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Review Article

A Review of Psychosocial Interventions in Patients with Advanced Cancer in Latin America and the Value of CALM Therapy in This Setting

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Abstract: Background: Advanced cancer is associated with multiple profound and practical challenges, including physical suffering and support needs. Depressive symptoms and other manifestations of distress are common in this population. At present, little professional support is available to help to alleviate the psychological distress of patients and families living with the burden of advanced cancer. Effective interventions and their integration into local health systems are needed to meet this challenge. Managing Cancer and Living Meaningfully (CALM), a brief psychotherapy intervention for patients with advanced cancer. Research conducted in Canada has demonstrated its feasibility, acceptability and effectiveness in reducing and preventing depressive symptoms, in managing distress related to death and dying, and in preparing for the end of life. Research is needed to demonstrate the feasibility and acceptability of CALM in Latin America, a developing region comprised of 35 different low- and middle-income countries in South and Central America, where more than one million people are presently in need of end-of-life care. Aim: Review evidence for psychosocial oncology interventions in Latin America and the potential applicability and implementation of CALM therapy in patients with advanced Cancer in this setting. Methods: We used an iterative search process to locate information about psychological interventions for patients with advanced cancer in South/Central/Latin America. Multiple searches were performed in Medline, Google Scholar, National Guidelines Clearinghouse, Trip Database, Redalyc, Scielo, and Latindex for terminology describing cancer, end-of-life, psychology, and psychological interventions. In the larger resources, we added either limits or search terms for Latin America. Results: The literature identified describes psychological interventions for patients with cancer, including psychoeducation, support therapies, group therapies, cognitive behavior therapy, spirituality and hypnosis. However, very few of these interventions were specifically designed for patients with advanced cancer. The majority of articles describe psychological/ psychotherapeutic interventions being implemented in Europe, North America, and Australian settings and we could identify only two papers describing psychological interventions being applied in an advanced cancer setting in Latin America. Conclusion: The availability and practice of psychological interventions in advanced cancer in Latin America are scarce. However, interest in applying such interventions appears to be growing. The application of the CALM intervention in multiple cultures and international settings suggests that it may be feasible and acceptable and effective in Latin America. Research is needed to demonstrate this and to support advocacy for its implementation in this region.

Keywords: Psychotherapy, Advanced Cancer, End of Life, Palliative Care, Distress, Dying and Death, Death Anxiety, Latin America

1. Introduction

Advanced disease that is progressive and associated with the threat of impending death, may trigger fears of dependency and suffering, and raise questions for patients about the meaning of life, and how to continue to live while facing death [1]. The term "double awareness" [2] has been used to describe the capacity of individuals to sustain and negotiate the dialectical tension of remaining engaged in the world, while also preparing for impending death. This capacity can be supported by psychotherapeutic interventions, which help patients accept the reality of death and remain committed to life [3]. Existential philosophy similarly asserts that although awareness of the life-death tension has the potential to become a source of great despair, it also may imbue life with profound meaning [2].

A variety of psychiatric and psychological alterations have been identified in patients with advanced disease, including adjustment disorders, depression and anxiety disorders. The highest levels of anxiety are observed at the time of diagnosis and recurrence, while depression becomes more common with the progression of the disease and proximity to death [4]. Depression can be considered a final common pathway of distress in response to the symptom burden of the disease and the interaction with psychosocial factors, including attachment security, self-esteem and spiritual well-being [5]. Depression at the end of life has been strongly associated with the desire for hastened death, which may be associated with requests for medical assistance in dying in countries where it is legalized [6, 7]. Suicide rates increase in this phase of life in the context of poorly controlled pain, depression, demoralization and poor social support [8]. Demoralization is a state that is characterized by feelings of hopelessness or helplessness, loss of meaning or purpose in life, attitudes of pessimism, feelings of being trapped, personal failure, or absence of a perceived future worth fighting for. This state may occur in the absence of major depression or other psychiatric disorders [1].

Latin America is a developing region, comprising 35 different low- and middle-income countries (LMICs) in South and Central America, including the Caribbean. With a population of 551 million, there are multiple cultural, economic, and political challenges in this region [15]. Many national health systems in Latin America have inadequate infrastructures, poor administrative systems, poverty, and limited educational opportunities [16]. This is becoming increasingly problematic as the population is aging in Latin America, with estimates that there will be more than one hundred million people older than sixty years of age living in this region by 2020; more than fifty percent of these individuals will live beyond 80 years of age [17]. It is estimated that there will be more than one million new cancers each year, with 30-40% being metastatic at the time of diagnosis [18]. The high mortality-to incidence ratios (MIRs) that have been reported are due both to the late stage of diagnoses and to poor access to treatment [19]. Health systems in Latin America have focused on disease prevention, prenatal assistance, malnutrition and, only recently, has the focus shifted from infectious diseases to no communicable diseases. There is still relatively little provision of appropriate psychosocial and palliative care for dying patients [20].

Palliative care (PC) in Latin America began to develop in the early 1980s, with increased attention to improving access to opioids and the establishment of PC teams, although these services and resources are still markedly insufficient in relation to the clinical needs [21]. In 2012, the World Palliative Care Alliance (WPCA) recommended that Latin American countries implement laws and guidelines that define PC care within the health system and recognize PC as a distinct medical subspecialty, with the goal of developing national strategies for access to and delivery of PC.

As of 2018, all the countries in Latin America now have some form of PC services, but only in the last 5 years has there has been a substantial increase in availability of these services [23]. Now include in their health system laws and guidelines, that formally recognize PC as a distinct medical subspecialty, as defined by the World Health Organization (WHO) and WPCA [22]. The level of development of PC is still considerably heterogeneous between countries [24]. Almost half of the PC services in Latin America are located in Argentina and Chile, although these countries comprise only 10% of the total Latin American population [22]. According to the 2015 Quality of Death Index [25], which ranks countries as Level 1 (no known hospice palliative care activity) to Level 4b (advanced integration of palliative care into the health system), Chile and Costa Rica are two examples of the best, high quality, successful and integrated PC programs within Latin America (Level 4a). Nevertheless, most of the countries in Latin America are considered to be at Level 2 (capacity-building activity) or Level 3a (isolated palliative care provision) [26]. Finally, the psychological aspects of PC, specifically in cancer populations, have not been central concerns on health systems planning or in legislation on end of life care in the Latin American region.

Cultural aspects of end-of-life care that are important in Latin America are based on a number of common values. The first could be referred to as *familyism,* which emphasizes family participation in end-of-life care and advance care planning Many last decisions in end-of-life care in Latin America are still made through family consensus, with the patient having passive decisional control [27]. Another is *hierarchical relationships,* in which a paternalistic approach is often taken by heath care providers in Latin America who commonly avoid disclosing a grave prognosis to patients, causing delay in referral to PC services [28-29]. The cultural values of familyism and hierarchical relationship lead to families and/or the physicians often taking on all of the end-of-life care decision-making [30-31]. Although patients may have only a passive role or shared decision-making role with their family and care providers, recent data suggests that most patients would prefer to receive complete information about their diagnosis, treatment and prognosis. S*pirituality*

and religiosity are other important values for the Latin patient. In particular, the influence of the Roman Catholic Church is very powerful in Latin American countries, with almost 70% of the population identifying as Catholic [32]. Since many patients believe that the only one who has control over death is God, engagement with Catholic and other community spiritual leaders is very important to help them find meaning and purpose in life, and to help with advance care planning [33].

As a result of limited resources and prioritization in healthcare, the quality of life and the quality of dying and death of patients with advanced disease in Latin America are not optimal. There is still unnecessary suffering and limited and inadequate communication between health care providers, patients and families, and often a great burden placed on informal family caregivers [34]. Supportive care teams and specific psychological interventions for these patients and their families are severely lacking.

There is evidence from North America about Managing Cancer and Living Meaningfully, referred to as CALM, is a supportive-expressive intervention, informed by relational, attachment and existential theory, developed for patients with advanced or metastatic cancer. It has been tested in North America, specifically in Toronto, Canada, by a team at the Princess Margaret Cancer Centre, University Health Network [9]. This intervention has proven to be a cost-effective, relatively brief, flexible individual psychotherapy that can be adjusted to the needs of each patient. It has been demonstrated to relieve and prevent depressive symptoms, and helps patients to face the challenges ahead, as death approaches. CALM involves 3 to 6 individual therapy sessions of approximately 45-60 minutes each, delivered over 3 to 6 months by a trained mental health professional. Close loved ones may be invited to attend one or more sessions. CALM focuses on four main domains, including managing symptoms and communicating with health care providers; changes in self and in relationships with close others; spiritual well-being and meaning and purpose in life; and facing end of life concerns and mortality [9].

Research on CALM has been conducted over the past decade and includes Phase I and 2 studies and a large randomized controlled trial (RCT). This research has demonstrated its feasibility, acceptability and effectiveness in reducing the frequency and severity of depressive symptoms, and in preparing for the end of life [9-14]. In a Phase 3 RCT [14], 305 patients were randomized, 151 patients to CALM therapy plus usual care and 154 to usual care alone. The group that received CALM therapy reported less depressive symptoms at the 3 and 6 month outcomes and statistically significant differences were found in preparation for the end of life at 6 months, compared with the usual care group. In addition, CALM reduced death anxiety in those patients who reported moderate death-related distress at baseline [14] Qualitative findings also showed that the CALM intervention offered what was perceived by participants as a safe and flexible place to process the experience of living with advanced cancer, to talk about the process of dying and death, to navigate the health care system, to resolve relational tensions, and to feel "seen as a whole person within the health care system" [10, 14].

CALM therapy could be a valuable psychotherapeutic intervention for individuals with advanced cancer in Latin America to prevent and treat depression and end-of life-distress, as well as to address the many predictable experiences and challenges that these patients and their families face.

CALM therapy can be delivered by any trained mental health professional, ideally with experience in psychosocial oncology. This includes nurses, social workers, psychologists, psychiatrists, psychiatry residents, oncologists, and other care providers. CALM can be delivered in ambulatory or inpatient settings, and can be flexibly arranged, depending on a patient's scheduled appointments. CALM has been shown to be clinically effective [14], and economically feasible [35].

Research is needed to confirm the generalizability of these findings in different settings, including Latina America.

2. Objectives

To review the current psychological interventions available for patients with advanced cancer in Latin America, focusing on identifying deficiencies and obstacles, and to consider the implementation of CALM therapy for such patients in Latin America.

3. Methods

We used an iterative process to locate information about psychological interventions for patients with terminal cancer in South/Central/Latin America. Multiple searches were performed in Medline/PubMed, Google Scholar, National Guidelines Clearinghouse, Trip Database, Redalyc, Scielo, and Latindex (the last is the Regional Online Information System for Scientific Journals in Latin America) using terminology describing cancer, end-of-life, psychology, and specifically psychological interventions. In the larger resources, we added either limits or search terms for Latin America. We also searched 13 selected journals for terms describing end-of-life or cancer and Latin America in Web of Science. Where possible complete results were downloaded for screening, however for many of these resources bulk downloads are not possible, in which case individual relevant articles were selected. As new terminology was discovered new searches were performed. When no new relevant articles were identified from our searches (Table 1, for search strategies), we used reference lists and citation-searching to identify additional documents.

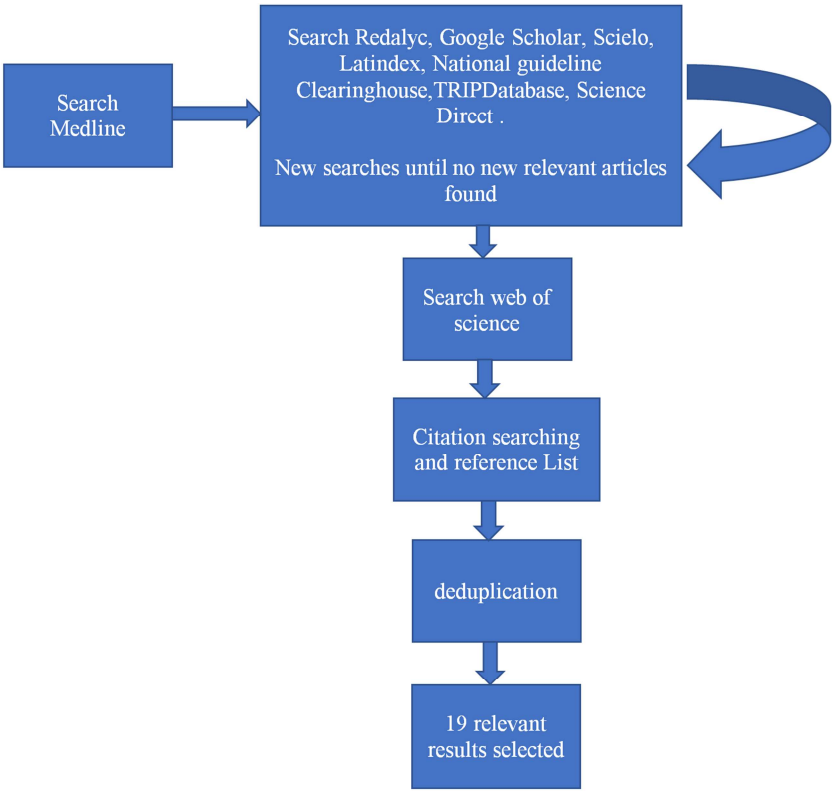

Figure 1. *Flow chart of search strategy.*

Table 1. *Search strategy.*

Database / Resource	Search Strategy	Articles	Relevant results	Unique Relevant results Cancer	Unique Relevant results Advanced cancer	Duplicate Relevant Results	Total
Medline	1 exp central America/ or Latin America/ or exp south America/ (154707) 2 (America adj3 (central or south or Latin)).mp. (38903) 3 (beliz* or costa ric* or el salvad* or Guatemala* or hondur* or nicarag* or panama* or argentin* or boliv* or brazil* or brasil* or chile* or colomb* or ecuador* or french guian* or guyana* or paragua* or peru* or surinam* or urugua* or venezuel*). hw, kf, ti, ab, cp, in, jn, nj, ia, cp, pb, mp. (709194) 4 1 or 2 or 3 (728978) 5 ((cancer* or neoplasm*) adj3 (metasta* or terminal* or late-stage or palliativ*)).mp. (167430) 6 exp Neoplasms/ and (metasta* or terminal* or late-stage or palliativ*).mp. (479253) 7 5 or 6 (496202) 8 4 and 7 (6834) 9 psych*.mp. (1293818) 10 exp Psychotherapy/ (178595) 11 exp Psychological Techniques/ (142.463) 12 9 or 10 or 11 (1413655) 13 8 and 12 (90)	90	2	1	1	1	1
Redalyc	Psicoterpia or Intervencion psicologica AND pacientes oncologicos AND depression y ansiedad AND latino america or intervenciones psico* AND cancer avanzado o metastasico o terminal AND latino america		8	6	2	0	8
Google scholar	Intervencion psicologica AND pacientes oncologicos AND depression y ansiedad AND latino america. Psicooncologia or "psycho-oncology" or "psico-oncologia" or psychodynamic or psychology or psychologic or psicologia) AND (oncology or oncologic or cancer or metastasis or metastases) AND ("south america" OR "central america" or "Latin America"	3.440	8	7	1	0	8

Database / Resource	Search Strategy	Articles	Relevant results	Unique Relevant results Cancer	Unique Relevant results Advanced cancer	Duplicate Relevant Results	Total
Scielo	(psychooncology or psicooncologia or "psycho-oncology" or "psico-oncologia" or psychodynamic or psychology or psychologic or psicologia) AND (oncology or oncologic or cancer or metastasis or metastases) AND ("south America" OR "central America" or "Latin America" or belize or cosa Rica or elsalvador or Chile or Colombia or Ecuador or Honduras or Nicaragua or panama or Argentina or Bolivia or brazil or brazil or Guiana or Guyana or Paraguay or Peru or Surinam or Uruguay or Venezuela)	49	1	1	0	5	1
Latindex			0	0	0	5	0
National Guidelines Clearinghouse	Guidelines for central/south/Latin American countries		0				0
TripDatabase	Guidelines for central/south/latin American countries		0	0	0	0	0
Web of Science (Journal search)	#3: 5.961 TS=(cancer* or neoplas* OR metasta* or terminal* or late-stage or palliativ* or dying or death or "end-of-life" or oncolog* or malignan* or carcin* or invasive* or tumor* or tumour* or psychooncol* or psicooncol* or mortal* or chemotherap* or "radiation therapy") *Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH, ESCI Timespan=All years* #2: 1.670 TS=("central america" OR "south america" OR "latin america" OR beliz* or costa ric* or elsalvad* or guatemal* or hondur* or nicarag* or panama* or argentin* or boliv* or brazil* or brasil* or chile* or colomb* or ecuador* or french guian* or guyana* or paragua* or peru* or surinam* or urugua* or venezuel*) OR CU=("central america" OR "south america" OR "latin america" OR beliz* or costa ric* or elsalvad* or guatemal* or hondur* or nicarag* or panama* or argentin* or boliv* or brazil* or brasil* or chile* or colomb* or ecuador* or french guian* or guyana* or paragua* or peru* or surinam* or urugua* or venezuel*) OR OO=("central america" OR "south america" OR "latin america" OR beliz* or costa ric* or el salvad* or guatemal* or hondur* or nicarag* or panama* or argentin* or boliv* or brazil* or brasil* or chile* or colomb* or ecuador* or french guian* or guyana* or paragua* or peru* or surinam* or urugua* or venezuel* #1: 74.833 SO=("Journal Of Consulting" OR "Clinical Psychology" OR "Psychotherapy Research" OR "American Journal Of Psychiatry" OR "Archives Of General Psychiatry" OR "Behavior Therapy" OR "Clinical Psychology and Psychotherapy" OR "Clinical Psychology: Science and Practice" OR "Journal Of Counseling Psychology" OR "Psychoanalytic Inquiry" OR "Psychology and Psychotherapy: Theory Research and Practice" OR "Journal of Clinical Psychology" OR "Psychotherapy" OR "Psychotherapy and Psychosomatics #3 AND #2 AND #1= 21 *Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH, ESCI Timespan=All years*	21	0	0	0	0	0
Science direct	central america" OR "south america" OR "latin america" and psychooncology or psicooncologia and oncology or oncologic or cancer or metastasis	1	1	1	0		1
Atlas de Cuidados Paliativos de Latino America	Guias de cuidados paliativos latino america Normas de cuidados paliativos latino america	0	0	0	0		0
Relevant documents (Excluding duplicates)					2		19

The major-medical databases (e.g. Medline/PubMed) contained relatively little content from Latin America.

Consequently, they could not be relied on to locate research, guidelines and other documentation about psychological interventions offered to advanced cancer patients from this geographic region. Many of the resources that have the geographic coverage needed, or that include guidelines and other non-journal material, do not provide the kinds of features needed in order to perform complex searching and exporting. As a result, the search process, other than a formal Medline search, was very iterative and involved dipping into each of the resources with one or two search terms, screening the results, possibly discovering a new term or resource or journal to look for, and then dipping back into each of the resources with new search terms and/or trying out the new resource. The exclusion criteria were psychosocial intervention in childhood cancer, duplicate studies, no relevant interventions, and psychosocial interventions for caregivers (Figure 1).

The Principal investigator, who is fluent in Spanish and English (P. Troncoso), and the Information Specialist at the University Health Network (M. Anderson), who is fluent only in English, met periodically to go over what had been found and to discuss any new ideas about where to continue looking for relevant literature.

4. Results

Of all the English and Spanish articles reviewed (total N=3,601), 19 were found to be relevant. These included 6 Spanish-language review articles, 5 published in journals in Latin America, and 1 in Spain, describing psychological interventions in individuals with cancer in Europe and North American settings. We also found 1 descriptive article of a specific group therapy applied in Australia, but published in Spanish in an Argentinian journal. In addition, we identified a chapter in a Chilean text book that reviewed research in psycho-oncology in Peru [36]. The majority of these articles described diverse psychological interventions for anxiety and depression. We also found 4 articles that were written by two authors from different continents: 2 United States-Latin American articles, 1 Australian-Latin American article, and 1 Spain-Latin American article [37-40]. Only 3 review articles based on local settings in Latin America were identified [41-43] (see Table 2). We also found 10 articles plus 1 Master's thesis (see Table 3), describing psychological interventions in cancer between 1979 and 2019 in Latin America. These were from Mexico (n=3), Chile (n=2), Colombia (n=2), Argentina (n=1), Cuba (n=1), Ecuador (n=1), and Brazil (n=1).

Eight of the papers identified were published in the last 5 years, suggesting increasing interest in this topic. They described different psychological interventions including cognitive-behavioral therapy (n=7) [44-50], supportive therapy (n=2) [51-52], psycho-dynamic therapy (n=1) [53], and spiritual support (1) [54]. Some were offered as individual or group therapy interventions only, while others offered a choice of either modality. Nine of the 11 papers more broadly focused on cancer in general, and 7 of these did not specify cancer stage. The populations studied were mostly women with breast cancer (5 of 11), with group therapy and psychoeducation as important components. Only 2 of the studies included couples or family members [51-52]. Two of the studies showed reductions in anxiety and depression levels [44, 46], one showed reduction of depression, social introversion and paranoia [53], and one showed reduction of anxiety but not depression [48]. Others were only a description of a local therapy, not research studies [52, 54]. Nine of the articles were found in Spanish language journals (8 articles published in Latin American journals and 1 published in a Spanish journal), the Master's thesis was in Spanish, and only one article was found in an English language journal [47].

Only 2 of the 11 papers describing psychological interventions for cancer patients in Latin America, were specifically with patients with advanced cancer. The first was a retrospective and descriptive study of the psychological program of care in oncology at the National Cancer Institute in Mexico [49]. The population included 5, 588 individuals with different types of cancer receiving palliative care between February 2011 to March 2013. The results were descriptive and included general characteristics of the population, types of cancer and psychological diagnoses, and the types of psychological intervention applied in this population. The most widely used psychological intervention was cognitive-behavioral therapy, which included such techniques as psychoeducation (27.8%), emotional expression (26.8%), emotional validation (22.5%), emotional containment (10.1%), and problem-solving (5.6%). The authors concluded that the interventions and psychological techniques must consider the physical impairment and fatigue of the patients and therefore should be brief and directed to the specific needs of the patient. They suggested that investigations are required to verify the effectiveness of psychological interventions and their impact on patients' quality of life.

The second article was a pilot randomized controlled clinical trial conducted in Brazil [47]. The aim of this study was to assess the feasibility and potential benefit of a brief psychosocial intervention based on cognitive-behavioral therapy performed in addition to early palliative care (PC) for the reduction of depressive symptoms among patients with advanced cancer. From a total of 613 screened patients (10.3% inclusion rate), 63 patients were randomly allocated to three arms: arm A (n=19) was five weekly sessions of psychosocial intervention combined with early PC; arm B (n=22) was early PC only; and arm C (n=22) was standard care. Participants in arm A showed a moderate benefit on emotional functioning compared to B and C, but this trial did not demonstrate a reduction in depression with the addition of early PC. There may have been insufficient statistical power and there was high contamination reported in their standard care arm. The authors suggested that the eligibility criteria in future studies should be more inclusive and not necessarily exclude individuals with a past history of depression or psychiatric illness and that the impact should be evaluated in subgroups with a high risk of anxiety and depression.

Table 2. *Review articles, review chapter and descriptive article of psychological intervention for cancer patients used in other countries but not locally (N=8).*

Study	Intervention	Review article	Setting	Journal
Barquero et al., 2017	Cancer individuals	Psychiatryc approach of the oncological patient	Costa rica	Medical journal of Costa rica
Cabrera et al., 2017	Cancer individuals	Psychology and Oncology: in an escencial unit	Cuba	Finlay journal of Cuba
Landa-ramirez et al., 2014	Terminal Cancer individuals	Description of the Cognitive-behavioral therapy for anxiety in patient with terminal cancer	Mexico	Psicooncology Journal of Spain
Murillo et al., 2006	Cancer individuals	Psychosomatic treatment in oncology patient	Colombia	Psychiatry journal of Colombia
Santana et al., 2012	Breast cancer women	Conecptual, methological and etical issues surrounding hypnosis when used psychological therapy attached to breast cancer treatment	Puerto Rico	Salud y socieda Journal of Chile
Villoria et al, 2015	Cancer individuals	Psychological intervention in oncological patients: a review	Chile	Psicooncology Journal of Spain
Study	Intervention	Review chapter	Setting	Journal
Caycho-Rodriguez., 2017	Psycho onclogy topic	Psychooncology research in peru (2006-2016)	Peru	Psicooncologia Enfoques, avances e investigacion 2017. Chile
Study	Intervention	Descriptive Article	Setting	Journal
O´Brien et al., 2011	Advanced Breast Cancer woman	Novel therapeutic group therapy for women with advanced cancer in Queensland.	Australia	Clinica psicologica Argentina journal

Table 3. *Articles of psychological intervention for cancer patients applied locally (N=11).*

Study	Population	Intervention	Psychological techniques	Frequency / duration	Study / sample	Setting	Results
Alessandri et al., 2015	Cancer individuals, couple and family members	Support Therapy Individual; manualized short-term. Group; manualized; strategies to reduce stress, improve mood, and maintain adherence to cancer treatment and care.	-Psycho- education -Relax exercise -Emotional expression -Problem solving	N/I	Descriptive	Chile	Description of the ontervention
Castillo et al, 2013	Cancer individuals (Breast Cancer non metastasic in oncology treatment)	Cognitive- behavioral therapy Group therapy	Psicho-education -Cognitive components -Emotional components	Weekly N/I	Case-control 30/30 patients	Cuba	Reduction of anxiety and depression levels
Garduño et al., 2010	Cancer individuals (Breast Cancer non terminal)	Cognitive-behavioral therapy Individual therapy	-Psicho-education -Cognitive components -Emotional components	weekly 16 weeks	Prospective 60 patients	Mexico	Statistically significant changes of Quality of Life
Gercovich et al., 2011	Cancer individuals (Breast Cancer non terminal)	Cognitive-behavioral therapy	Not specificed	Weekly 10 weeks	Prospective 185 patient (2006-2007)	Argentina	Statistically significant changes of Quality of Life and reduction of anxiety and depression
Flores et al., 1979	Cancer individuals	Psycho-dynamic therapy Group therapy	-Kadis tecnique (1959)	Twice pe Week 10 weeks	Case-control 11 patients	Colombia	Reduction of depression, hysteria, paranoia and social introversion
Ramirez et al., 2017	Cancer individuals (Breast Cancer non terminal)	Cognitive-behavioral therapy Individual therapy	-Psycho-education -Cognitive re-structuration -problem solving -breathing exercises	5 sesions	prospective 26 patients	Mexico	Reduction of anxious symptomatology but not depressive symptoms
Roberts et al., 2013	Cancer individuals, couple and family members	Support Therapy Individual; manualized short-term. Group; manualized; strategies to reduce stress, improve mood, maintain adherence to cancer treatment and care.	-Psicho-education - Relax exercise -Emotional Validation	N/I	Descriptive	Chile	Descriptiption of the intervention
Orrego et al., 2014	Cancer individuals	Spiritual intervention Gropup therapy		Weekly 8 weeks	Prospective 4 patients	Colombia	Pilot study Need research about efficiency and effectiveness
Ascencio - Huertas et al., 2013	Advanced cancer individuals	Cognitive-behavioral therapy	-Psycho-education -Cognitive components - Behavior components	Population attended in 2 years	Prospective 5588 patients	Mexico	Description of the therapy used
Monteiro do	Advanced Cancer	Cognitive-behavioral	-Psycho-education	Weekly 5	Randomized	Brazil	Not able to reduce

Study	Population	Intervention	Psychological techniques	Frequency / duration	Study / sample	Setting	Results
carmo et al., 2017	individuals	therapy	-Cognitive components - Behavior components	weeks	63 patients		depressive symptoms
Zambrano et al., 2016 (Thesis)	Cancer individuals Breast cancer	Cognitive-behavioral therapy Group therapy	-Psycho-education -Cognitive components - Behavior components	Weekly 10 weeks	Prospective 49 patients	Ecuador	No statistically significant changes of distress or depressive symptoms

5. Discussion

The quality of life and quality of care in patients for patients with advanced disease are not optimal in Latin America. There is an urgent and increasing need for more study of supportive care interventions at the end of life in this region. Despite a growing awareness of this issue, there is limited research in clinical practice and few publications evaluating psychosocial interventions in Latin America countries, which represents a challenge for regional interchange and communication.

Only 2 of 19 articles identified in our literature review of psychosocial interventions for patients with cancer, the majority did not differentiate the stage of cancer. Many of these were reported on women with breast cancer and the most prevalent intervention was cognitive-behavioral therapy with a psychoeducational component; group therapy was more prevalent than individual therapy. Group therapies for patients with terminal cancer, including supportive-expressive [31-33], cognitive-existential [18, 34-35], and meaning-centered therapy [36], have been previously developed. However, the feasibility of group therapies may be limited for patients with advanced disease. Problems such as the lack of flexibility in scheduling, the difficulty in absorbing the emotional burden of other patients in the group, and disease progression, are may contribute to the preference of patients with advanced disease for individual therapy to address of personal and family concerns that may overwhelm them [37].

While several articles described reductions in anxiety and depression levels and quality of life as a result of psychological interventions in cancer patients, only one study tested an intervention (brief cognitive-behavioral therapy with early PC) in patients with advanced cancer [46]. This intervention did not reduce depressive symptoms in their sample. In patients with advanced cancer and depressive symptoms, it has been shown in Latin America that individuals with advanced cancer and depression prefer psychotherapeutic interventions over pharmacological treatment; the former is preferred because they promote strategies for coping with the disease, better communication, and understanding of emotional experience and the search for meaning in one's current life [28].

There is recent evidence that individual psychotherapies provide benefit in patients with advanced cancer [55]. Psychotherapeutic interventions at the end of life aim to reduce the emotional distress of the ill person and provide support for the expected challenges that lie ahead, and facilitate the process of preparing for the end of life [14, 30]. Dignity therapy may enhance the sense of legacy and dignity at the end of life [38-39]. Individual therapy, focused on meaning may be of value to improve the patient's spiritual well-being and sense of meaning and purpose in life [40-41]. CALM is an individual, supportive-expressive psychotherapy developed in Toronto, Canada 10 years ago that focuses on patients with advanced or metastatic cancer within 6 months to 2 years from end of life. CALM has proven to be a brief, acceptable and cost -effective intervention for the relief and prevention of depressive symptoms and distress related to dying and death in patients with advanced cancer. CALM aims to help patients to sustain the "double awareness" of living while dying and to prepare for the end of life [9-14].

The interest and efforts of the World Palliative Care Alliance (WPCA) have helped to implement laws and guidelines for palliative care for patients with advanced cancer within Latin America. However, although the health system is improving, there is an urgent need for better psychosocial care at the end of life in the region. The present review identified a number of barriers to implementing supportive interventions in Latin America. These include economic factors, poor access to palliative care for patients in some countries, an overall lack of education and training in palliative and psychosocial care for health care providers [54], the lack of psychological care integrated into palliative care services in Latin America, and linguistic barriers may limit access to and publishing in higher quality international journals.

There is a growing interest among health care providers in Latin America in end-of-life care issues and in pursuing training in other countries, including Canada, the United States, and the United Kingdom [34]. A creative collaboration between health care providers in developed and developing countries may facilitate improvement of psychosocial education, training and delivery of care in Latin America. Individuals with advanced disease in different cultures and across continents share similar needs for psychological support at the end of life. A psychosocial intervention such as CALM, which is brief and cost-effective, can be delivered by a variety of trained healthcare providers, and has been implemented in North America, Europe and Asia, holds promise for helping patients with advanced cancer in Latin America.

Limitations to this review include the small number of articles identified in our search strategies and that the findings may not adequately represent clinical care in Latin America. Relevant Spanish-language resources also could have been missed in the literature search.

6. Conclusion

There is an urgent need Latin America to build and strengthen the infrastructure to provide adequate psychosocial and palliative care for patients with advanced cancer. There continue to be vast inequalities across countries and regions regarding availability and access to early cancer detection and treatment, advance care planning and to adequate palliative care and psychosocial support for such patients and their families. There is also a lack of opportunities for specialized clinical training in psychosocial oncology and palliative care.

The feasibility, acceptance and effectiveness of the CALM intervention in reducing the severity of depressive symptoms, and improving preparation for the end of life, has been demonstrated in patients with advanced cancer in North America.

The potential benefits of exporting CALM to Latin America are not only that it is evidence based but that it is brief and therefore not resource intensive, many disciplines can be trained to deliver CALM, it deals with a range of concerns, and is individualizable. For these reasons CALM may be a useful approach to help address the lack of adequate psychosocial care for individuals facing advanced cancer in Latin America. Next steps will be to implement and evaluate CALM in Latin America, where a number of obstacles will have to be overcome. Such a project is currently beginning in Chile as part of a Global CALM Program through the Global Institute of Psychosocial, Palliative, and End-of-Life Care (GIPPEC; www.gippec.org) in Toronto, Canada.

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References

[1] Kissane DW, Clarke DM, Street AF. Demoralization syndrome--a relevant psychiatric diagnosis for palliative care. J Palliat Care. 2001; 17 (1): 12-21.

[2] Rodin G, Zimmermann C. Psychoanalytic reflections on mortality: a reconsideration. J Am Acad Psychoanal Dyn Psychiatry. 2008; 36 (1): 181-96.

[3] Colosimo K, Nissim, R., Pos, A. E., Hales, S., Zimmermann, C., & Rodin, G. Double awareness" in psychotherapy for patients living with advanced cancer. Journal of Psychotherapy Integration, http://dxdoiorg/101037/int0000078. 2018; 28 (2): 125-40.

[4] Li M BV, Lo C, et al.. Depression and anxiety in supportive oncology. In: Davis M Feyer P OP, editor. Supportive Oncology. first ed. Philadelphia, PA2011. p. 528-40.

[5] Rodin G, Lo C, Mikulincer M, Donner A, Gagliese L, Zimmermann C. Pathways to distress: the multiple determinants of depression, hopelessness, and the desire for hastened death in metastatic cancer patients. Soc Sci Med. 2009; 68 (3): 562-9.

[6] Kissane DW. The contribution of demoralization to end of life decisionmaking. Hastings Cent Rep. 2004; 34 (4): 21-31.

[7] Morita T, Kawa M, Honke Y, Kohara H, Maeyama E, Kizawa Y, et al. Existential concerns of terminally ill cancer patients receiving specialized palliative care in Japan. Support Care Cancer. 2004; 12 (2): 137-40.

[8] Chochinov HM, Hack T, Hassard T, Kristjanson LJ, McClement S, Harlos M. Understanding the will to live in patients nearing death. Psychosomatics. 2005; 46 (1): 7-10.

[9] Hales S LC, Rodin G. Manging cancer and living meaningfully (CALM) Therapy In: Holland JC BW, Butow PN, Jacobsen PB, LoscalzoMJ, McCorkle R., editor. Psycho-onclogy, Third edition. third ed. oxford University Press: New York, NY2015. p. 487-91.

[10] Nissim R, Freeman E, Lo C, Zimmermann C, Gagliese L, Rydall A, et al. Managing Cancer and Living Meaningfully (CALM): a qualitative study of a brief individual psychotherapy for individuals with advanced cancer. Palliat Med. 2012; 26 (5): 713-21.

[11] Lo C, Hales S, Jung J, Chiu A, Panday T, Rydall A, et al. Managing Cancer And Living Meaningfully (CALM): phase 2 trial of a brief individual psychotherapy for patients with advanced cancer. Palliat Med. 2014; 28 (3): 234-42.

[12] Lo C, Hales S, Chiu A, Panday T, Malfitano C, Jung J, et al. Managing Cancer And Living Meaningfully (CALM): randomised feasibility trial in patients with advanced cancer. BMJ Support Palliat Care. 2016.

[13] Lo C, Hales S, Rydall A, Panday T, Chiu A, Malfitano C, et al. Managing Cancer And Living Meaningfully: study protocol for a randomized controlled trial. Trials. 2015; 16: 391.

[14] G RC, Lo; A, Rydall; J. Shnall; C, Malfitano; A, Chiu; T, Panday; S, Watt; E. An; R, Nissim; M, Li; C. Zimmermann; S. Hales. Managing Cancer And Living Meaningfully (CALM). A Randomized Controlled Trial of a Psychological Intervention for Patients with Advanced Cancer. Journal of Clinical Oncology 2019.

[15] http.//www.whocancerpain.wisc.edu/eng/spring96/palliative.html. BE. Palliative care delivery in Latin America. obstaccles and solutions. 2007.

[16] Terzic A, Waldman S. Chronic diseases: the emerging pandemic. Clin Transl Sci. 2011; 4 (3): 225-6.

[17] http://www.eiuperspectives.economist.com/healthcare/2015-quality-death-index EIU. The 2015 Quality of Death Index. Country Profiles. Ranking paliative care across the world. 2015.

[18] Bosma H, Apland L, Kazanjian A. Cultural conceptualizations of hospice palliative care: more similarities than differences. Palliat Med. 2010; 24 (5): 510-22.

[19] Justo N, Wilking N, Jonsson B, Luciani S, Cazap E. A review of breast cancer care and outcomes in Latin America. Oncologist. 2013; 18 (3): 248-56.

[20] Islam SM, Purnat TD, Phuong NT, Mwingira U, Schacht K, Froschl G. Non-communicable diseases (NCDs) in developing countries: a symposium report. Global Health. 2014; 10: 81.

[21] Singer PA, Bowman KW. Quality end-of-life care: A global perspective. BMC Palliat Care. 2002; 1 (1): 4.

[22] World Palliative Care Alliance WHO. Global atlas of Palliative Care at the End of Life. http://www.who.int/cancer/publications7palliative-care-atlas/en/ houston2012 [Primera]

[23] Pastrana T, De Lima L, Eisenchlas J, Wenk R. Palliative care research in Latin America and the Caribbean: from the beginning to the Declaration of Venice and beyond. J Palliat Med. 2012; 15 (3): 352-8.

[24] Pastrana T, Centeno C, De Lima L. Palliative Care in Latin America from the Professional Perspective: A SWOT Analysis. J Palliat Med. 2015; 18 (5): 429-37.

[25] Gwyther L KEhwtorcw-p-s. WPCA policy statement on defining palliative care. Worldwide Paliative Care Alliance.

[26] Soto-Perez-de-Celis E, Chavarri-Guerra Y, Pastrana T, Ruiz-Mendoza R, Bukowski A, Goss PE. End-of-Life Care in Latin America. J Glob Oncol. 2017; 3 (3): 261-70.

[27] Born W, Greiner KA, Sylvia E, Butler J, Ahluwalia JS. Knowledge, attitudes, and beliefs about end-of-life care among inner-city African Americans and Latinos. J Palliat Med. 2004; 7 (2): 247-56.

[28] Yennurajalingam S, Noguera A, Parsons HA, Torres-Vigil I, Duarte ER, Palma A, et al. A multicenter survey of Hispanic caregiver preferences for patient decision control in the United States and Latin America. Palliat Med. 2013; 27 (7): 692-8.

[29] Baile WF, Lenzi R, Parker PA, Buckman R, Cohen L. Oncologists' attitudes toward and practices in giving bad news: an exploratory study. J Clin Oncol. 2002; 20 (8): 2189-96.

[30] Adames HY, Chavez-Duenas NY, Fuentes MA, Salas SP, Perez-Chavez JG. Integration of Latino/a cultural values into palliative health care: a culture centered model. Palliat Support Care. 2014; 12 (2): 149-57.

[31] Kelley AS, Wenger NS, Sarkisian CA. Opiniones: end-of-life care preferences and planning of older Latinos. J Am Geriatr Soc. 2010; 58 (6): 1109-16.

[32] Region RiLAWCiaHC. http://www.pewforum.org/2014/11/13/religion-in-latin-america/ 2014

[33] Ko E, Cho S, Perez RL, Yeo Y, Palomino H. Good and bad death: exploring the perspectives of older Mexican Americans. J Gerontol Soc Work. 2013; 56 (1): 6-25.

[34] Wenk R, Bertolino M. Palliative care development in South America: a focus on Argentina. J Pain Symptom Manage. 2007; 33 (5): 645-50.

[35] Saha U RA, Shnall J, Rodin G. Cost-effectiveness analysis of the CALM psychosocial intervention for patients with advanced cancer. [Oral presentation at The Canadian Association for Health Services and Policy Research, Montreal, Quebec, Canada.]. In press 2018.

[36] Caycho T, Ventura, J., Barboza, M., et al. La investigacion psicooncologica en el Peru: Un estudio bibliometrico de articulos publicados en revistas cientificas peruanas (2006-2016). In: Rojas C, Gutierrez, Y., editor. Psicooncologia enfoques, avances e investigacion. Nueva mirada ed. Talca, Chile 2017. p. 109-31.

[37] Villoria E, Fernandez, C., Padierna, C., Gonzalez, S. La intervencion psicologica en pacientes oncologicos: Una revision de la literatura (2000-2014). Psicooncologia. 2015; 12 (2-3): 2017-236.

[38] Landa-Ramirez E, Greer, A., Vite-Sierra, A., et al. Descripcion de la terapia cognitivo- conductual para la ansiedad en pacientes con cancer terminal. Psicooncologia. 2014; 11 (1): 151-62.

[39] Murillo M, Alarcon, A.,. Tratamientos psicosomaticos en el paciente con cancer. Revista colombiana de psiquiatria. 2006; XXXV: 92-111.

[40] O´Brien M, O´Brien, T., Yasky, J. Un novedoso grupo terapeutico para mujeres con cancer de mama avanzado. Revista Argentina de Clínica Psicológica. 2011; XX (3): 247-53.

[41] Santana J, Bernal, G., Rodriguez, L. et al Asuntos conceptuales, metodologicos y eticos de la hipnosis como terapia psicologica adjunta al tratamiento del cancer. Salud y sociedad. 2012; 3 (2): 212-36.

[42] Barquero A. Abordaje psiquiatrico del paciente oncologico. Revista medica de la universidad de Costa Rica. 2017; 10 (2): 63-71.

[43] Cabrera YL, E., Cabrera, E., et al. la Psicologia y la Oncologia una unidad impresindible. Revista Finlay. 2017; 7 (2): 116-27.

[44] Castillo Z, Diaz, I., Navarro, M., et al Efectividad de la intervencion psicoterapeutica en mujeres en tratamiento por cancer de mama para la adecuacion de la autovaloracion. Revista Argentina de Clínica Psicológica. 2013; XXII (3): 287-98.

[45] Garduño C, Riveros, A., Sanchez, J. Calidad de vida y cancer de mama: Efectos de una intervencion cognitivo-conductual. Revista Latino Americana de medicina conductual. 2010; 1 (1): 69-80.

[46] Gercovich F, Torrente, F., Lopez, P. et al. Psicoterapia focalizada en pacientes oncologicos. resultado del tratamiento en un contexto naturalistico. Revista Argentina de Clínica Psicológica. 2011; XX (3): 239-46.

[47] Do Carmo TM, Paiva BSR, de Oliveira CZ, Nascimento MSA, Paiva CE. The feasibility and benefit of a brief psychosocial intervention in addition to early palliative care in patients with advanced cancer to reduce depressive symptoms: a pilot randomized controlled clinical trial. BMC Cancer. 2017; 17 (1): 564.

[48] Ramirez M, Rojas, M., Landa, E. Efecto de una intervencion Cognitivo Conductual breve sobre el afrontamiento y las sintomatologias ansiosa y depresiva de paceinets con cancer de mama sometidas a mastectomia. Revista Latino Americana de medicina conductual. 2017; 7 (1): 1-8.

[49] Ascencio-Huertas L, Rangel-Dominguez, N., Allende, A. Proceso de atencion psicologica en el programa de atencion y cuidados en oncologia del instituto nacional de cancerologia. Psicooncologia. 2013; 10 (3): 393-406.

[50] Zambrano Z. Estrategias de afrontamiento en pacientes con cancer de mama tipo carcinoma ductal en solca machala (2016-2017) [Maestria en psicologia clinica]. Ecuador: Universidad de Guayaquil.; 2016.

[51] Alessandri C, Portilla, D., Koppmann, A. Psico-oncologia: una aproximacion Interdiciplinaria al paciente oncologico y su familia. Revista Contacto Cientifico. 2015; 5 (6): 63-7.

[52] Robert VA, C. Valdiviezo, F. Psicoonclogia: un medelo de intervencion y apoyo psicosocial. Revista medica clinica las condes. 2013; 24 (4): 677-84.

[53] Flores H. Psicoterapia de grupo en pacientes de cancer. Revista LatinoAmericana de Psicologa. 1979; II (1): 47-63.

[54] Orrego SS, F., Sanchez, R. Desarrollo de una intervencion centrada en espiritualidad en paceinets con cancer. Revista Universitas Psychologica. 2014; 14 (1): 15-27.

[55] Rodin G AE, Shnall J, Malfitano C.. Psychological interventions for patients with advanced disease: Implications for oncology and palliative care. Journal of Clinical Oncology Revision submitted. 2019.