



Systematic Review

Managing Cancer and Living Meaningfully for Advanced Cancer: A Systematic Review

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ABSTRACT

Introduction: Managing Cancer and Living Meaningfully (CALM) is a supportive-expressive psychotherapy designed to address such barriers and to facilitate communication of mortality-related concerns in patients facing advanced disease and their primary caregivers. The study was meant to review the benefits of the CALM psychotherapy on patients with advanced or metastatic cancer and caregivers.

Methods: This study was done through a systematic review with The Preferred Reporting Items for Systematic Reviews and Meta-Analysis (PRISMA) approach. It broadly used Scopus, Science Direct, and ProQuest database. The search utilized the Boolean phrases “cancer”, “living meaningfully”, and “psychotherapy” throughout the title, abstract, or keywords. The consideration criteria in the literature study were: an original article, the source from journals, article in English, and available in full text. We obtained 97 articles, and 11 were considered relevant for this systematic review.

Results: The findings from the results of this study are that CALM has several psychological benefits for patients with advanced cancer, including: can reduce anxiety and depression, relieve distress, promote psychological growth and well-being, and improve quality of life. Based on these findings, it can be concluded that the CALM psychotherapy has many benefits for patients with advanced cancer and their caregivers and can be used as additional therapy to improve the quality of life to face the end-of-life.

Conclusion: CALM may be a feasible intervention to benefit patients with advanced cancer. It may help them overcome obstacles in communication and alleviate death-related distress.

ARTICLE HISTORY

Received: Feb 27, 2020
Accepted: April 1, 2020

KEYWORDS

advanced cancer; managing cancer and living meaningfully; psycho-oncology; psychotherapy

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Cite this as: Wulandari, S, M., Yunitasari, E., & Kusumaningrum, T. (2020). Managing Cancer and Living Meaningfully for Advanced Cancer: A Systematic Review. *Jurnal Ners, Special Issues*, 1-8. doi:<http://dx.doi.org/10.20473/jn.v15i2.18894>

INTRODUCTION

The World Health Organization describes cancer as a large group of diseases that can start in almost any organ or tissue of the body when abnormal cells grow uncontrollably, go beyond their usual boundaries to invade adjoining parts of the body and/or spread to other organs. The latter process is called metastasizing and is a major cause of death from cancer. Cancer is the second leading cause of death globally, accounting for an estimated 9.6 million deaths, or one in six deaths in 2018 (WHO, 2020).

Advanced cancer is related to fears and provokes identified disease progression and symptom burden,

dependency and disability, suffering, and worry about dying and death (An et al., 2017). The diagnosis of advanced cancer may trigger colossal trouble and the challenge of living meaningfully in the face of progressive disease. People right now face the burden of physical suffering, the threat of dependency and impending mortality, and the difficulty of making treatment decisions that have life-and-death implications while navigating a complex health care system (Rodin et al., 2019).

Early palliative care for such individuals has been shown to produce better outcomes, but the psychological dimensions of such care are much less systematized than those focused on symptom control

and advanced care-planning. These undermine confidence and any sense of meaning, may disrupt individual relationships and generate emotional distress. The psychological consequences of an advanced cancer diagnosis may include increased suicide rates. There is evidence to suggest that psychological distress may surpass physical side effects in terminally ill patients (Rodin et al., n.d.).

Therefore research related to psychological care in patients with advanced cancer needs to be developed to help cancer survivors improve their quality of life. The aims of the study was to review the benefits of the CALM psychotherapy on patients advanced or metastatic cancer and their caregivers.

MATERIALS AND METHODS

Strategy for searching studies

Articles published in English were searched in Scopus (medical and nursing subject category), Science Direct and ProQuest databases. The relevant literature was searched from March 25, 2015 to February 19, 2019. The publication date was limited to 2011 – 2019. The search utilized the Boolean phrases "managing cancer and living meaningfully" and/or "cancer" and/or "living meaningfully" and/or "psychotherapy" and/or "advance cancer" throughout the title, abstract, or keywords. This article used a systematic study review, compiled based on PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-analyzes) (Figure 1).

Study selection

The data obtained were then analyzed and synthesized based on inclusion and exclusion criteria. In this systematic review, the inclusion criteria are (1) respondents ≥ 18 years of age, (2) respondents are in stage 3 – 4 of cancer or advanced cancer, (3) using the CALM intervention program, (4) in English, (5) Original articles. The exclusion criteria were respondents with major communication difficulties, or/and cognitive impairment, or/and currently under psychiatric or psychological treatment, or/and unwillingness. The articles used are not limited to the type of study design. The articles must comply with the inclusion and exclusion criteria. The abstracts and the full text must be compatible and explain the CALM intervention of psychotherapy. The early literature search obtained in 97 articles, 26 from Scopus, 46 from Science Direct and 25 from ProQuest. The articles found were then reviewed in the abstract, relevance to the theme and adjusted for inclusion and exclusion criteria. Finally, 11 articles were considered relevant for this systematic review.

RESULTS

The findings from the results of this study suggest that CALM has several psychological benefits for patients with advanced cancer, including: reducing anxiety and depression, relieving distress, promoting

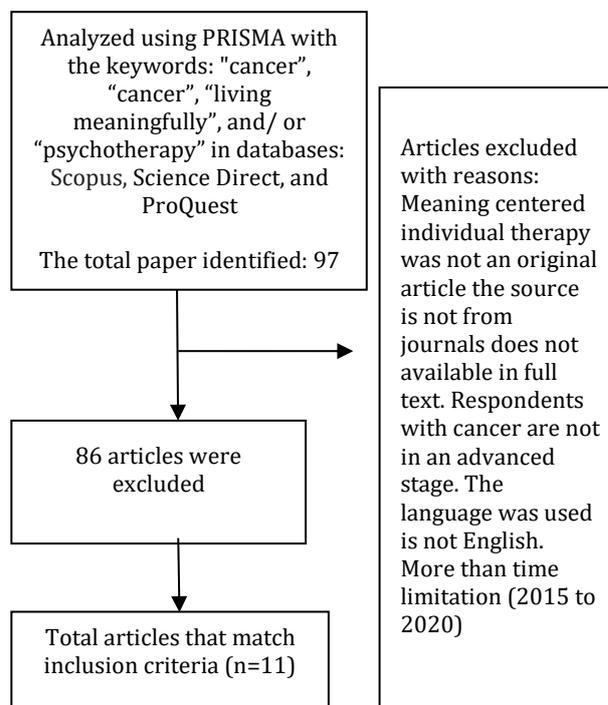


Figure.1. Flowchart of the research on Managing CALM for advanced cancer

psychological growth and well-being. It may help patients with advanced cancer overcome obstacles in communication and alleviate death-related distress (Table 1).

DISCUSSION

From the journals obtained and examined according to the theme, the articles previously used were screened according to the inclusion and exclusion criteria. Psychological therapy such as Cancer and Living Meaningfully (CALM) intervention can decrease depression, anxiety, and death-related distress, which can improve the quality of life.

Cancer created a lot of negative and stressful emotions for patients and their family and supportive care programs were critical in helping patients cope with their journey (Rodin, 2017). One of the stressful emotions for a patient with advanced cancer is death-related distress (An et al., 2017). Therefore, psychotherapy is needed to reduce anxiety and depressive symptoms.

The researchers propose a psychotherapeutic manualized, individual, semi-structured intervention to relieve distress and promote psychological well-being in advanced cancer patients. This intervention is called Cancer and Living Meaningfully (van der Spek et al., 2018)(S. Hales et al., 2017)(S. Hales et al., 2015)(Obesity et al., 2015), according to Canadians professor of psychiatry, Gary Rodin, and psychiatrist Sarah Hales of Toronto's Princess Margaret Cancer Centre. It is designed to help manage the "practical and profound" challenges people with advanced disease and their families face. Rodin and Hales shared their work on CALM with about 50 palliative care and oncology clinicians, including nurses,

Table 1. Theoretical mapping of research on Managing CALM for advanced cancer

Title, Author, Year	Type of Study	Participant	Intervention	Control	Outcome	Time
Managing Cancer and Living Meaningfully (CALM): A Randomized Controlled Trial of a Psychological Intervention for Patients With Advanced Cancer [3]	Randomized Controlled Trial	305 participants between August 3rd, 2012 until March 2016 in The Princess Margaret Cancer Centre (PM), the University Health Network in Toronto, Ontario, Canada.	CALM psychotherapy sessions	Usual Care only, which included routine oncology treatment and follow-up and clinic-based distress screening.	CALM is an effective intervention that provides a systematic approach to alleviating depressive symptoms in patients with advanced cancer and addresses the predictable challenges these patients face and no adverse effects were identified.	8-week intervention and follow-up scheduled 1 week after the intervention, and 3 and 6 months thereafter.
Rodin et al., 2019	Speaker Presentation	more than 20 countries to have CALM implemented routinely in cancer care	Emotion and Symptom-Focused Engagement (EASE), and a Managing Cancer and Living Meaningfully (CALM)	Usual Care	Showed in a large RCT that CALM improves depression, distress related to dying and death and preparation for the end of life (EOL)	-
Managing Cancer And Living Meaningfully (CALM): randomized feasibility trial in patients with advanced cancer [10]	Randomized Feasibility Trial	60 adult patients with advanced cancer at the Princess Margaret Cancer Centre	CALM intervention	Usual care	Assessment of feasibility included rates of consent, randomization, attrition, intervention non-compliance, and usual care contamination. Primary outcome: depressive. Secondary outcomes: major depressive disorder (MDD), generalized anxiety, death anxiety, spiritual well-being, attachment anxiety and avoidance, self-esteem, experiential avoidance, quality of life (QOL) and post-traumatic growth.	Both groups were given intervention or control followed by 3 and 6 months follow-up
Lo et al., 2016	study protocol for a randomized controlled trial	The site is the Princess Margaret Cancer Centre, part of the University Health Network, in Toronto, Canada. Eligibility criteria include: \geq 18 years of age;	intervention plus usual care	usual care alone	The primary outcome is the frequency of depressive symptoms and the primary endpoint is at 3 months. Secondary outcomes include diagnosis of major or minor depression, generalized anxiety, death anxiety, spiritual well-being, QOL, demoralization, attachment security, post-traumatic growth, communication with partners, and satisfaction with clinical interactions.	It is delivered over a 3–6 month period
Lo et al., 2015						

Title, Author, Year	Type of Study	Participant	Intervention	Control	Outcome	Time
Managing Cancer And Living Meaningfully (CALM): Phase 2 trial of brief individual psychotherapy for patients with advanced cancer [17]	Trial research – phase 2 intervention only	English fluency; no cognitive impairment ; and diagnosis of advanced cancer 50 patients with advanced or metastatic cancer	assessed at 3 months (t1)	assessed at 6 months (t2)	CALM may be a feasible intervention to benefit patients with advanced cancer. The results are encouraging, despite attrition and small effect sizes, and support further study	These were assessed at 3 months and 6 months
Lo et al., 2014 Managing Cancer and Living Meaningfully (CALM): A qualitative study of a brief individual psychotherapy for individuals with advanced cancer [18]	Qualitative with Semi-structured interviews	Patients were recruited from a large urban regional cancer center in Toronto, Canada. The 10 interviewees included seven women and three men. All had completed between three to six CALM sessions before the interview.	Five interrelated benefits of CALM intervention were identified: (1) a safe place to process the experience of advanced cancer; (2) permission to talk about death and dying; (3) assistance in managing the illness and navigating the healthcare system; (4) resolution of relational strain; and (5) an opportunity to 'be seen as a whole person' within the healthcare system. These	-	Findings from a qualitative study suggest that the CALM intervention provides substantial benefits for patients with advanced cancer before the end of life. Findings informed the development of an RCT to evaluate the effectiveness of this intervention.	-
Nissim et al., 2011						

Title, Author, Year	Type of Study	Participant	Intervention	Control	Outcome	Time
Mentalization in CALM psychotherapy sessions: Helping patients engage with alternative perspectives at the end of life [19]	conversation analysis	Total of 7 therapy sessions and 5 hours, 24 minutes of data	benefits were regarded by participants as unique in their cancer journey. The analysis identifies one subtle way a patient is invited to consider an alternative perspective relating to their disease progression.	-	The analysis reveals a skillful way in which therapists can cautiously and collaboratively introduce a patient to alternative perspectives concerning end-of-life, without invalidating the patient's perspective on this particularly delicate context.	5 hours and 24 minutes of data
Shaw et al., 2018 Inviting end-of-life talk in initial CALM therapy sessions: A conversation analytic study [14]	Conversation analysis	Data was collected as part of a Phase III RCT of CALM at the Princess Margaret Cancer Centre	Open questions about the patients' experiences, feelings or understanding in the context of talk about their troubles, were found to regularly elicit talk concerning end-of-life.	-	The analysis shows that therapists provide patients with the opportunity to talk about EOL in a way that is supportive of the therapeutic relationship. The patients' readiness to engage in EOL talks displays the salience of this topic, as well as the reflective space provided by CALM therapy. Practice implications: The results provide important insight into the process of CALM therapy, which can be used to guide training.	Sessions lasting approximately one hour
Shaw et al., 2016			Managing Cancer and Living Meaningfully (CALM)	-	Patients with advanced cancer perceive barriers to effective communication of death distress to be related to their own reluctance, as well as the reluctance of their loved ones to address such fears. CALM therapy may help patients with advanced cancer \ overcome obstacles in communication and \ alleviate death-related distress.	6-month period
An et al., 2017	Qualitative research	17 patients with advanced cancer	Managing Cancer and Living Meaningfully (CALM)	-	Patients with advanced cancer perceive barriers to effective communication of death distress to be related to their own reluctance, as well as the reluctance of their loved ones to address such fears. CALM therapy may help patients with advanced cancer \ overcome obstacles in communication and \ alleviate death-related distress.	6-month period
Efficacy of a brief manualized intervention Managing Cancer and Living Meaningfully (CALM)	single-blinded randomized-controlled trial: study protocol	-	Managing Cancer and Living Meaningfully (CALM)	supportive psychological intervention (SPI).	This study will contribute important statistical evidence on whether CALM can reduce depression and existential distress in a German sample of advanced and highly distressed cancer patients	6 months

Title, Author, Year	Type of Study	Participant	Intervention	Control	Outcome	Time
adapted to German cancer care settings: study protocol for a randomized controlled trial [13]						
Scheffold et al., 2015 "Double Awareness" in Psychotherapy for Patients Living With Advanced Cancer[15]	Task analysis	-	Managing Cancer and Living Meaningfully (CALM)	-	CALM therapists are trained to facilitate meaning-making by providing patients with opportunities to mentalize their experience, for instance by using gentle questioning to invite the patients to explore a variety of perspectives. Finally, when the individual feels safe and has had an opportunity to construct and deepen meanings related to life and death, the therapist can help the patient bridge these dimensions by synthesizing meanings. This bridging process helps the patient see life and death as interconnected possibilities. Existential distress may not be eliminated, but it can be managed in this process.	
Colosimo et al., 2017						

CALM: Cancer and Living Meaningfully; RCT: Randomized Controlled Trial; EOL: End of Life; MDD: Major Depressive Disorder; QOL: Quality of Life

psychiatrists, social workers and physicians from New Zealand and Australia, in a two-day workshop in Auckland in March (Rodin, 2017).

This short-term intervention was originally developed for advanced cancer patients. "Managing Cancer and Living Meaningfully (CALM)" is built up by 3–8 sessions (duration about 45–60 min) (Oberstadt et al., 2018) and optimally delivered in over 6 months (An et al., 2017). This intervention focuses on six dimensions: (1) symptom management and communication with healthcare providers, (2) changes in self and relations with close others, (3) spirituality, sense of meaning and purpose (4) thinking of the future, hope, and mortality (5) communication skills, and (6) emotional expression and control (Oberstadt et al., 2018). Each participant's primary caregiver (e.g., partner, adult son, or daughter) is invited to attend sessions when this is desired by the patient (An et al., 2017) (Oberstadt et al., 2018) in one or more of the therapy sessions, as deemed appropriate by the therapist (Oberstadt et al., 2018).

Based on the relational, attachment, and existential theory, CALM provides a therapeutic relationship and reflective space, with attention to the following domains: symptom management and communication with health care providers, changes in self and relations with close others, spiritual well-being and the sense of meaning and purpose, and mortality and future-oriented concerns (Rodin et al., n.d.). Outcomes that can be measured were depressive symptoms (An et al., 2017; S. J. Hales et al., 2015; Lo et al., 2015, 2016; Rodin et al., n.d.; Scheffold et al., 2015), death anxiety, attachment security, spiritual well-being and psychological growth (An et al., 2017; S. J. Hales et al., 2015; Lo et al., 2015, 2016), quality of life, post-traumatic growth (Lo et al., 2015, 2016), major depressive disorder (MDD), generalized anxiety, avoidance, self-esteem, experimental avoidance (Lo et al., 2016), demoralization, communication with partner and satisfaction with clinical interaction (Lo et al., 2015; Shaw et al., 2016). All over outcomes that provide a huge impact in alleviating depressive symptoms.

During CALM therapy, the psychotherapist and the patient explore the meanings of the patient's life history, including achievements and failures, as well as the disease itself (Oberstadt et al., 2018), by using gentle questioning to invite the patients to explore a variety of perspectives (Colosimo et al., 2017). Finally, when the individual feels safe and has had an opportunity to construct and deepen meanings related to life and death, the therapist can help the patient bridge these dimensions by synthesizing meanings (Colosimo et al., 2017). Thereby, the whole life trajectory of the patient, his/her aims, the experience of suffering, and death/dying play important roles in the therapy (Oberstadt et al., 2018). In the therapeutic contact, the therapist can explore how the patient makes sense of his or her situation and help the patient see life and death as interconnected possibilities and facilitate meaning-making as an adaptive way of coping with a situation beyond one's control. The distress that arises may not be eliminated, but it can be managed in this process.

One qualitative study demonstrates that individuals with advanced cancer are preoccupied with concerns related to dying and death and find relief in the opportunity to communicate this distress. Participants experienced the CALM therapist as a secure base who supported communication of death-related distress both within the therapy and in their close relationships. Open discussion of fears was commonly perceived by participants as therapeutic as it could be accepted by their therapist or family without causing perceived distress or discomfort in them. CALM therapy facilitated communication of death-related distress within families whether or not caregivers participated in the therapy sessions. Although health professionals and families may be reluctant to discuss such topics, patients facing mortality may find relief from being able to discuss fears that cannot be eliminated from awareness. Support for a wide range of healthcare providers to engage in a more open discussion of mortality-related concerns with patients with advanced disease is needed (An et al., 2017).

CONCLUSION

Based on the findings of the study, it can be concluded that CALM has several psychological benefits for patients with advanced cancer and their caregivers, including: reducing depressive symptoms, death anxiety, attachment security, promoting spiritual well-being and psychological growth, improving quality of life, alleviating post-traumatic growth, major depressive disorder (MDD), generalized anxiety, avoidance, self-esteem, experimental avoidance, demoralization, increasing communication with partner and satisfaction with clinical interaction. Some of these studies found one of the biggest impacts CALM therapy has is on alleviating the depressive symptom and thus it can be used as additional therapy to improve the quality of life to face the end-of-life. CALM may be a feasible

intervention to benefit patients with advanced cancer. It may help patients with advanced cancer overcome obstacles in communication and alleviate death-related distress and no adverse effect was identified.

CONFLICT OF INTEREST

No Conflicts of interest have been declared.

ACKNOWLEDGEMENT

The author of this study would like to thank the Master of the Nursing Study Programme and the Faculty of Nursing Universitas Airlangga for providing the opportunity to present this study.

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