

This is the accepted version of the article by Vindrola-Padros, C., et al. Palliative Care Education in Latin America: A Systematic Review of Training Programs for Healthcare Professionals, *Palliative and Supportive Care* 2017, DOI: <https://doi.org/10.1017/S147895151700061X>

Palliative Care Education in Latin America: A Systematic Review of Training Programs for Healthcare Professionals

Cecilia Vindrola-Padros¹, Rosa Mernhoff^{2,3}, Cristina Lasmarias^{4,5}, and Xavier Gómez-Batiste^{4,5}

¹Department of Applied Health Research, University College London, UK

²Docencia e Investigación, Hospital Británico, Buenos Aires, Argentina

³PALIATIVA Asociación Civil, Red Federal de Cuidados Paliativos, Argentina

⁴Observatory QUALY- WHOCC Catalan Institute of Oncology

⁵Chair of Palliative Care University of Vic-University Central of Catalonia

Corresponding author

Dr Cecilia Vindrola
Department of Applied Health Research
University College London (UCL)
1-19 Torrington Place
London
WC1E 7HB
United Kingdom
c.vindrola@ucl.ac.uk
Tel: +44 (0)20 3108 3232

Short title: Palliative Care Education in Latin America

Manuscript pages: 19

Tables: 2

Figures: 1

Appendices: 3

Palliative Care Education in Latin America: A Systematic Review of Training Programs for Healthcare Professionals

ABSTRACT

Objectives: The integration of palliative care (PC) education in medical and nursing curricula has been identified as an international priority. PC education has developed considerably in Latin America, but gaps in the integration of PC courses in undergraduate and postgraduate curricula remain. The aim of this review was to systematically examine the delivery of PC education in Latin America to explore the content and method of delivery of current PC programs, identify gaps in the availability of education opportunities, and document common barriers encountered in their implementation.

Methods: We carried out a systematic review of peer-reviewed academic articles and grey literature. Peer-reviewed articles were obtained from the following databases: CINAHL Plus, Embase, Web of Science, and MEDLINE. Grey literature was obtained from the following directories: IAHPC, WHPCA, ALCP, and the Latin American Atlas of PC. Inclusion criteria were: 1) focused on describing PC courses; 2) aimed at healthcare professionals; and 3) implemented in Latin America. The PRISMA checklist was used to guide the reporting of the methods and findings.

Results: We found 36 programs delivered in eight countries. Most programs were aimed interdisciplinary teams, taught at a postgraduate level, focused on pain and symptom management and used classroom-based methods. Tools for evaluating the courses were rarely reported. The main barriers in implementation included: lack of recognition of the

importance of PC education, lack of funding, and the unavailability of trained teaching staff.

Significance of results: Considerable work needs to be done to improve the delivery of PC education programs in Latin American countries. Practice-based methods and exposure to clinical settings should be integrated into ongoing courses to facilitate learning. A regional platform needs to be created to share experiences of successful training programs and foster the development of PC education across Latin America.

Keywords: education, palliative care, Latin America, systematic review

Introduction

The World Health Organization (WHO) and the Latin American Association of Palliative Care (ALCP) have identified healthcare professionals' education in palliative care as one of the main priority areas of palliative care development (Stjernsward et al., 2007; ALCP, 2013; Pastrana et al., 2016;). During the last 20 years, training in PC has been included in basic, intermediate and high levels of education programs in a wide range of academic institutions, professional societies and associations.

Adequate training in palliative care improves healthcare professionals' communication with patients and carers, facilitates the delivery of patient-centered treatment, improves symptom control, and encourages the inclusion of psychosocial, cultural and spiritual elements in the care offered to patients and their family members (Bugge & Higginson, 2006; Centeno et al., 2014; Brown et al., 2016). Training in palliative care also has positive effects on healthcare professionals' work experience as it increases their confidence and ability to manage patient symptoms, have difficult conversations, and provide support to family members (Shipman et al., 2008; Luxardo et al., 2014).

Even though great progress has been made in the development of palliative care in Latin America, training opportunities for healthcare professionals are lacking, palliative care courses are not routinely integrated into undergraduate and postgraduate curricula for medical and nursing students, and there are few continuing education courses available to update knowledge or provide further specialization (De Simone, 2003; Nervi et al., 2004; Wenk & Bertolino, 2007; Lynch et al., 2013). This situation has tangible consequences on

the quality of the care delivered to patients and their families as well as the working conditions of healthcare professionals. When education programs on palliative care are developed, the lessons learned from implementing these programs are rarely shared with other academic institutions or healthcare organizations, thus preventing further development in the region (Nervi, 2004; Leon, 2010). The aim of the review was to systematically examine the literature on the delivery of palliative care education in Latin America to describe the programs currently in operation, identify gaps in the availability of education opportunities, document barriers encountered in their implementation, and ascertain recommendations for future programs.

Methods

Design

This is a systematic review of the literature, including peer-reviewed academic articles and grey literature. The Preferred Reporting Items for Systematic Reviews and Meta-Analysis (PRISMA) statement was used to guide the reporting of the methods and findings (Moher et al., 2009). The review was registered with PROSPERO (ref: CRD42016053273).

Research questions

The research questions guiding the review were: 1) What is the content of palliative care programs implemented in Latin America?; 2) What is the main method of delivery of education?; 3) What levels of education (undergraduate, postgraduate, etc.) include palliative care courses?; 4) What are the target populations (i.e. professional groups) for PC education programs?; 5) How are education programs evaluated?; 6) What are the

barriers encountered in the design and implementation of palliative care education programs in Latin America?; 7) What are the recommendations for the development of future education programs?

Search strategy

We used the PICOS framework (Robinson et al., 2011) to develop the search strategy (Table 1). We conducted a review of published literature using multiple databases: CINAHL Plus, Embase, Web of Science, and MEDLINE. Details of the online search strategy can be found in Appendix 1. The searches were conducted in June 2016. Results were combined into RefWorks and duplicates were removed. The reference lists of included articles were screened to identify additional relevant publications.

INSERT TABLE 1 HERE

Descriptions of education programs for healthcare professionals are not frequently published in peer-reviewed academic articles. In order to address this potential gap in our review, we also searched grey literature in the form of global and regional directories and reports. Grey literature is considered a valuable source of information in systematic reviews as it can be used to increase knowledge in areas where scholarship is underdeveloped, draw attention to new topics of inquiry or corroborate existing academic findings (Adams et al., 2016).

We consulted four main grey literature sources:

1. International Association for Hospice and Palliative Care's (IAHPC) Global Directory of Education in Palliative Care (IAHPC, 2017)
2. The Worldwide Hospice Palliative Care Alliance's (WHPCA) lists of palliative care resources (WHPCA, 2017)
3. The Latin American Association for Palliative Care's training resources (ALCP, 2017)
4. The Latin American Atlas of Palliative Care, a regional atlas which describes general resources in PC (Pastrana, et al., 2012)

Selection

Peer-reviewed articles

Two authors (CVP and RM) screened the articles in three phases (title, abstract, and full text) based on the following inclusion criteria: 1) focused on describing education programs at the undergraduate and postgraduate levels as well as continuing education, specializations, and clinical rotations (when these were linked to wider education programs); 2) aimed at healthcare professionals (not limited by professional group); and 3) education program was implemented in a Latin American country. Latin America included all of the countries that form part of Latin America and the Caribbean (see search strategy in Appendix 1 for full list). Disagreements were discussed until consensus was reached. We did not apply any restrictions in terms of language or date of publication.

Grey literature

One of the authors (CL) searched the four databases to retrieve programs on PC for healthcare professionals in Latin America. These searches were cross-checked by a second author (RM). We applied the same inclusion criteria as in the peer-reviewed articles.

Data extraction and management

In the case of the peer-reviewed articles, the included articles were analyzed using a data extraction form developed in RedCap (Harris et al., 2009). The categories used in the data extraction form are summarized in Appendix 2. The form was developed after the initial screening of full-text articles. It was then piloted independently by two researchers (CVP and RM) using a random sample of five articles. Disagreements were discussed until consensus was reached. The form was changed based on the findings from the pilot.

In the case of the grey literature, the included education programs were imported into a spreadsheet which included the categories presented in Appendix 3. The programs were imported by two authors (CL and RM). A third author (CVP) crosschecked this spreadsheet with the data extraction forms developed for the peer-reviewed articles to avoid duplication.

Data synthesis

Data were exported from RedCap and the main article characteristics were synthesized. These data as well as the programs captured in the spreadsheet were used to answer the research questions mentioned above.

Risk of bias

The assessment of the risk of bias is an important component of systematic reviews (Higgins et al., 2011), but due to the aim of this review and the nature of the reviewed articles (most were editorials or commentaries), we did not assess the risk of the included studies.

RESULTS

Identification of articles

The initial search yielded 710 published articles (Figure 1). These were screened based on title and type of article, resulting in 164. Screening based on abstracts left 71 articles for full-text review. This phase in screening led to 14 articles. The bibliographies of these 14 studies were reviewed and two additional articles were identified. A total of 16 articles, were included in the review. Three of these articles did not focus on specific programs, but were included in the review because they included general reflections on the development of palliative care programs in Latin America (Bishop et al., 2009; Wenk et al., 2016; Pastrana et al., 2016).

We excluded articles that focused on students' knowledge or attitudes towards palliative care and did not present information on education programs. We excluded conference abstracts. We included literature reviews, editorials, and commentaries if they described education programs. No limits to language or date of publication were applied to the search.

-- FIGURE 1 HERE --

Identification of programs from grey literature

Our initial search yielded 39 potential programs, but only 21 were include in the review. We excluded programs that were duplicates of those discussed in the peer reviewed articles, programs that only included palliative care training as a small component of a course on other topics, and those where we did not have enough information to answer our research questions. We did not limit the search based on language or date of advertisement of the course.

Characteristics of included articles

The characteristics of the 16 articles and 21 programs included in the review are presented in Table 2. Two of the articles focused on the entire region of Latin America, 11 described programs in Argentina, 8 in Brazil, 1 in Chile, 5 in Colombia, 3 in Costa Rica, 1 in Guatemala, 4 in Mexico, and 1 in Uruguay. Six of the programs were directed at nursing students, ten for doctors, five were aimed at both doctors and nurses, and 14 were designed for interdisciplinary teams (mainly including doctors, nurses, psychologists, social workers, pharmacists, and physiotherapists).

-- TABLE 2 HERE --

Level of training

The majority of the programs (16) were taught at the postgraduate level. Eight were included in undergraduate programs and ten were continuing education courses. Only one

article discussed programs that spanned across undergraduate and postgraduate levels and included a continuing education component.

Course content and method of delivery

The topics discussed in the courses are summarized in Table 2. The clinical assessment of patients and symptom management were the main areas included in the training programs. Topics that were covered less frequently were spirituality, bioethics, and communicating with patients and family members. Almost half of the articles described programs delivered over the course of one semester; 1 course was delivered over one year; four were Master's degrees, three were postgraduate certificates, 1 course was three days long; and the rest of the programs did not specify the course duration. Most of the training took place in the classroom (with the exception of five online courses and one which combined face to face sessions with online training) and combined lectures with small group discussions, role play exercises, and problem-based learning. Five of the courses included a mandatory clinical rotation component that allowed students to apply their learning to real patient cases.

Evaluation of education programs

In the case of the peer-reviewed articles included in the review, we were able to explore the tools used to evaluate the programs. Only six of the articles described included information on evaluations. Four of these studies used quantitative questionnaires (either printed or online), while the other two articles combined quantitative and qualitative methods. The qualitative methods that were used were: interviews, student diaries or

reflective essays, and observations carried out by external assessors. The evaluations were carried out to assess knowledge and student satisfaction with the course. Some of the articles also reported using the findings of the evaluation to make changes in the course content and delivery method.

Barriers in the implementation of education programs

Only five of the articles included in the review reported barriers encountered during the implementation of the education programs. An important barrier was the lack of importance afforded to palliative care training. This meant other areas of development were prioritized in the education curriculum. Associated with this point, some of the authors indicated that funding for this type of training was limited and it was difficult to find teachers with palliative care expertise to deliver the training. One article indicated that the course took place mainly in the classroom, thus limiting students' chances of learning in a clinical context.

Recommendations for future education programs

All of the articles that provided recommendations agreed that palliative care needs to be routinely integrated in the education curriculum. Student competencies need to be identified and guide the design of education programs. These programs need to encompass undergraduate, postgraduate, and continuing education levels.

DISCUSSION

We carried out a systematic review of the literature on palliative care education programs in Latin America. We found articles describing programs in 8 main locations: Argentina, Brazil, Chile, Costa Rica, Colombia, Guatemala, Mexico, and Uruguay. This means that PC training is only offered in approximately 30% of the countries in the Latin American region. The programs included in the review were mainly aimed at interdisciplinary teams and delivered at a postgraduate level. Barriers in the delivery of palliative care education were mainly related to the lack of recognition and prioritization of this field in medical and nursing training programs, which in turn led to the unavailability of funding allocated for palliative care courses. Lynch et al. (2009) have found a similar trend in other regions of the world and have argued that lack of funding leads to inconsistencies in palliative care training, and consequently, a reduction of the quality of care these healthcare professionals are able to offer patients.

We also found that a significant amount of the training is classroom-based and students are not always exposed to practice-based methods or have the opportunity to participate in clinical rotations. In a recent review on the efficacy of methods used to deliver training to healthcare professionals on palliative care and end of life, Pulsford et al. (2011) found that classroom-based methods should be combined with practical experience to improve learning. Clinical rotation delivered as part of a wider training program, no matter how brief, can help students improve their skills in symptom management and communication with patients and family members (Goldberg et al., 2011; Pastrana et al., 2016).

We have found it difficult to comment on the effectiveness of the courses described in the articles as few of them included details of the evaluation of the courses, either in terms of knowledge assessment or documentation of students' and teachers' experiences with the course. In cases where the authors deemed the courses successful, they often encountered difficulties when attempting to integrate them in standard curricula or deliver them in other universities.

This review has a series of limitations. The literature search for academic articles was carried out in June 2016, so any articles published after this date were not included. Furthermore, although we used multiple broad search terms, it is possible that we missed articles that did not use these terms. Most of the articles were descriptions of education programs in the form of editorials or commentaries. Therefore, we were not able to carry out a quality assessment of the articles included in the review. The grey literature search took place in January-February 2017, so any courses published after this date were not included in the study. When compared to the peer-reviewed articles, the information available in the grey literature sources was limited, mainly in relation to the course content, delivery methods, and evaluation tools. Any ongoing courses in Latin America that were not published in the directories or described in peer-reviewed publications will be missing from this review.

Our review has pointed to a wide range of education programs on palliative care delivered to healthcare professionals in Latin America, but has also highlighted the lack of training opportunities in most of the region. Significant work still needs to be done to integrate these existing courses in medical and nursing training programs and guarantee

training is available at undergraduate levels and in the form of continuing education.

Furthermore, greater attention needs to be paid to the evaluation of existing courses and their dissemination to other universities. A Latin American platform could be created to share experiences of successful education programs that could be replicated in countries where this type of training is missing. This platform could also be used to create consensus on educational standards and competencies so as to reduce variability across the region, and develop training courses for future palliative care educators.

Acknowledgements

We would like to thank Rebeca Anijovich for her contributions to the design of the review.

Declaration of Conflicting Interests

The authors declare that they have no conflicting interests.

References

Adams, R., Smart, P. & Sigismund Huff, A. (2016). Shades of grey: Guidelines for working with the grey literature in systematic reviews for management and organizational studies. *International Journal of Management Reviews*, 1-23.

Asociación Latinoamericana de Cuidados Paliativos. (2013). Indicadores de Cuidado Paliativo. Retrieved from:
[http://cuidadospaliativos.org/uploads/2013/3/Indicadores%20de%20Cuidado%20Paliativo%20ALCP%20\(espanol\).pdf](http://cuidadospaliativos.org/uploads/2013/3/Indicadores%20de%20Cuidado%20Paliativo%20ALCP%20(espanol).pdf)

Asociación Latinoamericana de Cuidados Paliativos (ALCP). (2017). Cursos. Retrieved from: <http://cuidadospaliativos.org/cursos-alep/distancia/>

Bellato, R., Paulino de Araujo, A., Ferreira, H. & Ferreira Rodrigues, P. (2007). The process of dying and the death's approach made by teachers in a nursing graduation course. *Acta Paul Enferm*, 20(3), 255-263.

Bishop, K., Mele, N., Koppman, M. & Day, S. (2009). A review of paediatric palliative care nursing education in Latin America. *International Journal of Palliative Nursing*, 15(8), 377-382.

Brown, C., Jecker, N. & Curtis, R. (2016). Inadequate palliative care in chronic lung disease: An Issue of Health Care Inequality. *Ann Am Thorac Soc*, 13(3), 311-316.

Bruera, E., Fornells, H., Perez, E., Tattangelo, M. & Neumann, C. (1998). Bus rounds for medical congresses on palliative care. *Supportive Care Cancer*, 6, 529-532.

Bugge, E. & Higginson, I. (2006). Palliative care and the need for education- Do we know what makes a difference? A limited systematic review. *Health Education Journal*, 65(2), 101-125.

Centeno, C., Ballesteros, M., Carrasco, J.M. & Arantzamendi, M. (2016). Does palliative care education matter to medical students? The experience of attending an undergraduate course in palliative care. *BMJ Supportive & Palliative Care*, 6, 128-134.

De Araujo Elias, A., Sales Giglio, J., de Mattos Pimenta, C. & Gentry El-Dash, L. (2006). Therapeutical intervention, relaxation, mental images, and spirituality (RIME) for spiritual pain in terminal patients. A training program. *The Scientific World Journal*, 6, 2158-2169.

De Carvalho, L., de Oliva Menezes, T., Pereira, A. & Mariotti de Santana, M. (2013). Learning about death: Experience report in the post-graduate degree. *Journal of Nursing UFPE*, 7, 1047-1054.

De Oliveira, M., de Oliveira Cavalcanti, E., Alves V. & Costa da Silva, A. (2014). Euthanasia from the perspective of nursing undergraduate students: Concepts and Challenges. *Rev Min Enferm*, 18(1), 134-141.

De Simone, G. (2003) Palliative care in Argentina. *Journal of Pain and Palliative Care Pharmacotherapy*, 17 (3-4), 23-43.

Flores, J. (2006). Programa nacional de adiestramiento y atención en clínica del dolor y cuidados paliativos en oncología. *Revista Mexicana de Anestesiología*, 29(1), S156-S159.

Goldberg, G.R., Gliatto, P. & Karani, R. (2011). Effect of a 1-Week clinical rotation in palliative medicine on medical school graduates' knowledge of and preparedness in caring for seriously ill Patients. *Journal of the American Geriatrics Society*, 59, 1724–1729.

Harris P., Taylor, R., Thielke, R., Payne, J., Gonzalez, N. & Conde, J. (2009). Research electronic data capture (REDCap)—a metadata-driven methodology and workflow process for providing translational research informatics support. *J Biomedical Informatics*, 42(2), 377–381.

Higgins, J.P.T., Altman, D.G., Gotzsche, P.C., Juni, P., Moher, D., Oxman, A., Savovic, J., Schulz, K., Weeks, L., Sterne, J. & Cochrane Bias Methods Group & Cochrane Statistical Methods Group. (2011). The Cochrane Collaboration's tool for assessing risk of bias in randomized trials. *BMJ*, 343, d5928.

International Association for Hospice and Palliative Care (IAHPC). (2017). Global Directory of Education in Palliative Care. Retrieved from: <https://hospicecare.com/global-directory-of-education-programs/>

Lemonica, L. & Barros, G. (2007). Botucatu, Brazil: A regional community palliative care model. *Journal of Pain and Symptom Management*, 33(5), 651-654.

Leon, M., Florez, S., de Lima, L. & Ryan, K. (2010). Integrating palliative care in public health: The Colombian experience following an International Pain Policy Fellowship. *Palliative Medicine*, 25(4), 365-369.

Luxardo, N., Vindrola-Padros, C. & Tripodoro, V. (2014). Palliative care staff perspectives: The challenges of end-of-life care on their professional practices and everyday lives. *Journal of Hospice and Palliative Nursing*, 16(3), 165-172.

Lynch, T., Clark, D., Centeno, C., Rocafort, J., Flores, L., Greenwood, A., Prail, D., Brasch, S., Giordano, A., de Lima L. & Wright, M. (2009). Barriers to the development of palliative care in the countries of Central and Eastern Europe and the Commonwealth of Independent States. *Journal of Pain and Symptom Management*, 37(3), 305-315.

Lynch, T., Connor, S. & Clark, D. (2013). Mapping levels of palliative care development: A global update. *J Pain Symptom Manage*, 45, 1094-1106.

Moher, D., Liberati, A., Tetzlaff, J. & Altman, D.G. (2009). Preferred reporting items for systematic reviews and meta-analyses: the PRISMA statement. *BMJ*, 339, 332–336.

Mutto, E., Bunge, S., Vignaroli, E., Bertolino, M., Villar, M. & Wenk, R. (2014). Medical students' palliative care education in a Latin American University: A three-year experience at Austral University in Buenos Aires, Argentina. *Journal of Palliative Medicine*, 17(10), 1137-1142.

Nervi, F., Guerrero, M., Reyes, M., Nervi, B., Cura, A., Chávez, M. & Derio, L. (2004). Symptom control and palliative care in Chile. *Journal of Pain and Palliative Care Pharmacotherapy*, 17:3-4, 13-22.

Pastrana, T., de Lima, L., Wenk, R., Eisenclas, J., Monti, C., Rocafort, J. & Centeno, C. (2012). Atlas de Cuidados Paliativos en Latinoamérica. Houston, TX: IAHP. Retrieved from:

<http://cuidadospaliativos.org/uploads/2012/10/atlas/Atlas%20de%20Cuidados%20Paliativos%20en%20Latinoamerica.pdf>

Pastrana, T., Wenk, R. & de Lima, L. (2016). Consensus-based palliative care competencies for undergraduate nurses and physicians: A demonstrative process with Colombian universities. *Journal of Palliative Medicine*, 19(1), 76-82.

Pinheiro, T., de Benedetto, M., Levites, M., del Giglio, A. & Gonzalez Blasco, P. (2010). Teaching palliative care to residents and medical students. *Family Medicine*, 42(8), 580-582.

Pulsford, D., Jackson, G., O'Brien, T., Yates, S., and Duxbury, J. (2011). Classroom-based and distance learning education and training courses in end-of-life care for health and social care staff: A systematic review. *Palliative Medicine*, 27(3), 221-235.

Robinson, K.A., Saldanha, I. J. & McKoy, N.A. (2011). Development of a framework to identify research gaps from systematic reviews. *Journal of Clinical Epidemiology*, 64(12), 1325-1330.

Shipman, C., Burt, J., Ream, E., Beynon, T., Richardson, A. & Addington-Hall, J. (2008). Improving district nurses' confidence and knowledge in the principles and practice of palliative care. *Journal of Advanced Nursing*, 63, 494–505.

Stjernsward, J., Foley, K.M. & Ferris, F.D. (2007). The public health strategy for palliative care. *Journal of Pain and Symptom Management*, 33, 486-493.

Viero Dias, M., Stein Backes, D., Devos Barlem, E., Stein Backes, M., Lerch Lunardi & Teixeira de Souza, M. (2014). Nursing undergraduate education in relation to the death-dying process: Perceptions in light of the complex thinking. *Revista Gaucha de Enfermagem*, 35(4), 79-85.

Wenk, R. & Bertolino, M. (2007). Palliative care development in South America: A focus on Argentina. *Journal of Pain and Symptom Management*, 33, 645-650.

Wenk, R., de Lima, L., Mutto, E., Berenguel, M. & Centeno, C. (2016). Encuentro sobre educación de cuidado paliativo en Latinoamérica. Recomendaciones sobre enseñanza en el pregrado y en el primer nivel de atención en salud. *Medicina Paliativa*, 23(1), 42-48.

Worldwide Hospice Palliative Care Alliance (WHPCA). (2017). Resources. Retrieved from: <http://www.thewhpc.org/resources>