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ARTETERAPIA EM PESSOAS QUE VIVEM COM DEMÊNCIA: UM PROTOCOLO DE REVISÃO RÁPIDA

ART THERAPY IN PEOPLE LIVING WITH DEMENTIA: A RAPID REVIEW PROTOCOL

ARTETERAPIA EM PERSONAS QUE VIVEN COM DEMENCIA: UM PROTOCOLO DE REVISIÓN RÁPIDA

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RESUMO

Introdução: A arteterapia, como uma abordagem não farmacológica, tem sido utilizada no tratamento de sintomas em pessoas com demência, melhorando os resultados cognitivos e não cognitivos.

Objetivo: Identificar modalidades de arteterapia e os seus benefícios quando aplicadas a pessoas com demência que vivem na comunidade ou em instituições/unidades de longa duração. Desenho: Protocolo de estudo descritivo de uma revisão rápida.

Métodos: Pesquisa científica nos motores de busca EBSCO (Cochrane Database of Systematic Reviews, MEDLINE e CINAHL) e Scopus para identificar e selecionar os estudos que abordem intervenções com modalidades de arteterapia. A revisão incluirá estudos publicados nos últimos 5 anos em inglês, português e espanhol. São incluídos todos os estudos que avalie resultados cognitivos e não cognitivos. A triagem será realizada por dois revisores independentes, nos primeiros 20%. Dois revisores irão avaliar o risco de viés nos primeiros 5 estudos, e um revisor irá realizar a extração de dados com verificação de 10% dos artigos por um segundo revisor (de acordo com as diretrizes da Cochrane para revisão rápida). Os resultados serão sintetizados de forma narrativa.

Conclusão: Pretendemos obter evidências sobre modalidades de arteterapia que contribuam para a implementação de diretrizes de intervenção clínica e planos de treino para o apoio à gestão da demência.

Palavras-chave: demência; arteterapia; musicoterapia; atenção à saúde; enfermagem

ABSTRACT

Introduction: Art therapy as a non-pharmacological approach has been used in the management of symptoms in people with dementia, improving cognitive and non-cognitive outcomes.

Objective: To identify art therapy modalities and their benefits when applied to people with dementia and who are community-dwelling or living in long-term care institutions. Design: Descriptive study protocol of a rapid review.

Methods: We will search in the search engines EBSCO (Cochrane Database of Systematic Reviews, MEDLINE, and CINAHL) and Scopus to identify and select studies addressing interventions using art therapy modalities. The review will include studies published in the last 5 years in English. We will include any study that measured cognitive rather than cognitive outcomes. Two reviewers will independently screen the search results in the first 20%. Two reviewers will do risk of bias assessment on the first 5 studies, and one reviewer will do data extraction with verification of 10% of articles by a second reviewer (as per Cochrane guidelines for rapid review). The results will be synthesized narratively.

Conclusion: We intend to obtain evidence on art therapy modalities that contribute to implementing clinical intervention guidelines and training plans to support the management of dementia.

Keywords: dementia; art therapy; music therapy; delivery of health care; nursing

RESUMEN

Introducción: la Arteterapia, como enfoque no farmacológico, se ha utilizado en el manejo de síntomas en personas con demencia, mejorando los resultados cognitivos y no cognitivos.

Objetivos: Identificar las modalidades de arteterapia y sus beneficios cuando se aplican a personas con demencia que viven en la comunidad o en instituciones de atención a largo plazo. Diseño: Protocolo de estudio descriptivo de una revisión rápida.

Métodos: Realizaremos una búsqueda en los motores de búsqueda EBSCO (Cochrane Database of Systematic Reviews, MEDLINE y CINAHL) y Scopus para identificar y seleccionar estudios que aborden intervenciones con modalidades de terapia artística. La revisión incluirá estudios publicados en los últimos 5 años en inglés, portugués y español. Incluiremos cualquier estudio que haya medido resultados cognitivos en lugar de resultados no cognitivos. Dos revisores examinarán de forma independiente los resultados de la búsqueda en el primer 20%. Dos revisores realizarán una evaluación del riesgo de sesgo en los primeros 5 estudios, y un revisor llevará a cabo la extracción de datos con verificación del 10% de los artículos por parte de un segundo revisor (según las pautas de Cochrane para la revisión rápida). Los resultados se sintetizarán de manera narrativa.

Conclusión: Nuestra intención es obtener evidencia sobre las modalidades de terapia artística que contribuyan a la implementación de pautas de intervención clínica y planes de capacitación para respaldar el manejo de la demencia.

Palabras Clave: demencia; artererapia; musicoterapia; atención à la salud; enfermería



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Introduction

The term dementia refers to a set of diseases that progress over time and affect cognitive skills, memory, and behavior, consequently interfering with the ability to perform daily activities. Therefore, the progression of dementia is characterized by behavioral changes, and in the final stages, the patient becomes totally dependent (Bellantuono et al., 2022). In population aging projection studies, an increase in the number of elderly people is expected and associated with this phenomenon, the number of people with dementia is also increasing. It is estimated that the number of people living with dementia will rise globally, from 57.4 million cases in 2019 to 152.8 million cases in 2050 (GBD 2019 Dementia Forescasting Collaborators, 2022). The overall prevalence of mild cognitive impairment was 15.56%. The prevalence of amnestic mild cognitive impairment and non-amnestic mild cognitive impairment was 10.03% and 8.72%, respectively (Bai et al., 2022).

The clinical practice guidelines of the world's leading dementia organizations originated nine specific recommendations related to managing behavioral and psychological symptoms of dementia (BPSD), of which seven relate to pharmacological treatment and two to non-pharmacological treatment. These recommendations covered the applicability of antipsychotic drugs, medication recommendations, abstinence times, and various suitable non-pharmacological therapies. Nonpharmacological therapies may be suitable for emotional symptoms and sleep disorders, are considered highly safe and have few adverse reactions and include relaxation, social interaction, sensory therapy (art therapy modalities such as music therapy), structured activities, hygiene education of sleep, psychotherapy and so on (ma et al., 2022).

Art therapy has been adopted in recent years as a possible non-pharmacological approach in elderly people with dementia caused by Alzheimer's disease to improve cognitive, behavioral, and psychological symptoms (Marco & Redolat, 2022).

The American Art Therapy Association defines art therapy as an integrative mental health and human services profession that enriches the lives of individuals, families, and communities by actively creating art, creative processes, applied psychological theory, and human experience within a psychotherapeutic relationship (Kaimal, 2019).

Creative artistic therapies are another comprehensive term used within the health professions and consist of a creative and expressive process of making art to improve the psychological and social well-being of individuals throughout the life cycle and who present health conditions (Shafir et al., 2020).

Art therapy in people with dementia has benefits in terms of well-being, quality of life, Behavioral and Psychological Symptoms of Dementia (BPSD), and cognitive function. It is an effective non-pharmacological intervention in preventing cognitive decline and dementia (Emblad & Mukaetova-Ladinska, 2021; MasiKa et al., 2020). This type of intervention places the person in the present or "in the moment", allowing to increase communication opportunities between people with dementia and their caregivers and, in addition, making important contributions to develop therapeutic activities centered on the person (Emblad & Mukaetova-Ladinska, 2021).

A taxonomy of art interventions aimed at people with dementia was put forward. The principles, competences, forms of art, artistic elements, contexts of intervention, among other aspects, were addressed. The principles to consider are Engagement, Transformation, Selfhood, Humanity, Expression, Connection, Possibility, and Involvement. The competences that facilitators must have are flexibility, empathy, courage, awareness, reflection, practicality, dementia care, and art training. Art modalities are music, dance, drama, visual art, literature, digital, photography sculpture. Artistic elements are rhythm, rhyme, sound, sensory, story, texture, harmony, and color. The intervention contexts are group, individual, active, receptive, news arts, family arts, reminiscence, and in the moment (Cousins et al., 2020).

Bearing in mind that art therapy, in general terms, has many benefits for people with dementia, as mentioned above, we will carry out a rapid review, using the main databases in order to critically evaluate the available documents on art therapy with the aim of to inform, in a timely and efficient manner, those responsible for planning art therapy courses for people with dementia, aimed at health professionals who are interested in applying this non-pharmacological approach





in this context. The study is part of a funded project known as Dementia Care (2021-1-TR01-KA220-HED-000027648). Therefore, it is necessary to identify a swift generation of evidence to sustain the project.

In this sense, our objective will be to identify art therapy modalities and their benefits when applied to people with dementia in the community or long-term care institutions.

1. Methods

Descriptive study protocol of a rapid review.

1.1 Questions from rapid review

What art therapy modalities literature describes for people with dementia who are community-dwelling or living in long-term care institutions? What are the main benefits of using art therapy on cognitive and non-cognitive outcomes in people with dementia who are community-dwelling or living in long-term care institutions?

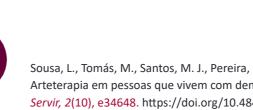
1.2. Protocol and registration

A rapid review will be conducted, which consists of assessing what is already known about a policy or practice issue, using systematic review methods to research and critically evaluate existing research (Sousa et al., 2018).

This type of review has eight steps, specifically: Definition of the research question- Refinement of the subject/theme; Defining eligibility criteria; Search strategy; Study selection; Data extraction; Risk of bias assessment; Synthesis; and other considerations (Garritty et al., 2021) (Table 1).

Table 1. Eight step pathway for conduct of a rapid Review (Garritty et al., 2021)

Action pathway	Description
1. Definition of the	Define and refine the review question, eligibility criteria, and outcomes of interest.
Research Question	Consult with stakeholders to ensure fitness for purpose.
	• Develop a protocol that includes review questions, PICOS*, and inclusion and exclusion criteria.
2. Defining Eligibility	Clearly define the population, intervention, and comparator.
Criteria	• Limit the number of interventions and comparators, the number of results, and the language of publication to English.
	Consider date restrictions with clinical or methodological justification.
	Place emphasis on higher quality study designs (e.g. systematic reviews).
3. Search strategy	Consider peer review of at least one search strategy (e.g. MEDLINE).
	Research in specialized databases (e.g. CINAHL).
	Limit literature searches to the English language; add other languages only if justified.
	Limit gray literature and supplemental research.
4. Study selection	 Title and abstract screening: Use a summary form, then conduct a pilot exercise to calibrate and test the review form; Use two reviewers to double-screen at least 20% of abstracts, with conflict resolution; Use a reviewer to screen the remaining abstracts.; Use a second reviewer to review all deleted summaries and resolve conflicts.
	• Full Text Screening: Use a standardized full-text form, conduct a pilot exercise using the same 5-10 full-text articles to calibrate and test the review form; Use a proofreader to select all included full-text articles; Use a second reviewer to filter out all excluded full-text articles.
5. Data extraction	Use a single reviewer to extract data.
	Use a second reviewer to verify the accuracy and completeness of the extracted data.
	Limit data extraction to a minimum set of required data items.
	Consider using data from existing systematic reviews to reduce the time spent.
6. Risk of bias	Use a valid risk of bias tool.
assessment	• Use a single reviewer to rate risk of bias, with full verification of all judgments by a second reviewer.



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Action pathway	Description
7. Synthesis	Synthesize the evidence in a narrative way.
	• Use a single reviewer to assess the certainty of evidence, with verification of all judgments by a second reviewer.
8. Other considerations	Protocol submitted and approved (e.g. Cochrane Library, PROSPERO or Open Science Framework).

PICOS*- P- Patient, problem or population; I- Intervention; C- Comparison, control or comparator; O- Outcome(s); S- Study design.

We adapted the Preferred Reporting Items for Systematic Reviews and Meta-Analysis Protocols (PRISMA-P) to write this protocol. The protocol was registered in Open Science Framework (OSF): osf.io/z8wc7. If there is a need to make any changes to the protocol, it will be documented on the registration website.

1.3. Eligibility criteria

We will limit the search to peer-reviewed publications of studies that have investigated the effects of at least one modality of art therapy (Cousin et al., 2020) in adults with dementia in general or some specific type of dementia. Studies will only be included if they report at least some main outcome (Table 2).

We will restrict publications to English, Spanish, and Portuguese.

We will only include studies where a full text is available. We still limit ourselves to the last 5 years (January 2018 to December 2022). Following the guidelines of Garritty et al. (2021), the time limit is justified by the need to provide evidence quickly to support decision-making.

We will exclude studies on people with Parkinson's and papers such as letters to the Editor, comments, and protocols.

Table 2. Eligibility criteria.

PICOCS	Description
Population (P)	Adult patients diagnosed with any type and any stage of dementia.
Intervention (I)	Art therapy modalities include music, dance, drama, visual art, literature, digital, photography, and sculpture. Modalities of art using the following artistic elements: rhythm, rhyme, sound, sensory, story, texture, harmony, and color. Regarding the context of intervention, we decide on a broad scope, including: group, individual, active, receptive, news arts, family arts, reminiscence, and "in the moment" (Cousin et al., 2020).
Comparation (C)	Control group settles on two modes of intervention comprising: active management as usual care and other types of non-pharmacological interventions; and inactive management as a waiting list, absence of treatment or blank control.
Outcomes (O)	Two types of outcomes constitute the findings: Primary outcomes as Cognitive, psychological, and behavioral symptoms of dementia; and Secondary outcomes as daily functioning, physiological outcomes, and quality of life. Additionally, art therapy modalities' characteristics and conditions for implementation also inform our findings.
Context (C)	People with dementia who are community-dwelling or living in long-term care institutions
Study Design (S)	Any interventional or observational comparative study (case control and Cohort studies) and systematic reviews.

1.4. Search strategy

1.4.1. Database search

A systematic search will be performed for articles indexed in MEDLINE, CINAHL, Cochrane Database of Systematic Reviews through EBSCOHost and Scopus. Search strategies will be developed by two experienced team members (L.S. and M.T.). We will also search the reference lists of included studies. Gray literature will not be considered.

1.4.2. Search terms

The search strategy will be initially developed at EBSCOHost and adapted to the remaining selected databases. Search equations will be used combining the selected descriptors with the Boolean operators AND and OR (Table 3).



Table 3. Search strategy protocol.

Database Search Strategy		
Interface- EBSCOhost	((dementia OR alzheimer) AND ((art AND therapy) OR (visual AND art) OR music OR theater OR	
Database – MEDLINE Complete; Cochrane Database of Systematic Reviews; CINAHL Complete	theatrical OR dance OR drama OR poetry OR writing OR narrative) AND (healthcare OR (social AND care) OR (psychosocial AND care) OR (social AND work) OR "long term care" OR "long-term care"))	
Scopus	((TITLE-ABS-KEY(dementia)) OR (TITLE-ABS-KEY(alzheimer))) AND (((TITLE-ABS-KEY(art) AND TITLE-ABS-KEY(therapy))) OR ((TITLE-ABS-KEY(visual) AND TITLE-ABS-KEY(art))) OR (TITLE-ABS-KEY(music)) OR ((TITLE-ABS-KEY(theater) OR TITLE-ABS-KEY(theatrical))) OR (TITLE-ABS-KEY(dance)) OR (TITLE-ABS-KEY(dance)) OR (TITLE-ABS-KEY(music))) OR (TITLE-ABS-KEY(music))) OR (TITLE-ABS-KEY(music))) OR (TITLE-ABS-KEY(music))) OR ((TITLE-ABS-KEY(music))) OR ((TITLE-ABS-KEY(music))) OR ((TITLE-ABS-KEY(music)))) OR LIMIT-TO(pubyear, 2018))	

1.5. Study selection and Data management

At screening, all records will be retrieved and stored in Mendeley® V1.19.8 (Mendeley Ltd., Elsevier, The Netherlands) and duplicates will be removed. Citations will be imported into Rayyan QCRI (Qatar Computing Research Institute (Data Analytics), Doha, Qatar) to perform their appreciation and classification.

Each title and abstract will be selected independently by two reviewers (L.S. and M.T.) of at least 20% of the abstracts, with conflict resolution. Then one reviewer (L.S.) will select the remaining abstracts and the second reviewer (M.T.) will review all excluded abstracts. Disagreements will be resolved by discussion (C.O).

Full text articles describing potentially relevant studies will be selected by two reviewers independently in a pilot exercise using the same 5-10 full text articles to calibrate and test the review form and apply the inclusion and exclusion criteria. Then one reviewer (L.S.) will select all included full text articles and a second reviewer (M.T.) will filter all excluded full text articles. Whenever any differences are found, these will be resolved by consensus and with the help of a third reviewer (H.J.). A PRISMA flow diagram will summarize the study selection process (Page et al., 2021).

1.6. Data extraction

A custom Excel data extraction form will be applied by two reviewers to at least 5 articles and adapted if necessary. Data will be extracted by one reviewer (L.S.) and the accuracy and completeness of data extraction will be verified by a second reviewer (M.T.) for 10% of the studies. If there are significant errors in data extraction, for example, major errors in more than 1% of the records, the remaining records will be checked (H.J. and C.O.) In the data extraction, the following items will be collected for each identified intervention (Table 4).

Table 4. Data items.

Data categories	Example data outcomes
Publication characteristics	Authors, title, publication date, journal citation
Study characteristics	Design
	Dates of data collection
Population	Country
characteristics	Population demographics (age, sex)
	Sample size



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Data categories	Example data outcomes
Intervention Characteristics (Cousins et al., 2020)	Principles considered for applying the intervention: Engagement, transformation, individuality, humanity, expression, connection, possibility, and involvement. The facilitators' skills: flexibility, empathy, courage, awareness, reflection, practicality, dementia care and artistic training. Art therapy modalities: music, dance, theater, visual arts, literature, digital, sculpture and photography. Arts activity: Singing, Movement, Puppetry, Painting, Poetry, Creative App, Portraiture, Clay Modelling. Artistic elements: rhythm, rhyme, sound, sensorial, history, texture, harmony and color. Intervention contexts: group, individual, active, receptive, arts-news, family arts, reminiscences and in the moment. Arts facilitators: Therapist, Artist, Practitioner, Carer, Care Staff, Educator, Cultural Staff, Person with dementia. Intervention frequency: number of times it is applied (e.g. once a day, once a week). Session duration: how many minutes each session lasts. Duration of the intervention: continued or limited in time (for how many weeks it was applied). Facilitating aspects and barriers in the implementation.
Outcomes (Deshmukh et al., 2018)	
	Additional outcome(s): Possible effects at quality of life, economic results, health complications and death.

1.7. Risk of bias assessment

The risk of bias will be assessed by a single reviewer (L.S.), however, a second reviewer (M.T.) will do the full verification of all judgments. In assessing the risk of bias, SIGN's critical review checklists available at https://www.sign.ac.uk. will be used, in line with the study design. Any differences will be agreed by consensus, and a third researcher (M.J.S.) will be consulted if any differences are not resolved. The overall risk of bias for the included studies will be reported in tabular and narrative form and used to interpret the review findings.

1.8. Data synthesis

We anticipate that there will be a great diversity of art therapy modalities, artistic elements and methodological designs in the studies that will be selected, so we plan to summarize the data with tables and we will do the synthesis in a narrative way, following the orientation of the SWiM report: Synthesis Without Meta-analysis (Campbell et al., 2020).

The main characteristics of the study, such as study design, sample size, and risk of bias, will be presented in tables. Heterogeneity will be assessed through the study design, geographical location, demographics, sample characteristics such as age and gender, as well as the nature of the interventions (modality, artistic activities, artistic elements, facilitator) and the contexts where they were applied. The GRADE approach will be used and applied to the narrative syntheses to assess the certainty of the synthesis results (Murad et al., 2017).

According to the results, studies will be grouped by intervention type, study design, and outcomes. For each finding and comparison, a description of the results along with the certainty of the evidence will be provided, ensuring consistency with the review question and providing a judgment on the extent to which the studies contribute to the synthesis.

1.9. Patient and public involvement

No patient is involved or the general public.

2. Results

The results will be presented in the form of tables, according to the items to be extracted (Table 4). A great heterogeneity of art therapy modalities and study designs is expected, and data will probably be synthesized narratively. We intend to find contributions on the use of multiple modalities of art therapy, artistic activities, artistic elements, facilitators of the intervention, as well as, under what conditions the interventions were ap-plied, main cognitive and non-cognitive benefits, the facilitating aspects, the difficulties, and strategies to deal with them during the implementation of a particular modality of art therapy.



3. Discussion

This rapid review aims to identify and synthesise the peer-reviewed literature on art therapy modalities, focusing on their primary cognitive and non-cognitive benefits, conditions of application, and the main facilitators and barriers to implementation. The rapid review methodology was chosen to quickly synthesize the available evidence to support the implementers of training programs on using art therapy in people with dementia by facilitators working in the context of health care. On the other hand, it can inform policymakers in the design of evidence-based health pro-grams on the use of therapeutic art in people with dementia, as well as inform the allocation of necessary resources for implementing these programs. Finally, it can help healthcare professionals who work with people with dementia to implement some art therapy modalities in their daily lives, being safe and low-cost (Bai et al., 2022.

Art therapy fits into the philosophy of person-centered care while contributing to best practices in the context of dementia, with outcomes such as quality of life and wellbeing (Emblad & Mukaetova-Ladinska, 2021; Lokon et al., 2019). When designing interventions following this person-centered approach, account must be taken of preferences, the individual, specific needs for an activity, and staffing ratios (Lokon et al., 2019; Shoesmith et al., 2022).

As art therapy facilitators, it is possible for art therapists, physicians, and nurses to use these strategies to prevent the development of dementia or cognitive deterioration (Masika et al., 2020). Art therapy activities can be replicated, allowing nursing staff to complement the work of art therapists (Peisah et al., 2011).

3.1 Strengths and limitations of this study

This protocol for a rapid review of non-pharmacological interventions that use art therapy modalities in the management of dementia intends to gather in a short time the most recent available evidence to facilitate the creation of an art therapy course in people with dementia aimed at facilitators of dementia in health care. Two reviewers will use systematic rapid review methods that will evaluate the research results from screening, selection, data extraction and methodological quality assessment to data synthesis, ensuring the lowest risk of bias. If discrepancies in reviews arise, a third reviewer will be included.

As it is a rapid review, a possible limitation will be related to the quality of the results, which depend on the quality and content of the articles selected from the searched databases. Only articles in English, Portuguese, and Spanish are included. Furthermore, the time constraints inherent to the rapid review methodology may affect the comprehensiveness of the search and synthesis processes, potentially leading to the exclusion of relevant studies.

Conclusions

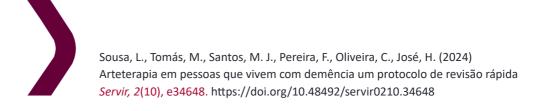
With this rapid review, it will be possible to obtain evidence on art therapy modalities that will contribute to implementing clinical intervention guidelines, training plans, pro-grams, and specific intervention protocols supporting pharmacological interventions in managing dementia.

We intend this evidence summary to provide health professionals with evidence for clinical decision-making on how to apply this type of non-pharmacological intervention, which activities, and elements to use, and under what conditions.

Although the disease disrupts the harmony of life, art brings life to the person's daily living, so we believe that this review can have significant implications for health practitioners, namely the nurses, helping to decide on therapeutic modalities that allow them to continue to care for the person with dementia by seeing beyond the disease and intervene therapeutically without medication.

Author Contributions

Conceptualization, L.S. and H.J.; methodology, H.J. L.S., C.O. and M.T.; validation, C.O., H.J. M.J.S, and F.P.; writing—original draft preparation, L.S., M.T., M.J.S. and F.P.; writing—review and editing, All authors; visualization, C.O. and H.J.; supervision, L.S. and H.J.; project administration, H.J. and LS.; funding acquisition, H.J. All authors have read and agreed to the published version of the manuscript.



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Informed Consent Statement

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Conflicts of Interest

The authors declare no conflict of interest.

References

- Bai, W., Chen, P., Cai, H., Zhang, Q., Su, Z., Cheung, T., jackson, T., Sha, S., & Xiang, Y. T. (2022). Worldwide prevalence of mild cognitive impairment among community dwellers aged 50 years and older: a meta-analysis and systematic review of epidemiology studies. Age and Ageing, 51(8), afac173. https://doi.org/10.1093/ageing/afac173
- Bellantuono, L., Monaco, A., Amoroso, N., Lacalamita, A., Pantaleo, E., Tangaro, S., & Bellotti, R. (2022). Worldwide impact of lifestyle predictors of dementia prevalence: An eXplainable Artificial Intelligence analysis. Front. Big Data 5, 1027783. https://doi.org/10.3389/fdata.2022.1027783
- Campbell, M., McKenzie, J. E., Sowden, A., Katikireddi, S. V., Brennan, S. E., Ellis, S., Hartmann-Boyce, J., Ryan, R., Shepperd, S., Thomas, J, Welch, V., & Thomson, H. (2020). Synthesis without meta-analysis (SWiM) in systematic reviews: reporting guideline. BMJ, 368, I6890. https://doi.org/10.1136/bmj.I6890
- Cousins, E., Tischler, V., Garabedian, C., & Dening, T. (2020). A taxonomy of arts interventions for people with dementia. Gerontologist, 60(1), 124–134. https://doi.org/10.1093/geront/gnz024
- Deshmukh, S. R., Holmes, J., & Cardno, A. (2018). Art therapy for people with dementia. Cochrane Database Syst Rev, 9, CD011073. https://doi.org/10.1002/14651858.CD011073.pub2.
- Emblad, S. Y., & Mukaetova-Ladinska, E. B. (2021). Creative art therapy as a non-pharmacological intervention for dementia: A systematic review. Journal of Alzheimer's Disease Reports, 5(1), 353-364. https://doi.org/10.3233/ADR-201002
- Garritty, C., Gartlehner, G., Nussbaumer-Streit, B., King, V. J., Hamel, C., Kamel, C., Affengruber, L., & Stevens, A. (2021). Cochrane Rapid Reviews Methods Group offers evidence-informed guidance to conduct rapid reviews. J Clin Epidemiol, 130, 13-22. https://doi.org/10.1016/j.jclinepi.2020.10.007
- GBD 2019 Dementia Forecasting Collaborators (2022). Estimation of the global prevalence of dementia in 2019 and forecasted prevalence in 2050: an analysis for the Global Burden of Disease Study 2019. Lancet Public Health, 7(2), e105-e125. https://doi.org/10.1016/S2468-2667(21)00249-8
- Kaimal, G. (2019). Adaptive response theory: an evolutionary framework for clinical research in art therapy Art Ther, 36(4), 215-219. https://doi.org/10.1080/07421656.2019.1667670
- Lokon, E., Sauer, P. E., & Li, Y. (2019). Activities in dementia care: A comparative assessment of activity types. Dementia, 18(2), 471-489. https://doi.org/10.1177/1471301216680890
- Ma, H., Lu, X., Zhou, A., Wang, F., Zuo, X., Wang, F., Zuo, X., Zhan, M., Zou, Q., Gong, S., Chen, Y., Lyu, J., Jia, L., Jia, J., & Wei, C. (2022). Clinical practice guidelines for the management of behavioral and psychological symptoms of dementia: a systematic review with AGREE II. Front Neurol, 13, 799723. https://doi.org/10.3389/fneur.2022.799723
- Marco, P., & Redolat, R. (2022). Art therapy approaches in Alzheimer's disease: A systematic review. Act Adapt Aging, 47(1), 75-106. https://doi.org/10.1080/01924788.2022.2148402
- Masika, G. M., Yu, D. S., & Li, P. W. (2020). Visual art therapy as a treatment option for cognitive decline among older adults. A systematic review and meta-analysis. Journal of Advanced nursing 76(8), 1892-1910. https://doi.org/10.1111/jan.14362

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- Masika, G. M., Yu, D. S., & Li, P. W. (2020). Visual art therapy as a treatment option for cognitive decline among older adults. A systematic review and meta-analysis. J Adv Nurs, 76(8), 1892-1910. https://doi.org/10.1111/jan.14362
- Murad, M. H., Mustafa, R. A., Schunemann, H. J., Sultan, S., & Santesso, N. (2017) Rating the certainty in evidence in the absence of a single estimate of effect. Evid Based Med, 22, 85-7. https://doi.org/10.1136/ebmed-2017-110668
- Page, M. J., McKenzie, J. E., Bossuyt, P. M., Boutron, I., Hoffmann, T. C., Mulrow, C. D., Shamseer, L., Tetzlaff, J. M., Akl, E. A., Brennan, S. E., Chou, R., Glanville, J., Grimshaw, J. M., Hróbjartsson, A., Lalu. M. M., Li, T., Loder, E. W., Mayo-Wilson, E., McDonald, S., ... Moher, D. (2021). The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. International Journal of Surgery, 88, 105906. https://doi.org/10.1136/bmj.n71
- Peisah, C., Lawrence, G., & Reutens, S. (2011). Creative solutions for severe dementia with BPSD: a case of art therapy used in an inpatient and residential care setting. Int Psychogeriatr, 23(69, 1011–1013. https://doi.org/10.1017/S1041610211000457
- Shafir, T., Orkibi, H., Baker, F. A., Gussak, D., & Kaimal, G. (2020). The state of the art in creative arts therapies. Front Psychol, 11, 68. https://doi.org/10.3389/fpsyg.2020.00068
- Shoesmith, E., Charura, D., & Surr, C. (2022). What are the required elements needed to create an effective visual art intervention for people living with dementia? A systematic review. Act Adapt Aging, 46(2), 96-123. https://doi.org/10.1080/01924788.2020.1796475
- Sousa, L. M. M., Firmino, C. F., Marques-Vieira, C. M. A., Severino, S. S. P., & Pestana, H. C. F. C. (2018). Scientific literature reviews: types, methods and applications in nursing. Revista Portuguesa de Reabilitação, 1(1), 45-54. https://doi.org/10.33194/rper.2018.v1.n1.07.4391



Sousa, L., Tomás, M., Santos, M. J., Pereira, F., Oliveira, C., José, H. (2024) Arteterapia em pessoas que vivem com demência um protocolo de revisão rápida Servir, 2(10), e34648. https://doi.org/10.48492/servir0210.34648

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Appendix A - Search strategy protocol (SCOPUS - 28/02/2023)

#	Searches	Results
1	TITLE-ABS-KEY (dementia)	228,145
2	TITLE-ABS-KEY (alzheimer)	267,851
3	(TITLE-ABS-KEY (art) AND TITLE-ABS-KEY (therapy))	56,385
4	(TITLE-ABS-KEY (visual) AND TITLE-ABS-KEY (art))	57,373
5	TITLE-ABS-KEY (music)	166,122
6	(TITLE-ABS-KEY (theater) OR TITLE-ABS-KEY (theatrical))	72,439
7	TITLE-ABS-KEY (dance)	34,842
8	TITLE-ABS-KEY (drama)	30,186
9	TITLE-ABS-KEY (poetry)	49,388
10	TITLE-ABS-KEY (writing)	313,374
11	TITLE-ABS-KEY (narrative)	277,766
12	TITLE-ABS-KEY (healthcare)	535,077
13	(TITLE-ABS-KEY (social) AND TITLE-ABS-KEY (care))	501,731
14	(TITLE-ABS-KEY (psychosocial) AND TITLE-ABS-KEY (care))	71,735
15	(TITLE-ABS-KEY (social) AND TITLE-ABS-KEY (work))	479,711
16	(TITLE-ABS-KEY ("long term care") OR TITLE-ABS-KEY ("long-term care"))	152,693
17	(TITLE-ABS-KEY (dementia)) OR (TITLE-ABS-KEY (alzheimer))	409,130

Appendix B - Search strategy protocol (EBSCOhost Database – MEDLINE Complete; Cochrane Database of Systematic Reviews; CINAHL Complete – 28/02/2023)

#	Searches	Results
S1	dementia	248,811
S2	alzheimer	262,411
S3	art AND therapy	121,249
S4	visual AND art	10,906
S5	music	54,249
S6	theater	15,273
S7	theatrical	537
S8	dance	14,559
S9	drama	6,562
S10	poetry	8,703
S11	writing	101,959
S12	narrative	126,552
S13	healthcare	1,416,704
S14	social AND care	465,979
S15	psychosocial AND care	236,992
S16	social AND work	273,652
S17	"long term care"	84,036
S18	"long-term care"	84,036
S19	S1 OR S2	420,786
S20	S3 OR S4 OR S5 OR S6 OR S7 OR S8 OR S9 OR S10 OR S11 OR S12	443,016
S21	S13 OR S14 OR S15 OR S16 OR S17 OR S18	2,109,790
S22	S19 AND S20 AND S21	2,255
S23	S19 AND S20 AND S21 Limit to: 20180101-20221231	1,121