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A INTERVENÇÃO DO FISIOTERAPEUTA NO DOENTE COM DEMÊNCIA EM CUIDADOS PALIATIVOS.

THE INTERVENTION OF THE PHYSIOTHERAPIST IN THE PATIENT WITH DEMENTIA IN PALLIATIVE CARE.

LA INTERVENCIÓN DEL FISIOTERAPEUTA EN EL PACIENTE CON DEMENCIA EN CUIDADOS PALIATIVOS.

Fábia Escarigo¹

Andreia Gameiro¹

Paula Sapeta¹

¹Instituto Politécnico de Castelo Branco, Escola Superior de Saúde, Castelo Branco, Portugal

Fábia Escarigo - fabiaescarigo@gmail.com | Andreia Gameiro – andreia.gameiro12@gmail.com | Paula Sapeta - paulasapeta@ipcb.pt

Autor Correspondente

Fábia Escarigo

Estrada Nacional, N2 A, Eugénia, 6060 – 088 Monsanto,
Castelo Branco, Portugal

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RESUMO

Introdução: Atualmente existe um elevado número de pessoas com diagnóstico de demência. No âmbito dos cuidados Paliativos as intervenções de reabilitação são muitas vezes minoradas. Desta forma é importante o estudo de medidas não farmacológicas com vista a melhorar o estado funcional e qualidade de vida destes doentes.

Problemática: Qual a intervenção do fisioterapeuta no doente com demência em cuidados paliativos?

Objetivos: Nesta revisão sistemática da literatura pretendemos identificar quais as intervenções que os fisioterapeutas utilizam com doentes com demência em cuidados paliativos e quais os benefícios dessas técnicas.

Métodos: Desenho do Estudo - Revisão Sistemática da Literatura;

Foram incluídos 12 estudos com um intervalo temporal de 2003 a 2015, em que são abordadas técnicas que possam ser utilizadas por fisioterapeutas no tratamento ou alívio do sofrimento e na melhoria de qualidade de vida destes doentes. Os artigos científicos foram encontrados em diversas bases de dados online e de texto integral tais como: Biblioteca do conhecimento Online, Pubmed e PEdro.

Resultados: Nesta revisão sistemática da literatura foram encontradas diversas técnicas não farmacológicas que contribuem para o aumento da qualidade de vida dos doentes com demência. Dentro destas técnicas encontradas são referidas o exercício aeróbico, manutenção da força muscular, treino de equilíbrio, o toque, treino cognitivo, intervenções comportamentais, estimulação cognitiva, estimulação elétrica transcutânea, musicoterapia, reminiscência, treino de atividades da vida diária (AVD's), massagem, terapia de recreação, sala snoezelen, estimulação multissensorial, apoio e psicoterapia, e relaxamento muscular.

Conclusões: Dentro dos programas multidisciplinares analisados nesta revisão o Fisioterapeuta faz todo o sentido, sendo este o profissional que utiliza o maior número de técnicas não farmacológicas abordadas. Estes programas podem ser bastante benéficos para que a diminuição da cognição ocorra de forma mais lenta e conseqüentemente permita a manutenção das faculdades físicas e o aumento da qualidade de vida do doente e dos seus cuidadores. O exercício é a técnica mais estudada, com resultados positivos na qualidade de vida. Constatamos que existe pouca evidência da intervenção do fisioterapeuta na fase terminal do doente com demência.

Palavras-chave: Dementia ; Alzheimer's; Physical therapy; Physiotherapist; Palliative care

ABSTRACT

Introduction: Currently there are a large number of people diagnosed with dementia. In the field of palliative care, rehabilitation interventions are often lessened. Thus, it is important to study non-pharmacological measures to improve the functional status and quality of life of these patients.

Issue: What's the intervention of the physiotherapist in the patient with dementia in palliative care?

Objectives: In this systematic review of the literature we intend to identify which interventions the physiotherapists used on patient with dementia in palliative care and the benefits of these techniques.

Methods: Study design - Systematic Literature Review

We've included 12 studies with a time interval 2003-2015, in which they are addressed techniques that can be used by physiotherapists in the treatment or relief of suffering and improving quality of life of patients. Scientific papers were found in several online databases and full text such as: Online Knowledge Library, B-On, Pubmed and PEdro.

Results: In this systematic review of the literature found several non-pharmacological techniques that contribute to improving the quality of life of patients with dementia. These techniques are exercise aerobic, maintenance of muscle strength, equilibrium training, touch, cognitive training, behavioral interventions, cognitive stimulation, transcutaneous electrical stimulation, exercise, music therapy, reminiscence, training activities of daily living, massage, recreation therapy, snoezelen room, multi-sensory stimulation, support and psychotherapy, and muscle relaxation.

Conclusions: Within the multidisciplinary programs analyzed in this review the physiotherapist makes perfect sense, being the professional that uses the greatest number of non-pharmacological techniques covered. These programs can be very beneficial for decreased cognition occurring more slowly and consequently allows the maintenance of the physical and increasing the patients quality of life and their caregivers. Exercise is the most studied technique with positive results on quality of life. We found that there is little evidence of physical therapist intervention in the terminal phase of the patient with dementia.

Keywords: Dementia; Alzheimer's; Physical therapy; Physiotherapist; Palliative care.

RESUMEN

Introducción: En la actualidad existe un alto número de personas con diagnóstico de demencia. En el contexto de los cuidados paliativos, las intervenciones de rehabilitación a menudo son disminuidas. Por lo tanto, es importante el estudio de las medidas no farmacológicas para mejorar el estado funcional y la calidad de vida de estos pacientes

Problema: ¿Cuál es la intervención del fisioterapeuta en el paciente con demencia en los cuidados paliativos?

Objetivos: En esta revisión sistemática de la literatura que tienen la intención de identificar las intervenciones que los fisioterapeutas utilizan en los pacientes con demencia en los cuidados paliativos y los beneficios de estas técnicas.

Métodos: Diseño del estudio: Revisión sistemática de la literatura Se incluyeron 12 estudios con un periodo de tiempo 2003-2015, en que están las técnicas que se pueden utilizar por los fisioterapeutas en el tratamiento o alivio del sufrimiento y mejorar la calidad de vida de los pacientes. Los documentos fueron encontrados en varias bases de datos online: B On, Pubmed y PEdro.

Resultados: En esta revisión sistemática de la literatura se encontraron varias técnicas no farmacológicas que contribuyan a mejorar la calidad de vida de los pacientes con demencia. Dentro de estas técnicas se observan ejercicio aeróbico, el mantenimiento de la fuerza muscular, el entrenamiento del equilibrio, el tacto, el entrenamiento cognitivo, las intervenciones conductuales, estimulación cognitiva, estimulación eléctrica transcutánea, la terapia musical, la reminiscencia, las actividades de capacitación de la vida diaria (AVDs), el masaje, terapia de recreación, snoezelen, la estimulación multisensorial, el apoyo y la psicoterapia, y la relajación muscular.

Conclusiones: Dentro de los programas multidisciplinarios analizados en esta revisión el fisioterapeuta es un elemento clave, siendo el profesional que utiliza el mayor número de técnicas no farmacológicas discutidas. Estos programas pueden ser muy beneficios para que la disminución de la cognición produzca más lentamente y por lo tanto permite el mantenimiento de la capacidad física y el aumento de la calidad del paciente y sus cuidadores. El ejercicio es la técnica más estudiado con resultados positivos en la calidad de vida. Hemos encontrado que hay poca evidencia de la intervención del fisioterapeuta en la fase terminal del paciente con demencia.

Palabras clave: Dementia; Alzheimer's; Physical therapy; Physiotherapist; Palliative care

INTRODUCTION

Currently there are a large number of people diagnosed with dementia. This happens because of the current aging of the population and increase in the average life expectancy (Burton, et al., 2015; Kumar, et al., 2014). Alzheimer's disease and vascular dementia are the most common types of dementia (Burton, et al., 2015; Viola, et al., 2011; McLaren, LaMantia, & Callahan, 2013).

The sedentary lifestyle also contributed to the decline of cognitive function, irritation, confusion, depression and fatigue (Winchestera, et al., 2013).

Dementia is characterized by loss of brain function. Its etiology may be varied and its behavior depends on the affected brain area such as the extent of the lesion. This disease is characterized by alterations in memory, thought and spatio-temporal orientation. Consequently, motor changes may occur with decreased physical capacity causing alterations in the quality of life and in performing basic activities of daily living. Patients with dementia suffer from alterations in proprioception, visual and vestibular acuity with negative repercussions on gait and physical performance. Such change contribute to emotional and behavioral changes both in the patient and in their caregivers and family (Bossers, Scherder, Boersma, Hortoba, Woude, & Heuvelen, 2014; Burton, et al., 2015).

Family members goes through varying degrees of feeling, loss, depression, anxiety, guilt, frustration and hopelessness, and often do not receive an opportunity to express their feelings, and it is important for health professionals provide family and caregivers with space and time to express their feelings and concerns (Sampson, et al., 2008).

Dementia requires that be recognized as a disease requiring palliative care. Interventions should be carefully chosen to ensure that the quality of life of the person with dementia and their caregivers and family members is be improved or maintained. Family members should be educated and encouraged by health professionals to actively participate in discussions related to the patient's condition (Kumar & Kuriakose, 2013).

The final phase is often defined as a set of symptoms that include inability to orally feed, changes in breathing patterns, weight loss, lack of mobility, inability to communicate, incontinence, and dependence on the activities of daily living. The language is non-verbal and in this way it becomes imperative to be sensitive to body language, reactions, gestures and facial expressions (Kumar & Kuriakose, 2013).

In order to analyze the evolution and the phase in which the dementia is, there are several established evaluation tools that allow to analyze the functionality, the accomplishment of the activities of the daily life (ADL), the speech, the cognitive function and the degree of dependence of the Caregiver (Bossers, Scherder, Boersma, Hortoba, Woude, & Heuvelen, 2014; McLaren, LaMantia, & Callahan, 2013).

There is currently no medical treatment that can reverse or stop disease progression (Bossers, Scherder, Boersma, Hortoba, Woude, & Heuvelen, 2014).

In the field of palliative care, rehabilitation interventions are often lessened, and as a result little is known about the effectiveness of these interventions in this patients (Montagnini , Lodhi, & Born, 2003).

Thus, it is important to study non-pharmacological measures to improve the functional status and quality of life of these patients.

METHODS

In order to check the intervention of the physiotherapist in the patient with dementia in palliative care we directed a search for studies that answered the main and secondary questions respecting: What is the intervention of the Physiotherapist in the Patient with Dementia in Palliative Care? What are the techniques used by Physiotherapists in the intervention of the Patient with Dementia in Palliative Care?

As objectives to answer the questions, we define:

- Identify the interventions that Physical Therapists use in patients with dementia in Palliative Care;
- Identify the benefits of techniques used by physiotherapists in patients with dementia in palliative care

We've included 12 studies with a time interval 2003-2015, in which they are addressed techniques that can be used by physiotherapists in the treatment or relief of suffering and improving quality of life of patients.

As inclusion and exclusion criteria of this study we proposed the following:

Inclusion Criteria: We included qualitative and quantitative studies since 2003; Studies that address techniques used or that can be used by physiotherapists in the treatment or relief of suffering as well as in the quality of life of patients with dementia in palliative care and their caregivers / family.

Exclusion Criteria: We excluded studies that did not include patients in the context of palliative care; Studies that do not integrate techniques that are not used by physiotherapists.

The following search descriptors were used: demência, cuidados paliativos, fisioterapia ,Physicaltherapy, physiotherapy, physicaltherapist, dementia, vascular dementia, Alzheimer, palliativecare, end of life.

The following parameters were used to select the articles: Participants, Interventions, Comparisons, Outcomes and Study Design (PICOD)

Table 1- PICOD Table

P	Participants	Who was studied?	Physiotherapists, patients with dementia in the contexto of palliative care.	Keywords Demência, cuidados paliativos, fisioterapia, physicaltherapy, physiotherapy, physicaltherapist, dementia, vascular dementia
I	Interventions	What was done?	Control of symptoms, promotion of improvement of quality of life.	
C	Comparisons	They may or may not exist.	Which are?	
O	Outcomes	Results, effects, consequences.	Control of symptoms, promotion of improvement of quality of life.	
D	Study design	How the evidence was collected	Qualitative and quantitative	

Scientific literature published between 2003 and 2015 was included in several online and full text databases: Online Knowledge Library, Pubmed, PEDro, we also used as a complement to search for some articles, the Google Scholar. We find that the United States is the one that most deals with this subject, followed by the United Kingdom and Australia. Most of the documents were published between 2013 and 2014.

RESULTS

Non-pharmacological strategies can improve the quality of life of patients with dementia and consequently the quality of life of their caregivers and family members (Olazarán, et al., 2010).

In a systematic review of efficacy, the following were described as nonpharmacological strategies for intervention in dementia: cognitive training, behavioral interventions, cognitive stimulation, transcutaneous electrical stimulation, physical exercise, music therapy, reminiscence, daily life activities training, Massage, touch, recreation therapy, snoezelen room, multisensory stimulation, psychotherapy and muscle relaxation. The results of this review indicate that non-pharmacological strategies may have a beneficial and accessible contribution to improving care delivery for patients with dementia, with a positive impact on their caregivers and their families (Olazarán, et al., 2010).

Luciane Viola et al. Studied a program that included only non-pharmacological measures such as cognitive rehabilitation, computer-aided cognitive training, speech therapy, occupational therapy, painting, writing, speaking and physiotherapy (balance training, fall prevention, Muscle stretching sessions). Caregivers attended group education and counseling sessions. With the application of this program, the patient's neuropsychiatric symptoms were reduced, the caregiver's degree of concern decreased, and the depressive symptoms of both were reduced. It was found that cognitive function remained stable and that the quality of life improved (Viola, et al., 2011).

McLaren, LaMantia & Callahan have developed a systematic review of the literature in which the aim was to determine whether non-pharmacological measures such as exercise, occupational therapy and other multidisciplinary interventions contribute to delay functional decline in community-dwelling dementia patients. A positive effect on performance and quality of life was observed and significant positive results were obtained in functional performance.

In the study by Montagnini et al, they concluded that patients diagnosed with dementia after a physiotherapy program improved their functional status and quality of life and increased serum albumin levels compared to patients without a diagnosis of dementia (Montagnini , Lodhi, & Born, 2003). Improvement in functional status and quality of life is associated with increased serum albumin levels. Albumin is a marker of nutritional status and a predictor of life expectancy in palliative care. It may also be used as a functional improvement marker for rehabilitation in patients in palliative care (Montagnini , Lodhi, & Born, 2003).

One of the strategies that promote the decline of the decline of Alzheimer's disease is the regular p In a study cited by Henderson, it was concluded that long-term physical exercise reduces the number of amyloid plaques as well as levels of amyloid soluble in the hippocampus and improved learning compared to the control group ractice of aerobic exercise (Henderson, 2014). In a study cited by Henderson, it was concluded that long-term physical exercise reduces the number of amyloid plaques as well as levels of amyloid soluble in the hippocampus and improved learning compared to the control group (Henderson, 2014). Exercise has a positive effect on inflammation, stress and immune system, increases levels of the neurotrophic factor and these proteins can support neuronal survival, improve synaptic plasticity, promote the formation of new blood vessels and lead to the formation of new neurons in the hippocampus (Henderson, 2014).

Willem et al developed a program of aerobic exercise (walking) in conjunction with strength training for lower limbs in order to activate the large muscle groups responsible for gait, balance and mobility. The authors decided to compare a group that performed this exercise program with a group that would walk with the same duration and frequency. The group that performed the exercise program obtained slight cognitive and motor improvements however without significant differences (Bossers, Scherder, Boersma, Hortoba, Woude, & Heuvelen, 2014).

Exercise programs such as balance training, muscle strength training for the lower limbs contribute positively to the prevention and reduction of falls in these patients with a positive impact on quality of life (Burton, et al., 2015).

Kumar et al developed a plan of 10 treatment sessions. This plan included relaxation (contract / relax); Strength maintenance exercises; Mobility exercises (range of motion, imitation of movements, exercises with medicinal ball); Training of activities of daily living (personal body care, personal valuation, dressing / undressing, household chores); Cognitive exercises (reading aloud, jigsaw and dual task) and recreational activities. It was verified that the implementation of this plan of activities contributed to the increase of the quality of life, with emphasis on the physical and psychosocial components (Kumar, et al., 2014).

Physical activity programs influence the performance of activities of daily living in a positive way. Thus the decline in the performance of activities of daily living may be due to the progression of the disease but also due to physical inactivity (Burge, Kuhne, Berchtold, Maupetit, & von Gunten, 2012).

Physical activity associated with music has been shown to improve the performance of patients in advanced stages of dementia. Physical activity made in group and accompanied by music may more easily respond to the expectations of patients with dementia and increase their adherence to exercise (Burge, Kuhne, Berchtold, Maupetit, & von Gunten, 2012).

The touch in people with dementia at the end of life is as or more important as at other stages of life. Just the simple touch, without techniques, cause relaxation in the dementia patient thus promoting an improvement of their psychological and affective state (Nicholls, Chang, Johnson, & Edenborough, 2003).

CONCLUSIONS

Within the multidisciplinary programs analyzed in this review, the physiotherapist is the professional that uses the largest number of non-pharmacological techniques addressed. It is important to provide quality of life for the patient with dementia but also to approach the family and find strategies in which both parties can improve their quality of life.

Physical exercise stands out as the great intervention of the physiotherapist in patients with dementia in palliative care, and can be applied as aerobic exercise, resistance training, balance training, strengthening, flexibility, walking, teaching the caregivers about exercises and training of the activities of the daily life (Montagnini , Lodhi, & Born, 2003) (Burton, et al., 2015)

Exercise can be very beneficial for the maintenance of the patient functionality, contributing for with decrease of cognition occurs more slowly and consequently allows the quality of life of the patientes and their caregivers (Montagnini , Lodhi, & Born, 2003).

The touch also seems to promote an improvement in the psychological and affective state of both the patient and the caregivers and families.

We could verify that there is little evidence of what intervention of the physiotherapist in the patient with dementia in palliative care, less evidence when it comes to the terminal phase.

In sum, the average life expectancy has increased, which has contributed to the increase in the number of people with dementia. It is increasingly important to analyze non-pharmacological strategies, as they may have a beneficial and accessible contribution to improving care delivery for patients with dementia, with a positive impact on their caregivers and their families (Olazarán, et al., 2010).

REFERENCES

- Burge, E., Kuhne, N., Berchtold, A., Maupetit, C., & von Gunten, A. (2012). Impact of physical activity on activity of daily living in moderate to severe dementia: a critical review. *Eur Rev Aging Phys Act* , 27–39.
- Henderson, V. W. (2014). Three Midlife Strategies to Prevent Cognitive Impairment Due to Alzheimer’s Disease. *Climacteric* . , 38–46.
- Montagnini , M., Lodhi, M., & Born, W. (2003). The Utilization of Physical Therapy in a Palliative Care Unit. *Journal of Palliative Medicine* , 11-17.
- Bossers, W., Scherder, E., Boersma, F., Hortoba, T., Woude, L., & Heuvelen, M. (2014). Feasibility of a combined aerobic and strength training program and its effects on cognitive and physical function in institutionalized dementia patients. A pilot study. *Plos One* , 1-10.
- Burton, E., Cavalheri, V., Adams, R., Browne, C., Spencer, P., Fenton, A., et al. (2015). Effectiveness of exercise programs to reduce falls in old people with dementia living in the community: systematic review and meta-analysis. *Clinical Interventions in Aging* , 421-434.
- Kumar, C. S., & Kuriakose, J. R. (2013). End-of-life care issues in advanced dementia. *Mental Health in Family Medicine* , 129–32.
- Kumar, P., Tiwari, S., Goel, A., Sreenivas, V., Kumar, N., Tripathi, R., et al. (2014). Novel occupational therapy interventions may improve quality of life in older adults with dementia. *International Archives of Medicine* , 7-26.
- McLaren, A., LaMantia, M., & Callahan, C. (2013). Systematic Review of Non-Pharmacologic Interventions to Delay Functional Decline in Community-Dwelling Patients with Dementia. *Aging Ment Health* , 655-666.
- Nicholls, D., Chang, E., Johnson, A., & Edenborough, M. (2003). Touch, the essence of caring for people with endstage dementia: A mental health perspective in Namaste Care. *Aging & Mental Health* , 571-578.
- Olazarán, J., Reisberg, B., Clare, L., Cruz, I., Peña-Casanova, J., del Ser, T., et al. (2010). Nonpharmacological Therapies in Alzheimer’s Disease: A Systematic Review of Efficacy. *Dement Geriatr Cogn Disord* , 161-178.

- Sampson, E. L., Thuné-Boyle, I., Kukkastenvehmas, R., Jones, L., Tookman, A., King, M., et al. (2008). Palliative care in advanced dementia; A mixed methods approach for the development of a complex intervention. *BMC Palliative Care* , 1-9.
- Viola, L., Nunes, P., Yassuda, M., Apraham, I., Santos, G., Brum, P., et al. (2011). Effects of a multidisciplinary cognitive rehabilitation program for patients with mild Alzheimer's disease. *CLINICS* , 1395-1400.
- Winchestera, J., Dicka, M., Gillen, D., Reedd, B., Millerg, B., Tnklenbergi, J., et al. (2013). Walking stabilizes cognitive functioning in Alzheimer's disease (AD) across one year. *Arch Gerontol Geriatr* , 96-103.