

Importance of communication of physiotherapists working with patients with Alzheimer disease

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ABSTRACT

Aim To stress the importance of communication and collaboration among patient, family, physical therapist and other medical personnel involved in the treatment of a patient with Alzheimer's dementia as a path to a better life quality for the patient.

Methods A study was conducted on 25 patients suffering from Alzheimer's dementia in the period between January 2011 and February 2013. The patients resided in their homes or in nursing homes for the elderly and infirm persons. The study used Subjective Objective Assessment Plan model (SOAP), the Functional Independence Measure (FIM) and a survey about communication.

Results The largest number of the patients were females, 17(68 %); ten (40%) patients belonged to the age group of 75-84 years. At the beginning of the study 12 (48%) patients were independent in conducting their daily activities, eight (32%) were somewhat limited in the range of daily activities they were able to perform, and five (20%) were dependent on another person. Final assessment showed that of 15 (60%) patients who participated in the physical therapy exercise program, 13 (86%) have improved their motoric abilities, 12 (80%) maintained a quality communication with the physical therapist and three (20%) had a poor communication.

Conclusions Quality of life of patients with Alzheimer's disease can be improved by maintaining a good communication between the patient and the people who care about him.

Key words physiotherapy, dementia, education, team collaboration.

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INTRODUCTION

Alzheimer dementia (AD) is a progressive chronic neurodegenerative dementia, which accounts for 75-80% of all dementia patients (1,2). The rate of incidence for this disease indicates that one in twelve people over the age of 65 has Alzheimer disease. Both genders suffer from the disease, with somewhat higher prevalence in females, often considered to be due to the fact that on average females live longer than men (3). In 2005 in the Republic of Croatia of 350 000 people older than 75, 14 000 had an advanced stage of AD and 70 000 were in an earlier stage of the disease (4). Similar statistics are demonstrated for the rest of the region. The cause of the disease is still unknown, but research studies show that certain factors can help the disease development (5,6). Most often indicated factors in development of AD are a positive family anamnesis, older age, lower level of education, elevated level of cholesterol, high blood pressure, stroke, and a number of other factors (7). Currently, an accurate diagnosis of AD can be established only after death of a patient (8). However, very high accuracy of the diagnosis is provided by the clinical exams, magnetic resonance imaging (MRI), computed tomography (CT), or tests such as the mini-mental state examination (MMSE) that are able to diagnose the disease (9). Alzheimer dementia is an irreversible process that as a consequence shows decline in mental abilities, personality change, spatial and visual disorientation, decline in communication skills, difficulties in conducting daily professional duties, deterioration in judgment, decreased motor skills, and in the most advanced stage a complete dependence on assistance and help from caregivers (10).

Since an effective treatment for the disease has not been established yet, increasingly more attention is given to maintaining of physical activity, which can be achieved through physical therapy (11). It is highly important to educate the family members and caregivers about the signs, progression and prognosis of the disease, which consequently makes provision of care for the patient easier (12).

Poor communication and collaboration between those different parties may lead to a situation

where the patient and the environment are not sufficiently informed about the available care, self-care in AD as well as about the activities that slow down the disease progression (13). Good communication ensures better and simpler exchange of information, but also solves the difficulties related to the daily functioning of the caregiver-patient relationship. Additionally, communication is also a prerequisite for a quality cooperation with the patient and helps establish his/her higher emotional stability, which consequently leads to a better quality of work with the patient (14).

The aim of this study was to emphasize the importance of good communication with the patient with Alzheimer dementia, among the patients, the family members, physical therapist and other medical personnel as well as the role of the team work in achieving better care, better quality of life for the patient and the slower progression of the disease.

EXAMINEES AND METHODS

This study included 25 patients with the diagnosis of Alzheimer dementia in the period between January 2011 and February 2013, who had been living in their own homes or in nursing homes. The target number of the patients was decided before the start of this pilot study and based on the study aim. The patients were randomly selected. The primary physicians of each patient were informed about the study. Of 25 patients eight were in the 65-year age group, 10 in the 75 and seven in the over 85-year age group. The age groups were determined based on the patients' age at the time of the diagnosis.

The patients recruited in the study were all newly diagnosed. During the study period the patients were monitored, examined and exposed to physical therapy. Of 25 patients included in the study, 23 did not display any obvious limitations that would be significant enough to prevent them from communicating with the physicians or therapists. Nevertheless, eight patients refused to work with the therapists and to perform the assigned physical therapy exercise. Two patients were unable to communicate at the level required for them to participate in the exercise program. In total,

15 patients were participating in the physical therapy exercise program five times a week. The other 10 patients did not participate in any physical therapy program. All patients participating in the exercise program had individual 45 minutes sessions with a therapist, who was often accompanied by the lead therapist. In total, five therapists worked with the patients. Each therapist explained to his patient in the simplest possible way the purpose of the therapy program. Once the patient went over various exercises, the therapist would ask the patient to repeat each exercise several times and also briefly explain the purpose of each exercise (SRT technique) (15). The therapy followed a predetermined set of exercises, with the new exercises being introduced as the patient met the exercise goals. Typically, a set of three exercises were conducted during a session in a predetermined order. Subjective Objective Assessment Plan (SOAP) model and the Functional Independence Measure (FIM) (16) were used to estimate patients' condition in conjunction with a questionnaire consisting of questions about patients' age, gender and communication/collaboration level with the physical therapist, the other care providers and medical personnel as well as the family members.

In the initial and the final assessment of the participating patients' condition a number of activities has been considered: self-care, walk and motion, feeding and communication. The assessment took about 30-45 minutes to complete. The outcome was scored on the three level scale: fully capable/achieving, limited ability and unable to perform an activity. The questionnaire complementing the assessment consisted of questions about age, gender, willingness and interest to work with a physical therapist and preferred/achieved way of communication with therapist. The results were analyzed and shown in graphical and tabular formats. Two patients missed three days of exercise during the study period due to sickness, but this was not deemed significant enough to be accounted for in our analysis. No additional patients were included or dropped out of the study at a later time during the study and no data points were excluded from the analysis.

An approval to conduct this study was given by the family members of the patients, the director of the Home for the Elderly and Infirm in Vukovar, Croatia, and the referring family or general practice outpatient physicians.

RESULTS

Of the total number of 25 patients included in the study, 17 (68%) were females, while eight (32%) were males. Most of the patients, ten (40%), belonged to the 75-84 age group at the start of the study, of which eight (32%) were females; seven (28%) patients were older than 84 years, and in this age group there were five (20%) females, while in the 65-74 age group an equal number of male and female patients with Alzheimer's dementia was noticed (eight, 32%).

At the beginning of the study 12 (48%) patients were independent in conducting daily activities, eight (32%) were somewhat limited in the range of daily activities they were able to perform, and five (20%) were dependent on another person. At the end of the study, among 15 (60%) subjects that participated in the physical therapy exercise program, 13 (86%) maintained the same level of their mo-

Table 1. Functional and communication skills of 15 patients who administered physical therapy and 10 patients who did not exercise modalities

Activities	No (%) of patients		
	Independent	Limited capable	Dependent /inability
Baseline (25 subjects)			
Gait	12 (48)	8 (32)	5 (20)
Self-care	12 (48)	8 (32)	5 (20)
Feeding	20 (80)	3 (9)	2 (8)
Communication	23 (93)	1 (4)	1 (4)
Mobility/transfer	19 (76)	4 (16)	2 (8)
End of the study (15 subjects who participated in exercises)			
Gait	13 (86)	1 (6)	1 (6)
Self-care	12 (80)	2 (13)	1 (6)
Feeding	13 (86)	1 (6)	1 (6)
Communication	12 (80)	3 (20)	-
Mobility/transfer	12 (80)	2 (13)	1 (6%)
End of the study (10 subjects who did NOT participate in exercises)			
Gait	3 (30)	2 (20)	5 (50)
Self-care	3 (30)	2 (20)	5 (50)
Feeding	6 (60)	2 (20)	2 (20)
Communication	7 (70)	1 (10)	2 (20)
Mobility/transfer	3 (30)	2 (20)	5 (50)

toric abilities during the study period (Table 1). The final assessment of 10 patients, who did not participate in the therapeutic exercises, has shown that three patients were independent in walking, transfers and self-care, six were self-feeding, and seven had good communication (Table 1).

Of 15 subjects who participated in the physical therapy program, 12 (80%) maintained a quality communication with the physical therapist and three (20%) had poor communication. The other 10 patients did not maintain any communication with their therapists (Figure 1).

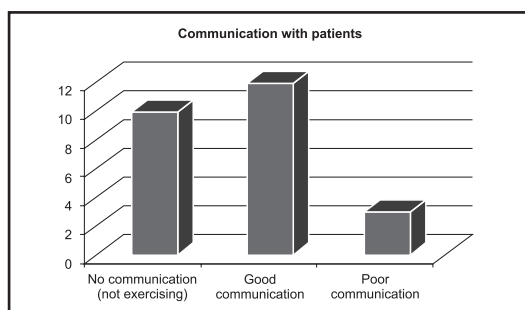


Figure 1. The quality of communication between patients and physical therapists

Also, the patients' mood swings were monitored during the nine-month period. Of 15 subjects who conducted the exercises on a regular basis, 14 (56%) did not show mood swings. One patient from that group was continuously depressed. Of 10 patients who did not participate in the exercises, eight (32%) showed swings from normal to a medium level depression and aggressive behavior. The two remaining patients from the group of 10 were continuously depressed.

DISCUSSION

A century after a German psychiatrist described a person with Alzheimer dementia for the first time, the number of people with the disease is on the rise throughout the developed countries as well as in our region, the Republic of Croatia and Bosnia and Herzegovina (17). According to the data from the World Health Organization (WHO), Croatia is a country with an ageing population and large number of elderly (18). As Alzheimer dementia is the

most prevalent in the elderly, it is reasonable to assume that the number of people with the disease will continue to grow in Croatia, for instance (19). This is in agreement with our study where 40% of the randomly chosen subjects with the disease were from the age group of 75-84.

Considering that Alzheimer disease is a difficult and incurable type of condition, a great importance falls on educating the family and the environment about the disease (20). Quality of the treatment and care about the patient can be improved with good communication and cooperation between the medical personnel and family members, which can be achieved by a professional work ethic and by providing needed information in a timely manner (21). Establishing a quality relationship with the patient is very important when working with the patients suffering from this progressive disease. The relationship between patients and therapists or caregivers significantly contributes to the outcome of the treatment (22).

In our study, 15 patients who agreed to work with the therapists and exercise over the nine-month period achieved an improvement in their ability to walk, while the other activities that were monitored remained at the initial level. This development represents a significant improvement compared to typically declining physical and cognitive conditions in Alzheimer's patients (23). As expected for typical progression of Alzheimer's disease (24), in the group that refused to work with the therapists and exercise the degradation in the monitored activities was noticeable. The improved ability to walk among the patients who exercised is likely to be a result of their exposure to this particular activity at the highest intensity. With the combination of physical exercise and communication the therapist attempts to help the improvement of patients' physical abilities through physical exercise, but he also attempts to slow down degradation of the patient's cognitive abilities by getting the patient to understand the process on a deeper level than just at the level of pure repetition of the exercises (25). Strengthening of patients' muscles and skeleton with the exercise program may be the key factor in the

improvement of their walking ability that was observed in some of the patients in our study (26). Alzheimer disease has a progressive character. Thus, maintaining the existing status of patients' condition over a longer period of time is certainly a positive outcome for both the patient and the environment he lives in (27). A study conducted on 153 subjects at the University of Washington in Seattle has shown that the above described approach helps to achieve both physical and cognitive improvements, and also that the AD patients who regularly participated in such a program have maintained better communication and social skills, without observed changes in their behavior (28,29).

Over the course of nine months in this study 93% patients successfully maintained functional level that they had had at the beginning of the study. One patient showed decline in his functional abilities but his communication ability remained stable. The patients also showed significantly less mood changes than the eight patients who had decided not to participate in the exercise program. In two patients who were unable to communicate, an increased aggressive behavior was noted through their nonverbal interaction with the caregiving personnel. The outcome is believed to be related to the fact that the group that per-

formed the exercises achieved a higher level of self-confidence and confidence in health care providers. Here, the higher level of self-confidence and trust in the therapists was a product of a quality communication between the patients and the therapists (30).

The Alzheimer Disease Association in the Republic of Croatia and the equivalent associations worldwide support the raising of awareness about the need for better care and support for AD patients (31). They organize consultation service groups, seminars and symposiums about the disease in order to help spur better communication between the environment or family and the patient, as that aspect of patient care significantly contributes to improved life quality and makes for a better environment for the patient (32).

In conclusion, the study indicates that quality communication between Alzheimer patients and therapists can slow down or even temporarily halt the progression of the disease symptoms and help patients maintain their initial life quality.

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Competing interests: None to declare.

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Komunikacija kao važan faktor u liječenju osoba oboljelih od Alzheimerove demencije

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SAŽETAK

Cilj: Ukazati na važnost dobre suradnje i komunikacije između pacijenta, obitelji, fizioterapeuta i drugih zdravstvenih djelatnika, kao načina kojim se postiže bolja kvaliteta života oboljelih od Alzheimerove demencije.

Metode: Rad se temelji na istraživanju dvadeset pet osoba oboljelih od Alzheimerove demencije u periodu od siječnja 2011. do veljače 2013. Procjena stanja pacijenata je provedena po Subjective Objective Assessment Plan modelu (SOAP) i Functional Independence Measure (FIM) te u vidu ankete sastavljene od pitanja vezanih za dob i spol pacijenta i suradnje sa fizioterapeutima.

Rezultati: Žene su činile 17 (68%) oboljelih; 10 (40%) su bili u skupini pacijenata od 75 do 84 godine. Na početku istraživanja, 12 (48%) oboljelih je bilo samostalno, 8 (32%) ograničeno u aktivnostima dnevnoga života i 5 (20%) nesamostalno. Završna fizioterapijska procjena je pokazala da od 15 (60%) oboljelih koji su provodili fizioterapijske vježbe, 13 (86,6%) je zadržalo motoričke sposobnosti. Analizom podataka je utvrđeno da od 15 ispitanika koji su provodili vježbe, 12 (80%) je imalo dobru komunikaciju u radu s fizioterapeutom.

Zaključak: Kvaliteta života oboljelih u značajnoj mjeri ovisi o dobroj komunikaciji i suradnji zdravstvenih djelatnika, obitelji i pacijenta.

Ključne riječi: fizioterapijski tretman, demencija, timska suradnja, edukacija