

# **REVIEW ARTICLE**

# EFFECTIVENESS OF PALLIATIVE CARE EDUCATION ON THE KNOWLEDGE, ATTITUDE AND PRACTICE OF HEALTHCARE PROFESSIONALS: A SYSTEMATIC REVIEW PROTOCOL

# Joemol P. Itteera<sup>1</sup>, Dr. Malarvizhi Subramani<sup>2</sup>, Rebecca Mathew<sup>3</sup>, Dr. Navaneetha M.<sup>4</sup> and Dr. Sr. Mony K.<sup>5</sup>

- 1. Ph.D. (N) Scholar, College of Nursing, Pondicherry Institute of Medical Sciences, Pondicherry University, Puducherry, India, Senior Instructor, Fatima College of Health Sciences, United Arab Emirates.
- 2. Professor, HOD and Assistant Registrar, College of Nursing, Pondicherry Institute of Medical Sciences, Pondicherry University, Puducherry, India.
- 3. Nursing Instructor, Fatima College of Health Sciences, UAE.
- 4. Professor and HOD, College of Nursing, Pondicherry Institute of Medical Sciences, Pondicherry University, Puducherry, India.
- 5. Principal, College of Nursing, Pondicherry Institute of Medical Sciences, Pondicherry University, Puducherry, India.

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#### Abstract

# Introduction: Palliative care is a method of improving the quality of

life of patients and their families who are experiencing life-threatening diseases. This review aims to assess the effectiveness of palliative care education on knowledge, attitude and practice of healthcare professionals that will serve as a baseline for future educational interventions to improve the care for patients with chronic illnesses in different health care settings.

Methods: This review will be conducted according to Preferred Reporting Items for Systematic Reviews and Meta-analyses (PRISMA)-2020 with the use of Sample, Phenomenon of Interest, Design, Evaluation, and Research Type (SPIDER) and Population, Intervention, Comparison, and Outcome (PICO) tools to structure the research question. The electronic databases PubMed, Cumulative Index to Nursing and Allied Health Literature(CINAHL), MEDLINE, ProOuest, Scopus, Web of Science, Ovid, Google Scholar and grev literature will be searched for relevant articles. The review will include qualitative, quantitative, and mixed method studies written in the English language, published anywhere in the worldfrom 2010 to 2023. The search terms are effectiveness, palliative care, palliative care education, healthcare professionals, knowledge, attitude and practice. Data extracted will be recorded on a data extraction form. This review will be conducted according to the criteria outlined in the Cochrane Handbook for Systematic Reviews of Interventions.

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#### **Corresponding Author:- Mrs. Joemol P. Itteera**

Address:- Ph.D. (Nursing) Scholar, College of Nursing, Pondicherry Institute of Medical Sciences, Pondicherry University, Puducherry, India, Senior Instructor, Fatima College of Health Sciences, United Arab Emirates.

## Introduction:-

Palliative care is a comprehensive approach to improve quality of life and reduce the burden of severe and complex illnesses <sup>(1)</sup>. An estimated 56.8 million people require palliative care each year,78% of them living in low- and middle-income nations. Only about 14% of those who require palliative care are now receiving it<sup>(2)</sup>. With an ageing society, a spike in communicable and non-communicable illness and chronic disease fatalities, and the recent COVID-19 pandemic, the need for end-of-life care is likely to continue to surge substantially<sup>(3)</sup>.

Palliative care is defined as care that addresses a person's existential, psychological, emotional, and spiritual needs. Additionally, it focuses on providing treatment that is person-centered and pays emphasis to social as well as a person's quality of life <sup>(4)</sup>. Palliative care improves the quality of life of patients and their families who are dealing with physical, psychological, social, or spiritual problems as a result of a life-threatening illness<sup>(2,5)</sup>. This is accomplished through minimizing and alleviating suffering by early diagnosis, accurate assessment, and management of pain and other physical, psychological, and spiritual difficulties<sup>(6)</sup>.

There are many misconceptions about palliative care such as it is needed only for patients with cancer or at the end of life. Patients with a wide range of diseases require palliative care. In adults, these are cardiovascular diseases (38.5%), cancer (34%), chronic respiratory diseases (10.3%), AIDS (5.7%) diabetes (4.6%) and many more diseases including kidney failure, liver diseases and other chronic life limiting illnesses <sup>(2)</sup>. When caregivers consistently provide feedback and support for palliative care, they are more likely to integrate it into the care of patients <sup>(7)</sup>. However, many healthcare providers are unfamiliar with the principle of palliative care and instead choose to avoid it and therefore donot incorporate it into their work <sup>(8)</sup>. Health professionals lack knowledge and expertise to engage in meaningful discussions with patients and their families about hospice care. Many barriers to palliative care services have been highlighted in research, including unwillingness of patients and their families, fear, misinterpretation, ignorance, and inadequate knowledge of resources <sup>(9)</sup>.

Healthcare workers with limited expertise of palliative care are unable to identify patients' needs and are incapable of developing meaningful contact with terminally ill patients and their families<sup>(10)</sup>. The proper provision of palliative care might also be hampered by a negative attitude toward it. Healthcare professionals are discouraged from accepting and caring for patients with chronic terminal illness because of this negative attitude <sup>(11)</sup>. There is a need for the health system to broaden its focus by embracing palliative care and work toward integrated person-centered care in response to the aging population. By identifying some of the facilitators and challenges in meeting the needs of the diverse population requiring palliative care, there is a need to highlight important community and healthcare system factors that should be taken into consideration by policy, programme managers, and practitioners in the design of palliative and end of life care services and the provision of training to the health care professionals <sup>(12)</sup>.

Knowledge of palliative care could help people to overcome their fears and misconceptions about services, resulting in increased utilization of services as a result of a greater awareness of the benefits<sup>(13)</sup>. The competence of healthcare professionals in palliative care is associated with a number of factors, including their knowledge and attitudes about palliative care and death <sup>(14)</sup>. Palliative care education programs are proven to be beneficial in improving palliative care knowledge, attitude, and confidence. They are also beneficial in terms of participant learning satisfaction <sup>(15)</sup>. There is an identified gap in palliative care education and training that needs to be addressed, and thus, there arises a need to invest in human resources and palliative care education resources because of its slow improvement. Palliative care education in developing nations is impacted by three distinct yet related variables. These elements include poor infrastructure, lack of governmental support and the unavailability of a palliative care curriculum <sup>(16)</sup>.

Palliative care education is effective in improving the attitudes and knowledge about palliative care<sup>(17)</sup>. The quality of life and happiness of patients and their families in hospital settings might be enhanced by the healthcare professionals who are informed, skilled, and at ease of delivering end-of-life care <sup>(18)</sup>. The creation of a new palliative care paradigm is focused on meeting the holistic demands of the patients and thereby recognizing that non-oncological patients can also receive palliative care in advanced stages of the disease<sup>(19)</sup>. There is a lack of integration of palliative care into curricula in many nations where the subject is still in its development <sup>(20)</sup>.

This review aims to assess the effectiveness of palliative care education on knowledge, attitude, and practice of healthcare professionals that will serve as a baseline for further educational interventions to enhance the care for patients with chronic diseases receiving palliative care in the hospital setting.

# **Objective:-**

To identify the effectiveness of palliative care education on the knowledge, attitude, and practice of healthcare professionals.

#### **Review Question**

Does palliative care education improve the knowledge, attitude and practice of healthcare professionals caring for patients with chronic, life threatening or life limiting illness in the health care settings?

## Methods:-

#### Protocol registration (PROSPERO- Prospective Register of Systematic Reviews)

The review protocol is registered in PROSPERO and the enrollment number is CRD42022366977.

## Study conduct and reporting

The protocol is presented according to the recommendation of Preferred Reporting Items for Systematic Review and Meta-Analysis protocols (PRISMA-P) 2015 statement.

#### **Data sources and Searching Procedure**

Thedatabases CINAHL, PubMed, MEDLINE, ProQuest, Scopus, Web of Science, Ovid, and Google Scholarwill be searched to identify eligible published papers. Unpublished papers and 'grey' literature (ProQuest Dissertations & Theses, Open SIGLE and the Grey literature report) also will be searched. A search strategy would be developed in MEDLINE and would be tailored to different databases. Database-specific taxonomy will be used in search. Reference list of related articles and grey literature would also be searched to find additional articles.

The articles will be searched by two reviewers and the third/ fourth reviewers will be consulted for disagreements of the significance of the studies to be included in the review.

#### Search strategy

The search strategy will be based both on medical subject headings (MeSH) and on the following key words, in multiple combinations, which will be chosen to reflect the focus of the review. The search strategy combining MeSH terms and keywords that will be used in MEDLINE is described in Table 1 and will be adapted to meet the specific syntax requirements of each database.

SEARCH	SEARCH STRATEGY FOR MEDLINE DATABASE						
1	Effectiveness	(Effectiveness OR Efficacy AND Education OR Training OR teaching)					
2	Palliative Care	(Palliative care OR end of life care OR terminal illness care OR care of					
		dying OR life-limiting diseases OR chronic progressive life diseases OR					
		terminal bereavement care OR hospice )					
3	Palliative Care Education	(Palliative care education OR education OR induction OR educational					
		programs OR seminars OR classes OR teaching)					
4	Healthcare Professionals	(Healthcare Professional OR Health workers OR Medical workers OR					
		Doctors OR Nurses OR Pharmacists OR PhysiotherapistsOR Paramedical					
		staff OR Emergency health staff OR allied health staff OR hospital staff)					
5	Knowledge	(Knowledge OR Awareness OR Palliative care knowledge)					
6	Attitude	(Attitude OR Perception OR Perceive OR Palliative care perception)					
7	Practice	(Practice OR Palliative care practices)					
8		Sets '1-7' will be combined with 'AND'					

#### **Table 1:-** Search Strategy for Medline Database.

#### **Inclusion and Exclusion Criteria**

This review will be conducted according to Preferred Reporting Items for Systematic Reviews and Meta-analyses (PRISMA)-2020 with the use of Sample, Phenomenon of Interest, Design, Evaluation, and Research Type (SPIDER) to identify key elements of the review (See Table 2) and Population, Intervention, Comparison, Outcome (PICO) tools to structure the research question.

#### **Study characteristics**

All studies that employed quantitative, qualitative and mixed methods will be included. Studies investigating the effect of palliative care education on knowledge status, practice and/ or attitudes of healthcare workers will be considered.

#### **Participant characteristics**

The participants in the studies will be healthcare professionals, including medical, nursing, pharmacy, dental, physiotherapy and paramedical professionals.

#### Setting and time frame

Studies published in English from 2010 to 2023 will be included.

#### Selection of studies

The search results will be imported into the Zotero bibliographic software, duplicates will be removed and 3 authorswill independently screen titles and abstracts to identify relevant studies with full-text availability. Any disagreements regarding eligibility of studies at this stage will be resolved by full text examination and team discussion. This will be followed by the creation of 3 identical libraries for the reviewers to choose articles independently. Any eligibility disagreements will be resolved by team discussion and consultation with another team member. The reference lists of the included articles will be snowballed for identification of further relevant studies. The search history will be meticulously documented.

		CRITERIA	INCLUSION	EXCLUSION
		Language	English	Non- English
S	S P Sample Healthcare			Non - Healthcare professionals
		_	professionals	
PI		Phenomenon	Effectiveness of	
		of Interest	Palliative care	
			Education	
	Ι	Intervention	Palliative care	
			Education	
D		Design	Mixed method	
			All published and	
			unpublished literature	
			of any design.	
	С	Comparison	NIL	
Е	0	Evaluation	Knowledge,attitude,an	Unrelated to the knowledge
			d practice	status/skills/attitudes/perceptions/views/opinions/practices/be havior
R		Research Type	RCTs/ non-RCTs, qualitative studies,	Reviews, opinion-based studies, letter to editors, case reports, study protocols
			mixed method studies	• Articles that did not have the search keywords in the title or Abstract.
				• Articles without full text
		Geographical	Worldwide	
		Area of		
		interest		
		Time Frame	2010-2023	

Table 2:- Summary of Inclusion and Exclusion Criteria in PICO and SPIDER format.

#### **Data Extraction**

Data extracted would be recorded on a data extraction form. Two reviewers will independently perform data extraction for each review and populate a predefined table. The predefined table is an excel table developed by the review team to standardize data extraction by the multiple reviewers who will extract the data. The extraction form

will be piloted with two reviewers on two/three eligible reviews. Additional information from the original reports of included studies will be obtained wherever necessary.

The methodological and summary characteristics of each study will be presented in a table to include article title, author(s), year of publication, setting, aim, study design, participant, sample size, methods of data collection, methods of data analysis and summary of findings as reported by authors.

Title of	First	Country	Aim	Study	Sample	Data	Summary of			Level of
the article	Author, year of publication			design	Characteristics - Category of health care worker, sample size	collection method	find	findings		evidence
							K	Α	Р	

 Table 3:- Data extraction form.

#### **Risk of Bias Assessment**

Assessment of risk of bias for included studies will be conducted according to the criteria outlined in the Cochrane Handbook for Systematic Reviews of Interventions<sup>(21)</sup>. Specifically, the randomized trials will be examined for bias using the version 2 of the Cochrane Risk of bias tool (RoB2), which assesses several key areas of potential bias: randomization process; deviations from intended interventions; missing data; measurement of outcome and selection of the reported result<sup>(21)</sup>. An overall risk of bias judgment will be assigned to each trial based on low risk of bias if low risk of bias for all domains; some concerns if at least one domain has some concerns but not domains judged to be at high risk of bias and high risk of bias if high risk of bias in any domains or some concerns in multiple domains. Quasi-experimental and non-randomized trials will be assessed using the Risk of Bias tool for Non randomized Studies of Interventions; deviations from intended interventions; missing data; measurement of outcomes and selection bias; classification of interventions; deviations from intended interventions; missing data; measurement of outcomes and selection of the reported result <sup>(22)</sup>. Each study will be assigned an overall risk of bias judgment (low, moderate, serious, and critical risk). The Mixed Methods Appraisal Tool (MMAT) will be used to assess the methodological quality of the included mixed method studies <sup>(23)</sup>.

The methodological quality of each included studies will be independently assessed by three reviewers. Any disagreements will be resolved by a consensus or consultation with the 4<sup>th</sup> and 5<sup>th</sup> reviewer where necessary.

#### **Strategy for Data Synthesis**

After completing the data extraction step, a descriptive numerical account of the extracted data from the included studies will be generated and presented in a compiled summary of the findings table. The descriptive summary of the findings table will include each of the pre-specified outcomes (and details of the characteristics of the included studies, such as the total number of included publications, type of study design, year of publication, characteristics of the study populations, and study setting and effectiveness of palliative care education on the knowledge, attitude and practice of healthcare professionals.

#### **Ethics and Dissemination**

The interim findings will be presented at relevant local and international conferences and a manuscript will be published in a peer reviewed journal.

#### **Discussion:-**

In this systematic review protocol, all review steps, data search and extraction strategy are well explained. The review consists of identification of studies, study selection, data extraction and data synthesis. All the information and characteristics of the studies that would be included have been well described. The findings of this review will contribute valuable insights into the field of palliative care, addressing the need for evidence-based educational interventions and supporting the ongoing professional development of healthcare providers.

### Acknowledgements:-

None.

#### **Author Contributions**

All authors contributed equally to the development of this protocol namely conception, study protocol development, literature search, and English language editing.

#### **Conflicts Of Interest**

All authors hereby declare no conflict of interest.

#### **Data Accessibility**

The datasets for the systematic review will be available from the corresponding author on reasonable request.

#### **Ethical Issues**

No ethical issues

Funding None

# Research Highlights

What is current knowledge?

- While the existing literature provides valuable insights into the impact of palliative care education, there is still room for further exploration and clarification.
- This systematic review aims to contribute to the current knowledge by synthesizing the available evidence, identifying gaps or inconsistencies, and providing a comprehensive overview of the effectiveness of palliative care education on healthcare professionals' knowledge, attitude, and practice.

#### What is new here?

• By examining the most recent studies and conducting a rigorous analysis, this study seeks to provide a comprehensive overview of the impact of palliative care education on the knowledge, attitude, and practice of healthcare professionals.

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