

## RESEARCH ARTICLE (ORIGINAL) 8

## Health professionals' knowledge of palliative care: Analysis of a Portuguese central hospital

*Conhecimento dos profissionais de saúde sobre cuidados paliativos: Análise de um hospital central português*

*Conocimiento de los profesionales de la salud sobre cuidados paliativos: Análisis de un hospital central portugués*

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### Abstract

**Background:** Scientific evidence shows gaps in the knowledge of health professionals about palliative care, influencing the quality of care.

**Objective:** To characterise health professionals' knowledge about palliative care in a Portuguese central university hospital.

**Methodology:** Quantitative, descriptive-correlational, cross-sectional study, with health professionals from a central university hospital as target population. A questionnaire was applied to assess their knowledge about palliative care.

**Results:** Of the 401 professionals in the sample, 16.96% have experience and 26.18% specific training in palliative care. On average, 80.53% of correct answers were given regarding the philosophy of palliative care. The knowledge about symptom control and family support was negatively correlated with the length of professional experience ( $p < 0.001$ ).

**Conclusion:** Most professionals demonstrate knowledge in palliative care, however it's essential to invest in training, particularly in professionals with more length of professional practice.

**Keywords:** palliative care; knowledge; health personnel

### Resumo

**Enquadramento:** A evidência científica revela lacunas de conhecimento dos profissionais de saúde em cuidados paliativos, influenciando a qualidade dos cuidados.

**Objetivo:** Caracterizar o conhecimento em cuidados paliativos dos profissionais de saúde, num hospital central universitário português.

**Metodologia:** Estudo quantitativo, descritivo-correlacional, transversal, tendo como população-alvo os profissionais de saúde de um hospital central universitário. Aplicou-se um questionário para avaliar os conhecimentos sobre cuidados paliativos.

**Resultados:** Dos 401 profissionais da amostra, 16,96% detém experiência e 26,18% formação específica em cuidados paliativos. Em média, identificou-se 80,53% de respostas corretas sobre filosofia dos cuidados paliativos. O conhecimento sobre controlo de sintomas e apoio à família relacionam-se negativamente com o tempo de exercício profissional ( $p < 0,001$ ).

**Conclusão:** A maioria dos profissionais demonstra conhecimento em cuidados paliativos, todavia é essencial investir na formação, particularmente nos profissionais com maior tempo de exercício profissional.

**Palavras-chave:** cuidados paliativos; conhecimento; profissionais de saúde

### Resumen

**Marco contextual:** La evidencia científica revela lagunas en los conocimientos de los profesionales de la salud en materia de cuidados paliativos, lo que influye en la calidad de la atención.

**Objetivo:** Caracterizar los conocimientos sobre cuidados paliativos de los profesionales de la salud en un hospital central universitario portugués.

**Metodología:** Estudio cuantitativo, descriptivo-correlacional, transversal, con profesionales de la salud de un hospital central universitario como población objetivo. Se aplicó un cuestionario para evaluar los conocimientos sobre cuidados paliativos.

**Resultados:** De los 401 profesionales de la muestra, el 16,96% tenía experiencia y el 26,18% formación específica en cuidados paliativos. Por término medio, se identificó un 80,53% de respuestas correctas sobre la filosofía de los cuidados paliativos. Los conocimientos sobre el control de los síntomas y el apoyo familiar están relacionados negativamente con la duración del ejercicio profesional ( $p < 0,001$ ).

**Conclusión:** La mayoría de los profesionales demuestran tener conocimientos en cuidados paliativos, sin embargo, es fundamental invertir en formación, sobre todo para los profesionales con mayor tiempo de ejercicio profesional.

**Palabras clave:** cuidados paliativos; conocimiento; personal de salud



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## Introduction

Lifestyles have changed over the past few years, creating different health needs associated with population aging and the progressive increase in chronic and disabling diseases (Carrasco et al., 2015; Etkind et al., 2017; Harding et al., 2016; Silva et al., 2018).

It is estimated that 69%-82% of people who die in high-income countries have palliative care (PC) needs (Murtagh et al., 2014). In Portugal, this aspect is particularly relevant given the increase in the population aging index, which is estimated to more than double by 2080, placing Portugal as one of the most aged countries in Europe (Instituto Nacional de Estatística, 2017). Concomitantly, serious life-limiting and life-threatening diseases and the suffering they entail pose a threat to the quality of life of individuals and societies, representing a significant share of health spending. A recent study on the prevalence and projected evolution of these diseases estimates that, by 2060, 47% of the global population, equivalent to 48 million people, will die annually with serious health-related suffering, especially in low-income and middle-income countries, with a significant increase in suffering in people over the age of 70, but also in young people and children (Sleeman et al., 2019).

Therefore, PC has emerged globally as an integrated response to the needs of people and families in situations of suffering resulting from life-limiting disease processes, seeking to improve their quality of life and well-being. Health professionals' knowledge of PC is a key aspect in the access to care focused on individuals with palliative needs and their families (Kmetec et al., 2020).

In this context, as the current level of PC knowledge among health professionals in Portugal and, specifically, in the hospital under analysis is unknown, the following general objective was to characterize health professionals' knowledge of PC in a Portuguese central university hospital. The specific objectives were to determine the association between the level of PC knowledge and variables such as age, length of professional experience, specific training in PC, and the professionals' perceptions of their skills and knowledge in this area.

## Background

According to the World Health Organization (WHO), PC focuses on controlling physical, psychosocial, and spiritual symptoms, aiming to prevent and relieve suffering through early identification, correct assessment, and appropriate treatment (Sepúlveda et al., 2002). In a more comprehensive and current view, the International Association for Hospice and Palliative Care (2019) emphasizes the holistic nature of PC as being provided to individuals across all ages with serious suffering due to severe illness (acute or chronic illness causing disability). Therefore, PC is a philosophy and model of holistic care integrated into a structured and organized health care system (Bernardo et al., 2016).

The multidimensional, integrative, and comprehensive

approach relieves suffering, namely pain and other disruptive symptoms, considering the physical, emotional, social, and spiritual needs, as well as the values, preferences, and goals of patients and their families. Thus, it is based on four fundamental pillars of intervention: symptom control, adequate communication, support to the family as care provider and care receiver, and teamwork. In this context, PC reaffirms life and sees death as a natural process, neither anticipating nor delaying it, and offers family support and bereavement counseling to facilitate the transition process. It is crucial to promote equity in the access to and quality of PC, as a human right, adjusting it to the needs and preferences of patients and families (Bernardo et al., 2016; Comissão Nacional de Cuidados Paliativos, 2017; Gómez-Batiste & Connor, 2017).

Health professionals' training and knowledge are critical factors for success in this area. The most recent guidelines point to the need to educate all health professionals on the principles and practices of PC starting from their undergraduate education. Advanced and specialized training is also recommended for professionals working in differentiated PC settings. Some countries, namely Portugal, already have a legal framework for health professionals' levels of training differentiation according to their area of intervention (Comissão Nacional de Cuidados Paliativos, 2017; Gamondi et al., 2013; Monterosso et al., 2016). However, the integration in PC in the curricula of undergraduate and postgraduate programs enabling the exercise of health professions worldwide, specifically in Portugal, is still incipient (Carrasco et al., 2015; Comissão Nacional de Cuidados Paliativos, 2017; Gómez-Batiste & Connor, 2017). The importance of PC education (basic, intermediate, and advanced) is recognized as essential to knowledge development and skills acquisition (Paal et al., 2019).

Previous studies have identified knowledge gaps at the multidisciplinary level in different contexts due to lack of training, particularly at the undergraduate level, and this gap is one of the main obstacles to the development of PC (Centeno et al., 2017; Chover-Sierra et al., 2017; Smets et al., 2018). In Portugal, there are currently no published studies on the PC knowledge of the professionals who provide differentiated care or the type of training they received to provide it.

## Research question

What is the level of PC knowledge among the health professionals working in a Portuguese central university hospital?

What is the association between the level of PC knowledge and variables such as age, length of professional experience, specific training in PC, and the professionals' perceptions of their skills and knowledge in this area?

## Methodology

The target population of this quantitative, descriptive-correlational, and cross-sectional study consisted of the



health professionals (social workers, nurses, physicians, and psychologists) working in a Portuguese central university hospital. Sample size was calculated using the Raosoft® software, which estimated the need for a sample size of 352 professionals. Inclusion criteria were as follows: professionals from the four groups mentioned above, working in the hospital during the data collection period, and agreeing to participate in the study. Other professional groups were excluded. Data were collected between October 23 and November 18, 2019.

The data collection instrument was specifically designed for this study in collaboration with the Portuguese Observatory for Palliative Care. The survey was submitted to a panel of experts who agreed on the adequacy of its main objective (assessment of specific PC knowledge), criteria, and layout. The self-completion instrument is composed of two parts. The first part consists of questions about the professionals' sociodemographic and professional characteristics and their perceptions of their level of knowledge and specific skills in PC. These questions were rated on a 10-point Likert-type scale, with a score (0) corresponding to *none* and a score (10) corresponding to *maximum*. The second part includes a questionnaire for assessing specific PC knowledge (*Questionário de Avaliação de Conhecimentos Específicos em Cuidados Paliativos*, QACCP), consisting of 60 statements classified as "true", "false", or "don't know". Subsequently, the data were recoded into correct or incorrect (including the option "don't know"). The QACCP consisted of statements aimed to assess knowledge of PC

philosophy (12 items) and its four pillars, namely symptom control (27 items), teamwork (11 items), communication (5 items), and family support (5 items).

The instrument was made available as an online questionnaire, and all professionals of the selected groups received an email invitation to participate in the study by the hospital's Clinical and Nursing Department.

Data were analyzed using the Statistical Package for the Social Sciences software (version 22.0, SPSS an IBM Company, Chicago, IL). Pearson and Spearman correlation coefficients were used to analyze the association (strength and direction) between variables. Statistical significance was set at  $p \leq 0.05$ .

The principles of research ethics were followed, and participation was voluntary. Participants signed an informed consent form and were ensured anonymity and confidentiality. The study was approved by the hospital's Board of Directors and the Ethics Committee of the Universidade Católica Portuguesa (Opinion no. 42, 2018-2021 term).

## Results

This study included 401 professionals aged 25 to 64 years, with 3 to 42 years of professional experience. According to Table 1, most professionals were nurses (85.54%) and worked mainly in medical and surgical areas. Only 26.18% of the participants had specific training in PC, and 16.96% had professional experience in PC.

**Table 1***Sociodemographic and professional characteristics of the sample (n = 401)*

Characteristics	$\bar{x}$	SD	n	%
Age (years)	43.72	10.10		
LENGTH OF PROFESSIONAL EXPERIENCE (years)	20.25	9.96		
GENDER				
Male			80	19.95
Female			321	80.05
PROFESSIONAL GROUP				
Nursing			343	85.54
Medicine			40	9.98
Psychology			4	1.00
Social Work			14	3.49
WORK UNIT/AREA				
Surgical Area			72	17.96
Medical Area			164	40.90
Operating Room/Postanesthesia Care Unit			16	3.99
Pediatrics			42	10.47
Psychiatry			9	2.24
Maternal and Obstetric Health			11	2.74
Social Work			13	3.24
Emergency			22	5.49
Not specified			52	12.97
SPECIFIC TRAINING IN PC				
No			296	73.82
Basic Level (18 to 45 hours)			69	17.21
Intermediate Level (> 90 hours)			23	5.73
Advanced Level (> 280 hours)			13	3.24
PROFESSIONAL EXPERIENCE IN PC				
No			333	83.04
Yes			68	16.96
LENGTH PROFESSIONAL EXPERIENCE IN PC (years) <sup>(a)</sup>	1.48	4.58		
PROFESSIONALS' PERCEPTIONS OF:				
Level of Knowledge of PC	4.60	1.79		
Skills To Deliver PC	4.70	2.15		

Note.  $\bar{x}$  = Mean; SD = Standard deviation; n = Absolute frequency; % = Relative frequency; <sup>(a)</sup> n = 395; PC = palliative care.

Concerning the professionals' perceptions, 75% of them reported a specific level of knowledge ( $\bar{x}$  = 4.60; SD = 1.79) and skills to deliver PC ( $\bar{x}$  = 4.70; SD = 2.15) below six points on a 10-point Likert-type scale.

The analysis of the level of PC knowledge showed an average of 80.53% of correct answers regarding the philosophy of PC. However, a lower mean percentage of correct answers was found regarding PC pillars: symptom control - 64.80%; family support - 74.56%; communication - 77.56%; and teamwork - 79.66%.

Table 2 shows significant negative correlations between age and the dimensions of symptom control and family support, as well as between these two dimensions and the length of professional experience. Thus, the increase in age

and length of professional experience is associated with health professionals' lower level of knowledge of symptom control and family support. On the other hand, a significant positive association was found between the professionals' experience in PC (in years) and their level of knowledge, particularly in the dimensions of PC philosophy, symptom control, family support, and teamwork, meaning that the longer the health professionals' experience in PC, the higher their level of knowledge in this area.

In parallel, and as expected, the higher level of specific training in PC, higher the professionals' level of knowledge in all the dimensions under analysis, reflecting a positive and significant association.

With regard to the professionals' perceptions of their level

of knowledge and skills in PC, the results also showed a positive association between these variables and the dimensions of knowledge under analysis. In this con-

text, the higher professionals' perception of their level of knowledge and skills, is related with higher level of specific knowledge in this area.

**Table 2**

*Correlations between the professionals' level of knowledge of PC and the variables of age, length of professional experience, length of professional experience in PC, level of specific training in PC, and self-perception of the level of knowledge and skills in PC (n = 401)*

	PC Philosophy	Symptom Management	Family Support	Communication	Teamwork
Age <sup>(a)</sup>	-0.001	-0.166**	-0.175**	-0.025	-0.096
Length of professional experience <sup>(a)</sup>	0.011	-0.141*	-0.159**	-0.025	-0.066
Length of professional experience in PC <sup>(a)(c)</sup>	0.202**	0.259**	0.161**	0.094	0.154*
Level of Specific Training in PC <sup>(b)</sup>	0.319**	0.405**	0.248**	0.140*	0.238**
<b>Professionals' perceptions<sup>(a)</sup></b>					
Level of knowledge of PC <sup>(a)</sup>	.244**	0.356**	0.242**	0.108*	0.220**
Skills to deliver PC <sup>(a)</sup>	0.191**	0.352**	0.212**	0.109*	0.217**

Note. PC = Palliative care.

<sup>(a)</sup> Pearson Correlation; <sup>(b)</sup> Spearman Correlation; <sup>(c)</sup> n = 395.

\*Significant correlation at  $p \leq 0.05$ ; \*\*Significant correlation at  $p \leq 0.001$ .

## Discussion

This study found a high level of knowledge of PC philosophy among the health professionals of a Portuguese central university hospital, despite lower levels of specific knowledge about its pillars. The professionals lacked more knowledge about the dimension of symptom control, which, to some extent, was expected due to the greater specificity associated with this area.

The results show a negative association between the professionals' specific knowledge about symptom control and family support and the variables of age and length of professional experience. This finding may reflect that PC is a relatively recent field, poorly emphasized in undergraduate programs worldwide, despite the positive trend in Portugal towards introducing specific PC course units in undergraduate programs in 2018. According to a report of the Portuguese Observatory for Palliative Care, out of 148 study plans (in the areas of nursing, medicine, psychology, social work, nutrition, gerontology, occupational therapy, and physiotherapy), only 13.5% had a course unit dedicated to this area in nursing and medicine programs, which reinforces the urgent need for specific investment (Pereira et al., 2018). In this context, older professionals and those with more years of professional experience may not have attended any specific training in this area, affecting their knowledge. On the other hand, this finding may reflect the more recent culture of integrating PC into the general care provided to hospital users (Gamondi et al., 2013; Paal et al., 2019).

In parallel, as expected, the results of this study indicate a positive association between the level of PC training and the level of knowledge, with only 26.18% of professionals reporting specific training, which reflects the almost incipient investment in this area, despite the national and international recommendations on the need for basic level

training for all health professionals (Comissão Nacional de Cuidados Paliativos, 2017). In contrast, in a study with 2,275 professionals from six European countries, the majority of participants had training in PC, which is in line with a study conducted in a Spanish university hospital (64.2% of nurses had training in this area; Chover-Sierra et al., 2017). These data reinforce the need for urgent intervention in health professionals' training in Portugal, given that the low investment in this area, in research, and in skills certification is often identified as an obstacle to the adequate development of PC (Centeno et al., 2017; Chover-Sierra et al., 2017; Smets et al., 2018). With regard to the professional experience in PC, a positive, significant, although low, association was found between the specific knowledge on PC philosophy, symptom control, family support, and teamwork. These results are expected and in line with other studies reporting a higher level of knowledge among professionals with experience in PC. The short length of professional experience in this area among most respondents may be one of the factors influencing the low correlation identified (Chover-Sierra et al., 2017; Smets et al., 2018).

The analysis of the results also highlights a positive association between the health professionals' level of knowledge and their perceptions of their knowledge and skills for delivering PC. Thus, professionals demonstrate a critical ability to identify limitations in their knowledge and skills, largely resulting from feeling unable to meet the needs identified in the different care settings.

This study is a significant contribution and a pioneer study in this area, given the scarce characterization of the levels of PC knowledge of health professionals in Portugal. This characterization of the levels of PC knowledge of the professionals working in a central Portuguese hospital reveals high levels of knowledge about PC philosophy, but points to the need for greater training investment in

symptom control and family support, particularly among professionals with more years of professional experience whose did not have specific training in this area.

Despite these results, a limitation of this study was the use a new instrument to assess knowledge, so the results should be analyzed with caution. This limitation also influenced the interpretation of results and the comparison with other studies, both national and international. Potential limitations include the non-probability sampling process and the respondents' characteristic. The sample may be mainly composed of professionals with a particular interest in this area, which may not faithfully reflect the level of PC knowledge of the institution's population.

## Conclusion

This study analyzes the level of knowledge about PC among the health professionals working in a Portuguese central university hospital. The results showed a reasonably high level of knowledge, particularly regarding the philosophy of PC. A negative association was found between knowledge about symptom control and family support and the length of professional experience ( $p < 0.001$ ) and between the professionals' level of knowledge and their perceptions of their knowledge and skills in this area. Despite these results, there are gaps in specific knowledge, particularly regarding symptom control, making it essential to develop strategies to promote PC literacy among health professionals, especially those with longer professional careers. It is crucial to develop a systematized institutional training program that promotes literacy in PC. This is a challenge for health systems and policies worldwide, but also for the professionals themselves due to their ethical and social responsibility for continuously improving access to and quality of care.

## Author contributions

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