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**TITLE:** Palliative-care nurses' and physicians' descriptions of the competencies needed in their working units

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## **Abstract**

*Background:* As part of a larger project, specialists were asked to describe the most essential palliative and end-of-life care competencies needed in their working units, in order to deepen the understanding of the phenomenon.

*Aim:* To describe the most essential competencies of palliative-care nurses and physicians.

*Methods:* The data was collected using an open-ended question in a survey sent to registered nurses (n=129) working within palliative care and to physicians (n=64) with a special competency in palliative care. The data was analyzed using content analysis.

*Results:* The description of the most essential competencies included 16 main categories and 63 subcategories in total. The three strongest main categories were ‘Clinical competence’, ‘Competence in social interactions’ and ‘Competence in giving support’. Eleven main categories were based on both nurses’ and physicians’ data, while five main categories were created from nurses’ data only.

*Conclusion:* Interprofessional palliative-care education is recommended for the undergraduate and postgraduate education of nurses and physicians.

## **Keywords**

Hospice and Palliative Care Nursing; Palliative Care; Palliative Medicine; Professional Competence; Qualitative Research

## **Reflective questions**

1. What competencies did palliative-care professionals place emphasis on in particular?
2. Why would interprofessional palliative-care education be important?
3. How did the findings reflect the potential informational needs of the patients in palliative care?

## **Background**

To be effective, palliative care needs a broad multidisciplinary approach, which also includes the family (WHO 2020). Professionals working within palliative care should have good competencies within it (WHO 2014). The concept of ‘competence in medicine and nursing’ was defined in this study as a holistic combination of the values, attitudes, knowledge, or skills required to perform specified activities effectively (Cowan et al. 2005; Fernandez et al. 2012). To strengthen palliative care, one core component is education for health professionals (WHO 2020).

This paper is one of a series of papers published in a Finnish project entitled ‘Developing Palliative Nursing and Medical Education through Multidisciplinary Cooperation and Working-life Collaboration’ (EduPal). The EduPal-project was established to meet the existing educational challenges within palliative care in Finland. The project aims to develop national recommendations for undergraduate and specialist (postgraduate) education within palliative nursing and medicine, among other areas. The other papers published consist of a systematic review on the required competencies of registered nurses (Hökkä et al. 2020) and two qualitative studies which have focused on the required competencies of physicians (Melender et al. 2020) and registered nurses (Hökkä et al. Published Online Ahead of Print) within palliative care from the perspectives of multi-professional groups.

In the systematic review on the required competencies of registered nurses (Hökkä et al. 2020), six nursing competency dimensions were found: leadership, communication, collaboration, clinical, ethico-legal as well as psycho-social and spiritual. The review also found that the level of palliative care was seldom defined. The conclusion the authors drew from this was that there was a need to define palliative nursing competencies for different levels of palliative care. This was done in a

study whose data were collected in multi-professional workshops (Hökkä et al. Published Online Ahead of Print). The most relevant competency at the basic level of palliative care involved managing the most common symptoms, and at the specialist level, competency was associated with maintaining expertise and taking care of one's personal well-being at work. As for physicians' competencies (Melender et al. 2020), the data were also collected in multi-professional workshops. The central findings revealed that the most central palliative care competencies of physicians at the general level are related to advance care planning and decision-making as well as social interactions, and at the specialist level, the most central competency is related to complex symptom management.

Since the aim of the EduPal-project was to develop national recommendations for education in palliative nursing and medicine, we strived to produce valid research evidence on the topic. All the data collected in multi-professional workshops were always a consensus of many workshop members. The workshops had covered a wide range of professionals from different sectors, including third sector organizations. To gain a deeper understanding of the phenomenon of interest, only professionals specialized in palliative care were invited to write about their most essential competencies within palliative care in this study. This was conducted with an open-ended question in a larger survey. We strived to validate our earlier research findings on the competencies by asking palliative-care specialists to individually write about them, in order to find out if the results would be the same as were found in workshops, or if new or differing results would emerge. Methodologically, this conforms with the idea of data source triangulation (Yilmaz 2013, Carter et al. 2014) which "involves the collection of data from different types of people, including individuals, groups, families and communities, to gain multiple perspectives and validation of data" (Carter et al. 2014, 545). Yilmaz (2013, 323) states that "because only one research method is unlikely to adequately address the problem of rival explanations, employing multiple data collection

methods to study the same setting, issue, or programme increases the credibility of the findings by eliminating or reducing errors linked to a particular method”.

Palliative care competencies have also been described in other earlier papers (for example, DeVlieger et al. 2004; EAPC 2013; American Association of Colleges of Nursing 2016). To our knowledge, professionals have not been asked in earlier studies what they regard as their very essential competencies needed in their daily clinical practice.

### **Aim**

The aim of this study was to describe the most essential competencies of palliative-care nurses and physicians. The research question was: What are the most essential competencies pertaining to nurses and physicians working within palliative care? The ultimate goal was to gain a deeper understanding of the competencies needed by palliative care specialists in their daily practice work, in order to validate our earlier research findings on the competencies needed within palliative care and to discover if any potential new competence areas would emerge which could be implemented in the planning of palliative care education, development and research.

### **Methods**

This study used a descriptive qualitative research design. We claim no particular methodological or disciplinary roots. The intention here is to present an encompassing compendium of the phenomenon of interest (Polit and Beck 2012).

#### *Data collection and sample*

The data was collected in a survey using a questionnaire developed by three project group members: a specialist in palliative nursing and two physicians with a special competency in palliative medicine. The questionnaire included nine questions, out of which one produced material for this study. The questions of the questionnaire were developed to gather data related to the relevant learning contents of palliative-care education. The questionnaire was evaluated by 15 nursing teachers who were specialists in palliative nursing and five physicians with special competency in palliative medicine. After the evaluation, small linguistic amendments were made. The final version of the questionnaire included three structured and six open-ended questions regarding relevant areas of competence within palliative care. This study reports the qualitative results of one open-ended question as follows: “What are the most essential palliative and end-of-life care competencies you need in your working unit?”

A convenience sample of registered nurses and physicians were invited to participate in the study. At the time of the data collection, there was no official palliative care specialization education for nurses in Finland. In this study, nurses working within palliative care were considered as specialists who would be the best informants to describe the most essential competencies of palliative-care nurses. To invite nurses, stakeholders of the project were preliminarily informed in a newsletter about the survey which was on the project’s website. The stakeholders were asked to forward the survey invitation to nurses. In all, 131 registered nurses responded to the survey, but since it is not known how many nurses received the invitation, it is not possible to calculate the response rate for the nurses. Out of the responding nurses, 129 responded to the open-ended question reported here.

The group of invited physicians consisted of 149 Finnish physicians holding a special competency in palliative medicine who had given their email addresses to a special competency register of The Finnish Medical Association with no restrictions for sending mail to them. In Finland, a

certification for special competency in palliative medicine is awarded by the Finnish Medical Association (The Finnish Medical Association 2021). This postgraduate training for physicians consists of 150 hours of theoretical education in palliative medicine, two years of clinical practice in palliative care, and a final written examination. An email list was received from the register and the invitation letter with the survey were sent to the members via email. Responses were received from 65 physicians. Of these, 64 responded to the question whose results are reported in this study. Thus, the response rate was 43.6% for the whole survey and 43% for the open-ended question reported here.

### *Data analysis*

Qualitative content analysis with both inductive and deductive approaches was used in the analysis of the material (Elo and Kyngäs 2008; Kyngäs et al. 2019). The verbal data from the electronic survey was transferred electronically to a Word document matrix. No software was used in the analysis since it was conducted manually.

The data obtained from the nurses was analyzed using an inductive approach. This approach means that the categories were created based on the phenomena described in the expressions of the informants (Elo and Kyngäs 2008). The analysis focused on the manifest content of the material (Bengtsson 2016) and it was conducted in three phases: reduction, clusterization and abstraction. A unit of analysis could be many sentences, one sentence, a phrase, or a word. In the reduction phase, the material was read through while asking the following question: “What are the most essential competencies of palliative-care nurses?” Meaningful expressions giving answers to the question were manually coded into the matrix with color. They were the reduced expressions of the material. Table 1 provides an example of the coding process.



**Table 1. An example of the coding procedure: inductive creation of the subcategory****‘Encounter in a difficult situation’.**

Examples of the substantive material	Reduced expressions (codes)	Subcategory
‘...and encounter with a human being facing a crisis.’ (Nurse 102)	encounter with a human being facing a crisis	Encounter in a difficult situation
‘Encounter with a patient and patient’s next of kin in a difficult situation...’ (Nurse 32)	encounter with a patient in a difficult situation	
‘Encounter with a patient and patient’s next of kin in a difficult situation...’ (Nurse 32)	encounter with a patient’s next of kin in a difficult situation	
‘...interaction skills also in difficult situations...’ (Physician 37)	interaction skills also in difficult situations	
‘...good interaction skills also in difficult communication situations...’ (Physician 2)	good interaction skills also in difficult communication situations	

The reduced expressions were clustered together based on the similarity of the content and were subsequently abstracted into subcategories and main categories based on content (Elo and Kyngäs 2008). The frequencies (f) of the reduced expressions (codes) constituting each category were counted to demonstrate the noteworthiness of the category in relation to the entirety. The number of reduced expressions in total was 647 for the nurses’ data, and the data was saturated. Saturation of data refers to the point in the coding when no new information is discovered anymore, and it can be determined that the researchers have collected enough data (Saunders et al. 2018). This point was noticed when coding of nurse informant number 125 data. However, we decided not to close the analysis at the saturation point, because the participants had been offered a unique opportunity to describe their daily practice in their own words from the point of view of their competencies, and we wanted to use all this relevant material we had obtained.

The data obtained from the physicians was analyzed using a deductive approach. At first, the data was reduced with the same principles as the data obtained from the nurses. When reading and coding the material, the following question was asked: “What are the most essential competencies

of palliative-care physicians?”. The number of reduced expressions in total was 314 for the physicians’ data.

A deductive approach means that there is a structured or unconstrained matrix of analysis, which has been operationalized based on previous knowledge such as a model or theory (Elo and Kyngäs 2008). In the analysis, this operationalized framework guides the decisions regarding how the reduced expressions are clustered. The choice to use this approach for the physicians’ data was based on the observation that when the coding of the data started, it became evident already at a very early phase that the reduced expressions were often similar to the reduced expressions of the nurses’ data, and it was anticipated that in the use of an inductive approach, many reduced expressions from the physicians’ data could often create the same kind of categories as had been created already from the nurses’ reduced expressions. Thus, a decision was made to use the categorization created from the nurses’ data as an operationalized framework in a structured matrix (Elo et al. 2014) and then cluster the reduced expressions from the physicians’ data based on the framework.

The reduced expressions from the physicians’ data were clustered according to the subcategories produced from the nurses’ data. Reduced expressions which did not fit into any existing subcategory were clustered based on their similarity, and new subcategories, unique for the physicians, were created. The frequencies ( $f$ ) of the reduced expressions belonging to each category were counted and reported to show what was emphasized in the material. (Table 3.) In the structured matrix, there were categories where no reduced expression of the physicians’ data fitted. Thus, it cannot be determined that the physicians’ data would have been saturated.

Coding and categorization of the data was conducted by one researcher (*Blinded*). After that, another member of the research group (*Blinded*), who was familiar with the material, critically checked the analysis. These two researchers specified the contents of the categories together. Finally, all the authors (Table 2) checked that the categorization was logical and that there would be no overlap (Elo et al. 2014).

**Table 2 Qualities of the research team members.**

<b>Author (gender), credentials and occupation at the time of the study</b>	<b>Training of qualitative research</b>	<b>Earlier experience of qualitative research</b>
( <i>Blinded</i> ) (female), RN, PhD, Docent Principal Lecturer at a University of Applied Science Docent in a University	Has completed courses on qualitative research (Master and PhD level).	Has conducted qualitative research works earlier. Has been teaching qualitative research methods and supervising theses using qualitative methods.
( <i>Blinded</i> ) (female), RN (Master), MNSc, PhD-student Senior Lecturer and Project Manager at a University of Applied Science	Has completed courses on qualitative research (Master and PhD level).	Has conducted qualitative research works earlier. Has been teaching qualitative research methods and supervising theses using qualitative methods.
( <i>Blinded</i> ) (female), RN, PhD, University lecturer	Has completed courses on qualitative research (Master and PhD level).	Has conducted qualitative research works earlier. Has been teaching qualitative research methods and supervising theses using qualitative methods. Has co-authored a textbook on content analysis.
( <i>Blinded</i> ) (male), MD, PhD Professor in a University and Chief Physician in a University Hospital	Has carried out informal learning activities to learn the principles of qualitative research methods.	Has conducted qualitative research works earlier.
( <i>Blinded</i> ) (female), MD, PhD, Docent Chief Physician in a University Hospital Docent in a University	Has completed a short course on qualitative research at medical school.	Has not used qualitative methods in research work earlier.

### *Ethical considerations*

The Ethical Committee of (*Blinded*) was contacted (ICMJE 2020), and no formal approval was needed. The informants participated on a voluntary basis and expressed their informed consent by answering the consent question which was placed at the beginning of the electronic questionnaire. It was not possible to proceed to answer the questions without answering “yes” to the consent question. Before their consent, the informants received a cover letter, which included information

about the study and reassurance of the confidential nature of the study. Coding of the responses was done with ID numbers, and it is not possible to identify any informant. The data was stored electronically at (*Blinded*), and password protected. The email addresses of the physicians were received from The Finnish Medical Association using a password protected transfer method. The email addresses of the physicians were processed only by two research team members (*Blinded*). The data collection method was an anonymous survey, and the researchers did not establish any relationship with the respondents prior to conducting the study. The reason for doing the research was explained to the invited professionals in the cover letter of the survey.

## **Results**

The description of the most often needed competencies within palliative care included 16 main categories and 63 subcategories in total (Table 3). ‘Clinical competence’ was the main category created from the biggest number of reduced expressions. Of the subcategories, the strongest ones were ‘Symptom management’, ‘Pain management’, ‘Assessment of care needs’, ‘Pharmacological treatment’ and ‘Implementing and evaluating clinical care’. Examples of the original data are given below:

*“Holistic symptom management.”* (Nurse 63)

*“Management of chronic pain of frail, elderly people who have multiple diseases.”*

(Physician 22)

Another strong main category was ‘Competence in social interactions’. In this main category, the biggest subcategories were ‘Encountering patients’ next of kin’, ‘Encountering patients’, ‘Social interaction in general’ and ‘Unhurried presence’. The following citations are examples of the original data (see also Table 1):

*“Encountering the patient courageously.”* (Nurse 16)

*“When death comes, it is important to be able to encounter the next of kin of the dying patient.”*

(Nurse 36)

The third strong main category was ‘Competence in giving support’. Most of the mentioned expressions constituted subcategories ‘Giving psychosocial support to the patient’, ‘Giving support to the patients’ next of kin in general’ and ‘Giving support to the patient in general’. As some of the participants expressed:

*“Supporting the patient in emotional agony.”* (Nurse 5)

*“Dealing with the anxiety of the patient.”* (Physician 63)

Main categories ‘Decision-making competence’ included four subcategories, ‘Competence in collaboration’ included eight subcategories, ‘Theoretical competence’ included four subcategories, ‘Pedagogical competence’ included four subcategories and ‘Management and development competence’ included four subcategories. (Table 3.) The following citations are examples from the original data:

*“Decision making pertaining to palliative care or end-of-life care.”* (Physician 50)

*“To be able to work smoothly with different caregivers.”* (Nurse 54)

Main categories ‘Coordination competence’, ‘Competence in caring for dying patients’, ‘Competence in family-centered care’ and ‘Ethical competence’ included all three subcategories. Main categories ‘Competence in pediatric and adolescent care’, ‘Attitudinal competence’, ‘Competence in individual care’ and ‘Cultural competence’ (Table 3) included no subcategories since the material was quite scarce and did not allow for the creation of subcategories. One informant expressed a thought on ethical competence as follows:

“All values relevant in care, including dignity, respect, safety, autonomy etc., in different encounters.” (Nurse 125)

**Table 3. Description of the most often needed competencies of nurses and physicians working within palliative care.**

Main categories	Subcategories
Clinical competence (f = 347) (nurses' f = 245; physicians' f = 102)	Symptom management (f = 109) (nurses' f = 53; physicians' f = 56) Pain management (f = 101) (nurses' f = 79; physicians' f = 22) Assessment of care needs (f = 37) (nurses' f = 36; physicians' f = 1) Pharmacological treatment (f = 31) (nurses' f = 20; physicians' f = 11) Implementing and evaluating clinical care (f = 29) (nurses' f = 25; physicians' f = 4) Basic care (f = 19) (nurses' f = 19; physicians' f = 0) Sedation (f = 11) (nurses' f = 6; physicians' f = 5) Non-pharmacological treatment (f = 5) (nurses' f = 3; physicians' f = 2) Addressing the preferences of the patients (f = 3) (nurses' f = 3; physicians' f = 0) Home care (f = 2) (nurses' f = 1; physicians' f = 1)
Competence in social interactions (f = 184) (nurses' f = 124; physicians' f = 60)	Encountering patients' next of kin (f = 42) (nurses' f = 31; physicians' f = 11) Encountering patients (f = 36) (nurses' f = 24; physicians' f = 12) Social interactions in general* (f = 29) (nurses' f = 15; physicians' f = 14) Unhurried presence (f = 27) (nurses' f = 27; physicians' f = 0) Communication in general* (f = 13) (nurses' f = 10; physicians' f = 3) Communication with patients (f = 8) (nurses' f = 2; physicians' f = 6) Communication with patients' next of kin (f = 8) (nurses' f = 3; physicians' f = 5) Compassion (f = 7) (nurses' f = 6; physicians' f = 1) Encountering in general* (f = 6) (nurses' f = 1; physicians' f = 5) Encountering people in difficult situations (f = 5) (nurses' f = 3; physicians' f = 2) Communication with other professionals (f = 2) (nurses' f = 1; physicians' f = 1) Giving hope (f = 1) (nurses' f = 1; physicians' f = 0)
Competence in giving support (f = 106) (nurses' f = 86; physicians' f = 20)	Giving psychosocial support to the patient (f = 42) (nurses' f = 33; physicians' f = 9) Giving support to the patients' next of kin in general* (f = 31) (nurses' f = 27; physicians' f = 4) Giving support to the patient in general* (f = 21) (nurses' f = 16; physicians' f = 5) Giving psychosocial support to the patients' next of kin (f = 11) (nurses' f = 9; physicians' f = 2) Giving spiritual support (f = 1) (nurses' f = 1; physicians' f = 0)
Decision-making competence (f = 81) (nurses' f = 31; physicians' f = 50)	Setting goals of care and withholding therapies (f = 34) (nurses' f = 10; physicians' f = 24) Anticipation and making care plans (f = 28) (nurses' f = 17; physicians' f = 11) Recognizing the need for palliative care and end-of-life care and making a diagnosis (f = 15) (nurses' f = 1; physicians' f = 14) Evidence-based practice (f = 4) (nurses' f = 3; physicians' f = 1)
Competence in collaboration (f = 61) (nurses' f = 30; physicians' f = 41)	Multi-professionalism (f = 24) (nurses' f = 13; physicians' f = 11) Collaboration in general* (f = 18) (nurses' f = 9; physicians' f = 9) Organizing collaboration (f = 9) (nurses' f = 1; physicians' f = 0) Asking for and giving consultations (f = 7) (nurses' f = 1; physicians' f = 0) Networks (f = 5) (nurses' f = 0; physicians' f = 5) Collaboration with the third sector (f = 2) (nurses' f = 2; physicians' f = 0) Collegiality (f = 1) (nurses' f = 1; physicians' f = 0) Flexibility (f = 1) (nurses' f = 0; physicians' f = 1)
Theoretical competence (f = 45) (nurses' f = 25; physicians' f = 20)	Knowledge of medicine (f = 27) (nurses' f = 13; physicians' f = 14) Knowledge of the service model (f = 12) (nurses' f = 7; physicians' f = 5) Knowledge of nursing and nursing science (f = 4) (nurses' f = 4; physicians' f = 0) Formal education (f = 2) (nurses' f = 1; physicians' f = 1)

Pedagogical competence (f = 35) (nurses' f = 32; physicians' f = 3)	Counselling of patients (f = 15) (nurses' f = 15; physicians' f = 0) Counselling of next of kin (f = 14) (nurses' f = 13; physicians' f = 1) Educating professionals (f = 4) (nurses' f = 2; physicians' f = 2) Counselling in general* (f = 2) (nurses' f = 2; physicians' f = 0)
Management and development competence (f = 25) (nurses' f = 15; physicians' f = 10)	Management and development of resources (f = 7) (nurses' f = 4; physicians' f = 3) Management and development of well-being at work (f = 4) (nurses' f = 1; physicians' f = 3) Front line management (f = 1) (nurses' f = 0; physicians' f = 1) Management and development of the team's well-being at work (f = 1) (nurses' f = 0; physicians' f = 1)
Coordination competence (f = 24) (nurses' f = 20; physicians' f = 4)	Implementing coordination (f = 14) (nurses' f = 13; physicians' f = 1) General coordination (f = 5) (nurses' f = 5; physicians' f = 0) Socio-economic issues (f = 5) (nurses' f = 2; physicians' f = 3)
Competence in caring for dying patients (f = 24) (nurses' f = 17; physicians' f = 7)	Acting in difficult situations (f = 13) (nurses' f = 12; physicians' f = 1) Existential questions (f = 8) (nurses' f = 4; physicians' f = 4) Recognizing a nearing death (f = 3) (nurses' f = 1; physicians' f = 2)
Competence in family-centered care (f = 22) (nurses' f = 22; physicians' f = 0)	Consideration of families (f = 12) (nurses' f = 12; physicians' f = 0) Acting with families (f = 5) (nurses' f = 5; physicians' f = 0) Fulfilling wishes of the families (f = 5) (nurses' f = 5; physicians' f = 0)
Ethical competence (f = 14) (nurses' f = 11; physicians' f = 3)	Following ethical principles (f = 8) (nurses' f = 7; physicians' f = 1) Reflection of ethical questions (f = 4) (nurses' f = 3; physicians' f = 1) Applying virtue ethics (f = 1) (nurses' f = 0; physicians' f = 1)
Competence in pediatric and adolescent care (f = 7) (nurses' f = 7; physicians' f = 0)	- (no subcategories)
Attitudinal competence (f = 4) (nurses' f = 4; physicians' f = 0)	- (no subcategories)
Competence in individual care (f = 4) (nurses' f = 4; physicians' f = 0)	- (no subcategories)
Cultural competence (f = 1) (nurses' f = 1; physicians' f = 0)	- (no subcategories)

\*) Expressions 'in general' meant that the professionals had just mentioned the thing in their writing, albeit they did not describe it any further.

Eleven main categories were based on both nurses' and physicians' mutual data, while five main categories were created from nurses' data only. Of the subcategories, 48 were based on both nurses' and physicians' data, while five were created from physicians' data only and 16 were created from nurses' data only.

## Discussion

The aim of this study was to describe the most essential competencies of palliative-care nurses and physicians. As a result, a comprehensive description of the most often needed competencies of specialists was presented. For the EduPal-project, we found validation (Yilmaz 2013, Carter et al. 2014) for the competence description used in palliative care education, development and research.

Albeit the study produced knowledge which confirmed earlier findings, there are some lessons which can be learned from these findings.

Palliative-care nurses and physicians need clinical competence, which means that they have to be competent, for example, in pain and symptom management. These issues have been addressed in earlier competence descriptions (DeVlieger et al. 2004; EAPC 2013; American Association of Colleges of Nursing 2016; Carrillo et al. 2019; Hökkä et al. 2020; Melender et al. 2020) as well as in undergraduate and postgraduate education (Lehto et al. 2017; Lehto et al. 2020; The Finnish Medical Association 2020). However, there are still reports showing unmet needs in the care of physical symptoms (e.g. Aebischer Perone et al. 2018; Heins et al. 2018), which might explain why many of the participants of this study emphasized this area as an essential competence.

Social interactions in palliative care are meaningful to patients and their next of kin (Back et al. 2019), which has also been emphasized in earlier competence descriptions (DeVlieger et al. 2004; EAPC 2013; American Association of Colleges of Nursing 2016; Hökkä et al. 2020; Melender et al. 2020). The findings of this study regarding the frequently used competence of social interactions support these earlier reports.

The duties and responsibilities of nurses and physicians when providing support have been reported in earlier competence descriptions (DeVlieger et al. 2004; American Association of Colleges of Nursing 2016; Hökkä et al. 2020). The competence of providing support was described in this study as support to the patient and support to the next of kin. However, the expressions were quite short, mostly in the form of, for example, '*support*' or '*psychosocial support*' or '*spiritual support*' and did not describe the content of the support any further. We suggest that although the participants found this to be an essential competence, and that providing support was often needed, they might,



however, lack some practical tools in giving support, which is why they did not describe it any deeper. Practical tools can be offered, for example, through education or literature. For example, Finnish Tips of Evidence regarding support by the staff to a cancer patient in palliative care (Hotus 2018) provides concrete detailed guidance on evidence-based activities to support the patient. This kind of concrete guidance might, for example, assist students and developers of care to learn about the topic of giving support.

Most of the categories emerged from the nurses' and physicians' mutual data. There were, however, some differences on where the members of each professions placed their emphasis. For example, 'Basic care' was entirely and 'Assessment of care needs' was almost entirely created from the expressions of nurses. This was not surprising, because these tasks mainly belong to the responsibilities of the nursing profession. Respectively, for example, subcategories 'Setting goals of care and withholding therapies' and 'Recognizing the need for palliative and end-of-care and making a diagnosis' were mainly created from the expressions of physicians, which can be explained by the working role of the medical profession. However, since the number of participating nurses was much larger than the number of participating physicians, very extensive conclusions cannot be drawn. Moreover, our intention was not to search for differences between the professions, but rather to bring up the richness of the daily work of the palliative-care professionals, which became very evident in this study.

Some main categories and subcategories comprised a small number of reduced expressions. Albeit not so many respondents mentioned them, these categories still have value, since they bring up the many kinds of work tasks of the professionals working within palliative care and the many kinds of competencies needed in daily practice. For example, ethics was not mentioned very often in the answers of the informants. However, this does not mean that ethics would not be so important in the

daily work. Rather, it may be possible that working ethically is so obvious for nurses and physicians that they may not have even realized to mention it in their answers. Moreover, when De Panfilis et al. (2019) studied whether and how ethics of care informs the way health professionals make sense of and handle ethical issues within palliative care, they noticed that ethics appeared as an aspect concerning a number of choices throughout the entire patient care pathway, not only existential issues concerning end-of-life care. Professionals talked about ethics using expressions such as listening and dialogue, which also emerged in this study.

The implementation of evidence-based practice (EBP) within palliative care was mentioned as a subcategory of decision-making competence. Earlier, in the study which collected data from multi-professional workshops, EBP was reported among the competencies of physicians at the specialist level (Melender et al. 2020). However, in a corresponding study of nurses, EBP was not mentioned as a concept, although critical thinking, research competence and the use of guidelines were brought up (Hökkä et al. Published Online Ahead of Print). In this study, the concept was brought up by both professional groups, however, it was mentioned quite seldomly. EBP constitutes part of the quality within palliative care (Council of Europe. Recommendation Rec 2003) and it is important to emphasize the significance of this. However, it might be possible that the participants of this study found the use of EBP in the daily practice so self-evident that they did not even mention it.

Nurses and physicians described pedagogical competence (also Hökkä et al. 2020; Melender et al. 2020) mostly as the counselling of patients and next of kin. This may reflect the recognized informational needs of the patients, and bringing this out is a positive phenomenon, since it has also been found that the informational needs of the patients in palliative care are not always sufficiently met (e.g. Ventura et al. 2014). The effective counselling of patients is important, and more research is needed to increase evidence on what kind of counselling interventions are effective to support the

patients and their next-of-kin. For example, Piil et. al (2019) identified patient education and information as an unexplored area of interest for patients with life-threatening cancer, as well as for the patient's relatives and the clinical specialists.

The findings of this study can be used in the development of undergraduate and postgraduate education in palliative nursing and medicine as well as in the development of palliative care. Since many competencies were mutual between the two professions, they could be taught in the undergraduate and postgraduate education of both nurses and physicians with an interprofessional educational approach. Also, earlier research findings support the choice of the interprofessional approach (Kaasalainen et al. 2015; Head et al. 2016).

#### *Trustworthiness of the study*

This study is reported in accordance with the Consolidated criteria for reporting qualitative research (COREQ) checklist (Tong et al. 2007) to ensure the comprehensive and explicit reporting of the study. Trustworthiness (Elo et al. 2014) was strengthened since the method is suitable for the purposes of the study. For qualitative data, the sample size of the open-ended question answers was quite large. The data saturated for the nurses, however, not for the physicians, which may be explained by the fact that the physician group was much smaller. It might be possible that if the number of physician informants would have been larger, some new observations could have emerged. The response rate of the nurses in the whole survey remained unclear, and for the physicians, it was 43.6%. It is well known that response rates in electronic surveys often remain low, with an average of 33% (Nulty 2008). Thus, the response rate of the physicians can be estimated as being at least satisfactory, and nearly all who responded in the survey overall, also responded to the open question reported here. However, some of the email addresses of the Finnish physicians holding a special competency in

palliative medicine might have been old and it is not known whether all 149 invited received the invitation email.

Out of the respondents of the whole survey, nearly all responded to the open-ended question whose data is reported in this paper. A limitation is that the informant group of nurses was twice as large as the physicians' group and thus, the results may reflect their views more than they would reflect the physicians' views. However, we have reported the numbers of the reduced expressions not only in total, but also for both professions so the readers can obtain a picture of what kind of material was obtained from each profession.

The questionnaire used in this survey was carefully developed by a group of specialists in palliative care and then evaluated for amendments by another one, which strengthens the trustworthiness. As for the analysis of the obtained material, the chosen unit of analysis was appropriate since it was neither too narrow nor too broad (Elo et al. 2014). Only manifest content was analyzed and therefore the findings evidently represent the views of the informants (Elo and Kyngäs 2008).

The trustworthiness of the study was weakened by the fact that in a cross-sectional survey, it was not possible to ask the informants any further questions to deepen the understanding of the phenomenon investigated through the open-ended question whose answers produced the material. Neither was there any opportunity to return the transcripts to the informants for comments and/or correction, or the findings for feedback (Elo et al. 2014).

The whole material was coded and categorized by an experienced qualitative researcher. Another researcher examined the analysis made by her and gave feedback. Views were exchanged between

the researchers on the analysis and interpretation of the material to create meaningful categories. Moreover, all the authors checked the categorization (Elo et al. 2014).

## **Conclusions**

The results of this study confirmed and validated earlier findings on palliative care competencies. Palliative-care professionals, in particular, placed an emphasis on clinical competence, social interactions and providing support as their most often needed competencies in daily work. For the greatest part, nurses and physicians described the same type of competencies needed most, albeit the emphasis partly varied. Interprofessional palliative-care education is recommended for the undergraduate and postgraduate education of nurses and physicians. An important research topic for the future is related to effective counselling interventions for patients in palliative care and their next of kin.

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