MUSIC THERAPY, MARITAL RELATIONSHIP, AND ALZHEIMER'S DISEASE: MULTIPLE CASE STUDY

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ABSTRACT. When the primary caregiver of an older person with Alzheimer's disease (AD) is a spouse, that person may bear a significant burden that affects the quality of the marital relationship. This study aimed to examine the effects of home-based music therapy on the well-being and relationship dynamics of couples consisting of a person with Alzheimer's disease and their caregivers. For the couple to participate in the study, one of the spouses had to be diagnosed with Alzheimer's disease. Data were collected through semi-structured interviews, before and after each session. Twelve weekly music therapy sessions of 60 minutes each were offered. The contents of the interviews were interpreted using Bardin's content analysis. The interventions provided pleasurable moments, with benefits mainly for the caregivers. The reports indicated that the interventions provided the caregivers with tools to better manage the behavioral symptoms of dementia, with positive effects on the quality of the marital relationship. It is expected to contribute to the possibilities of care through an innovative approach, with guidelines for a more integrative application of music therapy strategies for dementia.

Keywords: Music therapy; caregivers; Alzheimer's disease.

MUSICOTERAPIA, RELACIONAMENTO CONJUGAL E DOENÇA DE ALZHEIMER: ESTUDO DE CASOS MÚLTIPLOS

RESUMO. Quando o principal cuidador do idoso com doença de Alzheimer é o cônjuge, este pode carregar um fardo significativo, com comprometimentos para a qualidade da relação conjugal. Este estudo teve como objetivo verificar os efeitos do trabalho com canções na musicoterapia domiciliar sobre o bem-estar e a dinâmica relacional de casais formados por um indivíduo com DA e seu cuidador. Para o casal participar da pesquisa, um dos cônjuges deveria ser diagnosticado com doença de Alzheimer. A coleta dos dados foi realizada por meio de entrevistas com roteiro semiestruturado antes e após as sessões. Foram oferecidas 12 sessões semanais de musicoterapia, com 60 minutos de duração cada. O conteúdo das entrevistas foi interpretado por meio da análise de conteúdo de Bardin. Os resultados sugerem que as intervenções possibilitaram momentos prazerosos, com benefícios principalmente para o cuidador. Os relatos indicaram que as intervenções ofereceram ferramentas para que o cuidador pudesse lidar melhor com os sintomas comportamentais da demência, com efeitos benéficos para a qualidade da relação conjugal.

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Espera-se contribuir para a reflexão acerca das possibilidades de cuidado por meio de uma abordagem inovadora, com diretrizes para a aplicação mais integrativa de estratégias de musicoterapia em demência.

Palavras-chave: Musicoterapia; cuidadores; doença de Alzheimer.

MUSICOTERAPIA, CONJUGALIDAD Y ENFERMEDAD DE ALZHEIMER: ESTUDIO DE CASO MÚLTIPLE

RESUMEN. Cuando el cuidador principal de la persona mayor con enfermedad de Alzheimer es el cónyuge, este puede llevar una carga importante, con compromisos para la calidad de la relación conyugal. Este estudio tuvo como objetivo verificar los efectos del trabajo con canción es en musicoterapia domiciliaria sobre el bienestar y la dinámica relacional de las parejas formadas por un individuo con EA y su cuidador. Para que la pareja participe en la investigación, uno de los cónyuges debería ser diagnosticado con la enfermedad de Alzheimer. La recolección de datos se realizó a través de entrevistas con guión semiestructurado antes y después de las sesiones. Se ofrecieron doce sesiones semanales de musicoterapia de 60 minutos cada una. El contenido de las entrevistas se interpretó utilizando el análisis de contenido de Bardin. Los resultados sugieren que las intervenciones permitieron momentos agradables, con beneficios principalmente para el cuidador. Los relatos indicaron que las intervenciones ofrecieron herramientas para que el cuidador afronte mejor los síntomas conductuales de la demencia, con efectos benéficos en la calidad de la relación conyugal. Se espera contribuir a la reflexión sobre las posibilidades de atención a través de un enfoque innovador, con pautas para una aplicación más integradora de las estrategias de musicoterapia en la demencia.

Palabras clave: Musicoterapia; cuidadores; enfermedad de Alzheimer.

Introduction

Dementia is a syndrome that causes cognitive impairment with behavioral consequences, gradually affecting the ability to perform activities of daily living (Alzheimer's Association, 2018). The most common cause of dementia is Alzheimer's disease (AD), which has negative consequences not only for the diagnosed person but also for caregivers, family members, and the community (World Health Organization [WHO], 2020).

According to Falcão et al. (2016), the role of a caregiver for a person with AD is often assumed to be that of a single person in the family who is responsible for meeting all care needs. It is usually the wives, daughters, granddaughters, or daughters-in-law who take on these demands, which becomes more challenging as the diagnosed person reaches more advanced stages of the disease (Falcão et al., 2016).

When a family caregiver is a spouse, he or she may face many adjustments to compensate for and adapt to the situation, with a strong tendency towards family dissolution and disorganization of personal life (Lima et al., 2015). When assuming this role, the caregiving spouse may experience fluctuating emotions (anger, anguish, optimism, and discouragement); therefore, it is important to reconstruct the meaning of the relationship to reduce the negative impact on the quality of life of both (Falcão, 2016).

The needs of caregivers and people with dementia in care include greater social support, support in facing new roles in the relationship, elevation and stabilization of mood, promotion of meaningful communication, intellectual and sensory stimulation, and coping

strategies (Rio, 2018). In this sense, therapeutic interventions involving patients with dementia and their caregivers can contribute to their quality of life (Häusler et al., 2016).

Different intervention models are used to provide support and benefit to the health of the caregiver and the person with dementia, such as music therapy. According to the Brazilian Union of Music Therapy Associations (UBAM), music therapy is a field of study that explores the effects and applications of musical experiences in individual and group settings. The work of music therapists takes place in the areas of health promotion, prevention, and rehabilitation, among others, and is conducted in communities, organizations, health institutions, and society (União Brasileira das Associações de Musicoterapia, 2018).

In the context of caregiving, this form of treatment can promote the expression of emotions (both negative and positive) and reduce stress and fatigue in caregivers (Santos, 2018). For people with dementia, its practice improves cognitive function and quality of life, with an impact on long-term depression, that is, on the reduction of neuronal synaptic activity (Moreno-Morales et al., 2020).

When music therapy is applied with the participation of the person with AD and the caregiver, the therapeutic process promotes mutual engagement and meaningful experiences with important benefits for strengthening resilience or the individual's ability to face and overcome adversity (Melhuish et al., 2019). Its use with couples in which one member has Alzheimer's disease can promote meaningful moments and provide practical tools for using music in daily life for the benefit of the person with dementia and their spouse (Dassa et al., 2020).

Music therapy can be performed using various strategies. In the context of dementia, singing is a widely used intervention because songs that are meaningful to the individual can access musical memory even in the most advanced stages of the disease. In this sense, favorite songs are a way to connect lost parts of one's personality (Tomaino, 2002).

A randomized controlled study conducted by Cho (2018) evaluated the effects of singing on quality of life and affect in institutionalized individuals with dementia. The results showed an increase in the positive affect scores and a decrease in the negative affect scores. A study by Dassa and Amir (2014) with a group of people with AD showed that song evoked memories and encouraged conversation, with an increase in spontaneous responses and feelings of accomplishment and belonging. In all cases, care should be taken in the selection of a repertoire with songs that are meaningful to the participants (Dassa & Amir, 2014).

Songwriting has also provided positive evidence in gerontology. In a study that evaluated personalized songwriting (Fraile et al., 2019), the results indicated a positive impact of practice on the cognition of patients with AD. The authors suggested that singing songs with biographical data of the patient could be a useful tool to stimulate memory.

Based on this information, the present study aimed to verify the effects of working with songs in music therapy on the well-being and relationship dynamics of couples formed by a person with AD and their caregivers in a home context.

The hypothesis was that the weekly and home application of working with songs in music therapy positively contributes to the well-being and relationship dynamics of couples formed by a person with AD and their caregivers.

Method

This was a descriptive and exploratory qualitative study.

Participants

The study was conducted with the participation of four couples formed by a person diagnosed with mild or moderate AD and their respective caregiving spouses. It was determined that the person with AD was in the early or moderate stages of the disease to facilitate opportunities for interaction between the spouses during the music therapy sessions. To recruit participants, the research was advertised to the caregiver support groups. To participate in the study, the individual had to have been previously diagnosed. Other inclusion criteria were as follows: neither of the couples had previously received music therapy; they should accept that the care would be provided at home; and the caregiver should have served in this role for at least six months. No other criteria were considered, and neuropsychiatric symptoms were not assessed.

Study Location

The sessions and data collection were conducted at the participants' homes in the municipality of São Paulo, State of São Paulo, Brazil, during the first semester of 2018. The research was conducted at home with the aim of not causing major changes in couples' routines, adapting to their schedules, avoiding possible logistical conflicts, and ensuring the periodicity of the interventions.

Music therapy intervention

The research involved 12 weekly music therapy sessions of 60 minutes each, for a total of three months of intervention with each couple. The prioritized strategy was to recover the most significant songs in the history of the participating spouses, considering the objectives of the study. The songs were selected and performed weekly by couples accompanied by a music therapist. In general, each session began with a conversation regarding the week's events. The couples then led the session by selecting songs with the help of a therapist who intervened when necessary. The session ended with the collection of participants' impressions and requests for the next session.

Assessment instruments

Semi-structured interviews were conducted with the caregivers before and at the end of the 12 sessions. The interviews addressed the quality of socio-family relationships (including marital relationships) and caregivers' impressions of music therapy. Sociodemographic data and musical preferences were collected. Sociodemographic data, including education, approximate income, length of marital relationship, number of children, grandchildren, and great-grandchildren, and chronic diseases, were used to better understand the family, health, and socioeconomic context of the participants.

The semi-structured interviews were prepared based on a literature review (Garcia, 2018) and were recorded and transcribed for analysis. The interview was conducted through questions such as How was your relationship with your spouse before Alzheimer's disease? How was your relationship after learning about the probable/possible diagnosis of AD? How do you evaluate music therapy sessions in general? Overall, how did you feel after the music therapy sessions? How would you describe your experience with the entire music therapy process?

The interviews were conducted by a music therapist specializing in gerontology, who was not involved in music therapy interventions.

Data analysis

The data were analyzed using systematic and objective procedures to describe the content of the messages based on Bardin's (2006) content analysis method. The interviews were categorized and subcategorized into favorable (positive aspects of the statements), unfavorable (negative aspects of the information), and neutral (undefined, vague, indeterminate, indifferent, or impartial content, expressing no party for or against). The reports were classified into subcategories based on the perception and consensus of the responsible researchers.

Ethical issues

The project was submitted to the Ethics and Research Committee and approved CAAE: 81491517.0.0000.5390 by the School of Arts, Sciences, and Humanities of the University of São Paulo. Before the start of the sessions, participants signed an Informed Consent Form.

Results

In three of the four couples studied, the spouse with AD was the husband, and only one was the wife. Their spouses were the primary caregivers. At the time of the study, the couples were between 27 and 54 years old, and all had more than ten years of education.

Profile of the participating couples
Couple 1 - K and S
At the time of the interview, caregiver K was 74 years old and Brazilian with Japanese ancestry, and her spouse S was 76 years old and Brazilian. The couple had one daughter and an average monthly income of BRL 15,000. S was diagnosed with Alzheimer's disease after the onset of symptoms began to appear in late 2016. At the onset of the disease, he began to experience mild forgetfulness and disorientation and had to stop driving. At the time of the study, he was still performing most of his activities of daily living and required minimal assistance. The caregiver's main complaint was the need for constant supervision, reporting that S often wanted to leave the house and had difficulty concentrating on anything, always asking, and repeating the same questions.

Couple 2 - M and A
At the time of the interview, caregiver M was 74 years old and Brazilian with Japanese ancestry. Her spouse, A, was 90 years old and Brazilian with Hispanic ancestry. The couple met at work where they worked as a nurse and a doctor. Mr. A was already a widower and had six children from his first marriage and seven grandchildren. Mrs. M had no children as she had her uterus removed during surgery. The approximate income was not reported, but M described it as 'good.' After a car accident, the spouse with AD began to show signs of disorientation and was diagnosed with Alzheimer's disease in 2007. During the study period, Mr. A performed tasks such as dressing, eating, and taking short walks. The caregiver's main complaint was her husband's constant need for attention. She also complained that Mr. A did not like to take care of his hygiene and refused to participate in activities with his wife, such as memory groups, dancing, and physical activity.

Couple 3 - Ar and Sa
At the time of the interview, caregiver Ar was 70 years old and a Brazilian with a college degree. Her husband, Sa, was 78 years old and a Brazilian from the state of Acre.

The couple had an average income of BRL 15,000, three children, and four grandchildren. Sa was diagnosed with Alzheimer's disease in 2013, and his wife reported that they were reluctant to visit the hospital and start treatment for some time. The symptoms became more pronounced when Sa began to make incorrect bank transactions. The main complaint was Sa's behavior, which tended to go against her proposals and constantly reduced the social activities.

Couple 4 – N and L

At the time of the interview, the caregiving spouse N was 82 years old, and his wife L was 77 years old. The couple had an average income of BRL 14,000. They met at work. They had four children and four grandchildren, and one of them, a person with a disability, lived with them. L was diagnosed with Alzheimer's disease in 2015, and N was the main caregiver with the support of a family worker. They walked sporadically around the condominium's premises but did not engage in any other activity.

Analysis of responses from caregiver spouses

The categories defined for analysis were: Marital relationship before AD, Marital relationship with AD before and after music therapy, Family relationships with AD before and after music therapy, Friendship relationships with AD before and after music therapy, Self-perception of health of the caregiver spouse before and after music therapy, Perception of health and behavior of the spouse with AD before and after music therapy from the perspective of the caregiver spouse. From each category, reports were identified in subcategories, including favorable aspects (FA), unfavorable aspects (UA), and neutral aspects (NA). The reports were categorized into subcategories based on the perceptions and consensus of the responsible researchers. In boxes 1, 2, 3, 4, and 5 below, some reports from caregivers are classified (examples of statements).

Box 1 Marital relationship

Marital relationship	
Categories	Subcategories
Category 1: Marital relationship before AD (RCAD) Definition: in this category, content inherent to the couple's marital relationship before the onset of AD is presented.	a) With favorable aspects (FA): Example: "We always got along well, he was always a very helpful person. I think we got along well, he loved traveling with me, with the children." b) With unfavorable aspects (UA): Example: "he's the type of person who always said: don't come up with anything for me to do, you know?" c) With neutral aspects (NA): Example: "he said: the biggest conflict in a couple is the children."
Category 2: Marital relationship with AD before music therapy (RCAMT) Definition: this category contains content inherent to the couple's marital relationship after the onset of AD, presented by the	a) With favorable aspects (FA): Example: "we can remember what we went through with longing and gratitude." b) With unfavorable aspects (UA):

participants, before the music therapy intervention.	Example: "it's tiring. I try to stay calm all the time, but it's hard because it's repetitive." c) With neutral aspects (NA): Example: "he sits next to me, and he doesn't leave."
Category 3: Marital relationship with AD after music therapy (RCDMT) Definition: this category is composed of content inherent to the couple's marital relationship after the onset of AD and after music therapy intervention.	a) With favorable aspects (FA): Example: "It's a huge gain. We get away from the monotony, we divert attention from the problem, and we get closer." b) With unfavorable aspects (UA): Example: "His behavior is too repetitive, and we start to get distracted." c) With neutral aspects (NA): Example: "It's different to express yourself with music, like we did."

Source: The authors.

Box 2 – Family relationships.

Family relationships	
Categories	Subcategories
Category 4: Family relationships with AD before music therapy (RFAMT) Definition: this category presents content inherent to the couple's family relationships after the onset of AD, before music therapy.	a) With favorable aspects (FA): Example: "We have daughters who help a lot, we are very happy, I am receiving all the support from the family." b) With unfavorable aspects (UA): Example: "We hardly go out. In the last five years, he has rarely attended family events, and has rarely invited family members to come over because he wants to block everything." c) With neutral aspects (NA): Example: "I don't ask my children much, you know? Because I know that each one has their own work."
Category 5: Family relationships with AD after music therapy (RFDMT) Definition: this category encompasses the content inherent to the couple's family relationships after the onset of AD and after music therapy.	a) With favorable aspects (FA): Example: "When given the opportunity, the group tries to help. They say that there is a concert at a certain place that we can go to together." b) With unfavorable aspects (UA): Example: "To say that the children have changed? They don't come to visit. That's sad." c) With neutral aspects (NA): Example: "It was three months of intervention, too little for us to evaluate."

Source: The authors.

Box 3 Friendship relationships.

Friendship relationships	
Categories	Subcategories
Category 6: Friendship relationships with AD before music therapy (RAAMT) Definition: this category includes content inherent to the couple's friendship relationships after the onset of AD and before music therapy.	a) With favorable aspects (FA): Example: "We have a lot of friends and everyone talks to him because they know about his illness." b) With unfavorable aspects (UA): Example: "He practically abandoned his friends. People are embarrassed to come and talk to us." c) With neutral aspects (NA): Example: "The friendships I have are like that with family."
Category 7: Friendship relationships with AD after music therapy (RADMT) Definition: this category includes content inherent to the couple's friendship relationships after the onset of AD and after music therapy.	a) With favorable aspects (FA): Example: "our friends already know that music therapy for us was 100% successful. Everyone supported and was interested in the songs we sang. If you have to recommend it to someone, it's valid, it only brought us good things." b) With unfavorable aspects (UA): Example: "He prefers to stay home rather than go out, so he hasn't had the initiative to get together with other people yet." c) With neutral aspects (NA): Example: "Friends, if I say their names, he remembers them."

Source: The authors.

Box 4 Self-perceived health of the caregiver spouse.

Self-perceived health of the caregiver spouse	
Categories	Subcategories
Category 8: Self-perception of health of the caregiver spouse before music therapy (SCCAMT) Definition: this category covers the content inherent to the caregiver's self-perception of health before music therapy.	a) With favorable aspects (FA): Example: "I think I still have some energy. When I'm healthy, I'm a wonder woman." b) With unfavorable aspects (UA): Example: "I need care. I was diagnosed with psoriasis, stress, and anxiety, and it's all emotional. Insecurity about feeling alone." c) With neutral aspects (NA): Not identified
Category 9: Self-perception of health of the caregiver spouse after music therapy (SCCDMT).	a) With favorable aspects (FA): Example: "After the music sessions, I feel like a weight has been lifted off me."

Definition: this category includes the content inherent to the caregiver's self-perception of health after music therapy.	b) With unfavorable aspects (UA): Example: "Oh, I've been a little tired. We don't sleep well either." c) With neutral aspects (NA): Example: "My health is normal."

Source: The authors.

Box 5 Health of the spouse with AD from the caregiver's perspective.

Health and behavior of the spouse with AD from the caregiver's perspective	
Categories	Subcategories
Category 10: Perception of health and behavior of the spouse with AD before music therapy (SCDAMT) from the perspective of the caregiver spouse. Definition: this category presents content inherent to the perception of health and behavior of the spouse with AD before music therapy from the perspective of the caregiver spouse.	a) With favorable aspects (FA): Example: "I believe he adapted very well to the medication. He is in good health." b) With unfavorable aspects (UA): Example: "He became anxious, repetitive a lot, and sometimes he walks around looking for something. I think the disorientation part sets in, and he gets a little lost." c) With neutral aspects (NA): Not identified
Category 11: Perception of health and behavior of the spouse with AD after music therapy (SCDAMT) from the perspective of the caregiver spouse. Definition: this category covers content inherent to the health and behavior of the spouse with AD after music therapy from the perspective of the caregiver.	a) With favorable aspects (FA): Example: "Music therapy brings comfort to him and me. It is as if it works all the senses: smell, touch, everything brings back memories. We feel happy because we remember our past." b) With unfavorable aspects (UA): Example: "He doesn't see himself as big as he is. He sees himself as small. He doesn't eat, he doesn't feel hungry, he just sleeps, his intestines don't work." c) With neutral aspects (NA): Example: "she was always quiet; she wasn't much of an opinion giver".

Source: The authors.

Discussion

Alzheimer's disease triggers changes in family and marital dynamics and structure, and these changes can be difficult for caregivers. It becomes a challenge to maintain one's identity as a spouse, and there is a constant adaptation that requires changes in routines and relationships between members for healthy coexistence (Garcia et al., 2019). This study aimed to verify the effects of working with songs in music therapy on the well-being and relational dynamics of couples formed by a person with AD and their caregivers in the domestic context.

In this study, the interviews mainly revealed positive aspects in the marital relationship before AD, as can be seen in the statement: "[...] we always got along well, he was always

a very helpful person." After AD, the reports indicated that difficulties arose, but dementia did not change the quality of the relationship much, as the report suggests: "[...] there were no drastic changes. We never argued much."

Regarding the health and behavior of spouses with AD, the most prominent complaints after the disease were agitation, repetition, anxiety, spatial disorientation, and social isolation. Caregivers reported that they stopped attending social and family gatherings after the disease because of the challenges associated with these behaviors. These data support the findings of Falcão et al. (2018), who mentioned that as the disease progresses, some family caregivers feel embarrassed by the inappropriate behaviors of the person with AD they care for, resent the lack of support from relatives, and avoid social interactions.

Social relationships and engagement in meaningful activities are important factors for successful aging, subjective well-being, and perceived health (Rowe & Kahn, 1998). In this context, withdrawal from social life is detrimental to health, as the quality of social, familial, and marital relationships has a direct influence on cognitive decline in people with dementia (Cipolli & Falcão, 2017).

In general, the analysis of the interviews showed that the music therapy strategies provided the caregiver with tools to alleviate the behavioral symptoms of the spouse with AD, as illustrated in the report: "[...] he became easier to deal with, and now I know how to make him calm down." It was also expressed that finding songs that were more meaningful to the couple expanded the possibilities for interaction: "[...] after the music therapy interventions, we started to have more patience to talk". In this sense, services can also offer benefits to marital dynamics and the quality of the relationship between spouses, confirming the findings of Baker et al. (2012).

In a study by Dassa et al. (2020), the use of familiar songs benefited each spouse individually and as a couple. The authors reported that elements of ongoing support allowed for the maintenance of the gains made during the sessions. This was also observed in this study with moments that extended beyond the sessions, such as participation in musical activities during the week.

Reports indicated that the interventions also provided pleasurable moments and facilitated the recovery of significant memories: "We left that monotony behind," "Now with music it's just joy," "The songs that were dormant in my subconscious brought good memories and happiness." Caregivers also reported that the activities alleviated isolation in a pleasant way, emphasizing, for example, that "[...] music therapy helps to fill our time because we are often alone." This confirms the importance of moments of affection and leisure, especially in old age, when free time can be constant, as indicated by Basílio (2010).

Melhuish et al. (2019) also dealt with music therapy at home with couples. With results similar to this study, the authors cited improvements in well-being, mood, engagement, and behavior and reported that working in pairs led to greater caregiver resilience and maximized outcomes.

According to the testimonies, the activities can also be understood as a form of care for the caregiver, which favors a favorable self-perception of health, as suggested by the following statements: "I feel like a weight has been lifted off me," "Music therapy provided a sense of calm and well-being. It was the same as receiving a massage," "I felt like the patient, I thought it also brought me improvements," and "Music gives me this peace, our conversations are longer now." These findings corroborate those reported by Baker et al. (2012).

According to Santos (2018), musical experiences support the redefinition of the caregiver's role and promote health through the release of emotions and feelings in a safe

space. Thus, it can be said that music therapy directly contributes to personal development and provides benefits that strengthen coping strategies to deal with the difficulties arising from the progression of dementia. Unadkat et al. (2017) sought to understand how the experience of group singing influenced the relationship between people with dementia and their spouses and found that this activity was an opportunity for couples to strengthen their sense of unity and share creative experiences and well-being, which favored the development of resilience in the relationship.

This study also identified changes in other types of relationships. One caregiver suggested that friends and family began inviting them to perform music when they realized the benefits of music. It was also reported that music therapy sparked the interest of friends and family members, who began to recommend music therapy as a treatment. The daughters of one of the couples began incorporating their favorite songs into their daily lives. Despite these indicators, only one of the caregivers mentioned that she had not observed specific benefits in other relationships and suggested a long-term intervention project.

Music therapy can be beneficial and contributes to improving behavioral disorders, anxiety, and agitation in individuals diagnosed with dementia (Gómez-Romero et al., 2017). In general, some testimonies in this study indicated that working with songs also provided caregivers with tools to better manage the behavior of their spouses with dementia, allowing for a more enjoyable interaction.

Technological resources also played an important role in the research as they made it possible to search for songs (lyrics and recordings) and their composers, allowing participants to reconnect with important positive affective memories, social connections, and appreciation of each person's musical choices and preferences.

Finally, the social support offered by the music therapist and family members during the process may also be important since the more satisfactory the caregiver's perception of this support, the greater their feelings of satisfaction (Garcia, 2018). The caregivers studied reported positive effects in this regard, such as: "Everyone was supportive and interested in the songs we sang," and "My daughter recorded songs for us. Then we listened to them together, and it brightened our journey a little."

Although there is no closed and general protocol for the use of music in people with dementia, some guidelines can be provided. In this research, all the songs were part of the participants' personal histories, but when singing, it was important to consider aspects such as: adapting the song to the participants' vocal range; adapting the musical tempo so that they could follow along; and approaching a musical repertoire with verbal strategies that took into account the participants' physical and cognitive abilities.

Final considerations

Alzheimer's disease affects the lives of family caregivers, who are faced with increasing caregiving demands and changes in their lives in several ways. The results indicated that the use of family songs allowed active participation and interaction between couples, even with the limitations of AD. The testimonies also indicated that the interventions provided pleasurable moments and alleviated the behavioral symptoms of spouses with AD by recovering and sharing personal memories.

Future research may address other complaints of caregivers, offering listening and intervention tools that allow for better coexistence and improve the quality of marital relationships. It is also important for music therapists to be encouraged to share knowledge and strategies with other professionals and family members, benefiting the quality of life of

people with dementia. It is expected that more assertive interventions will be developed that focus on relationship quality and contribute to the health and well-being of individuals in an integrative and multidimensional way.

The paucity of studies on this topic is an important limitation, as few studies have addressed therapeutic interventions and socio-family relationships of people with dementia. Another limitation is the small sample size. However, it can be considered that this research provides new opportunities in this field, with information that favors the possibility of formulating intervention proposals with spouses who care for people with AD, helping to reshape the meaning of marital bonds and mitigate the psychosocial effects of dementia.

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