



Basic Human Needs in the Elderly Receiving Palliative Care: A Scoping Review

Thaciane Alves Mota, M.Sc.*[‡], Manuela Bastos Alves, Ph.D.*[†], Ailton de Oliveira Dantas, BSc[†], Erica Brandão de Moraes, Ph.D.^{‡,§}, Anderson Reis de Sousa, Ph.D.* and Rudval Souza da Silva, Ph.D.*[†]

*Postgraduate Programme in Nursing and Health at the School of Nursing, Federal University of Bahia, Salvador, Bahia,

[†]Nursing Collegiate, Bahia State University, Senhor do Bonfim, Bahia,

[‡]School of Nursing, Federal Fluminense University, Niteroi, Rio de Janeiro,

[§]Brazilian Centre for Evidence-based Healthcare: JBI Centre of Excellence, São Paulo, São Paulo, Brazil

Purpose: This scoping review identified scientific evidence on basic human needs (BHNs) in the elderly receiving palliative care. **Methods:** Systematic searches were conducted using six electronic databases (PubMed, CINAHL, Scopus, Lilacs, IBECs, and Web of Science). The initial search resulted in 1,227 articles, of which 104 were identified as potentially relevant. Fifty-three articles that met the inclusion criteria were identified and included in the final analysis. **Results:** Using the three hierarchical dimensions of the BHN model, 17 needs were organised, with five in the psychobiological dimension, 10 in the psychosocial dimension, and two in the psychospiritual dimension. These needs reflect the importance of care with dignity and relief from suffering for the elderly in palliative care. **Conclusion:** Recognising impaired BHNs in elderly people receiving palliative care will contribute to better care plans for the elderly, considering the multiple bio-psycho-social-spiritual dimensions of BHNs. This review points to a predominance of psychosocial needs.

Key Words: Aged, Palliative care, Hospice and palliative care nursing, Needs assessment, Review, Terminal care

Received April 3, 2022

Revised November 10, 2022

Accepted November 13, 2022

Correspondence to

Rudval Souza da Silva

ORCID:

<https://orcid.org/0000-0002-7991-8804>

E-mail: rudsouza@uneb.br

Funding/Support

Coordenação de Aperfeiçoamento de Pessoal de Nível Superior, CAPES, Brasil (Process: 88882.453435/2019-01).

INTRODUCTION

Ageing leads to important changes in the health profile of the elderly, causing the appearance of one or more chronic diseases. These vicissitudes, over time, lead to hemodynamic and metabolic dysfunction, in addition to having negative impacts on biological, emotional, social, and spiritual factors in the elderly. In particular, changes in physiological functions permeate the ageing process, impairing the basic human needs (BHNs) of these individuals [1].

Elderly people with altered BHNs are more likely to need help in their daily activities, such as maintenance of hygiene,

food, and rest, among other requirements. In addition, they often experience long periods of hospitalisation due to the symptoms caused by the illness process and unmet needs, which end up negatively damaging the quality of life and independence of the elderly [2].

According to Abraham Maslow's hierarchy of BHNs [3], human beings have psychobiological, psychosocial, and psychospiritual needs, which are interrelated and are part of an indivisible whole. Although these needs are common to humanity, they differ in their manifestations and in the way they are met by health professionals when assisting a person [3].

BHNs are studied with consideration of their psychobiologi-

cal, psychosocial, and psychospiritual dimensions [3]. The former is closely related to the physical body and the physiological functions of oxygenation, feeding, elimination, sleep, and rest. Regarding psychosocial needs, each person presents emotional manifestations such as anxiety, sadness, and fear, as well as interactive social and family attitudes and a requirement for self-esteem and self-fulfilment. Psychospiritual needs are represented by belief or faith, as well as by ethical and theological principles, and are also marked by expressions of each person's spirituality [3–5].

Thus, it is mandatory to understand and know how to identify BHNs and to recognise BHN impairment. During illness, elderly people often suffer due to a decline in their health condition and require active care aiming to improve the quality of their life. Therefore, an alternative to curative care is palliative care, because it favours the continuity of life for elderly people as bio-psycho-social-spiritual beings, in order to improve their quality of their life and attenuate the signs and symptoms of the disease. Thus, the philosophy of palliative care should be emphasised, since it aims to promote autonomy, independence, and improvement in the quality of life of elderly people [6].

In recent years, new evidence has emerged regarding ways to improve patient care in palliative care. This includes identifying and recognising the particularities of patients' physical, social, emotional, and spiritual dimensions, thus allowing better decision-making in care planning, improved interdisciplinary action, an early approach associated with disease-modifying therapy, and the promotion of autonomy [7].

In a quest to understand the present situation, we found that studies have investigated the needs of elderly people facing challenges in their social lives, psychological health, and activities related to self-care, as well as the environment in which they live and interact [8]. However, there is a lack of studies specifically investigating the needs of elderly individuals who are receiving palliative care [9].

To identify BHNs in elderly people receiving palliative care, it is fundamental to respect their individuality and autonomy in care planning, since doing so aims to promote active and comprehensive care [7,9].

When considering these needs and individualised care plans, it should be understood that nursing is a science, where the object of study is care. Through such an understanding, re-

search in this field seeks to promote the means for satisfying BHNs, during conditions that decrease health, using Henderson's theoretical framework that addresses BHNs [4].

According to Henderson's theory, nurses achieve their purpose by initiating a process that evaluates patients' BHNs and helps to meet their needs. A nurse can meet BHNs directly when a patient is unable to meet his or her own needs, or indirectly when a nurse assists a patient by obtaining the services of a person, agency, or resource in order to meet the BHNs [4].

Most research dealing with human needs in palliative care for the elderly has focused on communication [1,7,10], pain management [1,2], and the well-being of patients and their families [6] as separate needs. However, there is a shortage of published literature dealing with these needs in an integrated and holistic way. If patients are viewed as bio-psycho-social-spiritual beings, then the integration of these coping strategies in a holistic manner should be encouraged for patients in palliative care. The purpose of this scoping review was to identify the scientific evidence on BHNs in the elderly in palliative care.

METHODS

1. Study design

This scoping review is based on the recommendations of the Joanna Briggs Institute (JBI) [11]. A scoping review synthesises evidence on a particular centralised theme (based on the best information available), which is adaptable to health problems of different origins, and uses a wide range of research methodologies to generate relative evidence on the theme [12]. To ensure methodological rigor, the Preferred Reporting Items for Systematic Reviews and Meta-Analyses Extension for Scoping Reviews (PRISMA-ScR) checklist [13] was used.

2. Search strategy

To identify potentially relevant articles, inclusion and exclusion criteria were applied in the search for DeCS and MeSH descriptors in Portuguese, English, and Spanish, and their combinations were used to build the strategies: "Needs Assessment" AND "Aged" AND "Palliative Care" OR "Needs Assessment" AND "Aged" AND "Hospice Care." For example, in PubMed, the following search terms were used to locate

relevant articles: (((("Palliative Care"[Mesh]) OR "Hospice Care"[Mesh]) OR "Terminal Care"[Mesh]) AND ("Needs Assessment"[Mesh]))) AND (((("Aged")))).

To construct the research question and establish the inclusion and exclusion criteria, the population, concept, and context (PCC) strategy was used. The PCC strategy is a mnemonic that helps to identify key topics according to the population, concept, and context of the topic to be researched [10]. Thus, the following eligibility criteria were used to select studies: population – elderly people (people aged 60 years old or more, following the World Health Organisation and United Nations definition); concept – impaired BHNs due to the ageing process and chronic illness; and context – palliative care in all health care scenarios. Studies available with full texts in English, Portuguese, and Spanish, published between 2010 to 2020, were eligible. The exclusion criteria were as follows: research protocols and studies with no results, studies with people in other stages of life (childhood and adults), studies that did not reference the age of the participants, and studies with participants whose situation did not correspond to the research question. Data extraction was completed by two independent researchers, and differences of opinion were resolved with the participation of a third researcher.

The process of searching articles was conducted between May and June 2021 by two independent researchers. The review involved a third evaluator to reach consensus on any divergences, and it uses the following specific subject databases:

Cumulative Index to Nursing and Allied Health Literature (CINAHL), Medical Literature Analysis and Retrieval System Online (PubMed/MEDLINE), Latin American & Caribbean Health Sciences Literature (LILACS), Spanish Bibliographic Index of Health Sciences (IBECS), Science Citation Index Expanded (Web of Science), and Scopus (Elsevier).

3. Data extraction

The first stage included the construction of pre-established search strategies from a combination of descriptors (DeCS and MeSH), which were entered as search terms into the corresponding online electronic database. The initial application of the search strategy yielded 1,227 results. After applying the inclusion and exclusion criteria, there were 539 studies.

In the second stage, the titles and abstracts of initially selected studies were read; on this basis, 426 articles were excluded because they did not answer the research question or meet the inclusion criteria. Nine articles were excluded as duplicates in multiple databases. The 113 articles resulting from this step were stored in sequential order in a file generated in Microsoft Excel.

The third step consisted of reading in full the articles selected in the previous step to identify their relevance to the research and whether they met the inclusion criteria according to the PCC strategy.

Finally, in the fourth step, 53 selected articles were re-read to accurately identify their relevance to the research and thus

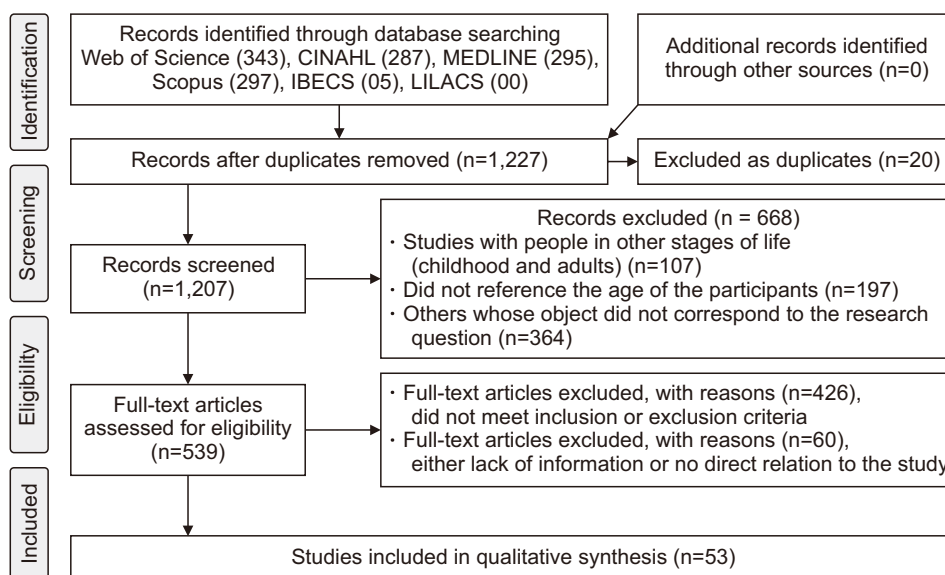


Figure 1. Study selection process for the scoping review.

enable the extraction of relevant data (author, year, database, country, setting, and BHN) for further analysis based on the objective of the study. Then, the BHNs were classified according to the psychobiological, psychosocial and psychospiritual dimensions [3].

When the above steps and full reading of the selected studies for the final sample were complete, the data were stored in EndNote as well as in a format suitable for manual inspection, in order to facilitate better analysis and data extraction (Figure 1). The extracted data were stored and mapped in tables and spreadsheets to identify the impaired BHNs and classify them according to the theoretical framework adopted from Maslow [3] and Henderson [4].

For extraction, an instrument developed for this research was used, as recommended by the JBI guideline [12,13]. This instrument allowed the synthesis and analysis of data and identification of BHNs in the studies included in the review.

4. Data analysis

Using the instrument for data extraction, data analysis was conducted to identify the BHNs in the studies incorporated in the review. After analysing and tabulating the impaired BHNs, they were structured in a figure and discussed based on the relevant literature and with theoretical support from Maslow’s BHN hierarchy [3] and Henderson’s BHN theory [4].

Maslow’s hierarchy of needs comprises a five-tier model for human needs, which are called basic needs. In brief, these needs are physiological, safety, love, esteem, and self-actualisation [3], starting from the lowest level and increasing upwards. It should be noted that the lower-level needs must be addressed before the higher-level needs can be achieved.

The basic human need theory was developed by the nurse Virginia Henderson, with the goal of nursing being to help pa-

tients in their pursuit of “behavioural integrity.” In the context of this theory, the aim is to concentrate on patients’ welfare and needs in the psychobiological, psychosocial, and psychospiritual dimensions, which were derived through Henderson’s education and practical experience [4]. Her emphasis on BHNs as the central focus of nursing practice has led to further theories of development regarding patients’ needs and how nursing can assist in meeting those needs.

RESULTS

The articles selected for the extraction of information were distributed among databases as shown in Table 1.

The 17 BHNs identified in this study were represented in a sunburst chart of impaired BHNs in the elderly receiving palliative care, considering the hierarchical classification proposed by Maslow and then adopted by Henderson [3,4] when developing the theory of BHNs. These needs are divided into three groups: psychobiological, psychosocial, and psychospiritual.

As described above, Henderson [3] used Maslow’s hierarchy of needs [4] to define and characterise some of people’s needs in the theory of BHNs. Due to the presence of many similarities, the components of Henderson’s theory can be applied or compared to Maslow’s hierarchy of needs. The results of this

Table 1. Distribution of Studies according to Databases.

Databases	Number of studies
Web of Science	15
CINAHL	13
MEDLINE	13
Scopus	11
IBECS	1
LILACS	0
Total	53

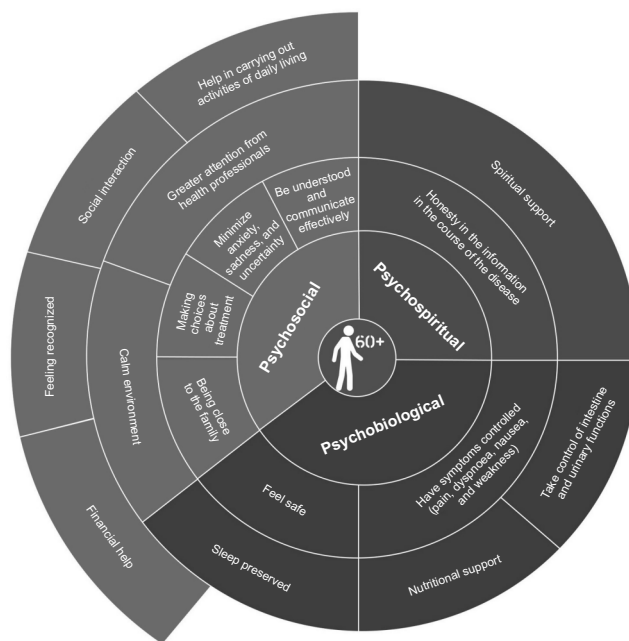


Figure 2. Sunburst chart of impaired basic human needs in elderly people receiving palliative care. Source: Own elaboration.

Table 2. Summary of BfHIs and Characteristics of Studies in the Scoping Review (N=53).

Author (year)	Database/Country	Setting	Psychobiological										Psychosocial					Psycho-spiritual	
			Take control of intestine and urinary functions	Nutritional support	Sleep preserved	Have symptoms controlled (pain, dyspnoea, nausea, and weakness)	Feel safe	Financial help	Feeling recognized	Social interaction	Help in carrying out activities of daily living	Calm environment	Greater attention from health professionals	Being close to the family	Making choices about treatment	Minimize anxiety, sadness, and uncertainty	Be understood and communicate effectively	Spiritual support	Honesty in the information in the course of the disease
A1 Davison et al. (2010)	Web of Science/Canada	Home care		✓													✓		
A2 Murtagh et al. (2010)	Web of Science/England	Home care		✓													✓		
A3 Borneman et al. (2010)	CINAHL/United States	Hospital															✓		
A4 Reeve et al. (2010)	CINAHL/England	Hospital															✓		
A5 Bekelman et al. (2010)	Web of Science/United States	Outpatient															✓		
A6 Fuhrman (2009)	PubMed/United States	Home care	✓																
A7 Cheung et al. (2009)	Web of Science/Canada	Hospital		✓															
A8 Delgado-Guay et al. (2011)	Web of Science/United States	Hospital																	
A9 Glajchen et al. (2011)	PubMed/United States	Hospital																	
A10 Strohbecker et al. (2011)	CINAHL/Germany	Nursing home			✓														
A11 Arnold (2011)	Scopus/United States	Hospice																	
A12 Waller et al. (2012)	CINAHL/Australia	Hospital																	
A13 Tallman et al. (2012)	PubMed/United States	Hospital																	
A14 Andrews et al. (2012)	CINAHL/England	Hospital	✓																
A15 Hussain et al. (2013)	PubMed/England	Hospice																	
A16 Gardner et al. (2013)	CINAHL/England	Hospital																	
A17 Noble et al. (2015)	Web of Science/Northern Ireland	Hospital	✓																
A18 Weingaertner et al. (2014)	Scopus/Germany	Outpatient																	
A19 Pesut et al. (2015)	CINAHL/Canada	Home care																	
A20 Currow et al. (2015)	Scopus/Australia	Outpatient																	
A21 Garrigues et al. (2015)	IBECs/Spain	Hospital																	
A22 Freeman et al. (2016)	Scopus/Canada	Outpatient																	

Table 2. Continued.

Author (year)	Database/Country	Setting	Psychobiological							Psychosocial							Psycho-spiritual	
			Take control of intestine and urinary functions	Nutritional support	Sleep preserved	Have symptoms controlled (pain, dyspnoea, nausea, and weakness)	Feel safe	Financial help	Feeling recognized	Social interaction	Help in carrying out activities of daily living	Calm environment	Greater attention from health professionals	Being close to the family	Making choices about treatment	Minimize anxiety, sadness, and uncertainty	Be understood and communicate effectively	Spiritual support
A23 Hochman et al. (2016)	Scopus/United States	Hospital	✓	✓	✓	✓												
A24 Buzgova et al. (2016)	CINAHL/Czech Republic	Outpatient																
A25 Dhingra et al. (2016)	PubMed/United States	Hospital				✓												
A26 O'Reilly et al. (2016)	PubMed/United States	Hospice	✓															
A27 Krug et al. (2016)	Web of Science/Germany	Hospital				✓												
A28 Grubbs et al. (2017)	Scopus/United States	Outpatient				✓												
A29 Selman et al. (2018)	Web of Science/South Africa, Kenya, South Korea, United States, Canada, England, Belgium, Finland, Poland	Hospital				✓												
A30 Ferrell et al. (2017)	Web of Science/United States	Outpatient				✓												
A31 Steinhilber et al. (2017)	PubMed/United States	Hospital				✓												
A32 Gallagher et al. (2017)	Scopus/United States	Outpatient				✓												
A33 Hanson et al. (2017)	PubMed/United States	Hospice				✓												
A34 Pollack et al. (2017)	PubMed/United States	Hospital				✓												
A35 Van Landcker A et al. (2018)	Web of Science/England	Hospital				✓												
A36 Preisler et al. (2018)	Web of Science/Belgium	Hospital				✓												
A37 Włostowska et al. (2019)	CINAHL/Germany	Hospital				✓												
A38 Martinsson et al. (2018)	Scopus/Poland	Hospice				✓												
	Web of Science/Sweden	Hospice				✓												
A39 Astrow et al. (2018)	Scopus/United States	Hospital				✓												

Table 2. Continued 2.

Author (year)	Database/Country	Setting	Psychobiological							Psychosocial							Psycho-spiritual	
			Take control of intestine and urinary functions	Nutritional support	Sleep preserved	Have symptoms controlled (pain, dyspnoea, nausea, and weakness)	Feel safe	Financial help	Feeling recognized	Social interaction	Help in carrying out activities of daily living	Calm environment	Greater attention from health professionals	Being close to the family	Making choices about treatment	Minimize anxiety, sadness, and uncertainty	Be understood and communicate effectively	Spiritual support
A40 Boucher et al. (2018)	CINAHL/United States	Hospital	✓			✓			✓									
A41 Kane et al. (2018)	PubMed/Ireland	Hospital	✓	✓		✓												
A42 Pinto et al. (2018)	PubMed/England	Hospice				✓												
		Hospital																
		Home care																
A43 Kotronoulas et al. (2018)	PubMed/England	Outpatient				✓												
A44 Bonner et al. (2018)	Web of Science/Australia	Hospital																
A45 Kozlov et al. (2018)	CINAHL/United States	Outpatient				✓												
A46 Alaba et al. (2019)	Scopus/Spain	Hospice																
A47 Reinke et al. (2019)	Scopus/United States	Outpatient				✓												
A48 Zweers et al. (2019)	CINAHL/Netherlands	Hospice																
A49 Kukulka et al. (2019)	CINAHL/United States	Outpatient																
A50 Gardner et al. (2019)	PubMed/United States	Outpatient		✓														
A51 Magnani et al. (2019)	PubMed/Italy	Hospice		✓														
A52 Bristowe et al. (2019)	Web of Science/England	Hospital				✓												
A53 Kamiyo et al. (2020)	Web of Science/Japan	Hospital		✓		✓												
		Outpatient																

BHINs: basic human needs.

scoping review according to the analysis criteria are presented in a sunburst chart of impaired BHNs (Figure 2).

Nine BHNs were identified in the psychosocial dimension: feeling recognized; the ability to maintain social interaction; relying upon help in carrying out activities of daily living; having upon a calm environment and receiving greater attention from health professionals; feeling and being close to the family; and the abilities to make choices about treatment; minimize anxiety, sadness, and uncertainty; and be understood and communicate effectively.

Concerning the psychosocial dimension, it is important to highlight that the minimisation of anxiety, sadness, and uncertainty was a BHN evidenced in 39 of the analysed studies, which was followed by the needs of being understood, having effective communication, and having help in carrying out activities of daily living. All three needs were identified in 10 studies each.

The BHNs related to a desire for a calm environment, greater attention from health professionals, promotion of social interaction, and being close to the family were present in four to eight studies. Finally, the BHNs of the ability to make choices about treatment and feeling recognised by family and friends were identified in only two and three studies, respectively.

In the psychobiological dimension, five BHNs were observed: the ability to have their symptoms controlled (pain, dyspnoea, nausea, and weakness), feel safe, have control of intestine and urinary functions, receive nutritional support, and maintain preserved sleep.

The BHN of symptom control was present in 32 of the studies analysed, followed by the BHN of nutritional support, which was evidenced in 12 studies in our qualitative synthesis. The other three BHNs in this dimension were present in a smaller number of studies, ranging from two to seven studies.

The need for financial help was present in five studies. When analysed, it was categorised as being relevant for both the psychobiological and psychosocial dimensions, considering its implications for both dimensions.

In the psychospiritual dimension, two BHNs could be observed, namely: honesty in the information in the course of the disease and the need to be able to rely upon spiritual support, as shown in Figure 2.

The BHN related to spiritual support was evidenced in 18

studies of the qualitative synthesis, followed by the BHN for honesty in the information in the course of the disease; this was identified in only seven studies.

We explored the countries where the studies were carried out and the scenarios for the elderly in palliative care, investigating and identifying which BHNs were impaired and the associated variables, as presented in Table 2. None of the included studies were carried out in Brazil. Most of the studies focused on North American countries, with 21 studies from the United States, and Europe and the United Kingdom have 11 studies.

Hospitals were the most common setting, with 29 studies, followed by outpatient care (14 publications), hospices (10 studies), home care (6 studies), and a nursing home (1 study).

Although only one study was conducted in a nursing home, it is important to note that this study involved elderly people with a high number of impaired BHNs. Of the 17 BHNs identified, 10 were present in those elderly people cared for in a nursing home.

As shown in Figure 2, there was a predominance of impaired BHNs in elderly persons in palliative care associated with the psychosocial dimension. In almost all studies, the need to “minimize anxiety, sadness, and uncertainty” was present. Regarding the psychobiological dimension, the need to “have symptoms controlled (pain, dyspnoea, nausea, and weakness)” was striking, since it is similar to the need for “spiritual support” in the psychospiritual dimension in the sense that both are key issues related to human dignity (Table 2).

DISCUSSION

This scoping review demonstrated that BHNs are important clinical indicators that require careful assessment [4,14]. When BHNs are not satisfied, elderly people receiving palliative care can present physical and mental health problems [3,15]. With a growing population of older adults and their need for care to relieve existing problems, appropriate care that seeks to satisfy older people’s BHNs is necessary to prevent the occurrence of new problems, and promote dignity in the ageing process, living, and dying [16,17]. To provide high-quality palliative care, it is essential to identify impaired BHNs [16] in elderly people undergoing palliative care [15].

A review study [18], which focused on low- and middle-

income countries, sought to identify which BHNs must be met for the elderly to experience healthy ageing and identified the most prevalent needs as financial security, personal security, mental health, systemic health, and self-fulfilment.

Directing these needs toward the profile of elderly people in palliative care made it possible to identify similar needs and to examine human beings holistically, as biopsychosocial spiritual beings. This scoping review identified 17 impaired BHNs in elderly people in palliative care, which were categorised into three groups: psychobiological, psychosocial, and psychospiritual.

1. Psychosocial needs

It is important to highlight the exclusive needs of the psychosocial dimension, as they reflect patients' characteristics based on their social relationships. The results of this study found a greater number of psychosocial needs than needs in other dimensions.

Allowing the elderly in palliative care to participate in the decision-making process contributes to minimising anxiety, sadness, and uncertainty, which was a need identified in most of the analysed studies. These feelings usually arise soon after the diagnosis of a chronic disease without a favourable prognosis. A study [19] conducted among hospice patients, observed that the elderly sought to discuss their treatment choices, showing a concern for the future that directed them to talk about advance guidelines and their will.

This mix of difficult emotions and feelings requires clear, empathetic, and effective communication in order for the patient's needs to be understood and their communication met effectively. Clear and effective communication is an important process in caring for these patients, especially when health professionals leave gaps or are silent about the prognosis, which tends to arouse anguish and uncertainty about the future in the patient [20].

This fact that patients experience multiple difficult emotions may be associated with the prolonged period of coping with chronic illness, in which patients are more engaged in treatment focused on their physical needs, such as pain relief. Associated with this treatment process is the need to rely upon help in carrying out activities of daily living, such as dressing, eating, going to the bathroom, and showering—an inability to

carry out these activities is characterised as an impaired BHN in elderly patients in palliative care.

In view of these impairments, patients reported their concerns about not wanting to be a burden to others. This concern stems from the fact that these experiences in end-of-life care are marked by a progressive decrease in motor function due to the advancement and worsening of the disease and, consequently, an increase in care activities that can overburden family caregivers [21].

The involvement of family caregivers reinforces the need to be close to the family, which represents a source of strength for the elderly. This support ranges from the demands of daily life care, including emotional support, and even managing the sick person's finances and daily affairs. These actions demonstrate a positive contribution to the continuity of care and balance for the elderly in palliative care, providing a sense of security and confidence and thus contributing to the improvement of their quality of life. Being with family also makes it possible for elderly people to make choices about treatment and be included in the decision-making process regarding their care plans, with active participation whenever possible [22].

Elderly people undergoing palliative care experience notable suffering soon after diagnosis, or when cancer recurs [20]. Studies carried out in home, outpatient, hospital, and hospice care settings identified that patients experienced their disease as a long and challenging process, noting the emergence of feelings such as impotence, fear, stress, and isolation resulting from their experience of illness.

Therefore, it is important to recognise the need for social interaction, and elderly individuals in palliative care manifest the desire for sociability [1,19]. Therefore, the elderly receiving palliative care need to receive greater attention from health professionals, as represented by the desire to have the more frequent presence of the interdisciplinary team, who demonstrate appreciation, interest, and zeal for the specificities and needs of elderly individuals receiving palliation.

It is noteworthy that the presence of nurses and doctors contributes to the control of anxiety. Some patients reported that nurses, if constantly present, were considered “their eyes and ears” [20].

Aligned with the need for social interaction, the need for a calm environment should be highlighted. Therefore, it is im-

portant for elderly patients in palliative care to be in a calm and peaceful environment. This setting is a BHN, considering that a stressful and tense environment would be detrimental to patients' comfort and quality of life.

A study [6] carried out with hospitalised patients pointed out that a busy environment can influence the patient's general condition, affecting sleep and rest; these factors, in turn, when not preserved, can trigger other imbalances. This fact further reinforces the importance of silence, especially at night, which is the normal time for patients to rest.

Last but not least, in the psychosocial dimension is the BHN of feeling recognised. This need, which was present in the studies, is related to how professionals recognise patients' wishes and autonomy, respecting their individual identities and specificities.

2. Psychobiological needs

The psychobiological needs of elderly people receiving palliation reflect their difficulty in controlling symptoms such as intestinal and urinary functions; these patients also need to feel safe, and have calm and unbroken sleep.

The control of symptoms such as pain, dyspnoea, nausea, and weakness is quite common, especially in elderly hospitalised patients diagnosed with limiting chronic diseases. Patients in end-of-life care, during the hospitalisation period, may experience prolonged periods of these symptoms due to the worsening and burden of the disease. As pointed out by prior studies [23,24], pain and dyspnoea are highly distressing symptoms, with important impacts on the quality of life of elderly people receiving palliation.

As physical pain is one of the most frequent complaints, and because of the suffering it causes to patients and their families, the control of physical pain as part of care is considered a priority among BHNs, and it is represented at the base of the pyramid as a physiological need. If not controlled, it impacts all other signs and symptoms.

Dyspnoea is a common, complex, and distressing symptom for patients with chronic diseases. After pain, it is the most frequently reported symptom in studies [25,26]. Respiratory distress can originate from the interactions of physical, emotional, social, and environmental factors, which can physiologically induce secondary responses with functional impair-

ment [27].

Nausea was another striking and recurrent symptom, especially in patients diagnosed with cancer. When not controlled, it can lead to other complications such as anorexia, electrolyte imbalance, and dehydration. Weakness is another notable symptom, which can affect about 85% of patients receiving palliative care [28].

The development of weakness in elderly people with chronic diseases is mostly related to muscle atrophy generated by being bedridden, alongside poor food intake and mobility difficulties. For old patients who receive palliative care in a hospice, greater control of symptoms is reported in this care environment, where a greater control of patient's psychobiological needs was observed.

Nevertheless, this study identified trends in hospitalised elderly people, as 29 of the included studies were conducted in hospitals. A scoping review [8] on the care and support needs of older people found that hospitals were the best place to deal with the impairment of BHNs in the elderly.

Another need highlighted in the results concerns nutritional support. As people age, their need for energy tends to decrease, leading to sarcopenia and micronutrient deficiency; thus, their need for nutritional support increases. Additionally, in relation to food, reports have shown reductions in patients' smell and taste capacity, which can lead to a general reduction in nutrient intake and inadequate hydration [29].

The need to control intestinal and urinary function is related to constipation and urinary incontinence. These disorders cause physical discomfort, but also have emotional repercussions that affect the patient's self-esteem [25]. When this need is not met, many elderly people change their routines and isolate themselves, as they fear people will perceive these disorders as unpleasant.

The need to feel safe is marked by the desire of elderly people to feel whole and worthy, balancing both the physical-body and the subject-body. They also need to feel confident in the care they receive in their environment and with health professionals. Study participants in nursing homes and hospices [20,21] reported that they felt more secure when they recognised that health professionals were continuously available, and their attitudes were reflected by feeling safe, not feeling isolated, and having confidence in the nurses' technical skills.

On the psychobiological level of BHNs, only two studies mentioned the need to preserve sleep. A study carried out in Germany with elderly people residing in a nursing home [21] revealed that elderly people had difficulties getting to sleep, which represented a critical condition at a moderate to severe level. Sleep impairment can be significantly associated with physical and emotional signs and symptoms, generating anxiety and anguish. Elderly people with sleep problems can develop a decline in cognitive function, an inability to concentrate and interact, a lower quality of life, and various changes in the immune and neurological systems. Therefore, it is important to assess the relationship between sleep quality and the presence of physical and emotional symptoms, as well as the cognitive status, in patients who have difficulty sleeping.

The BHN for financial aid was categorised into psychobiological (shelter and purchase of food for nutrition and therapy, in addition to bodily care) and psychosocial (appropriate conditions that enable moments of recreation, leisure, and work). Therefore, it could be observed that psychobiological and psychosocial needs interrelate and interact with each other. Impairment of this BHN substantially interferes with the quality of life of elderly people receiving palliation, since palliative treatment requires greater financial support, both to cover routine expenses and those related to the demands arising from the illness [29]. Financial burdens are described as a factor causing stress and weariness for elderly patients and their entire families; these burdens are often associated with the inability of the family member primarily responsible for care to go to work, which can force them to leave their employment.

3. Psychospiritual needs

The third dimension is the psychospiritual dimension. A prominent need in this category related to giving honest information to patients during the course of the identified disease. This includes the challenge faced by patients in managing the uncertainties of living with an advanced and progressive disease with no possibility of cure, which has been recognised in patients with chronic diseases. Thus, it is important to explore elderly patients' understanding and knowledge about their condition, as well as their goals and desired level of involvement in dealing with the disease.

Access to information about the prognosis was beneficial in

reducing patients' uncertainties and insecurity. Patients stated that they preferred nurses to discuss their care plan, (such as pain management), in their presence, as discussions on decision-making among team professionals often take place in a private room away from the patient's eyes and ears [20].

The need for spiritual support is part of the psychospiritual dimension, and is expressed in the religious/theological, ethical, or philosophy of life dimension [3]. At this level, the patient seeks to understand the meaning and purpose of life, harmony with others, the earth and the universe, and their relationship with God and/or reality.

Studies [6,24] have emphasised the importance of ethics in discussions about spiritual issues by religious leaders who attend health institutions. Specifically, patients feel more comfortable talking about their thoughts and emotions of a spiritual nature with these leaders, regardless of the religion that any given religious leader represents. It has been observed that when emphasising spirituality, a respect for individuality, including non-proselytism, prevailed during meetings between religious leaders and patients.

Lastly, identifying and recognising impaired BHNs and incorporating shared decision-making into the planning of care for elderly people in palliative care is a matter of humanity and dignity. It is the recognition that we, as health professionals, cannot control the circumstances of our patients' lives, but we can help them to be authors of their lives, alleviating their suffering by caring for their impaired BHNs, and thus allowing them a voice in decisions about their treatment.

This scoping analysis identified that the impaired BHNs presented by elderly people in palliative care can potentially be amended by actions and interventions of the palliative health team, with a multidimensional approach to the patient as a bio-psycho-social-spiritual being.

An important point of this scoping review is the diversity of studies covering different care scenarios such as home care, outpatient care, hospices, and hospitals. The search and analysis were performed by two independent researchers, with a third researcher who validated and participated in the discussion to define the articles to be included in the review. Nonetheless, this review has some limitations that should be acknowledged. Although the articles included in this review covered a variety of countries, they were concentrated in de-

veloped countries, and the lack of studies in developing countries represents a limitation in generalisability. Another limitation was that this review excluded the grey literature, such as opinion articles or guidelines related to public policies. As research on the needs of elders related to palliative care presents a gap in developing countries, we suggest conducting further research to expand the knowledge and the discussion about basic human needs within this population, considering the increase in population ageing and thus the urgency of providing palliative care.

CONFLICT OF INTEREST

No potential conflict of interest relevant to this article was reported.

ORCID

Thaciane Alves Mota, <https://orcid.org/0000-0002-7973-3906>
 Manuela Bastos Alves, <https://orcid.org/0000-0002-4073-5146>
 Ailton de Oliveira Dantas, <https://orcid.org/0000-0001-9570-4956>
 Erica Brandão de Moraes, <https://orcid.org/0000-0003-3052-158X>
 Anderson Reis de Sousa, <https://orcid.org/0000-0001-8534-1960>
 Rudval Souza da Silva, <https://orcid.org/0000-0002-7991-8804>

AUTHOR'S CONTRIBUTIONS

Conception or design of the work: TAM, RSS. Data collection: TAM, AOD. Data analysis and interpretation: TAM, AOD, RSS. Drafting the article: TAM, MBA, RSS. Critical revision of the article: TAM, MBA, EBM, ARS, RSS. Final approval of the version to be published: all authors.

REFERENCES

- Steinhauser KE, Alexander S, Olsen MK, Stechuchak KM, Zervakis J, Ammarell N, et al. Addressing patient emotional and existential needs during serious illness: results of the outlook randomized controlled trial. *J Pain Symptom Manage* 2017;54:898-908.
- Gardner DS, Parikh NS, Villanueva CH, Ghesquiere A, Kenien C, Callahan J, et al. Assessing the palliative care needs and service use of diverse older adults in an urban medically-underserved community. *Ann Palliat Med* 2019;8:769-74.
- Maslow AH. A theory of human motivation. *Psychological Review* 1943;50:370-96.
- Henderson V. The concept of nursing. 1977. *J Adv Nurs* 2006;53:21-31; discussion 32-4.
- Petersen CB, Lima RA, Boemer MR, Rocha SM. Health needs and nursing care. *Rev Bras Enferm* 2016;69:1236-9.
- Buzgova R, Sikorova L, Jarosova D. Assessing patients' palliative care needs in the final stages of illness during hospitalization. *Am J Hosp Palliat Care* 2016;33:184-93.
- Potemkowski A, Broła W, Ratajczak A, Ratajczak M, Kowalewski M, Lewita M, et al. The most important psychological and psychosocial needs of Polish multiple sclerosis patients and their significant others. *Neuropsychiatr Dis Treat* 2017;13:1817-24.
- Abdi S, Spann A, Borilovic J, de Witte L, Hawley M. Understanding the care and support needs of older people: a scoping review and categorisation using the WHO international classification of functioning, disability and health framework (ICF). *BMC Geriatr* 2019;19:195.
- Wijk H, Grimby A. Needs of elderly patients in palliative care. *Am J Hosp Palliat Care* 2008;25:106-11.
- Arnold BL. Mapping hospice patients' perception and verbal communication of end-of-life needs: an exploratory mixed methods inquiry. *BMC Palliat Care* 2011;10:1.
- Peters MDJ, Godfrey C, Mclnerney P, Munn Z, Tricco AC, Khalil, H. Chapter 11: scoping reviews (2020 version). In: Aromataris E, Munn Z, eds. *JB I manual for evidence synthesis*. Adelaide:Joanna Briggs Institute Adelaide;2020.
- Peters MD, Godfrey CM, Khalil H, Mclnerney P, Parker D, Soares CB. Guidance for conducting systematic scoping reviews. *Int J Evid Based Healthc* 2015;13:141-6.
- Tricco AC, Lillie E, Zarin W, O'Brien KK, Colquhoun H, Levac D, et al. PRISMA extension for scoping reviews (PRISMA-ScR): checklist and explanation. *Ann Intern Med* 2018;169:467-73.
- Mateo-Ortega D, Limonero JT, Mate-Mendez J, Beas E, Gonzalez-Barboteo J, Barbero E, et al. Development of a tool to identify and assess psychosocial and spiritual needs in end-of-life patients: the ENP-E scale. *Palliat Support Care* 2019;17:441-7.
- Brighi N, Balducci L, Biasco G. Cancer in the elderly: is it time for palliative care in geriatric oncology? *J Geriatr Oncol* 2014;5:197-203.
- Gomez-Batiste X, Mateo-Ortega D, Lasmarias C, Beas E, Tebe C, Novellas A, et al. Looking after the essential needs of patients: the program for the comprehensive care of people with advanced chronic conditions and their families in Spain. In: *Building integrated palliative care programs and services*. Gomez-Batiste X, Connor S, eds. Catalonia:Catedra de Cures Pal·liatives;2017. p. 365-73.
- Radbruch L, De Lima L, Knauth F, Wenk R, Ali Z, Bhatnagar S, et al. Redefining palliative care—a new consensus-based definition. *J Pain*

- Symptom Manage 2020;60:754–64.
18. Putri AA, Lestari CN. The ability to meet the elderly's basic needs for healthy ageing in low- and middle-income countries. *KnE Life Sciences* 2017;4:39–46.
 19. W ł ostowska K, Doboszynska A, Trylinska–Tekielska E. Assessment of the needs of hospice patients and their relatives by the Needs Evaluation Questionnaire. *Palliat Med Pract* 2019;12:186–92.
 20. Zweers D, de Graeff A, Duijn J, de Graaf E, Witteveen PO, Teunissen SCCM. Patients' needs regarding anxiety management in palliative cancer care: a qualitative study in a hospice setting. *Am J Hosp Palliat Care* 2019;36:947–54.
 21. Strohbuecker B, Eisenmann Y, Galushko M, Montag T, Voltz R. Palliative care needs of chronically ill nursing home residents in Germany focusing on living, not dying. *Int J Palliat Nurs* 2011;17:27–34.
 22. Kim S, Ham EH, Kim DY, Jang SN, Kim MK, Choi HA, et al. Comparing perceptions, determinants, and needs of patients, family members, nurses, and physicians when making life-sustaining treatment decisions for patients with hematologic malignancies. *J Hosp Palliat Care* 2022;25:12–24.
 23. Selman LE, Brighton LJ, Sinclair S, Karvinen I, Egan R, Speck P, et al. Patients' and caregivers' needs, experiences, preferences and research priorities in spiritual care: A focus group study across nine countries. *Palliat Med* 2018;32:216–30.
 24. Alaba J, Arriola E, Anton I, Garcia–Soler A, Buiza C, Hernandez C. Estudio Palidem: cuidados al final de la vida en pacientes con demencia avanzada institucionalizados. *Med Paliat* 2019;26:143–9.
 25. Dhingra L, Dieckmann NF, Knotkova H, Chen J, Riggs A, Breuer B, et al. A high-touch model of community-based specialist palliative care: latent class analysis identifies distinct patient subgroups. *J Pain Symptom Manage* 2016;52:178–86.
 26. Pinto C, Bristowe K, Witt J, Davies JM, De Wolf–Linder S, Dawkins M, et al. Perspectives of patients, family caregivers and health professionals on the use of outcome measures in palliative care and lessons for implementation: a multi-method qualitative study. *Ann Palliat Med* 2018;7(Suppl 3):S137–S150.
 27. Weingaertner IR, Koutnik S, Ammer H. Chronic morphine treatment attenuates cell growth of human BT474 breast cancer cells by rearrangement of the ErbB signalling network. *PLoS One* 2013;8:e53510.
 28. Hochman MJ, Wolf S, Zafar SY, Portman D, Bull J, Kamal AH. Comparing unmet needs to optimize quality: characterizing inpatient and outpatient palliative care populations. *J Pain Symptom Manage* 2016;51:1033–9.e3.
 29. Martinsson L, Lundstrom S, Sundelof J. Quality of end-of-life care in patients with dementia compared to patients with cancer: a population-based register study. *PLoS One* 2018;13:e0201051.

Appendix 1. List of Studies Included in Scoping Review.

- A1. Davison SN, Jhangri GS. Existential and supportive care needs among patients with chronic kidney disease. *J Pain Symptom Manage* 2010;40:838 - 43.
- A2. Murtagh FE, Addington-Hall J, Edmonds P, Donohoe P, Carey I, Jenkins K, et al. Symptoms in the month before death for stage 5 chronic kidney disease patients managed without dialysis. *J Pain Symptom Manage* 2010;40:342 - 52.
- A3. Borneman T, Ferrell B, Puchalski CM. Evaluation of the FICA tool for spiritual assessment. *J Pain Symptom Manage* 2010;40:163 - 73.
- A4. Reeve J, Lloyd-Williams M, Payne S, Dowrick C. Towards a re-conceptualisation of the management of distress in palliative care patients: the self-integrity model. *Prog Palliat Care* 2010;17:51 - 60.
- A5. Bekelman DB, Rumsfeld JS, Havranek EP, Yamashita TE, Hutt E, Gottlieb SH, et al. Symptom burden, depression, and spiritual well-being: A comparison of heart failure and advanced cancer patients. *J Gen Intern Med* 2010;24:592 - 8.
- A6. Fuhrman MP. Home care for the elderly. *Nutr Clin Pract* 2009;24:196-205.
- A7. Cheung WY, Barmala N, Zarinehbab S, Rodin G, Le LW, Zimmermann C. The association of physical and psychological symptom burden with time to death among palliative cancer outpatients. *J Pain Symptom Manage* 2009;37:297 - 304.
- A8. Delgado-Guay M, Yennurajalingam S, Parsons H, Palmer JL, Bruera E. Association between self-reported sleep disturbance and other symptoms in patients with advanced cancer. *J Pain Symptom Manage* 2011;41:819 - 27.
- A9. Glajchen M, Lawson R, Homel P, Desandre P, Todd KH. A rapid two-stage screening protocol for palliative care in the emergency department: A quality improvement initiative. *J Pain Symptom Manage* 2011;42:657 - 62.
- A10. Strohbuecker B, Eisenmann Y, Galushko M, Montag T, Voltz R. Palliative care needs of chronically ill nursing home residents in Germany focusing on living, not dying. *Int J Palliat Nurs* 2011;17:27 - 34.
- A11. Arnold BL. Mapping hospice patients' perception and verbal communication of end-of-life needs: An exploratory mixed methods inquiry. *BMC Palliat Care* 2011;10:1.
- A12. Waller A, Girgis A, Johnson C, Lecathelinais C, Sibbritt D, Forstner D, et al. Improving outcomes for people with progressive cancer: Interrupted time series trial of a needs assessment intervention. *J Pain Symptom Manage* 2012;43:569-81.
- A13. Tallman K, Greenwald R, Reidenouer A, Pantel L. Living with advanced illness: longitudinal study of patient, family, and caregiver needs. *Perm J* 2012;16:28-35.
- A14. Andrews A, Morgan G. Constipation management in palliative care: treatments and the potential of independent nurse prescribing. *Int J Palliat Nurs* 2012;18:17-22.
- A15. Hussain J, Adams D, Campbell C. End-of-life care in neurodegenerative conditions: outcomes of a specialist palliative neurology service. *Int J Palliat Nurs* 2013;19:162-9.
- A16. Gardner C, Gott M, Ingleton C, Richard N. Palliative care for frail older people: a cross-sectional survey of patients at two hospitals in England. *Progress in Palliative Care* 2013;21:272-7.
- A17. Noble H, Brown J, Shields J, Fogarty D, Maxwell AP. An appraisal of end-of-life care in persons with chronic kidney disease dying in hospital wards. *J Ren Care*. 2015;41:43 - 52.
- A18. Weingaertner V, Scheve C, Gerdes V, Schwarz-Eywill M, Prenzel R, Bausewein C, et al. Breathlessness, functional status, distress, and palliative care needs over time in patients with advanced chronic obstructive pulmonary disease or lung cancer: a cohort study. *J Pain Symptom Manage* 2014;48:569-81.e1.
- A19. Pesut B, Hooper BP, Robinson CA, Bottorff JL, Sawatzky R, Dalhuisen M. Feasibility of a rural palliative supportive service. *Rural Remote Health* 2015;15:3116.
- A20. Currow DC, Allingham S, Yates P, Johnson C, Clark K, Eagar K. Improving national hospice/palliative care service symptom outcomes systematically through point-of-care data collection, structured feedback and benchmarking. *Support Care Cancer* 2015;23:307-15.
- A21. Garrigues SP, Garrigues MP, Idoia M, Belio MIP. Needs of the relatives of a patient terminal institutionalized in a geriatric center. *Clinical case. Gerokomos* 2015;26:94-6.
- A22. Freeman S, Smith TF, Neufeld E, Fisher K, Ebihara S. The wish to die among palliative home care clients in Ontario, Canada: a cross-sectional study. *BMC Palliat Care* 2016;15:24.
- A23. Hochman MJ, Wolf S, Zafar SY, Portman D, Bull J, Kamal AH. Comparing unmet needs to optimize quality: characterizing inpatient and outpatient palliative care populations. *J Pain Symptom Manage* 2016;51:1033-9.e3.
- A24. Buzgova R, Sikorova L, Jarosova D. Assessing patients' palliative care needs in the final stages of illness during hospitalization. *Am J Hosp Palliat Care* 2016;33:184 - 93.
- A25. Dhingra L, Dieckmann NF, Knotkova H, Chen J, Riggs A, Breuer B, et al. A high-touch model of community-based specialist palliative care: latent class analysis identifies distinct patient subgroups. *J Pain Symptom Manage* 2016;52:178-86.
- A26. O'Reilly M, Larkin P, Conroy M, Twomey F, Lucey M, Dunne C, et al. The impact of a novel tool for comprehensive assessment of palliative care (MPCAT) on assessment outcome at 6- and 12-month follow-up. *J Pain Symptom Manage* 2016;52:107-16.
- A27. Krug K, Miksch A, Peters-Klimm F, Engeser P, Szecsenyi J. Correlation between patient quality of life in palliative care and burden of their family caregivers: a prospective observational cohort study. *BMC Palliat Care* 2016;15:4.

- A28. Grubbs V, O’Riordan D, Pantilat S. Characteristics and outcomes of in-hospital palliative care consultation among patients with renal disease versus other serious illnesses. *Clin J Am Soc Nephrol* 2017;12:1085-9.
- A29. Selman LE, Brighton LJ, Sinclair S, Karvonen I, Egan R, Speck P, et al. Patients’ and caregivers’ needs, experiences, preferences and research priorities in spiritual care: a focus group study across nine countries. *Palliat Med* 2018;32:216 - 30.
- A30. Ferrell BR, Paterson CL, Hughes MT, Chung V, Koczywas M, Smith TJ. Characteristics of participants enrolled onto a randomized controlled trial of palliative care for patients on phase I studies. *J Palliat Med* 2017;20:1338 - 44.
- A31. Steinhäuser KE, Alexander S, Olsen MK, Stechuchak KM, Zervakis J, Ammarell N, et al. Addressing patient emotional and existential needs during serious illness: results of the outlook randomized controlled trial. *J Pain Symptom Manage* 2017;54:898 - 908.
- A32. Gallagher LM, Lagman R, Bates D, Edsall M, Eden P, Janaitis J, et al. Perceptions of family members of palliative medicine and hospice patients who experienced music therapy. *Support Care Cancer* 2017;25:1769 - 78.
- A33. Hanson LC, Collichio F, Bernard SA, Wood WA, Milowsky M, Burgess E, et al. Integrating palliative and oncology care for patients with advanced cancer: a quality improvement intervention. *J Palliat Med* 2017;20:1366 - 71.
- A34. Pollack LR, Goldstein NE, Gonzalez WC, Blinderman CD, Maurer MS, Lederer DJ, et al. The frailty phenotype and palliative care needs of older survivors of critical illness. *J Am Geriatr Soc* 2017;65:1168 - 75.
- A35. Van Lancker A, Van Hecke A, Verhaeghe S, Mattheeuws M, Beeckman D. A comparison of symptoms in older hospitalised cancer and non-cancer patients in need of palliative care: a secondary analysis of two cross-sectional studies. *BMC Geriatr* 2018;18:40.
- A36. Preisler M, Heuse S, Riemer M, Kendel F, Letsch A. Early integration of palliative cancer care: patients’ and caregivers’ challenges, treatment preferences, and knowledge of illness and treatment throughout the cancer trajectory. *Support Care Cancer* 2018;26:921-31.
- A37. Włostowska K, Doboszynska A, Trylinska-Tekielska E. Assessment of the needs of hospice patients and their relatives by the Needs Evaluation Questionnaire. *Palliat Med Pract* 2019;12:186 - 92.
- A38. Martinsson L, Lundstrom S, Sundelof J. Quality of end-of-life care in patients with dementia compared to patients with cancer: A population-based register study. *PLoS One* 2018;13:e0201051.
- A39. Astrow AB, Kwok G, Sharma RK, Fromer N, Sulmasy DP. Spiritual needs and perception of quality of care and satisfaction with care in hematology/medical oncology patients: a multicultural assessment. *J Pain Symptom Manage* 2018;55:56-64.e1.
- A40. Boucher NA, Johnson KS, LeBlanc TW. Acute leukemia patients’ needs: qualitative findings and opportunities for early palliative care. *J Pain Symptom Manage* 2018;55:433 - 9.
- A41. Kane PM, Ellis-Smith CI, Daveson BA, Ryan K, Mahon NG, McAdam B, et al. Understanding how a palliative-specific patient-reported outcome intervention works to facilitate patient-centred care in advanced heart failure: a qualitative study. *Palliat Med* 2018;32:143 - 55.
- A42. Pinto C, Bristowe K, Witt J, Davies JM, De Wolf-Linder S, Dawkins M, et al. Perspectives of patients, family caregivers and health professionals on the use of outcome measures in palliative care and lessons for implementation: a multi-method qualitative study. *Ann Palliat Med* 2018;7(Suppl 3):S137-S150.
- A43. Kotronoulas G, Papadopoulou C, Simpson MF, McPhelim J, Mack L, Maguire R. Using patient-reported outcome measures to deliver enhanced supportive care to people with lung cancer: feasibility and acceptability of a nurse-led consultation model. *Support Care Cancer* 2018;26:3729 - 37.
- A44. Bonner A, Chambers S, Healy H, Hoy W, Mitchell G, Kark A, et al. Tracking patients with advanced kidney disease in the last 12 months of life. *J Ren Care* 2018;44:115 - 22.
- A45. Kozlov E, Cai A, Sirey JA, Ghesquiere A, Reid MC. Identifying palliative care needs among older adults in nonclinical settings. *Am J Hosp Palliat Care* 2018;35:1477 - 82.
- A46. Alaba J, Arriola E, Anton I, García-Soler A, Buiza C, Hernandez C. Estudio Palidem: cuidados al final de la vida en pacientes con demencia avanzada institucionalizados. *Med Palliat* 2019;26:143 - 9.
- A47. Reinke LF, Vig EK, Tartaglione E V., Rise P, Au DH. Symptom burden and palliative care needs among high-risk veterans with multimorbidity. *J Pain Symptom Manage* 2019;57:880 - 9.
- A48. Zweers D, de Graeff A, Duijn J, de Graeff E, Witteveen PO, Teunissen SCCM. Patients’ needs regarding anxiety management in palliative cancer care: a qualitative study in a hospice setting. *Am J Hosp Palliat Care* 2019;36:947 - 54.
- A49. Kukulka K, Washington KT, Govindarjan R, David R. Stakeholder perspectives on the biopsychosocial and spiritual realities of living with ALS: Implications for Palliative Care Teams 2019;36:851 - 7.
- A50. Gardner DS, Parikh NS, Villanueva CH, Ghesquiere A, Kenien C, Callahan J, et al. Assessing the palliative care needs and service use of diverse older adults in an urban medically underserved community. *Ann Palliat Med* 2019;8:769-74.
- A51. Magnani C, Mastroianni C, Giannarelli D, Stefanelli MC, Di Cienzo V, Valerioti T, et al. Oral hygiene care in patients with advanced disease: an essential measure to improve oral cavity conditions and symptom management. *Am J Hosp Palliat Care* 2019;36:815 - 9.
- A52. Bristowe K, Selman LE, Higginson IJ, Murtagh FEM. Invisible and intangible illness: a qualitative interview study of patients’ experiences and understandings of conservatively managed end-stage kidney disease. *Ann Palliat Med* 2019;8:121 - 9.
- A53. Kamiyo Y, Miyamura T. Spirituality and associated factors among cancer patients undergoing chemotherapy. *Jpn J Nurs Sci* 2020;17:e12276.