

ASSESSMENT OF THE IMPACT OF DEMENTIA ON THE LIFE OF CAREGIVERS AND EDUCATIONAL INTERVENTION IN PATIENTS WITH DEMENTIA

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Abstract

Introduction: Memory impairment associated with age (DEMAE) is a relatively benign disorder, which can be quite common due to the fact that it is linked to normal aging and the evident increase in life expectancy in the world and national, with a larger population of elderly people and the consequent increase in chronic diseases, typical of this population segment.

Objective: To evaluate the result of an educational intervention in patients with mild dementia and its impact on the quality of life of the caregiver.

Methods: An educational intervention was carried out on patients with a diagnosis of mild dementia in the Madruga municipality from September 2015 to February 2016. The universe was made up of 110 elderly people. The sample consisted of 16 patients who were assigned to the study group together with the 16 caregivers and 16 to the control group by random assignment. Variables such as cognitive impairment, associated symptoms, and quality of life were controlled. The information was collected from interviews, caregiver surveys and the Minimental Test that were applied to the patients before and after the intervention.

Results: The negativism, fear, distractibility and communication of patients improved. A slowing of cognitive decline was found in the study group and progressed in the control group. The caregiver's quality of life improved.

Conclusions: Behavioral symptoms improved, the evolution of the disease was delayed in the study group and progressed in the control group. The caregiver's quality of life improved.

Keywords: Dementia; quality of life; educative intervention.

Introduction

In recent years, the elderly represent one of the main focuses of attention, due to the excessive growth of this age group compared to the world population.¹

Memory impairment associated with age (DEMAE) is a relatively benign disorder, which can be quite common due to the fact that it is associated with normal aging and the evident increase in life expectancy at the global and national level. with a larger population of elderly people and the consequent increase in chronic diseases, typical of this population segment. In particular, dementias and cognitive disorders represent an important health problem, due to their frequency in Cuban community medical

practice and because of their importance in the quality of life of patients.^{2,3}

Among the numerous existing terms, we use in this work that of DEMAE, which is conceptually considered as a clinical state characterized by a decline in memory function associated with aging in people aged 50 and over, with a subjective feeling of memory loss at an intensity of at least 1 standard deviation (SD) below the average for young adults on the memory function measurement patterns without being insane and without another medical or psychiatric condition to explain its cause.⁴

It is estimated that by the year 2050, in Latin America there will be as many people turning 65 each year as there will be

new births, and Cuba is one of the oldest countries in this region.

The province of Mayabeque is one of the oldest in the country, according to data from the 2015 Statistical Yearbook, it is perceived that approximately 73.2% of its population is over 60 years old.⁵ A high prevalence of dementia is reported in the Madruga municipality, without an investigation of this type, verifying deficiencies in terms of mental rehabilitation of patients with this disease and where there is constant concern on the part of the Provincial Municipal Directorates and the Ministry of Public Health to promote and apply strategies that contribute to the line of research of the elderly due to the very high level of disability, social and family overload that this disease brings with it, so it was proposed to carry out this study.

The Cuban Ministry of Public Health carries out actions aimed at avoiding premature disability in old age, as well as preventing and adequately treating chronic diseases in this age group.

The study of cognitive impairment, which includes dementias, is the object of interest in researchers from various latitudes. This seems to be due not only to its magnitude, but also to its impact on the individual, family and social sphere.

Although the behavioral defects associated with DEMAE are relatively modest and mild cognitive phenomena compared to those seen in dementias, they can be annoying and difficult for many middle-aged and elderly adults with tasks that demand intellectual activity. .⁶

Dementias are a growing health problem for which it is necessary to detect memory disorders early and treat them appropriately through therapeutic programs to improve the quality of life of patients.^{7,8}

Memory-based activities are very popular in nursing home, hospital and day center therapeutic programs that provide care for people with dementia.

Currently, there is no medical intervention that can stop or prevent the onset of cognitive impairment that is linked to dementia.^{9,10}

Thus, although it is assumed that pharmacological treatment produces beneficial effects on the cognition and behavior of patients with dementia, these results are discrete in some patients, which causes an increase in interest towards interventions based on psychological and social strategies.¹¹⁻¹³

Cognitive training is defined as any type of non-pharmacological intervention that is aimed at improving cognitive functioning regardless of the mechanism of action.¹⁴⁻¹⁷

This type of intervention slows down the intellectual decline and reduces behavioral changes in patients with dementia, which improves the perception of the quality of life of patients and their families.¹⁸⁻²⁴

The current study aims to evaluate the outcome of an educational intervention in patients with mild dementia and its impact on the quality of life of caregivers.

Methods

An intervention study was carried out where an educational program entitled "Remembering is living" was applied to patients with mild dementia in the Health area of Madruga, in the period from September 2015 to February 2016.

The universe consisted of 110 older adults with mild dementia from the different family medical offices to which the *Minimental Test Examination* was applied .

We worked with a study group consisting of 16 patients and a control group with the same amount to make up the sample, which was randomly selected. The 16 caregivers who belonged to the study group were also considered.

Variables such as cognitive impairment and symptoms associated with dementia disease (behavioral and affective disorders), as well as quality of life, were controlled.

The study consisted of three stages: diagnosis, intervention and evaluation.

Based on the consent of the relatives of patients with dementia, the *Minimental Test Examination* was applied in the first stage, which made it possible to evaluate the type of cognitive deterioration that the patients had, as well as interviews with relatives to know the symptoms that are associated for both groups, as well as surveys of the family member, which allowed evaluating the caregiver's quality of life . In the second stage, the instrument was applied to the study group and in the third stage the impact of its application was measured, in addition to carrying out the family interview and the caregiver survey again to contrast both results and evaluate aspects related to the quality of life of This is due to the repercussion that the prolonged and continuous care of these patients brings with it.

The educational program presents its bases in several techniques capable of contributing to the mental rehabilitation of the elderly with this disease, among which we can mention reminiscence therapy, review of life and reeducation of the patient among others. It had the intention of stimulating the different memories related to school, home, family, nature, work, community and society in general.²⁵⁻²⁸

It was structured to work once a week with a total of 26 sessions and one hour in duration in the Health Education Departments together with the caregivers of the elderly, who were offered additional information about the disease. Activities were designed to be developed by caregivers at home with the elderly to reinforce what they learned in the sessions.

The programming was done in HTML (*HyperText Markup Language*).²⁹ The Adobe Creative Suite 6 Master Collection, which includes Adobe Dreamweaver CS6, was used as a working tool for the development of web pages

and was incorporated as part of the JavaScript and Adobe Photoshop package. The remaining pages were derived from the initial page (index.html) that constitutes the presentation of the software.

The animations that were used were selected from the Internet and allowed free download, but respecting their origin, and were incorporated to increase the ease of understanding of the topics by the elderly.

Ethical principles were taken into account, such as the consent of the caregivers about the study and their willingness to participate or leave it.

Results

In Table 1 it is found that patients exhibiting symptoms mild dementia which related to the field of behavior, being the communication aspect which benefited most from 16 patients (100%). After the intervention, the decrease in fear (15; 93.7%), negativism (13; 81.2%) and distractibility (13; 81.2%) predominated.

Table 1: behavioral disorders in patients with dementia

Behavioral disorders	Before				After			
	Yes	%	no	%	Yes	%	no	%
negativism	16	100	-	-	3	18.7	13	81.2
sleep disorders	13	81.2	3	18.7	4	25	12	75
inappropriate communication	11	62.5	5	31.25	-	-	16	100
distractibility	10	62.5	6	37.5	3	18.7	13	81.2
impulsion	13	81.2	3	18.7	5	31.2	11	68.7
aggression	9	56.2	7	43.7	5	31.2	11	68.7
fear	8	50	8	50	1	4	15	93.7

After the intervention, there was no change in the cognition status of the patients in the study group, that is, the patients with mild dementia did not deteriorate further from the cognitive point of view, delaying the evolution of the disease.

In the patients to whom the educational intervention was not applied, their cognitive status was modified, where 7 of them (43.7%) evolved towards moderate dementia, thus worsening their mental state.

The most of the variables studied were modified, confirming an improvement in terms of meter quality of life. The relationship with the patient was the most noticeable after the intervention, for a 100% improvement. Satisfaction with life did not change, being good before and after the intervention (100%).

Discussion

Regarding conduct disorders that were associated with dementias, *Spector and Thorgrimsen*^{20,21} suggest that it is possible to modify these disorders through the application of educational programs and social strategies, which coincides with this study, where it is evidenced that he was able to modify behavioral aspects after performing the intervention.

The communication aspect was the one with the best achievement and we assume that the "Remembering is Living" Program, by reviewing experiences that the old man had in his life, stimulated memories that were related to school, home, nature, community, work, family, etc. which reinforced communication in the elderly. Other behavioral aspects that improved were fear, distractibility, and negativism.

Gatz and Fiske, in studies carried out on the cognitive and functional deterioration of patients with dementia, warn of the possibility of slowing down the evolution of the deterioration if comprehensive psychostimulation programs are implemented. The current study verified the effectiveness of this type of program, it was found that after the intervention, which lasted up to six months, all patients preserved their initial cognitive state, so it can be argued that the demential disease delayed their development. evolution.

It was also found that by not applying the intervention to the control group, these patients worsened their mental condition and progressed to moderate dementia, which is in harmony with what *Gatz and Fiske* suggested.

In their study, *Royan and Orrell*²⁰⁻²² discuss the efficacy of comprehensive stimulation programs in increasing the perception of the quality of life of patients, as well as caregivers. This is consistent with our study, as a notable improvement was evidenced in the aspects evaluated in the caregivers, especially in relation to the relationship of the caregiver with the patient.

Regarding this aspect, we consider that the tasks to be carried out jointly at home as part of the program stimulated the relationship between the two. It is noteworthy that life satisfaction was evaluated well before and after the intervention, since caring for the demented patient not only brings negative effects to caregivers, they can experience the pleasure of caring for their elderly because of what they represented their lives, considering it as a moral duty in addition to being considered as an act of charity and reaffirmation of faith.

Conclusion:

In conclusion, the application of the "Remembering is Living" Program improved the behavioral symptoms that were associated with the disease, as well as delaying its evolution. The patients to whom the intervention was not applied worsened from the cognitive point of view. The intervention improved the quality of life of the caregivers.

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