

Psychosocial Factors Associated with Quality of Life in Palliative Care and End of Life Adult Cancer Patients: An Umbrella Review

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Abstract

Background: Little is known about what factors affect Quality of Life (QoL) in persons with cancer who are in the palliative phase of their disease. This Umbrella Review (UR) aims to systematically examine psychological, social and clinical factors affecting QoL in the Palliative Care of advanced cancer.

Methods: Four scientific databases (PubMed, Embase, Scopus, and PsycInfo) were searched to identify systematic reviews between 2021 and 2023, involving adult cancer patients in PC, and analyzing the relationship between QoL and psychosocial and/or clinical factors. The data extraction and synthesis process followed the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines, and risks of bias were assessed using the Assessment of Multiple Systematic Reviews 2 (AMSTAR2) rating scale.

Results: Three systematic reviews were included, with different study designs and a total of 182,647 subjects across different cancer types. Depression and spirituality/religiosity emerged as recurrent themes impacting QoL. Additionally, clinical variables such as pain intensity, fatigue, and medical treatment strategies revealed associations with QoL. Family support/function was identified as the only social factor positively influencing QoL.

Conclusion: Findings highlight the importance of addressing spirituality, anxiety, depression, and family support in Palliative Care settings to improve the QoL of cancer patients and caregivers. This UR is a useful resource for researchers, clinicians, and policymakers because it underlines the association between QoL and a variety of psychosocial and clinical factors in EoL cancer patients and gives an overview of the concept of QoL in this cancer population.

Keywords: Cancer; Quality of life; Palliative care; Umbrella review

Introduction

Globally, cancer is the second leading cause of death and according to the World Health Organization (WHO) each year it is estimated that 56.8 million people are in need of Palliative Care (PC). PC is defined by the WHO [1] as “active total care of the patients whose disease is not responsive to curative treatment; focusing on specific needs and preferences of individuals”, thus providing help in a wide range of issues including for example communication, understanding of treatments, and acceptance of diagnosis and severity of illness [2]. It occurs across a continuum, beginning at the time of diagnosis of a serious illness until End of Life (EoL).

A full integration of PC in an oncological setting is now considered the standard when caring for patients with advanced cancer. In recent years, several studies on PC focused on providing support for patients nearing EoL. Considering the lack of consensus in the definition of this type of population [1], in the present study EoL patients include cancer

patients who received a prognosis <12 months and who have stopped undergoing curative treatment. EoL patients in PC, as well as their families and/or caregivers receive physical, emotional, social, spiritual and psychosocial support, including both supportive programs and hospice care. Indeed, the goal of PC is to provide a holistic care

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approach and control symptoms during the course of advanced disease also while antineoplastic treatment can still be appropriate [3,4].

Hence, the overall aim of PC is to improve QoL of patients and their families and/or caregivers using a team approach to personalize interventions [5]. When the goal of treatment is no longer cure, high-quality palliative cancer care can provide appropriate management and QoL control across the entire disease trajectory until the EoL. Although the concept of QoL does not have the same meaning to every person [6,7], some aspects of QoL are universal [8] and are best characterized by four different domains: physical health, psychological wellbeing, social health, and overall health and system. When applied in the context of an individual coping with PC, QoL is largely affected by disease progression; at the same time, it incorporates information from multiple life domains [9]. The physical QoL component assesses health status, body functions, symptoms, sexual well-being, and body image. The psychological QoL component focuses on psychological functioning, mood indicators, cognitive phenomena, personal meaning of the cancer and life threatening experience, and emotional limitations. The emotional domain is interconnected with the social domain, which evaluates the impact of cancer on social roles and the importance of social support networks.

Evidences suggest that early identification of the need for PC has different benefits both for patients and caregivers, such as better QoL [10], a good accompaniment to end of life and death [11] and better adjustment. Coherently, people with long-term illnesses are estimated to be two to three times more likely to experience low grade of QoL (with higher psychological distress or mental health issues) than the general population [12,13]. Psychological aspects such as anxiety and depression, coping strategies, communication, resilience and decision making have been previously reported as important factors affecting patients' overall well-being.

Even though several studies have been already conducted focusing on the relationship between psychosocial factors and QoL in patients and caregivers [14], no previous Umbrella Review has been conducted to summarize all the factors impacting on QoL in PC.

Therefore, the aim of this umbrella review is to synthesize the psychosocial factors related to QoL in EoL adult cancer patients.

Methods

An Umbrella Review (UR) is a narrative compilation into one document with text, tables, and graphics of evidence from multiple systematic reviews and meta-analysis. It permits to examine what is known and not known in order to provide a summary of existing research syntheses related to a given topic or question. In this paper an UR was conducted to synthesize the psychosocial factors related to QoL in EoL cancer patients [15].

This UR was registered in the International Prospective Register of Systematic Reviews (PROSPERO- protocol number: CRD42023413281) and was conducted following the guidelines from Joanna Briggs Institute (JBI) [16].

Data sources and search strategy

A search strategy was built and adapted by a research librarian (A. V. A) for the following four electronic databases: PubMed, Embase, Scopus and PsycInfo. This search string was optimized with a combination of several search terms divided into the following topics:

Cancer, Quality of Life, Factors, Psychosocial, Impact, End of Life. Specific search strings developed for each database are presented in Table 1 and Table 2.

Inclusion and exclusion criteria

For the present UR clear exclusion and inclusion criteria were established to avoid biases that may impact on the quality of the research. Hence, the research was limited to (a) systematic reviews, (b) without geographical restrictions, (c) conducted from 1st January 2012 to January 2023 (the research was limited to this year because the field of Palliative medicine and care is rapidly changing), (d) including adult cancer patients (>18 years), (e) in PC and (f) investigating the relationship between QoL and psychosocial factors. These eligibility criteria were established according to the research question (PICO questions; P: end of life adult cancer patients; I: not applicable; C: not applicable; O: factors affecting QoL).

The exclusion criteria for the present UR included (a) non-psychosocial factors associated with QoL (e.g. economic, cultural, pharmacological outcomes), (b) non-EoL adult cancer patients (e.g. survivors, other diseases aside from cancer, caregivers, families of EoL cancer patients, children...).

Literature search and data selection

Starting from this search strategy, two researchers (D. S. and V. V.) started the preliminary screening independently (based on the reading of titles and abstracts) by importing results into Rayyan [17], an online Software, using the "blinded" mode. Duplicates from different electronic databases were removed. In case of disagreements in the decisions of the eligibility of studies, a third reviewer (C. M.) was involved and ensued a group discussion with the full-text review to reach a consensus supervising the entire process of decision. All the potentially admissible articles retrieved for full-text screening were accessed using the inclusion and exclusion criteria. Any doubts for the final inclusion were settled through consensus. The reference lists of all the included articles were also screened to find other relevant articles that were not identified during the automatic search. The grey literature was not considered.

Consequently, an Excel® worksheet designed by the research team with registered included articles was organized as follows: publication data (title, authors, year), study origin, studies characteristics (number of studies included in each review, study design, year of publication of included articles, country origin of included articles), aim of each review, participant details (total number, sociodemographic characteristics if included in the reviews), type of cancer diagnosis and methodological quality of the included reviews. Authors also collected clinical factors that were identified in studies researching psychosocial factors.

Data synthesis

The selected reviews were reported using the guidelines for Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) [18]; the PRISMA application was independently carried out by two researchers (D. S. and V. V.). Subsequently, the evaluation process was reviewed by a third investigator (C. M.). Once the consensus of the reviewers was reached, these data were incorporated into the Excel table.

Assessment of methodological quality and risks of bias

Finally, two investigators (DS and VV) independently assessed

the methodological quality of included Systematic Reviews and Meta-analysis using the Assessment of Multiple Systematic Reviews 2 (AMSTAR2, [19]) rating scale. Any disagreements about the rating were solved through discussion. This checklist includes 16 items to evaluate the quality and the bias of the selected studies. Each article received a score based on the number of positive, partial positive and negative responses (the higher was the rate of positive responses, the lower was the risk of bias).

For this UR AMSTAR 2 rating guidelines were followed but the scoring was modified for item 1 ("Did the research questions and inclusion criteria for the review include the components of PICO?"), where the authors decided to give the following scores: "Yes", "Partially yes", or "Not". "Yes" was rated if the Systematic Review (SR) had a clear and predefined research question and all the elements of PICO were explicitly described somewhere in the SR's report. The rating "partially yes" was used when the PICO questions were partially described in the SR. For example, if the SR reported only study population and outcome, the authors gave "partially yes", instead of "not".

Results

Data extraction and analysis

Through the scientific database research, 256 potentially relevant references were found in PubMed, Embase, Scopus and PsycInfo; after the detection of duplicates, 176 reviews remained for the screening of titles and available abstracts. After this screening, 169 articles were excluded. The most common reason for exclusion was type of paper (e.g. commentaries, editorials). A detailed overview of the study selection process and exclusion reasons can be found in Figure 1. A total number of 6 reviews remained for the screening based on the full-text. Of these,

one review was excluded because the full-text was not available, two studies were excluded because one presented interventional outcomes and the other one did not investigate the relationship between QoL and psychosocial factors. For these reasons, 3 studies were included in the present UR (Figure 1).

From: Page MJ, McKenzie JE, Bossuyt PM, Boutron I, Hoffmann TC, Mulrow CD, et al. The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. *BMJ* 2021;372:n71. doi: 10.1136/bmj.n71

Study characteristics

A total number of three SRs met inclusion and exclusion criteria, of which one includes also a meta-analysis [20]. One SR was published in 2015 [21] and the other two in 2021; the articles included in each of the included SRs spanned from 1996 to 2020 in terms of their publication years. The included SRs cover different study design: cross-sectional studies (n=74), cohort studies (n=15), RCTs (n=2), quasi-experimental studies (n=2), and longitudinal studies (n=9) were conducted. The number of studies included in each SR ranged from 11 to 55. Although all three included articles featured an explicit search strategy, study selection methodology, and PRISMA flowchart, only one study explicitly declares to follow a protocol previously registered on PROSPERO [22].

Even though the number of included studies is limited, the total amount of examined subjects was 182.647. Despite all the included SRs referred to the palliative care, the summarized articles included different cancer populations (Table 1), except for one SR focusing on only rectum and colon cancer [20]. Furthermore, population also varies for number (with a total range between 15-8805), sex and study origin. Indeed, one study was published by European institutions [20], while the remaining two were conducted respectively in Indonesia [22] and in the United States [21]. Most of the included studies in the three SRs are from Asia (n=46), followed by America and Caribbean regions (n=30), and Europe (n=11); few articles included Africa (n=5) and Oceania (n=2) researches.

A more comprehensive overview is available in Table 1 and Table 2.

QoL and associated psycho-social and clinical factors

The SRs investigate the relationship between QoL and different psychological factors. Overall, there are no common factors to all three SRs, but depression is reported as a main factor across two of them [20,22] and spirituality/religiosity is identified as a main factor throughout two SRs [21,22]. Evidence shows that spirituality/religiosity is positively associated with QoL (higher scores in spirituality are associated with better QoL), meanwhile depression (analyzed in association with anxiety in one systematic review) seems to be negatively associated with QoL (presence of depression is associated with lower QoL). Other investigated psychological factors affecting QoL are feeling of coherence, intrusive thoughts, and awareness of terminal disease.

Only one social factor was investigated in one of the included studies: family support/function, referring to behaviors and roles that operate within a family system, was positively associated with QoL [22].

Finally, two SRs also investigated the association between clinical variables on QoL. Specifically, one review [22] reported that undergoing medical treatment or symptom management strategies positively impact on QoL, while pain intensity and fatigue negatively affect QoL. The other SR showed that the effects of targeted treatments

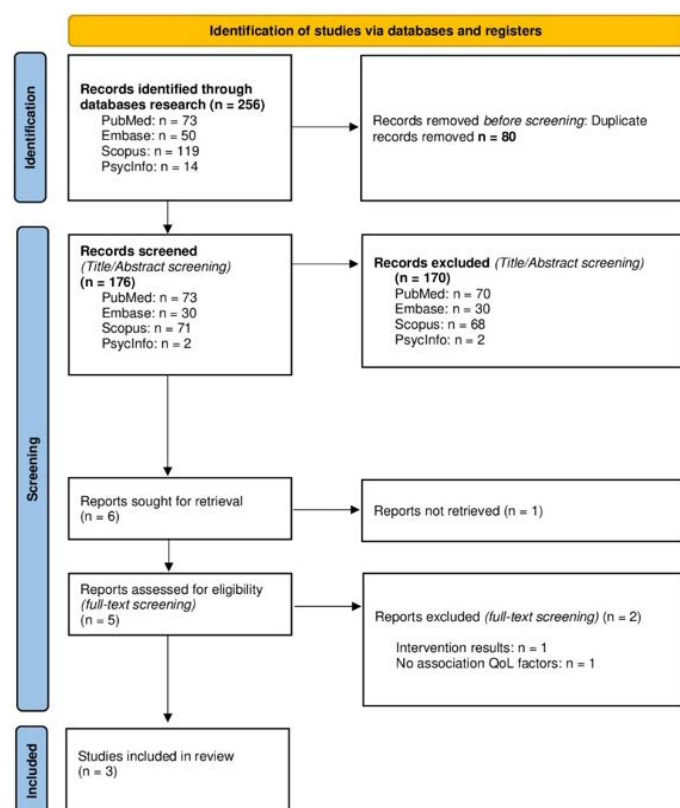


Figure 1: PRISMA Flowchart of the study selection process.

Table 1: Characteristics of the included studies (Part A).

Author & Year of Publication	Study Origin	Study Design	Studies Included				Participants			Cancer Group	
			Number of studies included	Type of studies included	Years of published included articles	Country of origin of included studies	Number of patients in included articles	Range number of patients in included articles	Socio-demographic characteristics	Cancer type	
Gayatri et al. 2021	Indonesia	systematic review	55	36 cross-sectional, 15 cohort studies, 2 RCTs, and 2 quasi-experimental studies.	1999-2019	Asia (n=40), Latin America and Caribbean region (n=10), and Africa (n=5)	11380	Range number of included pts: 15-1245	sex: varied among studies Age range: 18-94	all cancer types	4305
										blood	25
										breast	640
										cervical cancer	224
										cervix	39
										colon and rectum	373
										digestive	5
										esophageal	105
										esophagus	62
										gallbladder	20
										gastric	123
										gastrointestinal	228
										genitourinary tract	24
										gynecological	315
										head and neck	998
										hepatobiliary	114
										larynx	10
										liver	281
										lung	2093
										no number reported	1042
										non small cell lung	10
Flyum et al. 2021	Norway	systematic review and meta-analysis	11	5 prospective/longitudinal, 6 cross-sectional	2009-2020	Austria (n=1), Canada (n=1), Denmark and Sweden (n=1), Finland (n=3), Netherlands (n=1), Poland (n=2), South Korea (n=1), Turkey (n=1)	839	Range number of included pts: 35-1978	Age range: > 18 sex: varied among studies	colon and rectum	839
Bai et al. 2015	Georgia (USA)	systematic review	36	32 cross-sectional, 4 longitudinal	1996-2014	Australia (n=2), Canada (n=1), Japan (n=1), Jordan (n=2), Iran (n=1), Italy (n=1), Netherlands (n=1), United States (n=27)	170428	Range number of included pts: 45-8805	Age range:>18 sex: varied among studie	all cancer types	169011
										breast	786
										colorectal	258
										prostate	373

Table 2: Characteristics of the included studies (Part B).

	Author & Year of Publication	Factors		Association with QoL	Outcomes
		Psychological Factors	Social Factors		
1	Gayatri et al. 2021		Family function/support	Positive association -> QoL	Higher family support is associated with better QoL
		Depression and anxiety		Negative association -> QoL	Higher depression and anxiety symptoms are associated with lower QoL
		Spirituality/Religiosity		Positive association -> QoL	Spirituality/religiosity is associated with better QoL
		Diagnosis awareness		one study reported positive association -> QoL; three studies reported a negative association -> QoL	one study reported positive association -> QoL; three studies reported a negative association -> QoL
2	Flyum et al. 2021	Depression		Negative association -> HRQoL	higher levels of depression are associated with lower HRQoL
		Feeling of coherence		Positive association -> HRQoL	higher feeling of coherence is associated with better HRQoL
		Intrusive thoughts		Negative association -> HRQoL	intrusive thoughts is associated with lower HRQoL
		Awareness of terminal disease		Negative association -> HRQoL	awareness of terminal disease is associated with lower HRQoL
3	Bai et al. 2015	Spirituality (Faith and Meaning/Peace)		Positive association -> QoL	higher overall spiritual well-being is associated with better QoL

and the severity of the disease are associated with lower QoL [20].

Quality assessment results

Quality appraisal was independently conducted on the included three SRs by two authors (D. S. and V. V.). Any disagreements about the rating were solved through discussion with a third researcher (C. M.).

Although all three SRs reported critically low scores (because the reviews have more than one critical flaw), Flyum et al. satisfied a greater number of the suggested criteria [20], while Bai et al., and Gayatri et al. showed more “not” than “yes” [21,22], as shown in Figure 2.

Discussion

The present UR investigated factors associated with QoL, especially categorizing them in psychological, social, and clinical domains and specifying their positive or negative associations on EoL patients’ well-being. To the best of our knowledge, this is the first UR of SRs on the key clinical and psychosocial factors affecting QoL in adult cancer patients, without limitation on the type of cancer. A total number of 3 published SRs were selected and analyzed, including a total of 182,647 subjects suffering from different cancer types, but mostly focusing on lung, colorectum, and breast cancer.

Overall, QoL is an essential component in the cancer trajectory, especially during palliative and EoL care [23-27]. In fact, the evaluation of QoL in advanced cancer patients is an important procedure both in the identification of a patient’s overall condition and in the evaluation of services’ quality. Different studies have described and analyzed QoL impairments in PC settings, thus highlighting the need for a more comprehensive approach that integrates medical care with subjective outcomes [28].

In the present UR, findings showed that spirituality and religiosity are the most investigated factors in this cancer phase: they are consistently associated with higher scores in QoL and are defined as spiritual comfort, thus being a central aspect in PC patients [29].

Indeed, EoL patients frequently found greater relief and hope in spiritual belief practice when coping with the terminal phase; patients facing physical decline and severe symptoms often look for replies to questions about death and meaning of life, thus focusing on the importance of spirituality for their well-being [30,31]. Generally, spiritual well-being is considered a determinant factor influencing QoL and involves different dimensions such as faith, meaning of life and peace of mind [32].

Nevertheless, the growing focus on spirituality as a factor influencing QoL needs some consideration. Despite the extended recognition of their importance in oncology, religion and spirituality remain difficult to gauge and are hard to define in an unambiguous and unique way. Over the past decades, there has been a shift in the meaning of spirituality: traditionally, it was primarily associated with deep religious spirit, but it has since been expanding to encompass a broader range of connotations and interpretations. In general, it is now widely accepted that the concepts of religion and spirituality are connected in a wider construct embracing different domains, such as beliefs and practices that are not only associated with a religious organization, but also include experiences, a sense of purpose and connection to the moment, which implies mental well-being too [33]. In this way, spirituality and religiosity can positively affect cancer patients’ ability to cope with cancer, allowing them to be in contact with the present moment and encourage the acceptance of the current condition. Moreover, these abilities have been associated with several psychological factors, such as social support mechanism, resilience, coping strategies [34]. Consequently, several researches have demonstrated that higher levels of spirituality are associated with lower levels of psychological distress, depression, hopelessness, and suicidal ideation among advanced cancer patients [35-39]. These findings are in line with the associations reported in this UR, highlighting the important interconnection between psychosocial and clinical status in EoL care.

Furthermore, the presence of depression and anxiety has emerged as a significant factor that is closely associated with QoL. In this case,

Author, year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Gayatri et al. (2021)	Y	P Y	N	P Y	Y	Y	N	P Y	N	N	N/A	N/A	N	N	N/A	Y
Flyum et al. (2021)	Y	P Y	Y	P Y	Y	Y	N	P Y	N	N	Y	Y	Y	P Y	Y	Y
Bai et al. (2015)	N	P Y	N	P Y	Y	Y	N	P Y	N	N	N/A	N/A	N	N	N/A	Y
AMSTAR Assessment; N = “not”, P Y = “partial yes”, Y = “yes”, N/A = “not applicable”																

Figure 2: Quality assessment results.

the outcomes have shown that patients reporting higher anxious and depressive symptoms also displayed lower QoL. This is in line with other researches in which EoL cancer patients show higher risk of psychological distress, anxiety and existential distress [37]. Being diagnosed with an incurable illness can lead to psychological symptoms, distress and significant emotional suffering [40]. In addition to these psychological challenges, these patients commonly have to deal with existential thoughts regarding death and loss of meaning of life [41]. Additionally, they also experience physical symptoms related to their illness, such as pain, fatigue, and social symptoms which include feeling of isolation and detachment from others. The relationship between depression, physical and social suffering is reciprocal: each influences and affects the other [42]. Depression can intensify physical suffering, exacerbating pain and social discomfort; conversely, chronic physical suffering can contribute to the development or worsening of depression symptoms and isolation. The interplay between these aspects is complex and multifaceted, emphasizing the interconnected nature of mental and physical health. Besides, a significant overlap exists between symptoms used to diagnose mood disorders and the symptoms frequently encountered by advanced cancer patients [43], such as pain, sleep disturbance, symptoms of fatigue, and weight loss. Indeed, the reciprocal effects of physical suffering and affective disorders are generally supported by evidence demonstrating that interventions targeted on one domain could also affect the other [44]. On the other hand, some authors have suggested that the social decline and social isolation experienced by many EoL patients may be a natural part of the dying process and does not necessarily lead to loneliness, depression or anxiety [45]. Interestingly higher levels of distress, depression, and anxiety were correlated with higher levels of unmet needs and lack of family or social support across different cancer types in patients with advanced cancer [46]. Though little has been analyzed in the collected SRs, it would be interesting to investigate these aspects given their importance along with social support. Recent studies have indeed shown the interrelation between social support, better QoL, and mental health in PC patients. Responding to patients' need of support could positively impact on their well-being, probably affecting their perceived self-esteem and sense of dignity, reducing their anxiety of death, and improving their coping abilities with the dying process [47].

Additionally, receiving support from caregivers, especially relatives and closest friends, has resulted as being a crucial component in reducing psychological distress [48], both for patients and caregivers.

The present findings thus highlight the importance of addressing spirituality, anxiety, depression, and family support in PC and EoL settings in order to improve the overall well-being and QoL of cancer patients during this stage of their disease.

Clinical and physical factors associated with QoL have also been here summarized. In line with results previously reported for psychosocial factors, physical symptoms management strategies are associated with better QoL; while patients experiencing relief from adverse reactions or side effects show lower discomfort and mental distress. Conversely, patients with higher perceived pain intensity or higher levels of fatigue, exhibit a lower adaptation to their condition [22]. In addition, advanced cancer patients experience a range of symptoms for which standard medical treatments may not provide sufficient relief [49]. In line with this, symptom management improves not only the patients' QoL but could also affect the physical and emotional burden on caregivers, leading to a better QoL for both. The psychological and social determinants of QoL in the advanced and terminal phase of cancer therefore reinforce the concept of Palliative care as a discipline based on a comprehensive approach to cancer disease, encompassing not only the physical aspects of symptoms, but also addressing the psychological, social, and spiritual dimensions of suffering. In this way, PC should guarantee that by providing comprehensive relief of symptoms and considering the person as a whole and all aspects of their well-being are attended [50].

Strengths and limitations

There are strengths and limitations in the present work that deserve exploration.

Specifically, studying EoL and PC cancer patients poses a lot of challenges such as ethical considerations, variability of PC models, heterogeneity of patients, cultural and social differences, and as result this population appears underrepresented in scientific research studies. For this reason, this UR stands as the first investigation in adult cancer

patients at this stage of the disease pathway, aiming to explore factors related to QoL. As guidelines continue to evolve concerning symptom management and the provision of care needed (such as spiritual care, psychological care, nursing care), efforts have been made to incorporate this population in research cancer studies whenever feasible and appropriate, with the goal of enhancing patients' well-being and mental health.

In line with these considerations, the number of included studies in the present UR is relatively small, even though the research ranged from 2012 to January 2023 and included studies published in English only. However, more recent studies have focused on this population: two out of three of the included SRs are quite recent, highlighting the growing interest in this type of cancer population. Accordingly, also the limited number of identified factors as results can be attributed to the aforementioned reasons and challenges. The limited time during the palliative phase of treatment has probably contributed to the reduced number of scientific articles investigating aspects related to EoL. Nevertheless, ongoing researches during this cancer phase remains devoted to symptoms management, PC, and efforts to improve QoL for both patients and caregivers in this context.

Finally, AMSTAR levels have highlighted a critically low grade of quality appraisal; for this reason, not only the included reviews should be relied on in order to provide a more comprehensive summary of the available studies on the present topic.

Future studies should be developed to better investigate the specific themes related to palliative care needs; this UR highlights the importance of deeply analysing spirituality and emotional well-being as the most important predictors of QoL in EoL.

Clinical implications

A deeper understanding of psychosocial factors and their impact on QoL in EoL and patients in PC is essential for improving their overall well-being and life satisfaction. The identified factors can be used as a strong starting point by multidisciplinary teams, such as psychologists, social workers, clinicians, and policymakers, to design a patient-centered care system that will be tailored for patients in EoL and palliative care. A patient-centered system will enable the integration of patients' values and expectations into the development of high-value care, i.e., personalized care focused on patients' perspectives and needs [51]. This UR identified crucial variables impacting QoL in palliative care; these factors constitute a pivot point for individuals' well-being and self-care management. Recognizing and incorporating these characteristics into high-value care may play a major role in the health management system. For example, depression which is identified as one of the main factors impacting QoL in this cancer stage highlights the importance of the healthcare team in recognizing and addressing it effectively. In this case, the care system will cover not only the clinical aspect but also the psychosocial and emotional issues/needs of cancer patients.

Moreover, the psychosocial factors identified in this UR can be used in developing QoL assessment tools and designing supportive care that aligns with the specific needs of the EoL and PC cancer population. Indeed, psychosocial factors, such as family support, can influence healthy behaviors, strengthening treatment adherence and ensuring clinicians deliver a high-quality care [52]. Additionally, factors impacting QoL can help identify the most relevant challenges that need to be addressed when designing targeted interventions for this cancer care stage. Since QoL is recognized to decrease as the disease

progresses, fostering personal well-being is seen as the primary goal of palliative care [25]. Thus, QoL assessment focusing on critical themes in palliative care can contribute to promoting individual well-being, potentially leading to increased QoL [25,53].

Conclusion

Using an UR approach, main factors affecting QoL in cancer patients with advanced disease have been identified. As reported, PC and EoL settings recognize the importance of addressing spirituality, anxiety, depression, family support, and symptoms management to improve the overall well-being and QoL of advanced cancer patients from a comprehensive point of view. This should help patients find comfort and hope, sense of meaning of life, and cope with emotional distress, positively impacting their QoL.

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Conflict of Interests

All authors reported no conflict of interest.

Statements & Declarations

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Data availability

This request is not applicable for Umbrella Review. The tables with all the available information are already presented in the text.

Ethics approval

Ethical approval is not required as we are not collecting participant data as part of this review.

Author Contributions

All authors contributed to the study conception and design. Material preparations, data collection, and analyses were performed D.S, V.V and C.M. The first draft of the manuscript was written by D.S, V.V and C.M, and all authors commented on and edited the manuscript. The final manuscript was read and approved by all authors.

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