals and preferences of the patient, the GPs current workload, the way the nurse reported on the pain, the moment of the reporting (Monday morning or Friday evening), etc. and so the result is unpredictable.*

### - The interactions generate new properties, called 'emergent behaviours' of the CAS

A CAS can display behaviours that cannot be understood by the properties of the constituent components. An example is the behaviour of water (flowing, splashing etc.) which cannot be explained by the properties of hydrogen and oxygen.

*Similarly a team may engage in team reflection and shared decision making on care goals and as such deliver comprehensive patient care which transcends the aggregated competences of individual team members.*

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*- A CAS is an open system which interacts and is influenced by its environment*

Complex adaptive systems are connected with their environment in different ways. Some of the internalised rules come from the environment; if these rules change, the CAS changes. As such, the emergent behaviours of CAS can be seen as adaptations to the environmental conditions, also called 'self-organisation'. This self-organisation is informed by feedback loops by which the environment feeds the outcomes of the CAS actions back into the system. Next, depending on the scale we use, the environment may be part of the CAS or act as environment. As such the borders of a CAS are not fixed but can open or close as a response to interactions with the environment. Finally, the environment consists of CASs as well and they all influence each other. A CAS and its environment co-evolve during this interaction.

*A primary health care team is an open system, acting within the environment of the health care system with its rules and practice realities. Changing conditions (e.g. legal restrictions in competences of nurses, availability of opiates, the installation of a new health care service in the neighbourhood) will alter the team behaviour. This new behaviour can influence the team's environment (e.g. communication with the new health care service) and together they can agree on collaborative arrangements (co-evolution).*

*- Attractors*

The actions and interactions of CAS components are influenced by a set of basic rules as described earlier. Rules push a component towards a certain action. As a mirror image, attractors attract components towards a certain action. The trajectory of a CAS (i.e. the usual pattern of behaviour) is for a great deal determined by its attractors. The precise behaviour of a CAS on a precise moment is still unpredictable but the 'usual' behaviour will always incline towards the attractors.

*A primary health care team has its attractors like patient satisfaction for some, trusting relationships or avoiding team conflicts for others. These are not individual preferences from team members but driving forces for the whole team. Values like patient autonomy or support for the family are strong attractors in palliative care. One of the most powerful attractors is the search for meaning.*

A final remark has to be made on the primary health care team as a CAS with ever changing membership. The PHCT nurses work as a stable group for years. As such, they create a pattern of self-similar behaviour, which we can call the culture of the group. They collaborate with one GP for one patient and with another GP for another patient. Equally they are collaborating with different community nurses and other primary health care providers. As such the team consists of a stable core group complemented with continuously changing team members. This is also called a 'fluid team'[24]. Benefits of changing membership are the increase in knowledge stock, the reflection on team processes that is required and the improved ability of creative problem solving. A risk of fluid teams is the loss of tacit and explicit knowledge when a member leaves, which can be prevented by sharing information during teamwork. Fluid teams need to adapt every time membership changes. This adaptability requires training in generalizable teamwork skills, sharing of information, engaging in shared leadership and implicit coordination[20,24]. Working as a CAS requires a 'basic trust' to be effective. In the case of our study, the PHCT nurses act as a stable core group, nurturing the basic trust, with GPs and other professionals connecting to them as they (temporarily) join the team.

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Changing the borders of a CAS by looking at the system in a smaller or larger scale stresses the importance of the need for capability/adaptability for all team members. A GP belongs to the CAS of the PHCT but also to the CAS of the local GP organisation, to the CAS of the primary health care system and so on. This means a lot of different environmental rules and attractors, different group cultures, sometimes conflicting in nature, guiding his actions. One action may result in different feedback loops from different environments, requiring a reflective adaptive process of the individual.

In summary of the above, we can say that the workplace learning behaviour fits in the adaptive responses of the team on a problematic situation. The 'problem' is the patient care need, combined with the knowledge gap or skill gap of the professionals. The adaptive, emergent behaviour of the team is a reciprocal development of complementary professional learning. Depending on the problem or the situation, team members switch between the facilitator role and the learner role, as is illustrated in our studies. The ability of team members to adapt is a major CAS feature. Quality of palliative care and of patient care in general, is defined by the level of matching team answers to the patient's questions or needs. There is no 'one best way', in a

patient-centered, goal oriented care[45]. Such care requires adaptive capabilities[46]. Feedback on the impact of an individual's actions is the basis of transformational learning as it enables an individual to extend his competencies[46]. Reflection on this feedback changes the individual in response to the changing environment. Recently the interdependence of the health care sector and the education sector has been described as a way of effectively addressing the needs of the population[47]. Inter-professional health care teams where team members act as change agents for each other's capability during workplace learning processes are a shortcut illustration of this interdependence. Learning and self-organisation are major features of CAS. For a health care team to be able to function as a CAS, ideally the wider health care system needs to adopt a CAS approach in its management (CAS-leadership instead of bureaucratic leadership) as a CAS must be able to influence and co-evolve with its environment[48]. The most important differences between CAS-leadership and bureaucratic leadership are summarised by Anderson and McDaniel in this table[48]:

| Key leadership tasks | |
|---|---|
| **Professional Complex Adaptive System** | **Professional bureaucracy** |
| Relationship building | Role defining |
| Loose coupling | Tight structuring |
| Complicating | Simplifying |
| Diversifying | Socializing |
| Sense making | Decision making |
| Learning | Knowing |
| Improvising | Controlling |
| Thinking about the future | Planning based on forecasting |

## 3.4. Conclusion on part II

Workplace learning during interprofessional collaboration in primary palliative care seems suitable and feasible. Workplace learning can be considered as a team answer, or a team 'adaptation', to practice based problems, and offers opportunities for health care providers to maintain their professional competences. Fully understanding WPL needs consideration of the complex interactions between all participants as well as between participants and their environment, according to the principles of complex adaptive systems.

## 4. Practice implications

The official CME as it is currently organised can be a meaningful way of disseminating new knowledge and theories ( e.g. new scientific insights, new legal regulations) by experts in the field. To enhance the effectiveness of CME, certain requirements and quality criteria need to be addressed: assessment of the GPs' learning needs, use of adequate educational techniques, teaching qualification of speakers, and evaluation of the learning effect of sessions.

Workplace learning is a valuable method to address the specific problems GPs encounter when caring for palliative patients. Workplace learning is a complex phenomenon of learning needs assessment, problem solving, reflection, practice evaluation and communication in the context of interprofessional relationships. Looking at health care teams as complex adaptive systems places WPL in the center of a dynamic and continuously changing environment. Training health care professionals to take these dynamics into account during collaborative practice may optimise the effect of workplace learning.

## 5. Policy suggestions

This exploratory descriptive thesis investigated interdisciplinary workplace learning in primary care leading to the description of workplace learning as emergent adaptive behaviour of health care teams functioning as complex adaptive systems. Putting the results of the thesis in the context of Flanders and Belgium allows us to formulate some suggestions as food for further thoughts.

Two policy suggestions can be made, both originating from the conception of collaborating health care teams as complex adaptive systems where learning emerges as a result of the relationships and interactions between members. In this respect, health care teams are to be seen as learning communities (LC). All kinds of collaborations (stable teams, ad hoc teams, fluid teams, networks) can be considered professional learning communities  if they focus on learning rather than teaching, work collaboratively, and hold their selves accountable for results[49].

*Requirement 1: Undergraduate education should focus on transformative learning to prepare health professionals with generic skills to become change agents for interprofessional practice*

The Lancet Commission suggests a framework to transform medical education, joining the educational system and the health system in an interdependent relationship[47]. Population health needs are to be the drivers for preparing health care professionals for their task. Current population needs have changed (e.g. ageing population and growing multi morbidity) requiring an interdisciplinary approach in primary care[10]. Undergraduate students need adequate preparation for this role. Two aspects are important. First, health care professionals need core competencies for interdisciplinary collaborative practice. Four core competencies have been described: Values/ethics for interprofessional practice; Roles/responsibilities; Interprofessional communication; Teams and teamwork[50]. The same competencies are advocated by the EAPC as being important to palliative care but the work of Schmitt et al. shows that the competencies stretch beyond the palliative care approach[50]. These competencies match four of the major themes which have been defined as outcomes of interprofessional education; Teamwork; Roles/responsibilities; Communication; Ethics/attitudes[51]. Therefore, interprofessional education should be installed in undergraduate education. The fifth and sixth outcome of interprofessional education are: The patient (-centred care); Learning/reflection.

This brings us to the second important aspect of preparing undergraduate students. Health care professionals need to acquire the skills of reflective learning/reflective practice as a means for quality improvement. Training students to be reflective interdisciplinary practitioners requires interdisciplinary education. This can be operationalized by installing undergraduate interprofessional learning communities. Internationally there is a longstanding history of learning communities in medical schools where they are viewed as a formal strategy to purposefully link their formal, informal and hidden curriculums[52]. The University of Antwerp and Ghent University make efforts for this through vertical (mentoring groups of uniprofessional students, throughout the curriculum) and horizontal (short term modules of reflective learning with students from other disciplines) reflective groups. Expanding and combining these initiatives to long term interprofessional LCs, matching the reality of population's health care needs, might be a way forward. Undergraduate interprofessional learning communities have to be seen as a structural remedy for a structural problem.

*Requirement 2: Accreditation/recertification should not only be limited to CME sessions but should also encompass the learning aspects of interprofessional practice.*

The purpose of periodic recertification of doctors is to maintain high quality care. To that aim, doctors need access to high quality education. Defining and demanding quality criteria for CME sessions (and its providers) is a condition sine qua non. The use of an e-portfolio with a personal learning agenda and self-directed learning processes can help to manage the learning trajectory. As this PhD thesis shows, formal CME should be complemented by workplace learning activities. Designating primary health care practices (in all compositions and organizational forms) as learning communities assumes that continuing learning (followed by quality improvement) arises through professional collaboration. Our thesis supports this assumption. Continuing education, knowledge translation, quality improvement and patient safety have been regarded as intertwined domains[53]. The learning processes which accompany quality improvement initiatives during practice are central features of the interconnections between the domains. As such, quality improvement initiatives may have a strong educational effect on professionals. An example is the POP project which aims to support local general practices in quality improvement, using a 3 year program containing measurement of practice performance, giving online feedback, and providing a tailored practice-level coaching program[54]. Using such programs and its tools in the evaluation of learning communities (whatever format) may inform their accreditation process. In line with the abovementioned interdependence of educational and health systems, accreditation should be based on social accountability, defined by the WHO as: directing education, research and service activities towards addressing the priority health concerns of the community, region, and/or nation they have the mandate to service. This means that not only service delivery but also the learning aspect of collaborative practice should be a focus of the accreditation procedures. As such, interprofessional meetings, e.g. with palliative care teams, should be considered as learning moments and added to the individual professional development plan. Referring to palliative care, the starting point of this thesis, the Gold Standards Framework (GSF) deserves to be mentioned[55]. This organisation provides training 'enabling generalist frontline staff to provide a gold standard of care for people nearing the end of life', thereby staying as close as possible to practice. Both in Flanders (HiPP) and in the Netherlands (PaTz groups), the GSF initiative has been adapted and implemented to the local context. In Flanders, GPs participate in this training module together with PHCT nurses[56]. In the Netherlands, GPs and community nurses jointly participate[57]. These initiatives combine formal education with interdisciplinary contacts and practice implementation. The

evaluation of its effectiveness on quality of patient care has not yet been done. Recently a new model for continuing professional development for GPs has been suggested[58]. This model incorporates many of the described aspects like: education matching care needs; education as part of practice quality cycle; interaction with peers; documentation through portfolio. As for the interaction with peers, the authors indicate that it might be useful to get into contact with GP-colleagues reporting the same educational needs. We would like to extend that part of the model by referring to the generic skills for interprofessional collaborative practice. Health care professionals from different disciplines may have the same educational needs towards these skills. Health care professionals being accountable for the care of the same patient, should get into contact with each other. Therefore, joining professionals from other disciplines (temporarily or continuously e.g. interdisciplinary LOKs) might be a very effective strategy in a personal (or team- or community-) development plan.

In order to realise these requirements, primary health care needs extra support. Resources as well as structural support is needed to establish, implement and evaluate these initiatives, as has recently been described by the European Expert Panel on effective ways of investing in Health[59].

## 6. Limitations of this thesis

Some limitations can be formulated.

First the CME survey (Chapter 1 – paper 1) gives only a snapshot of a situation at a certain time. The situation in the undergraduate level and in CME may have changed since our study, as society has shown more public attention towards palliative care during the last years. The survey would need to be executed again to corroborate our conclusions.

A second limitation is that we only registered individual variables and parameters during the cross-sectional survey (Chapter 3 – paper 7) and that no information was gathered on team dynamics. Team dynamics, based on relationships and interactions, are very important for collaboration and learning. As explained in the discussion chapter in paragraph 3.3 on complex adaptive systems, the behaviour of a team cannot fully be understood by disassembling the team and studying the members separately.

Furthermore, we only looked at two of the team members (GP and PHCT nurse) whereas many others, e.g. the community nurse, the PHCT physician, the social worker, are involved in the overall dynamics.

Thirdly, the training for the PHCT nurses may not be transferable to other professionals or other care settings as it was specifically designed for the purpose of the study described in Chapter 4 papers 8 and 9. Evaluating the contextual implementation might provide information on generic versus specific aspects of the training.

## 7. Future research topics

The EAPC curriculum suggestions and the EAPC White Paper on Education offer a complete overview of palliative care competences for physicians. It might be interesting to purposively select parts of this curriculum for undergraduate, postgraduate and continuing medical education and reserve other parts for workplace learning. Screening the general medical undergraduate curriculum for hidden palliative care content using the Palliative Education Assessment Tool might be a good start to prevent an overloaded undergraduate curriculum[60]. The design of a comprehensive vertically integrated curriculum will need an investigation of the appropriateness and effectiveness of each curriculum part at each stage of education.

As the electronic patient record (EPR) has shown to be useful for other recordings than just patient health status, it might be interesting to further investigate the option of making the record accessible for all professionals involved. Moreover, the goals of the patient should be made more explicit in the EPR as an important aspect of interprofessional goal-oriented practice. Until now it is not clear where in the EPR, how and by whom these goals have to be recorded.

This thesis evaluated the first experiences of PHCT nurses in their new role of facilitator of GPs' WPL. For a more complete understanding of the dynamics of workplace learning, the views and preferences of other stakeholders (e.g. community nurses, GPs) have to be investigated, as well as the effect of WPL on GPs' competences and behaviour.

The final outcome of any intervention in health care must be the quality and equity of patient care. Therefore the relationship between WPL and patient care must be further investigated.

Lastly, the WPL concept, though literature does not limit this to a certain profession, has only been explored in our thesis in the GPs' context of primary palliative care. It must be further explored how our results may be transferred to other settings or other disciplines.

# References

1. Gamondi C, Larkin P and Payne S. (a) Core competencies in palliative care: an EAPC White Paper on palliative care education – part 1. EJPC 2013; 20(2)

2. Gamondi C, Larkin P and Payne S. (b) Core competencies in palliative care: an EAPC White Paper on palliative care education – part 1. EJPC 2013; 20(3)

3. Elsner F, Centeno C, De Conno F, Ellershaw J, Eychmuller S, Filbet M, Kaasa S, Larkin P  2009 Recommendations of the EAPC for the Development of postgraduate Curricula leading to Certification in Palliative Medicine EAPC 2009, ISBN: 978-88-902961-7-8 http://www.eapcnet.eu/Themes/Organisation/Linkstoassociations.aspx

4. Frank Elsner, Carlos Centeno, Gianluigi Cetto et al   Recommendations of the European Association for Palliative Care (EAPC) For the Development of Undergraduate Curricula in Palliative Medicine At European Medical Schools 2013 EAPC, ISBN: 978-88-902961-9-2

5. Davis D, O'Brien MA, Freemantle N, Wolf FM, Mazmanian P, Taylor-Vaisey A. Impact of formal continuing medical education: do conferences, workshops, rounds, and other traditional continuing education activities change physician behavior or health care outcomes? JAMA. 1999 ;282:867-74.

6. Marinopoulos S, Dorman T, Ratanawongsa N, Wilson L, al e,. Effectiveness of Continuing Medical Education.  Evidence Report/Technology Assessment No. 149 (Prepared by the Johns Hopkins Evidence-based Practice Center, under Contract No. 290-02-0018.) AHRQ Publication No. 07-E006. Rockville, MD: Agency for Healthcare Research and Quality. 2007

7. Forsetlund L, Bjorndal A, Rashidian A, Jamtvedt G, O'Brien MA, Wolf F, et al. Continuing education meetings and workshops: effects on professional practice and health care outcomes. Cochrane Database of Systematic Reviews 2009, Issue 2. Art. No.: CD003030. DOI: 10.1002/14651858.CD003030.pub2.

8. Pulsford D, Jackson G, O'Brien T, Yates S, Duxbury J. Classroom-based and distance learning education and training courses in end-of-life care for

health and social care staff: A systematic review Palliat Med, March 2013; vol. 27, 3: pp. 221-235.

9.       Hammick M Fau - Olckers, L., et al. Learning in interprofessional teams: AMEE Guide no 38. Med Teach 2009;31:1-12.

10.     Framework for Action on Interprofessional Education & Collaborative Practice (WHO/HRH/HPN/10.3) 2010 World Health Organization, Department of Human Resources for Health, http://www.who.int/hrh/nursing_midwifery/en/

11.     Samuelson M, Tedeschi P, Aarendonk D, de la Cuesta C, Groenewegen P. Position paper of the European Forum for Primary Care. Improving interprofessional collaboration in Primary Care. Qual Prim Care. 2012;20:303-12.

12.     Cameron S, Rutherford I, Mountain K. Debating the use of work-based learning and interprofessional education in promoting collaborative practice in primary care: a discussion paper. Qual Prim care 2012; 3: 211-217.

13.     Reeves, S., et al. (2013). Interprofessional education: effects on professional practice and healthcare outcomes (update). Cochrane Database Syst Rev 3: CD002213

14.     Tsakitzidis G, Van Royen P.  Leren interprofessioneel samenwerken in de gezondheidszorg. 2008 Standaard Uitgeverij

15.     Parboosingh JT. Physician communities of practice: where learning and practice are inseparable. J Contin Educ Health Prof. 2002;22:230-6.

16.     Stein LI. The doctor-nurse game. Arch Gen Psychiatry. 1967 ;16:699-703.

17.     Leonard I. Stein, M.D., David T. Watts, M.D., and Timothy Howell, M.D. The Doctor–Nurse Game Revisited N Engl J Med 1990; 322:546-549

18.     Sweet SJ, Norman IJ. The nurse-doctor relationship: a selective literature review. J Adv Nurs. 1995;22:165-70.

19.     Burford et al. ) Newly qualified doctors' perceptions of informal learning from nurses: implications for interprofessional education and practice. Journal of interprofessional care 2013 27, 394-400.

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20. Speck P (Ed) Teamwork in Palliative Care. Fulfilling or Frustrating? 2006 Oxford University Press

21. Xyrichis A, Lowton K. What fosters or prevents interprofessional teamworking in primary and community care? A literature review Int J Nurs Stud 2008; 45: 140-153

22. Sargeant, J., et al.. Effective interprofessional teams: "contact is not enough" to build a team. J Contin Educ Health 2008;28: 228-234.

23. Mulvihill C, Harrington A, Robertson A. A literature review of the role of the specialist palliative care community nurse. Int J Palliat Nurs. 2010 ;16:163-72.

24. Bedwell W, Ramsay S, Salas E. Helping fluid teams work: A research agenda for effective team adaptation in healthcare. TBM 2012; 2: 504-509

25. Orzano A, McInerney C, McDaniel R, Meese A, Alajmi B, Mohr S, Tallia A. A medical home: Value and implications of knowledge management. Health Care Manage Rev 2009; 34: 224-233.

26. Veloski J, Boex JR, Grasberger MJ, Evans A, Wolfson D et al. Systematic review of the literature on assessment, feedback and physicians' clinical performance: BEME
Guide No. 7. Med Teach 2006;28:117-28.

27. Cantillon P, Sargeant J. Giving feedback in clinical settings. BMJ 2008 10;337:a1961.

28.  Tennant M. Is learning transferable? Understanding Learning at Work, D. Boud, J. Garrick (Eds.), Routledge, London ,1999.

29. Crebert G, Bates M, Bell B, et al. Developing generic skills at university, during work placement and in employment: graduates' perceptions. Higher Education Research and Development 2004;24:147–165.

30. Kalyuga S. Instructional designs for the development of transferable knowledge and skills: A cognitive load perspective. Comput Hum Behav 2009;25:332–338

31. Benner P. From novice to expert. Am J Nurs 1982; 82:402-407.

32.     Cangelosi P, Crocker S, Sorrel J. Expert to novice: clinicians learning new roles as clinical nurse educators. Nurs Educ Perspect 2009;30(6):367-371.

33.     Anderson J. The work-role transition of expert clinician to novice academic educator. J Nurs Educ 2009;48:203-208.

34.     Weidman NA. The lived experience of the transition of the clinical nurse expert to the novice nurse educator. Teaching and Learning in Nursing 2013;8:102-109.

35.     Henderson A, Eaton E. Assisting nurses to facilitate student and new graduate learning in practice settings: what 'support' do nurses at the bedside need? Nurse Educ Pract 2013;13(3):197-201. doi: 10.1016/j.nepr.2012.09.005. Epub 2012 Nov 9.

36.     Horton C, DePaoli S, Hertach M, Bower M. Enhancing the effectiveness of nurse preceptors. J Nurses Staff Dev 2012;28(4) E1-E7. Doi: 10.1097/NND.0b013e31825dfb90.

37.     Holden L Complex adaptive systems: concept analysis. J Adv Nurs 2005; 52: 651-657.

38.     Plsek PE, Greenhalgh T. Complexity science: The challenge of complexity in health care.  BMJ 2001;323:625-8.

39.     Choi T, Dooley K, Rungtusanatham M. Supply networks and complex adaptive systems: control versus emergence J Oper Manag 2001 351–366

40.     Sweeney K, Griffiths F (Eds) Complexity and Healthcare: an introduction. 2002 Radcliffe Medical Press Ltd. Oxon UK.

41.     Wheatley M Leadership and the New Science. Discovering order in a chaotic world. 2006 Berret-Koehler Publishers, Inc. San Francisco

42.     Ladyman J, Lambert J, Wiesner K What is a complex system? Euro Jnl Phil Sci 2013; 3:33-67.

43.     Best A, Greenhalgh T, Lewis S, Saul J, Carrol S, Bitz J. Large-System Transformation in Health Care: A Realist Review. The Milbank Quarterly 2012; 90: 421-456.

44. Borgermans L, De Maeseneer J, Wollersheim H, Vrijhof B, Devroey D. A theoretical lens for revealing the complexity of chronic care. Perspect Biol Med 2013; 56: 289-299.

45. De Maeseneer J, Roberts RG, Demarzo M, Heath I, Sewankambo N, Kidd MR, van Weel C, Egilman D, Boelen C, Willems S. Tackling NCDs: a different approach is needed. Lancet 2012 379 doi: 10.1016/S0140-6736(11)61135-5.

46. Fraser S, Greenhalgh T. Coping with complexity: educating for capability. BMJ 2001; 323: 799-803

47. Frenk J,Chen L, Bhutta Z et al. Health professionals for a new century: transforming education to strengthen health systems in an interdependent world. Lancet 2010; 376:1923-1958.

48. Anderson, R, McDaniel R. Managing Health Care Organizations: Where Professionalism Meets Complexity Science. Health Care Management Review 2000; 25(1): 83-92

49. DuFour, R. "Schools as learning communities," Educational Leadership 2004; 61(8): 6-11

50. Schmitt M, Aschenbrener C, Viggiano T. Core competencies for interprofessional collaborative practice: reforming health care by transforming health professionals' education. Acad Med 2011; 86(11): 1351

51. Thistlethwaite J, Moran M, WHO study group on interprofessional education and collaborative practice. Learning outcomes for interprofessional education (IPE): Literature review and synthesis. J Interprof Care 2010; 24(5): 503-513

52. Hafferty FW1, Watson KV The rise of learning communities in medical education: a socio-structural analysis. J Cancer Educ. 2007 Spring;22(1):6-9.

53. Kitto S, Bell M, Peller J, Sargeant J, Etchells E, Reeves S, Silver I. Positioning continuing education: boundaries and intersections between the domains continuing education, knowledge translation, patient safety and quality improvement. Adv Health Sci Educ Theory Pract. 2013;18(1):141-56. doi: 10.1007/s10459-011-9340-1. Review.

54.     http://www.domusmedica.be/kwaliteit/pop/1418-pop.htm

55.     http://www.goldstandardsframework.org.uk/

56.     http://www.ebp-guidelines.be/groepen/kringen/nieuws/1347-domus-medica-biedt-aan-kringen-en-lokgroepen-een-navormingsprogramma-aan-over-palliatieve-zorg.html

57.     van der Plas AG1, Hagens M, Pasman HR, Schweitzer B, Duijsters M, Onwuteaka-Philipsen BD. PaTz groups for primary palliative care: reinventing cooperation between general practitioners and district nurses in palliative care: an evaluation study combining data from focus groups and a questionnaire. BMC Fam Pract. 2014 Jan 20;15:14. doi: 10.1186/1471-2296-15-14.

58.     Roex A, Agten M, Crauwels E, De Boeck E, Erkens M, Moermans S, et al. Accreditering vanuit het electronisch medisch dossier: naar een nieuw model? Tijdschr voor Geneeskunde 2014;70:75-81.

59.     http://ec.europa.eu/health/expert_panel/opinions/docs/001_definitionprimarycare_en.pdf

60.     Meekin S, Klein J, Fleischman A, Fins J. Development of a Palliative Education Assessment Tool for Medical Student Education Acad. Med. 2000;75:986–992.

# Nederlandse Samenvatting

## NEDERLANDSE SAMENVATTING

Wereldwijd kent de palliatieve zorg de laatste decennia een sterke ontwikkeling in antwoord op het groeiend aantal mensen met chronische en ongeneeslijke ziekten. De palliatieve zorg als maatschappelijke zorgcultuur, en de palliatieve geneeskunde als wetenschap evolueren razendsnel. Zowel in de ziekenhuiswereld als in de thuiszorg worden structuren opgericht om de zorgverstrekkers te ondersteunen in hun zorg voor de palliatieve patiënt. Het doel is om kwalitatieve palliatieve zorg aan te bieden, waar de patiënt zich ook bevindt. De keuze van het grootste deel van deze patiënten is om thuis te blijven tot aan het sterven. Dit legt een grote verantwoordelijkheid bij de zorgverstrekkers in de eerste lijn, met de huisarts als spilfiguur. Om de huisarts in die taak te ondersteunen werden palliatieve thuiszorgequipes opgericht, met gespecialiseerde verpleegkundigen die de eerstelijns-zorgverstrekkers ondersteunen en adviseren in hun taak. De eindverantwoordelijkheid blijft bij de huisarts die daarom op de hoogte moet blijven van de ontwikkelingen binnen de palliatieve zorg en de palliatieve geneeskunde.

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Het vormingstraject van de huisarts bestaat uit een eerste deel (de basisopleiding tot arts en de specialisatiejaren tot huisarts) en een tweede deel waarbij de huisarts zich gedurende zijn volledige carrière bijschoolt (het levenslang leren). Het doel van dit doctoraatsonderzoek is na te gaan hoe huisartsen de nodige competenties verwerven en behouden gedurende hun carrière (= het tweede deel van het vormingstraject) om goede palliatieve thuiszorg te kunnen bieden.

Twee vormen van leren komen daarbij aan bod:

- Het 'klaslokaal-leren'. Dit omvat alle vormingssessies waarbij een spreker als expert een thema bespreekt. Een expliciet doel van deze vorm van leren is kennisoverdracht.
- Het 'werkplekleren'. Door samen te werken met anderen wordt kennis en ervaring uitgewisseld. Dit kan expliciet zijn of impliciet (waarbij leren niet als hoofddoelstelling wordt vooropgesteld).

Dit proefschrift omvat twee grote delen die elk één van deze leervormen bestuderen.

Het eerste deel start met de evaluatie van het 'klaslokaal – leren' en wenst een antwoord te geven op de volgende vragen:

- Wat is het huidig aanbod aan continue navorming inzake palliatieve zorg voor huisartsen in Vlaanderen?

- Wat is de visie en wat zijn de voorkeuren van huisartsen inzake levenslang leren met betrekking tot palliatieve zorg?

Het tweede deel richt zich op het werkplekleren en wenst een antwoord te geven op de volgende vragen:

- Wat zijn de karakteristieken van het huidige werkplekleren in de eerstelijns palliatieve zorg?

- Kan het werkplekleren voor huisartsen verbeteren door verpleegkundigen van de palliatieve thuiszorgequipes te trainen tot facilitatoren van werkplekleren?

## Deel I (paper 1 tot 5).

In een eerste studie (**paper 1**) evalueerden we het huidig aanbod van officiële navormingsmogelijkheden inzake palliatieve zorg in Vlaanderen. We hebben alle officiële navormingsorganisatoren bevraagd over hun aanbod voor de huisarts (91 huisarts-organisaties, 18 palliatieve zorg organisaties, 121 ziekenhuizen en 4 universiteiten). De vragenlijst werd opgesteld op basis van de curriculumsuggesties van de European Association for Palliative Care (EAPC) en op basis van literatuur inzake effectiviteit van onderwijsvormen. De resultaten tonen aan dat het groot aantal diverse organisatoren, zonder centrale coördinatie, leidt tot een versnipperd navormingslandschap. Een aantal thema's zoals 'teamwork', 'communicatie' en 'zorgorganisatie' ontbreken in het aanbod in veel regio's. In 80 % van de navormingen werd gebruik gemaakt van ineffectieve didactiek zoals een klassieke lezing. De opkomst was gemiddeld laag, zelden meer dan 10% van de doelgroep, en zelfs nog minder als de doelgroep multidisciplinair was. Meer dan 70% van de vormingen werden helemaal niet geëvalueerd, de overige meestal enkel door een tevredenheidsmeting bij de deelnemers. De organisatoren zijn zich bewust van deze tekortkomingen maar hebben onvoldoende mogelijkheden (o.a. financieel en opgeleide lesgevers) om ze te beantwoorden.

Een aansluitend onderzoek (**paper 2**) ging na welke informatie over dit vormingsaanbod beschikbaar en toegankelijk was, zowel voor de organisatoren van navorming als voor de individuele huisarts. De databank van alle officieel geaccrediteerde

navormingen staat niet online en is niet vrij toegankelijk. Op expliciete vraag werd de databank bezorgd in het kader van dit onderzoek. Exploratie er van toonde dat enkel administratieve informatie aanwezig was (datum, titel en organisator van de vorming, aantal accrediteringspunten en verantwoordelijke instantie voor het toekennen van de accreditering). Informatie over kwaliteitscriteria van de vorming, gedetailleerde inhoud, aanwezigheden of evaluatie van de vorming zijn niet in de databank opgenomen. Deze resultaten tonen aan dat, zelfs indien de databank vrij beschikbaar zou zijn, ze niet bruikbaar is voor de individuele huisarts om een vormingstraject uit te stippelen volgens zijn leernoden, noch voor de vormingsorganisatoren om het aanbod op elkaar af te stemmen en te optimaliseren.

Vergelijkende artikels over accreditering in Europese landen beschrijven enkel de procedures en accrediteringsvoorwaarden maar niet de inhoud en kwaliteitsvoorwaarden van de navorming (**paper 3**).

Aansluitend op de beschrijving van het vormingsaanbod wensen we na te gaan wat de voorkeuren van huisartsen waren met betrekking tot vorming inzake palliatieve zorg (**paper 4**). Focusgroep onderzoek werd uitgevoerd met huisartsen, navormingsorganisatoren en leden van palliatieve thuiszorgequipes om een volledig beeld te krijgen van de visie op navorming van eerstelijnszorgverstrekkers. Alle huisartsen bevestigden dat ze palliatieve zorg als belangrijk onderdeel van hun job zagen en wensten daarvoor een zekere basiskennis te verwerven. De basisopleiding tot arts bleek voor de meeste artsen onvoldoende als voorbereiding. Het toevoegen van praktijkervaring tijdens de opleiding werd gesuggereerd als mogelijke meerwaarde. Unaniem werd het belang van levenslang leren vermeld. Het klassieke navormingscircuit werd globaal negatief beoordeeld met twee hoofdredenen: ten eerste omdat er een discrepantie was tussen het vormingsaanbod en de actuele leernoden (die afhankelijk zijn van de actuele zorgnoden van de patiënt) en ten tweede omdat de meeste vormingssessies te theoretisch waren en ex cathedra gedoceerd werden. Huisartsen wezen op 'werkplekleren' als volwaardig alternatief. De samenwerking met de palliatieve thuiszorgequipes biedt niet alleen ondersteuning voor de patiëntenzorg maar leidt volgens hen ook tot een aantal leermogelijkheden die perfect aansluiten op de leernoden van het moment. Werkplekleren werd vernoemd als methode om zowel een globale palliatieve zorgattitude te verwerven als ook specifieke onderwerpen (theoretische kennis en praktische vaardigheden) aan te leren. Respectvolle interprofessionele relaties zijn nodig voor een huisarts om zich als 'lerende' te kunnen opstellen.

Gezien het belang van de samenwerking met de palliatieve thuiszorgequipes werd in het focusgroep onderzoek ook nagegaan wat de wensen en voorkeuren waren van de huisarts inzake interdisciplinaire samenwerking (**paper 5**). Een eerste belangrijke voorwaarde voor een geslaagde samenwerking in de thuiszorg was het hebben van een goede relatie en goede communicatie met de familieleden van de patiënt die in het zorgproces betrokken waren. Met betrekking tot de interprofessionele samenwerking kwamen volgende onderwerpen naar voor: 1. Ieder teamlid moet voldoende opgeleid zijn en voldoende kennis hebben van palliatieve zorg om zijn taak te kunnen opnemen. Bijkomend werd het belang vernoemd van het kennen van elkaars expertise. 2. Afspraken moeten gemaakt worden over de verdeling van taken en verantwoordelijkheden. Dit moet conflicten vermijden die kunnen ontstaan bij discussies over het medisch beleid. 3. De noodzaak van communicatievaardigheden om die taakafspraken te kunnen maken. Er was geen voorkeur voor een bepaalde communicatiemethode (telefonisch, via een thuiszorgschrift of op een overlegmoment). Het werd wel belangrijk geacht dat teamleden bereikbaar waren bij problemen om snel te kunnen overleggen.

## Deel II (paper 6 tot 9).

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In het tweede deel van dit proefschrift onderzoeken we of werkplekleren, zoals door de huisartsen aangegeven, een haalbare kaart is in de palliatieve thuiszorg en of we dit werkplekleren kunnen bevorderen.

Werkplekleren vertrekt van het delen van kennis en expertise tussen samenwerkende zorgverstrekkers. Gezien huisartsen in Vlaanderen frequent samenwerken met de expert-verpleegkundigen van de palliatieve thuiszorgequipes, werd bij het volgend onderzoek de focus op deze interactie gelegd. Via een retrospectieve dossierstudie werd nagegaan of in de patiëntendossiers van de palliatieve thuiszorgequipe gerapporteerd werd over de interactie tussen de huisartsen en de verpleegkundigen. Meer bepaald werd nagekeken of in die rapportering melding werd gemaakt van werkplekleren. Deze studie werd uitgevoerd bij alle 15 palliatieve thuiszorgequipes in Vlaanderen en omvatte een dossier-steekproef van een volledig jaar (paper 6). De analyse toonde dat de verpleegkundigen de patiëntendossiers niet alleen gebruikten om patiëntgegevens te noteren maar dat ook de contacten met de huisarts in detail beschreven werden (gemiddeld 6 arts-verpleegkundige contacten per patiënt). In bijna één vierde van deze contacten werd een leermoment voor de huisarts be-

schreven aan de hand van vier karakteristieken: 1.het onderwerp (thema's binnen de verschillende domeinen van de palliatieve zorg kwamen aan bod: lichamelijk, psychisch, sociaal, existentieel ), 2. de contactmethode (in 70% van de contacten telefonisch), 3. de initiatiefnemer (in 60% van de contacten de verpleegkundige) en 4. de leeractiviteit (vooral 'discussie en reflectie', 'informatie krijgen' en 'vragen stellen' werden vernoemd).

Deze dossierstudie bevestigde dat er kan geleerd worden op de werkplek. Dit kwam tegemoet aan de wensen van de huisartsen zoals in de focus groepen werd beschreven. Om meer inzicht te krijgen in de karakteristieken van het werkplekleren werd een cross-sectioneel onderzoek uitgevoerd bij huisartsen en palliatief verpleegkundigen (paper 7). Deze studie greep plaats bij 12 van de 15 palliatieve thuiszorgequipes in Vlaanderen. Gedurende een periode van drie maand werden, na het overlijden van een patiënt, de behandelend huisarts en de palliatief verpleegkundigen bevraagd over het leereffect van de voorbije samenwerking. De vragenlijsten peilden naar het onderwerp van het leren (gebaseerd op de EAPC curriculum suggesties), de manier van leren (gebaseerd op Eraut's typologie van leeractiviteiten), de bron van het leren (alle betrokkenen in de patiëntenzorg) en demografische kenmerken van de deelnemers (leeftijd, geslacht, beroep, werkervaring, voorafgaande vorming in palliatieve zorg). De analyse toont dat zowel huisartsen als palliatief verpleegkundigen leren tijdens de samenwerking (huisartsen gemiddeld 5,1 items en verpleegkundigen gemiddeld 4,6 items gedurende de samenwerking rond 1 patiënt). Beide beroepsgroepen leerden vooral over patiënt gebonden (inhoud-gerelateerde) onderwerpen (fysieke en psychosociale klachten) en minder over niet-patiënt gebonden (procesgerelateerde) onderwerpen (teamwerk, zorgorganisatie en religieuze thema's). Alle betrokkenen in de samenwerking (alle professionelen en niet-professionelen) werden vermeld als bron van leren. De patiënt en zijn familie kwam hierbij zowel bij huisartsen als bij palliatief verpleegkundigen op de eerste plaats. De palliatief verpleegkundigen waren voor huisartsen de tweede bron van leren. Deelnemers in deze studie vermeldden diverse leeractiviteiten met een overwicht van 'luisteren en observeren' en 'discussie en reflectie'. Leer-strategieën zoals 'feedback' en 'leren uit fouten' kwamen veel minder aan bod.

De studies beschreven in paper 6 en 7 tonen aan dat werkplekleren een realiteit is in de eerstelijns palliatieve zorg . In een volgende studie werd nagegaan of deze dynamiek kon bevorderd worden. Gezien huisartsen de palliatief verpleegkundigen

op de tweede plaats zetten als bron van leren (na de patiënt en zijn familie) richtte de studie zich op het trainen van deze verpleegkundigen tot facilitator van werkplekleren voor huisartsen. De vaardigheden die tot die rol behoren in de context van de palliatieve thuiszorg, en die in de training vervat waren, zijn: herkennen van leerkansen, specifieke vragen ombuigen tot generische vragen, positieve en negatieve feedback geven, critical incident analyse en debriefingsgesprekken op het einde van een samenwerking. Een specifiek trainingsprogramma werd hiertoe opgesteld bestaande uit een volledige dag training, een tussenperiode van drie maand waarin de geleerde vaardigheden in de praktijk werden geïmplementeerd, gevolgd door een halve dag training. Tijdens de drie maanden tussenperiode werden huiswerkopdrachten gegeven, voortgangsrapporten geschreven en geïndividualiseerde feedback gegeven door de trainers. De training en de mixed-method evaluatie van dit programma wordt beschreven in paper 8. De tevredenheid van de 35 deelnemende verpleegkundigen was unaniem hoog. Als reden werd de praktische toepasbaarheid van de training vernoemd: verpleegkundigen herkenden in de training de problemen die ze dagdagelijks ontmoetten. De huiswerktaken werden door de meeste deelnemers (33/35) goed uitgevoerd. Het bleek voor sommigen (13/35) een meerwaarde om het huiswerk binnen het team te bespreken. Het schrijven van de voortgangsrapporten bleek voor heel wat verpleegkundigen (17/35) een niethaalbare opdracht wegens te grote werkbelasting. Tijdens de tweede trainings-dag werden de getrainde vaardigheden getest aan de hand van een gesprek met een huisarts volgens een gestandaardiseerd scenario. Factoren die de implementatie van de getrainde vaardigheden in de praktijk beïnvloedden waren: persoonlijke karakteristieken ('doeners' en sterke focus op de patiënt verhinderen de opname van de facilitator-rol), interpersoonlijke factoren (de relatie met de huisarts, de houding van de huisarts) en context-factoren (steun van het team, werkbelasting en tijdsdruk, noden van de patiënt). Het bleek van groot belang voor het slagen van de training dat de verpleegkundigen gepersonaliseerde en nabije opvolging (mentoring) kregen gedurende het implementeren van de nieuwe rol in de dagelijkse praktijk.

Na een eerste periode van praktijkervaringen in hun nieuwe rol als facilitator van werkplekleren voor de huisarts werden interviews afgenomen bij 21 van de verpleegkundigen die de training gevolgd hebben. (paper 9). Deze interviewstudie wenste na te gaan wat de ervaringen, visie en voorkeuren waren van de verpleegkundigen ten opzichte van hun nieuwe rol en hoe ze die nieuwe rol verenigden met hun zorgtaak voor de patiënt en hun functioneren binnen het zorgteam. Twee thema's werden

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gedefinieerd die de houding van de verpleegkundige ten opzichte van hun nieuwe rol bepaalden: 1. Visie ten opzichte van het verspreiden van kennis (van kennis delen als adviesmoment tot kennis delen als leermoment) en 2. Focus van zorg (van zorg dragen hoofdzakelijk voor de patiënt tot zorg dragen voor het volledige team). Aan de hand van deze twee thema's kon een typologie opgesteld worden van vier gedragsstijlen van palliatief verpleegkundigen: de klinisch expert-, de buddy-, de coach- en de mediator-stijl. Elk van deze vier stijlen beschrijft een verschillende houding ten opzichte van werkplekleren en de taak van de palliatief verpleegkundigen daarin. Elke verpleegkundige heeft een persoonlijke, natuurlijke voorkeur voor 1 van de stijlen maar kan zijn stijl aanpassen volgens de situationele noodzaak (patiënten-noden, houding van andere zorgverstrekkers). Het mentorschap waarvan sprake in paper 8 dient rekening te houden met het feit dat het opnemen van een nieuwe professionele rol (i.c. facilitatorrol) een grote opdracht is en een intense begeleiding vraagt. Daar moet aan toegevoegd worden, volgens de resultaten van de studie in paper 9, dat elk van de vier beschreven stijlen een aparte coping-stijl van omgaan met de uitdagingen van deze nieuwe rol betekent en dat de begeleiding niet alleen intens moet zijn maar ook geïndividualiseerd. Twee opmerkelijke resultaten uit deze interviewstudie dienen nog vermeld te worden. Ten eerste, ondanks het feit dat de focus van de training op de huisarts lag, werd door sommige verpleegkundigen de facilitator-rol ook opgenomen ten opzichte van anderen, bijvoorbeeld de thuisver-pleegkundigen. Ten tweede, de training was enkel gericht op het leereffect van de samenwerking maar had ook andere gevolgen zoals het feit dat de palliatief ver-pleegkundigen een andere kijk kregen op de huisarts als persoon en als professional: de huisartsen werden meer als teamlid beschouwd dan als 'externe medewerkers'. Deze 'onverwachte' effecten verdienen bijkomende aandacht.

Werkplekleren blijkt een spontaan optredend fenomeen te zijn tijdens de interpro-fessionele samenwerking in de eerstelijns palliatieve zorg. Het is haalbaar om leden van het zorgteam te trainen tot facilitator van werkplekleren van andere leden. Het trainen van 1 lid van het team heeft (geplande en ongeplande) gevolgen voor de andere leden. De complexe relaties, interacties en gebeurtenissen tussen alle betrok-kenen onderling en tussen de betrokkenen en hun omgeving kunnen niet verklaard worden door enkelvoudige oorzaak-gevolg redeneringen. Om deze fenomenen te begrijpen kunnen we gebruik maken van de inzichten uit de complexiteit theorieën en de complex adaptieve systemen. Meer onderzoek is nodig om het belang van werkplekleren voor de kwaliteit van de patiëntenzorg te bepalen.

# Dankwoord
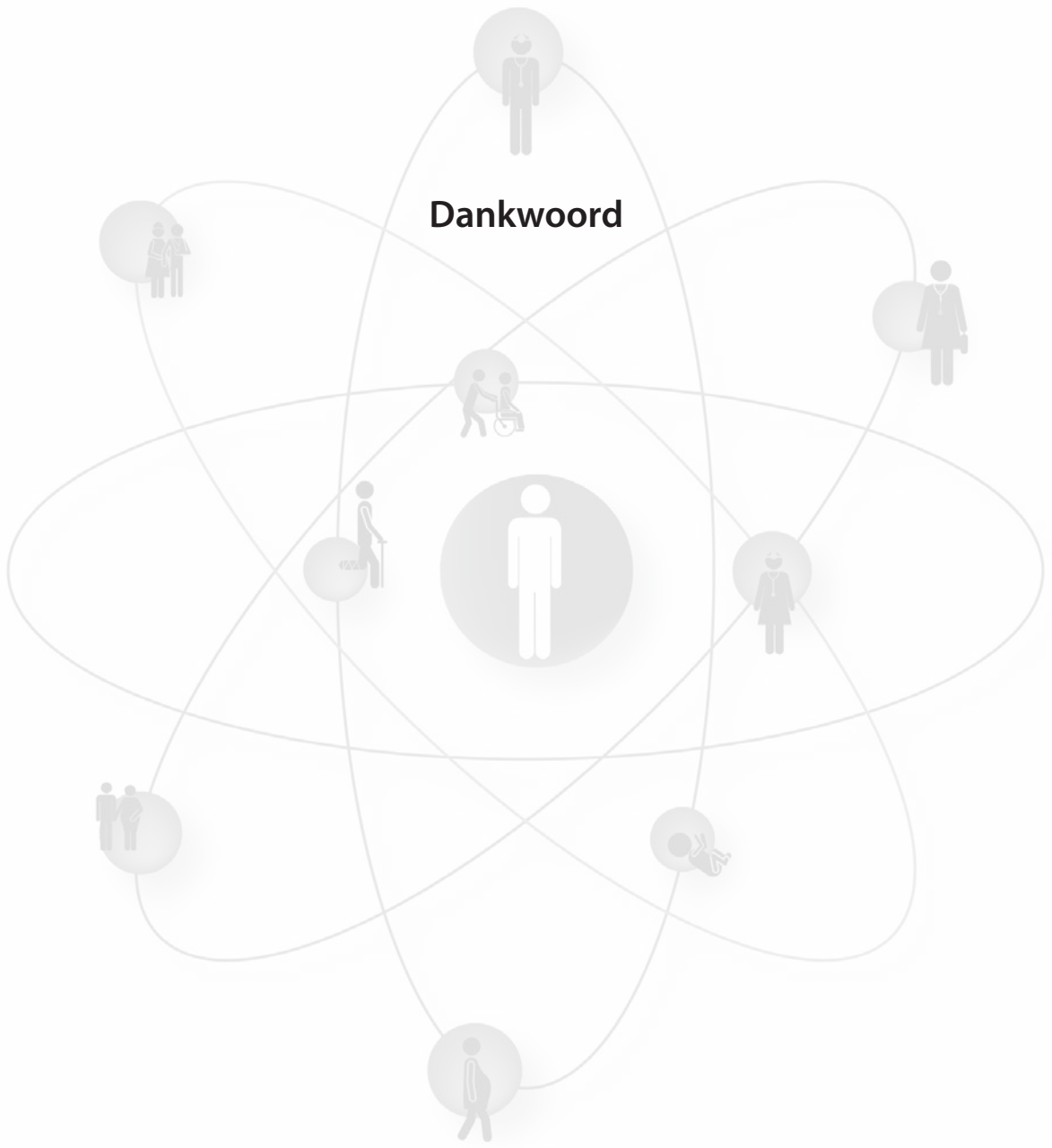
## DANKWOORD

Interprofessioneel samenwerken en –leren is niet alleen het onderwerp van mijn doctoraatsthesis maar ook de manier waarop ze tot stand is gekomen. Met heel veel mensen heb ik samengewerkt, en veel heb ik daaruit geleerd.

Oneindig veel mensen hebben me in de loop van de voorbije jaren geholpen, in grote en kleine dingen, veel meer dan de paar die ik hieronder met naam vernoem.

Op een EAPC congres jaren geleden, laat op de avond aan de toog, vroeg Prof dr Bart Van den Eynden me 'out of the blue': 'Peter, wanneer kom je nu doctoreren?'. Na die eerste (van vele) slapeloze nacht en een zomer van afwegen ben ik vol enthousiasme begonnen aan mijn doctoraatstraject in de Universiteit Antwerpen. Bart, jij hebt me gedurende al die jaren enthousiast gehouden. Na elk overleg en na elk contact met jou ging ik 'vol goesting' terug naar huis om verder te werken. Ik zal je altijd dankbaar blijven voor de kans die je me gegeven hebt.

Diezelfde stimulans kreeg ik van Prof dr Johan Wens. Johan, je zorgvuldigheid, nauwkeurigheid en beheersing waren een voorbeeld. Je befaamde 'five-minute-lessons' over de meest uiteenlopende onderwerpen hebben me door heel wat knelpunten geloodst. Je vaardigheid om na een brainstormsessie een stap achteruit te zetten en een beslissing te nemen (waarbij je steevast enkele leuke pistes schrapte want 'die zijn voor later') heeft me geleerd om prioriteiten te zetten.

De onderwijskundige input kwam van dr Ann Stes. Ann, jij bent een ongelooflijk nauwkeurige reviewer van al mijn teksten. Je zette tegelijkertijd de bril van auteur en de bril van onbevangen lezer op waardoor bijna al je suggesties in mijn teksten een plaats hebben gekregen.

Een paar jaar geleden kreeg ik van Prof dr Myriam Deveugele de kans om als praktijkassistent te starten in onze vakgroep Huisartsgeneeskunde en Eerstelijnsgezondheidszorg. Zo werd mijn doctoraatstraject gewijzigd tot een dubbeldoctoraat aan de Universiteit Antwerpen en de Universiteit Gent. Myriam, op dat moment heb je uit de boeiende stapel ideeën die er waren de krijtlijnen van dit doctoraat getrokken. Ook jij hebt een aantal pistes geschrapt maar er ook een aantal aan toegevoegd. Je hebt me geleerd om het bredere plaatje te zien en tezelfdertijd oog te hebben voor details. Doorheen de jaren van samenwerken heb je er voor gezorgd dat niet alleen de thesis maar ook ikzelf gegroeid ben. Je weet dat je voor mij meer bent dan een

promotor van mijn doctoraat.

Een aantal leden van de Vnà-summer course, Young-EACH members, zijn een blijvende groep stimulerende vrienden geworden na de zeer intense week in de nazomer van 2011. Marij, Isabelle, Gemma, Kim, Valentina, looking forward to seeing you all on the next congress.

Alle leden van de jury ben ik dankbaar voor de stimulerende en constructieve feedback op de eerste versie van dit werk. Het eindresultaat zoals het nu voorligt is daar het gevolg van.

Veel van de ideeën van de laatste jaren zijn geboren tijdens het werk in onze pallia- tieve thuiszorgequipe van de Mantel. Mijn teamgenoten hebben veel van mij moeten verdragen. Dikwijls kwam ik te laat binnen op een vergadering, onderbrak die om enthousiast de wildste ideeën te spuien, en dan voor het einde van de vergadering weer buiten te lopen en een wolk stress achter te laten. Een speciale vermelding is er voor Veronique, die dit alles toeliet en me steunde bij het aftoetsen van nieuwe ideeën, en voor Ria die mij als klankbord en met praktische steun vanaf het eerste uur geholpen heeft.

Piet Vanden Bussche. Als mijn 'eerste mentor', leerde je mij de cursus kwaliteitszorg van Domus Medica kennen en toonde mij dat huisarts-zijn een aantal meta-niveaus telt bovenop de klinische praktijk. Deze extra dimensie van kwaliteitszorg was een opstapje naar het onderzoek doen.

Hannes Blockeel, mijn collega in de praktijk, waarschijnlijk besef jij de grootte van je bijdrage niet. Toen ik de kans kreeg om op de vakgroep te werken, en jij haio was in de praktijk, zei je me 'doe maar, het is van groot belang dat studenten les krijgen van mensen uit de praktijk'. Daarmee heb je mij de nodige ruimte gegeven en jezelf veroordeeld tot een werk- en verantwoordelijkheidsopdracht die ver boven je haio- mandaat uitsteeg.  Ook daarna liet je mij geplande en ongeplande afwezigheden nemen zoveel ik nodig had. Zonder die vrijheid was dit werk er waarschijnlijk niet gekomen.

Fundamenteel voor mijn thesis, niet alleen als 'onderzoeksonderwerp' maar vooral als onderzoeksmedewerker zijn alle verpleegkundigen van de palliatieve thuiszor- gequipes in Vlaanderen. Hun onophoudelijke enthousiaste inzet bij het verwerven van de gegevens waren van onschatbare waarde. Bovenop de zware dagelijkse

werktaak die hun job met zich meebrengt, hebben zij heel wat werk verzet in de ELICIT studie, en daarnaast huisartsen gemotiveerd om dit ook te doen. Chapeau en een oprechte dankjewel!

Paul Vanden Berghe, Gert Huysmans, Let Dillen en Greet Francois. Jullie dank ik voor de kameraadschappelijke manier waarop jullie vanuit de Federatie structurele support gaven.

Linda Symons, jij hebt me ingewijd in de geheimen van het coderen van focusgroepen gedurende vele uren in allerhande stations-buffetten. Telkens ik aan een nieuw transcript begin, hoor ik nog je commentaren.

De communicatiegroep waarbinnen ik nu reeds enkele jaren mag werken is een veilige haven om te vertrekken en terug te komen. Als ik alle lessen en taken optel die jullie het voorbije jaar van mij hebben overgenomen, omdat het weer even spannend werd, dan weet ik niet hoe jullie het voor elkaar kregen bovenop jullie eigen werk. Maar jullie deden het. En net zoals in mijn andere haven, het palliatieve thuiszorgteam, heb ik ook bij jullie af en toe wat stress binnen-geblazen. Denk ik. Marij, Lode, Karolien, Fien, Karen, Hanne en Tony, dankjewel. Het is een ongelooflijk geluk om met jullie te mogen samenwerken.

Een extra woordje voor de CreA, ons onderzoeksgroepje. Marij, je kritische blik en expertise in kwalitatieve analyses hebben me mijn data, waarvan ik dacht dat ik ze kende, soms op een andere manier leren begrijpen. Karolien, je praktische geest en supersnelle acties hebben me gespaard van veel rompslomp die ik zelf niet kon oplossen. Fien, de laatste twee jaar hebben we veel samengewerkt. Projecten afgewerkt en nieuwe opgestart. Het enthousiasme en de honger waarmee je naar de onderzoekswereld keek is stimulerend. De zorgvuldigheid en nauwkeurigheid (waarmee je mijn geduld soms op de proef stelde) bleken op het einde van de rit telkens voor een grote meerwaarde te zorgen. Ik hoop nog lang met jullie te mogen samenwerken.

Onze communicatie-groep functioneert binnen de ruimere vakgroep, een biotoop vol prikkels en energie waar zaadjes bomen worden onder toezicht van Prof Jan De Maeseneer, vakgroepvoorzitter. Jan, 1 week voor de interne verdediging las je mijn discussie en vroeg je om dringend eens samen te zitten. Dat klinkt niet goed, dacht ik. Maar in een gesprek van een uur heb je dit werk geplaatst in een ruimere context en me ideeën meegegeven waar ik nog jaren mee weg kan. Dankjewel daarvoor.

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Dank aan mijn vrienden, Patrick en Marijke, Ludo en Hilde, om me met oeverloos geduld er af en toe op te wijzen dat er nog een leven bestaat buiten het doctoraat.

An, Willem, Louise en Theo. Voor wat ik jullie wil zeggen zijn er eigenlijk geen woorden. Een mens kan de wereld niet intrekken als hij geen thuis heeft om naar terug te keren. Ik zie jullie graag.

Peter Pype

# Curriculum Vitae
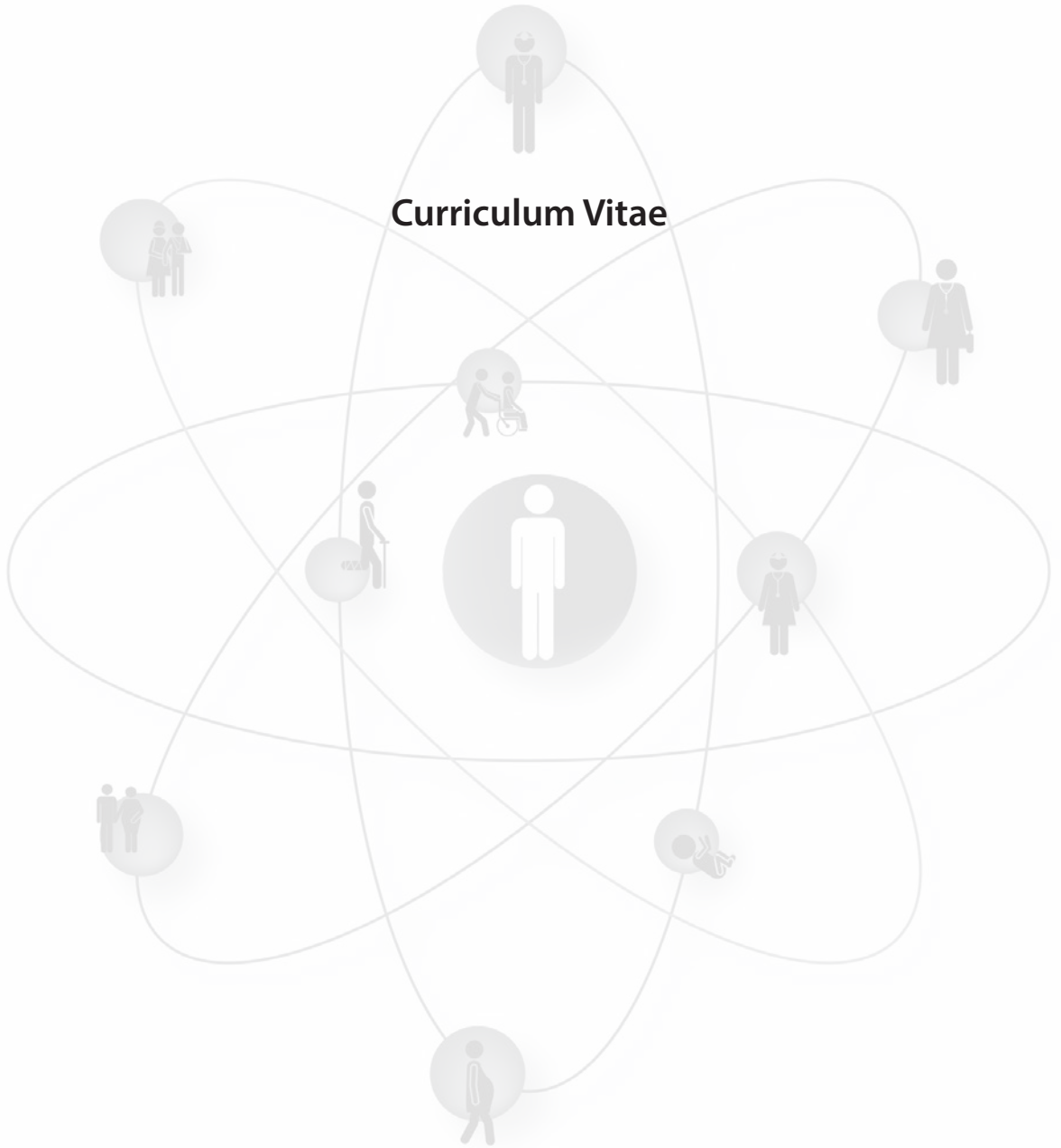
## CURRICULUM VITAE

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- Dokter in de genees- heel- en verloskunde 1991 – KULeuven
- Postacademische vorming palliatieve zorg Federatie Palliatieve Zorg Vlaande- ren 1999
- Summer Course Qualitative Research UA – 2008
- Summer Course NVivo UA – 2008
- Summer Course Research Y-EACH Vnà Switserland – 2011
- Two day program Qualitative Evidence Synthesis CEBAM 2013 – Leuven
- SPSS en statistiek gevorderden 2013 – UGent

### Tewerkstelling

- Huisartspraktijk Gits 1993 – heden
- Equipe-arts palliatieve thuiszorgequipe Midden Westvlaanderen 1999 – heden
- Praktijkassistent Communicatievaardigheden Vakgroep Huisartsgeneeskunde en Eerstelijnsgezondheidszorg UGent 2010 – heden

### Fondsen

Dit doctoraat werd van oktober 2012 tot oktober 2014 financieel ondersteund door Kom op tegen Kanker,  campagne van de Vlaamse Liga tegen Kanker VZW.

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## Publicaties

### *A1-publicaties (International journals with impact factor):*

- Pype P, Symons L, Wens J, Van den Eynden B, Stes A, Deveugele M. Health care professionals' perceptions towards lifelong learning in palliative care for general practitioners: a focus group study. BMC Fam Pract. 2014 Feb 19;15(1):36. doi: 10.1186/1471-2296-15-36.

- Sercu M, Pype P, Christiaens T, Derese A, Deveugele M. Belgian General Practitioners' Perspectives on the Use of Palliative Sedation in End-of-Life Home Care: A Qualitative Study. J Pain Symptom Manage. 2013 Oct 2. pii: S0885-3924(13)00402-8. doi: 10.1016/j.jpainsymman.2013.06.016.

- Pype P, Symons L, Wens J, Van den Eynden B, Stes A, Cherry G, et al. Healthcare professionals' perceptions toward interprofessional collaboration in palliative home care: a view from Belgium. J Interprof Care 2013 Jul;27(4):313-9. doi: 10.3109/13561820.2012.745488. Epub 2012 Nov 27.

- Sercu M, Pype P, Christiaens T, Grypdonck M, Derese A, Deveugele M. Are general practitioners prepared to end life on request in a country where euthanasia is legalised? J Med Ethics 2012 May;38(5):274-80. doi: 10.1136/medethics-2011-100048. Epub 2012 Jan 10.

- Cherry MG, Frisch A-L, Hillen MA, Pype P, Scholl I, Schwenessen N, et al. Advice for junior researchers: lessons learned from the 2011 Y-EACH Junior Investigators' workshop. Patient Educ Couns. 2012;89(1):214–5.

- Pype P, Stes A, Wens J, Van den Eynden B, Deveugele M. The landscape of postgraduate education in palliative care for general practitioners : results of a nationwide survey in Flanders, Belgium. Patient Educ Couns. 2012 Oct;89(1):214-5. doi: 10.1016/j.pec.2012.07.013. Epub 2012 Aug 9

- Pype P, Wens J, Deveugele M, Stes A, Van den Eynden B. Postgraduate education on palliative care for general practitioners in Belgium. Palliat Med. 2011 Mar;25(2):187-8. doi: 10.1177/0269216310385603

***A2-publicaties (International journals with peer review, not included in A1):***

- Pype P, Wens J, Stes A, Grypdonck M, Van den Eynden B, Deveugele M. Patients' nursing records revealing opportunities for interprofessional workplace learning in primary care: a chart review study. Education for Health 2014;27(1):1-4.

- Pype P, Slort W, Van den Eynden B, Deveugele M. Huisarts-patiënt communicatie aan het einde van het leven: aanbevelingen op basis van de literatuur. Nederlands-Vlaams Tijdschrift voor Palliative Zorg. 2013;13(1):12–27.

- Pype P, Deveugele M, Stes A, Wens J, Van den Eynden B. Quality in continuing medical education : playing hide and seek. Educ prim Care. 2011;22(6):366–8.

***A3-publicaties (National journals with peer review):***

- Pype P. Palliatieve zorg en sterven binnen het gezin: hoe kan de huisarts "falende thuissituaties" voorkomen? Huisarts Nu. 2013;42(3):125–8.

- Sercu M, Pype P, Christiaens T, Grypdonck M, Derese A, Deveugele M. Is de Vlaamse huisarts bereid om legale euthanasie uit te voeren?: kwalitatief onderzoek bij 52 huisartsen. Huisarts Nu. 2013;42(3):109–13.

- Pype P, Wens J, Stes A, Deveugele M, Van den Eynden B. Navorming voor huisartsen in Vlaanderen inzake palliatieve zorg : een doorlichting van het registratiesysteem. Tijdschrift voor Geneeskunde. 2012;68(3):109–15.

- Pype P. Palliatieve sedatie, levensverkortend of niet? Minerva (NEDERLANDSE ED.). 2012;11(10):119–20.

- Slort W, Pype P, Deveugele M. Communiceren met palliatieve patiënten. Huisarts en Wetenschap. 2011;54(11):614–7.

- Pype P. Beleid bij maligne darmobstructie: een haalbare kaart voor de huisarts? Huisarts Nu. 2006;35(5):241–5.

## Presentaties op nationale en international congressen:

- Pype P, Mertens F, Deveugele M. "I beg your pardon?": nurses' experiences in facilitating doctors' learning process. Communication in Healthcare, International conference, Abstracts. American Academy on Communication in Healthcare (AACH); 2013.

- Pype P, Deveugele M. Workplace learning in primary palliative care: a baseline measurement. Communication in Healthcare, International conference, Abstracts. American Academy on Communication in Healthcare (AACH); 2013.

- Hillen M, Scholl I, Martinelli V, Gudzune K, Pype P. "Express rather than impress": discussing individual research challenges among a group of early career researchers. Communication in Healthcare, International conference, Abstracts. American Academy on Communication in Healthcare (AACH); 2013.

- Pype P, Wens J, Stes A, Van den Eynden B, Deveugele M. Are primary health care professionals ready for interprofessional learning? Research on patient-centred interprofessional collaboration in primary care, Abstracts. European General Practice Research Network (EGPRN); 2012.

- Pype P. Interprofessioneel leren: de huiskamer als klaslokaal. Keynote lecture. 8e Onderzoeksforum Palliatieve Zorg Vlaanderen Nederland – Rotterdam 23 MAART 2012

- Pype P, Vanden Berghe P, Van den Eynden B. Implementation of the EAPC post-graduate curriculum suggestions : the Flemish experience. Palliat Med. 2012. p. 487–487.

- Pype P, Deveugele M. Interdisciplinary communication in primary palliative care : what do they talk about and how do they listen? EACH 2012, Abstracts. 2012.

- Scholl I, Cherry G, Frisch A-L, Gudzune KA, Hillen MA, Martinelli V, et al. "Express rather than impress" : discussing individual research challenges among a group of junior research peers. EACH 2012, Abstracts. 2012.

- Pype P, Dequidt D, Devos R, Hoste V. The impact of advance care planning on end of life care in nursing homes. European Association for Palliative Care, 12th Congress, Abstracts. 2011. p. 176–176.

- Pype P, Hoste V, Devos R, Dequidt D, Van den Eynden B. Translation and validation of the Dutch version of the "Multidimensional Fear of Death Scale."Palliat Med. 2010. p. S49–S49.

- Pype P, Symons L, Van den Eynden B. Influences on GP decision making for choice of CME sessions in palliative care. Palliat Med. 2010. p. S143–S143.

- Pype P, Symons L, Van den Eynden B. Welke noden hebben huisartsen bij de uitoefening van hun palliatieve thuisopdracht? Palliatieve Zorg, 7e Vlaams–Nederlands Onderzoeksforum Palliatieve Zorg, Abstracts. 2010.

- Deveugele M, Pype P, Sercu M, Piers R, Van Den Noortgate N. Communication with patients at end of life. Communication in Healthcare, International conference, Abstracts. European Association for Communication in Healthcare (EACH); 2010.

- Pype P, Van den Eynden B. The landscape of formal CME in palliative care for GPs in Flanders. European J Pall Care. 2009. p. 148–148.

- Pype P, Van den Eynden B. Het Vlaamse navormingslandschap palliatieve zorg voor huisartsen. Palliatieve Zorg, 6e Vlaams–Nederlands Onderzoeksforum Palliatieve zorg, Abstracts. 2009.