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REVIEW



Art Therapy in people with dementia: a rapid literature review

Arteterapia en personas con demencia: una revisión rápida de la literatura

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ABSTRACT

Introduction: dementia is a highly prevalent condition, affecting approximately 55 million people worldwide. Art therapy is identified as a non-pharmacological intervention that can offer benefits in managing dementia symptoms. The objective was to map the evidence in the existing literature about the benefits associated with art therapy on the quality of life of elderly people with dementia in a community setting.

Method: a rapid literature review was conducted, addressing the PICO question, "What evidence is there about the benefits of art therapy for older adults with dementia in the community?". CINAHL and MEDLINE databases (via EBSCOhost) were used for this study, on 23/11/2024. Reference lists of the selected articles and Google Scholar were also reviewed. Inclusion criteria encompassed studies focused on individuals aged 65 and older with dementia, involving art therapy interventions, published between 2019 and 2024, in English or Portuguese. Studies which refered to secondary dementias due to other conditions, hospital care, and programs exclusively for caregivers were excluded.

Results: 8 studies were analyzed, that included music therapy, painting and visual arts, drama, and poetry. The identified benefits included improvements in the quality of life, social interaction, self-esteem, relaxation and general well-being, relief of emotional symptoms, as well as economic benefits.

Conclusions: the use of art therapy is an approach that may improve quality of life and well-being. It is essential to adapt the chosen intervention to the individual's needs. This review has some limitations, such as the risk of bias due to deficits in blinding in some analyzed studies.

Keywords: Art Therapy; Dementia; Aged.

RESUMEN

Introducción: la demencia afecta aproximadamente a 55 millones de personas en todo el mundo. La arteterapia es una intervención no farmacológica que puede beneficiar el manejo de sus síntomas. El objetivo fue mapear la evidencia la literatura existente sobre los beneficios asociados a la arteterapia en la calidad

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de vida de las personas mayores con demencia en un entorno comunitario.

Método: se realizó una revisión rápida de la literatura con la pregunta PICO: "¿ Qué evidencia hay al respecto de los beneficios de la arteterapia para adultos mayores con demencia en la comunidad?". La búsqueda se llevó a cabo en las bases de datos CINAHL y MEDLINE (a través de EBSCOhost) el 23/11/2024. También se revisaron listas de referencias y Google Scholar. Se incluyeron estudios sobre personas de 65 años o más con demencia, que involucraran intervenciones de arteterapia, publicados entre 2019 y 2024 en inglés o portugués. Se excluyeron estudios sobre demencias secundarias, atención hospitalaria y programas solo para cuidadores.

Resultados: se analizaron 8 estudios que abordaron musicoterapia, pintura, artes visuales, teatro y poesía. Los beneficios identificados incluyen mejoras en la calidad de vida, interacción social, autoestima, relajación, bienestar, alivio de síntomas emocionales y beneficios económicos.

Conclusiones: la arteterapia puede mejorar la calidad de vida y el bienestar de las personas mayores con demencia. Es fundamental adaptar la intervención a las necesidades individuales. Esta revisión presenta limitaciones, como el riesgo de sesgo debido a la falta de enmascaramiento en algunos estudios.

Palabras clave: Arteterapia; Demencia; Anciano.

INTRODUCTION

Dementia is a neurodegenerative syndrome characterized by a set of cognitive and behavioral changes, such as loss of memory, intellectual capacity, reasoning and social skills, which progressively lead to a decline in the person's cognitive functioning.⁽¹⁾ Its prevalence increases with age, being more frequent after the age of 65.⁽²⁾ According to the World Health Organization (WHO), there are currently an estimated 55 million people with dementia worldwide.⁽²⁾

In Portugal, it was estimated that there were already more than 205 000 people with dementia in 2017 and that the number will rise to 322 000 cases by 2037.⁽³⁾ Furthermore, in the field of mental health, dementias represent the main cause of disability, as well as one of the biggest causes of morbidity and premature death in Western countries.

In view of the progressive increase in incidence and prevalence, and taking into account the significant economic and social impact, it is essential to adopt complementary therapeutic strategies, namely non-pharmacological interventions.⁽³⁾

Art therapy is one of these strategies. It is a psychotherapeutic approach that uses artistic mediators such as painting, drawing, collages, body expression, music, singing, among others. (4) According to Cousins and colleagues, art therapy can strengthen the sense of identity and improve person-centred care, and is especially relevant in the care of people with dementia, where a personalized approach is required that is sensitive to the specific needs of the population. (5)

In this way, art therapy can play an important role in mitigating the symptoms associated with the pathology, contributing to improving quality of life and reducing the socio-economic impact of this condition. (3)

In this context, the following review question was formulated: "What evidence is there on the benefits of art therapy, in a community setting, for elderly people with dementia?" and the objective was to map the evidence on the benefits of art therapy for elderly people with dementia, in a community setting.

METHOD

This study corresponds to a Rapid Literature Review, developed based on the Cochrane methodological guidelines. (6) The formulation of the research question followed the PICO mnemonic, in which the following were defined: population - people aged 65 or over diagnosed with dementia in a community setting; Intervention - any form of art therapy; Comparator - not applicable, given the descriptive and mapping nature of this review; Outcome - any reported benefit.

The inclusion criteria were studies published between 2014 and 2024, in Portuguese or English, involving participants diagnosed with dementia aged 65 or over and applying art therapy interventions in a community setting. Studies focused on dementias secondary to other pathologies, in a hospital environment, or exclusively aimed at caregivers were excluded.

The bibliographic search was carried out in the CINAHL and MEDLINE databases (via EBSCOhost) on November 23, 2024, using MeSH and DeCS descriptors and Boolean operators AND and OR. The keywords used included: art, sensory art therapies, art therapy, dementia, vascular dementia, multi-infarct dementia, Lewy body disease, Alzheimer's disease, mixed dementias, aged, elder, elderly, old people, community, community health care. The research was complemented by an analysis of the reference lists of the selected studies and a search on

Google Scholar, allowing for the inclusion of relevant gray literature, in order to mitigate publication bias, as recommended by Apóstolo. (7)

Following the recommendations of Garritty et al.⁽⁶⁾ data was collected on the type of study, objectives, population, intervention and outcome. We also added the level of evidence of the studies according to the Joanna Briggs Institute (JBI).⁽⁸⁾ Camp et al.⁽⁹⁾ recommendation was used to classify the quality of evidence.

RESULTS

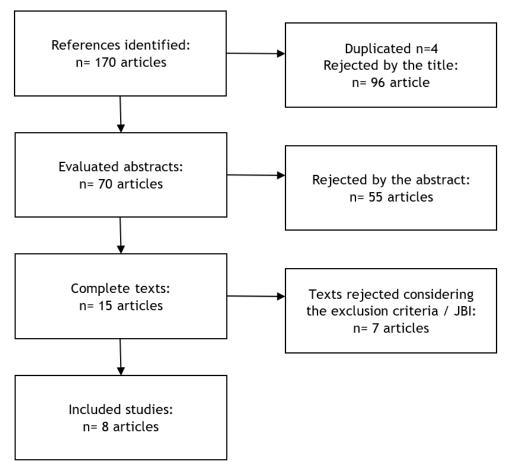


Figure 1. PRISMA 2020 flowchart - Study selection process(10)

Initially, 167 studies were identified. After applying the inclusion and exclusion criteria and carrying out the screening, five studies were selected. Three more were added, making a total of eight studies included in this review. (10,11,12,13,14,15,16,17) The research strategy is represented in the flowchart (figure 1).

The eight included studies were analyzed and summarized in table 1. The publications date from the years 2014, (15) 2018, (18) 2019, (12) 2020, (14,17) 2021, (16) 2022, (11) and 2024. (13) In terms of country, three of the authors were from the United Kingdom, (16,17,18) two from Australia, (11,13) one from France, (12) one from the United States (15) and one from China and Canada. (14) With regard to the level of evidence, studies classified as having the highest level of evidence were included: 1a, (18) 1b, (14,15,16) 1c(11,12,13) and 3c. (17)

The articles mainly refer to the modalities of music therapy^(11,12,13,14) and visual arts^(15,16,17) and one of them presents several types of modalities.⁽¹⁸⁾

The main benefits are: improved verbal fluency, $^{(14)}$ improved memory, $^{(15,16)}$ reduced symptoms of anxiety, depression and apathy, $^{(11,13,14,15,16)}$ reduced disruptive behavior, $^{(11,15)}$ improved well-being and quality of life. $^{(11,12,15,16,17)}$

Table 2 summarizes the analysis of the methodological quality of the studies, according to the JBI's critical evaluation tools. No article was excluded after this evaluation, considering that evidence on the effects of interventions can be built up from studies with a diverse risk of bias. (7) Apóstolo (7) adds that although these studies present a certain risk of bias, it is inappropriate to judge these studies as having low quality.

			Table 1. Synthesis of t	he evidence found			
Study and date	Title	Type of Study	Objectives	Population	Intervention	Outcome	Level of Evidence JBI
E1 ⁽¹⁴⁾ September 2020 China and Canada	Effects of Music on Patients with Demencia - A Systematic Review	Systematic Literature Review	To evaluate the effects of music therapy on people with dementia, considering cognitive outcomes, behavioral and psychological symptoms and quality of life	People with dementia at any stage	Music therapy, in groups or individually	improve verbal fluency reduce symptoms such as anxiety, depression and apathy there is no evidence of benefits on memory, daily functionality or quality of life.	1.b
E2 ⁽¹¹⁾ October 2022 Australia	Clinical effectiveness of music interventions for dementia and depression in elderly care (MIDDEL): Australian cohort of an international pragmatic cluster-randomised controlled trial			residents over 65 with a	music therapy	Decreased symptoms of depression, Decrease in neuropsychiatric symptoms Improved overall quality of life.	1.c
E3 ⁽¹²⁾ 2019 France	Immediate Benefit of Art on Pain and Well-Being in Community-Dwelling Patients with Mild Alzheimer's	Randomized clinical trial	musical singing compared to the benefits of painting	59 elderly people with Alzheimer's (>60 years): 28 in the painting group and 31 in the musical singing group		Immediate benefits in terms of well-being.	1.c
E4 ⁽¹³⁾ 2024 Australia		Randomized controlled clinical trial	questions of whether therapeutic participation in choirs can: improve	Intervention group: 16 people diagnosed with dementia (72-87 years old) and their caregivers living in the community	music therapy	Decreased levels of anxiety and depression in participants. The dyads who took part reported that it was a valuable, positive and enjoyable experience that brought them personal and relational benefits.	1.c

E5 ⁽¹⁷⁾ October 2020 United Kingdom	Imagination: A Social	Longitudinal randomized methods cohor	non- mixed- t study		100 people with dementia from 3 communities in North Wales	visual arts	effectiveness of programs. promoting the well-being of people with dementia. maximizing the economic and social impact.	3.c
E6 ⁽¹⁸⁾ September 2018 United Kingdom	Art Therapy for People With Dementia	Systematic Review	Literature	of art therapy as an adjuvant treatment for people with dementia	(study 1) and 21 people		was not conclusive, since no significant differences were observed between the control and intervention group.	1.a
E7 ⁽¹⁵⁾ December 2014 United States of America	Efficacy of Creative Arts Therapy in Treatment of Alzheimer's Disease and Dementia: A Systematic Literature Review		Literature	effectiveness and benefits of art therapies for people affected by	therapy intervention in people with Alzheimer's	drawing and sculpture); music (playing and listening); drama	disruptive behavior and increased socialization. results in mood and attitude, depression,	1.b
E8 ⁽¹⁶⁾ May 2021 United Kingdom	Creative Art Therapy as a Non-Pharmacological Intervention for Dementia: A Systematic Review		literature	in the field, with a special focus on the effectiveness	Articles on the benefits of visual arts (painting and sculpture) for people with dementia (54-102 years)	Visual arts	results in attention, concentration and memory. results in motivation, mood, apathy, aggressive behavior or agitation. well-being and quality of life	1.b
Source: Garritt	y et al. (6)							

Table 2. Summary of the critical evaluation of the articles analyzed according to the Joanna Briggs Institute														
Randomized Controlled Studies														
Study	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Quality
E2 ⁽¹¹⁾	Υ	Υ	Υ	Ν	N	Υ	Υ	Υ	Υ	Υ	Υ	Υ	Υ	85 %
E3 ⁽¹²⁾	Υ	Υ	Υ	Υ	N	Υ	Υ	Υ	Υ	Υ	Υ	Υ	Υ	92 %
E4 ⁽¹³⁾	Υ	Υ	Υ	N	Ν	?	Υ	Υ	Υ	Υ	Υ	Υ	Υ	81 %
Total	100 %	100 %	100 %	33 %	0 %	83 %	100 %	100 %	100 %	100 %	100 %	100 %	100 %	

Systematic Reviews												
Study	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Quality
E1 ⁽¹⁴⁾	Υ	Υ	Υ	Υ	?	Υ	Υ	Υ	N	Υ	Υ	86 %
E6 ⁽¹⁸⁾	Υ	Υ	Υ	Υ	Υ	Υ	Υ	Υ	Υ	Υ	Υ	100 %
E7 ⁽¹⁵⁾	N	Υ	Υ	Υ	?	?	Υ	Υ	N	Υ	Υ	67 %
E8 ⁽¹⁶⁾	Υ	Υ	Υ	Υ	?	Υ	Υ	Υ	N	Υ	Υ	86 %
Total	75 %	100 %	100 %	100 %	63 %	88 %	100 %	100 %	25 %	100 %	100 %	
Cohort Stu	dies											
Study	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Quality
E5 ⁽¹⁷⁾	N	NA	NA	Υ	Υ	Υ	?	Υ	Υ	NA	Υ	81 %
Total	0 %	-	-	100 %	100 %	100 %	50 %	100 %	100 %	-	100 %	

Note: summary of the results of applying the JBI checklists to assess the methodological quality of articles according to study design. Accounting for compliance with the criteria according to the score: yes (Y) - 2 points; no (N) - 0 points; unclear (?) - 1 point; not applicable (NA) - removal of the parameter from the total accounting. Once these values have been added up, they are transformed into percentages to determine the quality of the study (superior, high or medium-high). (9)

The following score was considered, according to Camp and Legge's recommendation: 2 points for questions answered with "yes" (Y); 0 points for "no" (N); 1 point for "unclear" (?); disregarding the question in the total number of questions for questions answered with "not applicable" (NA). (9) At the end, the percentage based on the sum of the points is presented, with the studies classified, according to the same authors, as superior quality if they have percentages above 90 %, high quality if they have percentages between 80 and 89 % and medium-high quality if they have percentages between 70 and 79 %. (9) We assume 60 to 69 % as average quality.

The negative response to questions 4 and 5 in the randomized controlled studies identified is mainly due to the design of the study, since by subjecting a group of individuals to a particular intervention, the professional implementing it and the subject of the intervention are aware that it is being implemented. This issue is mentioned by Apóstolo when he states that "a study can be carried out to the highest possible standards of quality, but have a high risk of bias related, for example, to the impracticality of concealing from participants the intervention to which they are being subjected".⁽⁷⁾ This risk of bias may be mitigated by blinding of the evaluator, which is present in two of the studies analyzed (studies 2 and 3)^(11,12) although this blinding of the evaluator was not clear in study 4.⁽¹³⁾

The lack of clarity regarding the criteria for evaluating the studies and assessing the risk of bias in studies 1, 7 and 8^(14,15,16) could increase the risk of bias in this review. However, it was decided to keep these studies, since the focus of the review is on analyzing the effectiveness of the interventions.

DISCUSSION

Considering the question that guided this rapid literature review, it was possible to identify the main art therapy modalities used in the different studies: musical singing, group music therapy, (11,12,13,14) painting and plastic arts. (15,16,17)

Several studies have highlighted art therapy as a relevant non-pharmacological tool with a positive impact on the quality of life of elderly people with dementia, helping to reduce cognitive and behavioral decline. (15,16,17) In addition, the fact that interventions can be adapted to each person and their needs is an added value (16) allowing interventions to be personalized.

Baker and colleagues state that music therapy is one of the most promising art therapy approaches in terms of non-pharmacological strategies for dementia. (11)

In turn, Jones et al. highlight music therapy's ability to stimulate "autobiographical memories", (17) while Lam et al. (14) highlight its contribution to improving verbal fluency, given that memorizing the lyrics of songs enhances the activation and consolidation of different types of memory. Deshmukh et al. also report a potential analgesic effect related to music therapy, which induces "pleasurable emotions", shaping the limbic activity that bridges painful perception. In addition, the type of music used may induce relaxation, reflected in changes in heart and respiratory rate. (18)

With regard to musical singing, Jones and colleagues have shown that, when practiced in nursing and/or residential homes, it helps to significantly reduce symptoms associated with dementia, such as depression, and promotes improvements in the mood, social connectivity and identity of older people.⁽¹⁷⁾

In the same vein, Lam and colleagues report that the activation of behavior when participating in group musical singing helps to reduce depressive symptoms and promotes a fun experience among the elderly. (14) In addition, Deshmukh and colleagues explore the involvement of breathing during singing and its effect on the production of endorphins, thus offering immediate relaxation. (18)

Painting is addressed by Tamplin et al. who mention an improvement in symptoms of depression in elderly people with dementia, with caregivers also reporting positive experiences, with personal and relational benefits.⁽¹³⁾ In a complementary way, Deshmukh and colleagues report the ability of some elderly people to complete self-portraits, even in the face of advanced dementia, where the natural decline in cognitive function is well known.⁽¹⁸⁾

In the field of practical arts, Jones and colleagues identified improvements in the autonomy, well-being, self-esteem and affective expression of the elderly participants, compared to a control group that did not participate in artistic activities.⁽¹⁷⁾

In addition, Cowl and Gaugler, as well as Lam et al. report that it is possible to improve emotional symptoms (changes in mood and attitude, depression, self-esteem, motivation, among others) and behavioral symptoms (aggression, agitation, disruptive behavior) associated with Alzheimer's disease. However, they do not consider it feasible to improve cognitive symptoms, particularly with regard to changes in memory and cognition. (14,15)

In turn, Emblad and Mukaetova-Ladinska point to an improvement in cognitive function, showing improvements in attention, concentration and memory, corroborating Baker and colleagues, who argue that music therapy can promote or preserve cognitive functioning in elderly people with dementia. (11,16)

From an economic point of view, some studies have highlighted the relevance of art therapy as a potential strategy for reducing costs, (11,17) since by improving social and behavioural symptoms, its use could lead to a decrease in the need for pharmacological treatment, as well as a reduction in decompensations, which can lead to hospital admissions, and even possible institutionalization later on. (18)

Thus, the modalities of art therapy intervention used in elderly people with dementia include music therapy (singing or listening to music, individually or in groups), painting and plastic arts (sculpture, collage, ...), drama and poetry. These have multiple benefits for this population, including: improving quality of life, relieving emotional symptoms such as depression and agitation, strengthening social interaction and self-esteem, promoting relaxation and general well-being. In addition, some approaches, such as music therapy, can stimulate memories and maintain cognitive functions in the early stages of the disease.

Strengths and limitations of the study

This review addresses an emerging and relevant topic - the use of art therapy in older people with dementia - which is one of its main strengths, as it contributes to deepening knowledge about non-pharmacological therapeutic strategies. In addition, the methodological quality of the studies included stands out, providing a solid basis for critical analysis.

However, some limitations were identified. There was a lack of specific data on the application of art therapy in this population, which made a more in-depth analysis difficult. In addition, some studies have methodological limitations, particularly with regard to bias control and the lack of blinding of professionals and intervention and control groups. Lastly, the limited time for the review restricted the depth of the research and the inclusion of additional sources that could have enriched the results obtained.

Implications for practice and development of future research

It is essential that the interventions chosen are carefully adapted to individual needs, taking into account the person's cognitive and emotional capacities. Given the heterogeneity of the studies analyzed and the methodological limitations observed, namely the lack of blinding, caution is recommended when interpreting the results and applying the interventions in practice.

Future studies on art therapy in older people with dementia could address the different etiologies of dementia, investigating how they can influence the effectiveness of interventions. It is essential to adopt more rigorous methodologies, with greater control of the risk of bias and adequate blinding, as well as describing the intervention protocols in detail to ensure reproducibility. It is also recommended that long-term studies be carried out to assess the sustained effects of art therapy at different stages of the evolution of dementia.

CONCLUSIONS

Given the progressive increase in the prevalence of dementia worldwide, as well as its high economic and social impact, an integrated and multidimensional approach to older people with dementia is imperative. This approach must allow for a balanced management between pharmacological and non-pharmacological strategies, centered on the person and their life contexts.

Art therapy, as a non-pharmacological intervention, includes a diverse set of activities that stimulate cognitive, motor, emotional and relational skills. In this context, this review looked at activities such as musical singing, music therapy, painting and plastic arts, showing significant benefits in reducing symptoms often associated with dementia, namely depression, low self-esteem, demotivation, aggressive behavior and agitation.

Art therapy is therefore a promising adjunctive intervention that can complement other therapeutic strategies, particularly pharmacological ones. Its personalized application, adjusted to the needs, preferences

and abilities of each person and their caregivers, contributes to promoting well-being and improving the quality of life of elderly people with dementia.

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CONFLICT OF INTEREST

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