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Spirituality in palliative care: a systematic review of aromatherapy interventions

Abstract

Background: Spirituality is pivotal in the comprehensive care of patients, particularly in palliative care, where attention extends beyond physical ailments to emotional and spiritual dimensions. Aromatherapy, leveraging aromatic plant extracts and essential oils, has emerged as a promising complementary therapy, offering potential benefits for symptom management and overall well-being. However, integrating spirituality into aromatherapy interventions within palliative care remains underexplored in the existing literature. This systematic review aims to bridge this gap by synthesizing available evidence on aromatherapy interventions in the context of spirituality within palliative care.

Methods: A comprehensive search was conducted to identify relevant studies. The review assessed the effectiveness of aromatherapy as a complementary intervention in promoting spiritual well-being among patients in palliative care.

Results: No studies met the inclusion criteria.

Conclusions: The absence of eligible studies highlights a significant gap in the literature on this topic. Further research must elucidate the relationship between aromatherapy, spirituality, and palliative care.

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Keywords: aromatherapy, essential oils, palliative care, palliative medicine, spirituality

Introduction

Spirituality plays a crucial role in the holistic care of patients, particularly in the context of palliative care,

where the focus extends beyond physical symptoms to encompass emotional, social, and spiritual well-being [1]. Spirituality in this context is often defined as the search for meaning, purpose, and connection,

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especially in the face of severe illness or impending death. According to the European Association for Palliative Care (EAPC), Spirituality is the dynamic dimension of human life that relates to the way persons (individual and community) experience, express and/or seek meaning, purpose and transcendence, and the way they connect to the moment, to self, to others, to nature, to the significant and/or the sacred. As patients approach the end of life, addressing their spiritual needs can enhance their quality of life, offering comfort and support during this profoundly personal journey. In recent years, there has been growing recognition of the significance of spirituality in palliative care settings, with an increasing number of studies exploring its impact on patient outcomes and quality of life [2, 3].

Aromatherapy, using aromatic plant extracts and essential oils, has emerged as a complementary therapy in palliative care. It is often used to manage symptoms like pain, anxiety, and insomnia, which are prevalent among palliative care patients. Aromatherapy influences physical and emotional well-being through the olfactory system, inducing relaxation, reducing stress, and promoting a sense of calm [4, 5]. While the therapeutic benefits of aromatherapy for managing physiological and psychological symptoms are well-documented, its role in enhancing spiritual well-being remains underexplored.

Integrating spirituality within palliative care is complex, as spirituality is a multifaceted concept influenced by individual beliefs, cultural norms, and personal experiences. Patients in palliative care often confront existential questions about life and death, seeking meaning, comfort, and transcendence during their illness. In this context, complementary therapies like aromatherapy may potentially support spiritual well-being, facilitating a more profound sense of peace or connection. However, the intersection between spirituality and aromatherapy remains relatively unexplored in the literature despite the growing use of aromatherapy in end-of-life care.

This systematic review seeks to address this gap by synthesizing existing evidence on aromatherapy interventions and their impact on spiritual well-being among patients in palliative care. By examining the available literature, the review aims to elucidate the potential role of aromatherapy as a complementary approach to spiritual care, identify gaps in current research, and provide recommendations for future studies. The significance of this research lies in its potential to inform clinical practice and contribute to the development of more holistic and patient-centered care approaches that align with the spiritual needs of palliative care patients.

Methods

The review protocol is registered on PROSPERO (CRD42023488377). The systematic review approach followed Cochrane guidelines on evaluating evidence from randomized controlled trials on effectiveness. It provides a structured and transparent approach for rating confidence in effect estimates.

Research framework

The study proposes a quantitative methodology through a systematic literature review, enabling us to identify, evaluate, and interpret studies on the benefits of aromatherapy on spirituality in palliative care. This thematic area involves exploring the experiences, perceptions, and quantitative data on using aromatherapy as a complementary intervention for spirituality enhancement and overall well-being in palliative care settings.

Research question

The determination of the research question was used to define the scope to develop a clear focus for the study. Considering these particularities, the research question was defined based on the Population, Intervention, Control, and Outcomes (PICO) method [6] for participants, interventions, comparisons, and outcomes. Therefore, the authors established to assess as the guiding and investigative question in response to the needs of the chosen topic: RQ1: "What is the effectiveness of aromatherapy as a complementary intervention in promoting spiritual well-being among patients in palliative care?"

Literature search

To address the research objectives of this study, a comprehensive literature search was conducted to identify relevant articles related to the scientific evidence that supports the effectiveness of aromatherapy as a complementary intervention in promoting spiritual well-being among patients in palliative care. The search was performed in the following databases: b-on, PubMed, Web of Science, and Scopus. These databases were selected based on their coverage of relevant fields, including the medical, nursing, and complementary and alternative medicine literature. The search strategy involved a combination of Medical Subject Headings (MeSH) terms, keywords, and Boolean operators, including but not limited to "palliative care", "hospice care", "aromatherapy", "essential oils", and "spirituality". These search terms were chosen to encompass the core elements of the present research, ensuring that captured are the articles addressing aromatherapy as a complementary

Table 1. The search strategy summary

Items	Specification
Date of search	March 23, 2024
Database and other sources searched	b-on, PubMed, Web of Science and Scopus
Search terms used	Aromatherapy, essential oils, palliative care, hospice care, spirituality
Timeframe	No limitation
Inclusion criteria	All included studies were available in any language; all selected studies were relevant to the review topic
Exclusion criteria	Studies only contained abstracts, papers published in conferences, books, or book chapters, and animal studies
Selection process	All sources were selected by the first and second authors. The screening was undertaken in duplicate independently

intervention in palliative settings. Additionally, synonyms and related terms were included to maximize the retrieval of pertinent studies. This approach is intended to yield a comprehensive selection of peer-reviewed articles that meet the present inclusion criteria and contribute to a thorough evaluation of the evidence on aromatherapy's efficacy and spirituality in palliative medicine. No limitation of a year range or language for selecting articles was used.

Inclusion criteria

Studies included were: (1) Randomised controlled trials (RCTs) and observational studies, published in peer-reviewed journals. (2) Studies involving human participants aged 18 years or over, of any gender and ethnicity in a palliative care setting or described by the authors as having an advanced disease such as metastatic cancer or renal failure. (3) Research that specifically involves aromatherapy as an intervention in palliative care. (4) Studies assessing outcomes related to spirituality, including but not limited to spiritual well-being, comfort, distress, coping mechanisms, or existential concerns.

Exclusion criteria

Studies excluded were: (1) Grey literature, conference abstracts, unpublished studies, review articles, books, book chapters, and non-empirical studies. (2) Studies conducted on animals or *in vitro* studies that do not involve human participants. (3) Studies that do not involve patients in palliative care. (4) Studies focusing solely on healthy individuals or those with

non-life-limiting conditions. (5) Studies assessing interventions other than aromatherapy (e.g., traditional pharmaceuticals, acupuncture). (6) Research not directly related to palliative care settings or not specifically addressing aromatherapy within palliative contexts. (7) Studies involving aromatherapy unrelated to palliative care or those focusing solely on non-spiritual outcomes (e.g., physical symptoms without spiritual assessment). The search summary is summarised in Table 1.

Types of outcomes measured

The primary outcomes of interest were the effectiveness of aromatherapy as a complementary intervention in promoting spiritual well-being among patients in palliative care.

Study selection

The screening was undertaken in duplicate independently. One author (RSM) screened all citations (records of title with, if available, abstract), and another author (TP) screened in duplicate. When a citation appeared relevant or did not have sufficient information to decide, the full-text paper was retrieved. Should there be any discrepancies in eligibility at screening and full-text, it was planned for these to be discussed for resolution by the wider review team.

Risk of bias

One author (SG) evaluated the risk of bias for each study using the Cochrane Collaboration's ROBINS-I tool [7]. This was checked by a second author (RSM), who verified these assessments and resolved any disagreements through discussion. The Cochrane evaluation criteria cover five aspects: the randomization process, deviations from the intended intervention, missing outcome data, outcome measurement, and the selection of reported results [8]: randomization process, deviation from the intended intervention, missing outcome data, measurement the outcome, and selection of reported results. Publication bias was assessed through funnel plots. Both SG and RSM independently evaluated the risk of bias, and any discrepancies were settled through negotiation. Each study's risk of bias was classified as high, some concern, or low risk according to the Cochrane Statement of Risk of Bias.

Results

Study selection

Files (.ris format) containing the exported search results were saved and imported into the Rayyan web tool [9]. The search included selected databases,

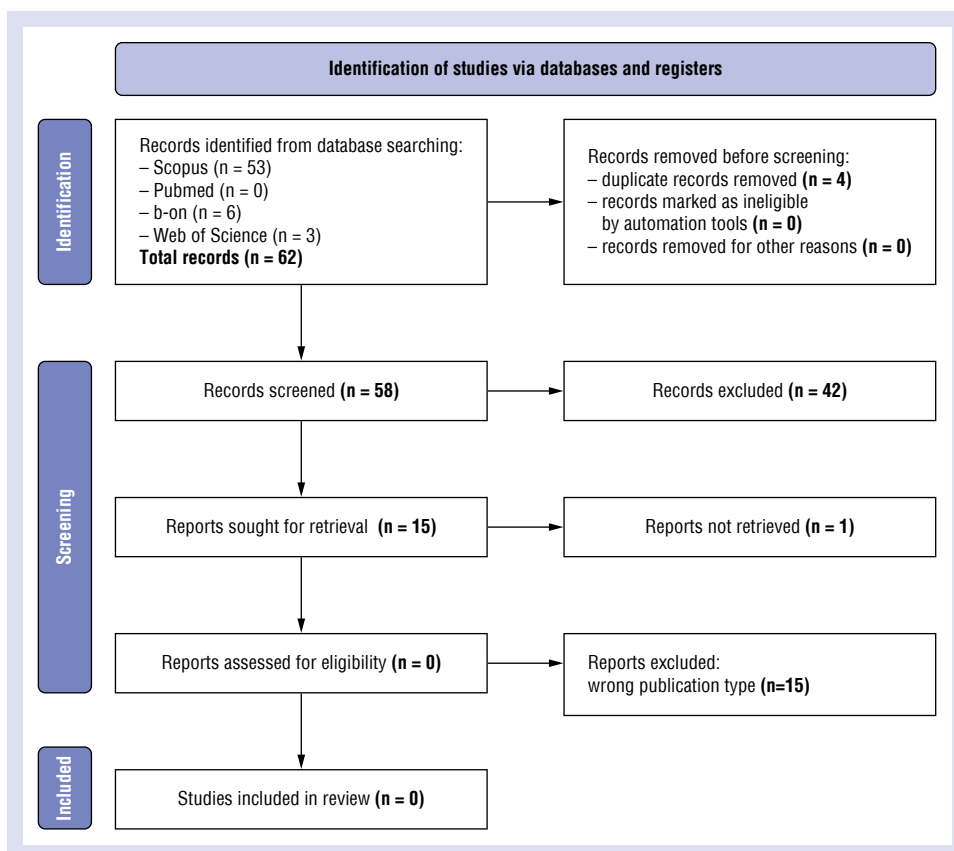


Figure 1. The number of articles identified, screened, and included at each stage; under rigorous inclusion and exclusion criteria, zero articles were considered suitable

retrieving an initial total of 62 articles. Removal of duplicates resulted in a preliminary range of 58 unique articles. A thorough review of titles and abstracts was conducted to identify potentially relevant studies, leading to the exclusion of articles that did not align with the research topic. This refinement produced a set of 16 articles. Full-text access to these articles was obtained through institutional subscriptions. However, one report based on titles and abstracts was not retrieved during the screening process due to the inaccessibility of the full text. The search process and the inclusion of articles were documented and tracked using reference management software. The entire search process is visually summarised in Figure 1, employing the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines [10].

Study characteristics

In this systematic review, no studies met the inclusion criteria for assessing the effectiveness of aromatherapy as a complementary intervention in promoting spiritual well-being among patients in palliative care. Despite an extensive search across multiple databases (b-on, PubMed, Web of Science, and

Scopus), no relevant studies were identified that directly examined the relationship between aromatherapy and spirituality in the specified context. This absence of eligible studies highlights a significant gap in the literature, necessitating further research to explore this interdisciplinary area.

Risk of bias

This review did not assess the risk of bias due to the absence of eligible studies. As no studies met the inclusion criteria, evaluating potential biases related to study design, methodology, or outcome reporting was impossible.

Discussion

The absence of eligible studies in this systematic review reveals several meaningful insights and implications for future research. The intersection of spirituality, palliative care, and aromatherapy may represent a relatively new area of interest. While extensive research exists on these topics individually, their combined focus has not yet been widely explored [11–13]. Typically, aromatherapy is studied

for its physical and emotional benefits, such as pain relief and anxiety reduction, rather than its spiritual implications [14, 15]. This narrower focus might have excluded studies integrating a spiritual dimension within palliative care settings.

Moreover, spirituality is inherently subjective and multifaceted, making it difficult to measure and study scientifically [2]. This complexity might deter researchers from investigating spiritual outcomes related to aromatherapy. Additionally, the understanding and importance of spirituality vary significantly across different cultures and regions, leading to a lack of consensus on studying spirituality within palliative care and incorporating aromatherapy into this context.

The findings of this systematic review indicate several directions for future research. Future studies could adopt a broader perspective by considering various complementary therapies, not just aromatherapy, and their spiritual impacts on palliative care. This wider approach could provide a more comprehensive understanding of the role of holistic interventions in end-of-life care. Given the subjective nature of spirituality, qualitative research methods, such as interviews and focus groups, could be precious. These methods can capture the nuanced experiences and personal meanings of spirituality among palliative care patients.

Collaborations between researchers in palliative care, psychology, theology, and complementary medicine could enrich study design and interpretation of findings, leading to more robust and comprehensive research outcomes. Developing and validating standardized tools to measure spiritual well-being and the impact of aromatherapy on spirituality could facilitate more consistent and comparable research findings. Additionally, pilot studies could help identify potential challenges and refine methodologies before larger-scale research is undertaken. These preliminary studies could provide valuable insights into aromatherapy's feasibility and possible impact on spiritual well-being.

Conclusions

This systematic review highlights a significant gap in the literature concerning the role of aromatherapy interventions in addressing spirituality within palliative care. The absence of eligible studies underscores the need for more targeted research in this interdisciplinary field. Future research should aim to overcome the identified challenges and provide deeper insights into how aromatherapy can support spiritual well-being for patients in palliative care settings. By addressing these gaps, researchers and practitioners can develop more holistic and culturally sensitive approaches to

end-of-life care, ultimately enhancing the quality of life for palliative care patients.

Article information and declarations

The review protocol is registered on PROSPERO (CRD42023488377).

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None.

Author contributions

SG and RSM — conceptualisation; SG — methodology, visualisation, investigation, project administration, supervision and writing original draft; RSM and TP — validation; RSM, TP and SG — formal analysis, resources and data curation; RSM, TP, MM, CMTA and SG — writing, review and editing.

Conflict of interest

The authors declare no conflict of interest.

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Supplementary material

None.

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