

Research Article

Implementation of Alternative Methods into Nursing Care of Elderly with Alzheimer Disease

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Abstract

Introduction: The population aging process has enormous effect on further society evolution because of high occurrence of chronic diseases and starting mental defects. The most common is Alzheimer's disease which causes reduction of intellect and usually defect of other attributes too. Normal life is affected by worsening of cognitive shortage and deduction.

Materials and methods: The overall research sample included 185 respondents. A non-standardized questionnaire of own design was used for data collection. Data from the questionnaire were statistically processed using Microsoft Excel and Statistica 12 program. For the purposes of statistical processing, χ^2 (chi-square) test of independence and Student's t-test were used.

Results: Research we made confirmed differency between homes using of alternative caring methods and social services without using of alternative methods. We can issue following statement, there occur significant less negative client's behaviour reactions in homes using these methods of treating Alzheimer's disease as behaviour of clients treated with traditional methods. The clients communicate more often and do more motion activities and trainings in these elderly care homes. In the other homes there is more often application of psychic medicaments common.

Conclusion: From the results, it can be concluded that alternative methods have the potential for improving the efficiency of treatment of patients with Alzheimer's disease.

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Keywords: Alzheimer disease, Basal stimulation; Naomi feil; Snoezelen; Validation

Introduction

During the 20th century, ageing had taken a new dimension from the individual aging to the society-wide aging [1]. According to the World Health Organization (WHO), Alzheimer's disease is among the ten main diseases that will endanger the health and lives of people in the near future within the deepening of the population aging. According to data from 2013, there were 44,4 million patients registered with dementia, for 2030 it is expected to rise to 75.6 million. Slovak Alzheimer's Society states the number of dementia patients in Slovakia up to 50-60 thousand, who are cared for by about 100 to 150 thousand family members and carers [2]. Nursing care is very specific and demanding for patients with dementia. Whereas cognitive failure occurs in a patient due to dementia, a wide range of behavioral problems affecting different activities appear during the treatment [3]. There are several ways how the progress of dementia can be slowed and kept at a good level as long as possible. The predominant factor that determines the quality of life of geriatric patients in particular is their health [4]. In addition to medical treatment, there are options to select from the number of approaches and therapies which will activate a person with dementia and maintain his condition. It is very important to choose one activation that the patient enjoys and is interesting for him. Physical inactivity is recognized worldwide as a risk factor for health maintenance, physical and mental condition. Appropriate physical activity for clients with Alzheimer's disease has a protective and therapeutic importance [5]. Use of non-pharmacological approaches is very important for people with dementia. It enables them to remain active, to use the time meaningfully, to experience nice times, to slow the progression of the disease and to have good quality of life as long as possible [6]. Development of care in psychiatry depends on the reform of psychiatric care, the WHO Declaration on mental health in Europe and Mental Health Action Plan for Europe with the aim to offset differences in the provision of psychiatric care in individual regions of Slovakia and to introduce new and modern forms of psychiatric care. The goal for the effective care is to promote the quality of life that respects dignity, identity and needs of the patient and the carer [4]. Therefore, we should devote our attention to applications of sufficiently unrecognizable methods yet in nursing care for patients with Alzheimer's disease. These methods can include basal stimulation, validation and Snoezelen. As in other areas of health, alternative therapies are becoming more and more common in the treatment of people with dementia [7].

Objective

The aim of the study was to find out the benefits of alternative methods used in comparison to conventional methods in Alzheimer's disease treatment.

Materials and Methods

The aim of this study was to compare the behaviour of clients in facilities in which alternative methods treating Alzheimer’s disease are implemented with the behaviour of clients in facilities in which only conventional treatment methods are implemented. To compare procedures used in facilities to soothe or alleviate the aggressiveness by implementing alternative methods of treating Alzheimer’s disease with procedures used in facilities in which only conventional treatment methods are implemented. The purposive sample included 185 respondents. Respondents were divided into two groups. One group consisted of nurses working in facilities where alternative methods are used (referred to as alternative care homes). There were 92 nurses in this group. The second group consisted of nurses working in facilities where more conventional methods are used (referred to as conventional device). This sample consisted of 93 nurses. The selected research design was a quantitative research. A non-standardized questionnaire with 31 for data collection was used. To express an opinion, respondents could use an interval scale for answering questions. By using it they could assess the level of acceptance, level of importance, or the frequency of the phenomenon. In items, we used 5-degree range where the value of 1 represents the most negative views or the lowest frequency. The value of 5 represents the strongest possible consent or the highest frequency. Except the interpretation of 2 dependant variables illustrated in contingent tables, we tested hypotheses by: χ^2 test of independence, and for mean values comparison Student’s t-test. Statistical tests were evaluated for statistical significance at the level of $\alpha = 0.05$ [8].

Results

The assumption that the behaviour of clients with Alzheimer’s disease is significantly different depending on methods used in the treatment of Alzheimer’s disease in the facility was verified by using the t - test statistical method. The behaviour of clients with AD was evaluated from the perspective of nurses using their assessment statements about the patient. The result is shown in table 1. The data in the table are arranged in increasing order of p-values, from the most different to the least different behaviours. There are statistically significant differences in the behaviour of clients with AD between the groups of facilities. Based on the results we can conclude that in facilities where alternative methods of treatment for Alzheimer’s disease are used, there are several negative behaviours of patients present in significantly lesser extent than in facilities using only conventional methods of treating AD. The assumption was accepted.

Next, we compared the methods used to soothe or alleviate the aggressiveness of patients in facilities in which alternative methods of treating Alzheimer’s disease are implemented with those of the facilities in which are only conventional treatment methods implemented. Based on the overall evaluation of the used t - test it was found that even in working with clients suffering from Alzheimer’s disease there are significant differences among the various types of facilities. In a facility where alternative methods for the treatment of Alzheimer’s disease are used, it is also significantly more likely to use these alternative methods to calm the patient and alleviate his aggressiveness. The results are shown in tables 2 and 3.

Behaviour of patients with AD	Mean		Variance		t statistics	p-value
	Alternative	Conventional	Alternative	Conventional		
Expressing dissatisfaction	2,17	3,29	0,32	0,62	-11,05	< 0,001
Paranoia of clients	2,38	3,54	0,30	0,77	-10,71	< 0,001
Application of psychotropics	2,51	3,33	0,80	0,68	-6,50	< 0,001
Aggression of clients	2,70	3,40	0,65	0,63	-5,95	< 0,001
Denial of food	2,48	3,16	0,34	1,53	-4,80	< 0,001
Disorientation of patients	3,20	3,81	0,82	0,70	-4,77	< 0,001
Cognitive deficits	4,35	3,74	0,36	1,32	4,48	< 0,001
Tearfulness of clients	2,74	3,35	0,88	1,01	-4,31	< 0,001
Use of restraints	2,16	2,43	0,51	1,10	-2,02	0,044
Difficult cooperation	3,22	3,43	0,30	1,36	-1,58	0,115
Sleep disturbances	3,34	3,39	1,21	1,39	-0,30	0,766
Relationships among patients	3,89	3,86	0,49	0,56	0,29	0,771

Table 1: Behaviour of patients with AD.

AD -Alzheimer disease, t statistics - the t - test statistical method

Soothing a client with AD by	Mean		Variance		t statistics	p-value
	Alternative	Conventional	Alternative	Conventional		
Validation according to naomi feil	3,84	1,62	1,98	0,54	13,42	< 0,001
Elements of basal stimulation	3,78	2,43	1,38	0,55	9,37	< 0,001
Elements of snoezelen	1,70	1,00	0,87	0,00	7,18	< 0,001
Soothing conversation	4,71	4,34	0,21	0,42	4,38	< 0,001
Administration of psychotropics	2,16	2,71	0,56	0,49	-5,14	< 0,001
Use of restraints	1,53	1,52	0,34	0,36	0,19	0,850

Table 2: Soothing a client with AD- comparison.

AD -Alzheimer disease, t statistics - the t - test statistical method

Alleviation of aggressiveness of patient with AD	Mean		Variance		t statistics	p-value
	Alternative	Conventional	Alternative	Conventional		
Validation according to naomi feil	3,79	1,42	2,01	0,51	14,41	<0,001
Elements of basal stimulation	3,78	1,96	1,38	0,95	11,49	<0,001
Elements of snoezelen	1,63	1,00	0,85	0,00	6,59	<0,001
Soothing conversation	4,60	4,35	0,33	0,49	2,57	0,011
Administration of psychotropics	2,48	3,01	0,54	0,66	-4,67	<0,001
Use of restraints	1,72	1,84	0,75	0,62	-1,00	0,320

Table 3: Reduction of client aggression AD- comparison.

AD -Alzheimer disease, t statistics - the t - test statistical method

Discussion and Conclusion

Alzheimer's disease has been linked to abnormal behaviour which is an external manifestation of the overall confusion of the patient. We can hardly influence what the person brings into his life at the old age. We do not know what are the values and experiences that affected his life. It is natural that he brings with him his own attitudes and priorities that can have strong egoistic lines [9]. We are talking about behavioural disorders which can include delusion production, paranoid, perception disorder. They can be manifested as restlessness, aggressiveness, disorientation, refusing food or medicines, requiring attention and as stated by [1], also adequate nutrition helps to improve the quality of daily life for the elderly, which is positively reflected on their psychological condition. Based on results we can conclude that in facilities where alternative methods of treatment for Alzheimer's disease are used, there are several negative behaviours that clients are presenting in significantly lesser extent than in facilities where only conventional methods of treating AD are used. Therefore, we have concluded that the application of alternative methods in nursing care for demented patients has a great importance. To refine these conclusions, we decided to search for results by an extended examination of validation, basal stimulation and Snoezelen. Since 1971, Naomi Fail conducted several researches about using validation (in Montefiore - Altesheime) where results have shown that behaviour in many aspects improved in cases of thirty disoriented people with organic brain damage. After five years of validation they were less incontinent, the disruptive behaviour decreased (shouting, hitting), positively reinforced their happiness, speech, and being helpful to others. They were aware of the outside world, they improved talking to each other even outside the group meetings and were more calm. Stan Alprin, a scientist from Cleveland, examined the effects of validation on attitudes and behaviour of therapists, but also looked at its effect on very old disoriented people. He gained measurable data about behavioural changes of residents and staff in sixteen nursing homes in the US which practiced validation. He observed directors, staff and social workers, and found results clearly showing that using validation the behaviour of the population brought many positive changes. In relation to staff, he observed positive trends that included greater trust between caregivers and residents, less aggressive behaviour of clients, less staff turnover. C. Siviero E. Mazza and A. Cerri from Castelli Foundation in Melegname conducted a case study which confirmed that regular validation carried out by the majority of nursing staff in the department for people with dementia had a positive effect on the patient's condition - behavioural disturbances decreased significantly. The patient had a good relationship with the

staff and other patients. She was more active in the department [10]. Čunderlíková and Wirth [11] add, that during working with clients in the Centre Memory they proved validating therapeutic approach to be the most efficient, also because it is useful in all stages of Alzheimer's disease, and clients respond well to it. They carry out validation both individually and in a group form (6-7 clients in a group + 1 therapist and co- therapist). Examining the use of validation is frequent, and all indicate a positive impact. As a psychiatric nurse, I am excited about these results. Jandová [12] described the effects of basal stimulation based on a case study carried out in a social services home. She concluded interesting results. After five months of application of the concept of basal stimulation, the client gradually got to know the environment, more she began to question: Who is this?, especially when she saw an unknown person. She smiled more, built cubes, she could eat on her own. Prčová [13], based on her own experiences in a home for seniors also confirmed that a client after 9 months showed elimination of autoaggressive and aggressive attacks, he neither attacked himself nor his surroundings. However, he remained refusing integration into the team, he would sit in a room and refused all new. On the other hand, he liked listening to music, tried to sing and liked patting himself. Effectiveness of Snoezelen has been documented in seven research studies conducted in clients that were in medium and severe stages of dementia. Groups of respondents were from the number of 24 to 194 elderly and the total length of studies ranged from two weeks to a period of eighteen months. Of these seven studies, two report fully positive effects of this therapy, three studies assessed it positively and the last two studies describe it having no further effect. Despite these German research results, American Geriatric Society based on their research work recommends multisensory stimulation Snoezelen as non- pharmacological therapy and intervention that reduces pharmacological therapy in clients with dementia symptoms and positively influences the process of the disease [14].

Conclusion

The study found that there is a difference among facilities which alternative methods are used and which do not use it within a provision of nursing care. It can be concluded that in facilities where these methods for the treatment of Alzheimer's disease are used, there are several negative behaviours the patients present in significantly lesser extent than in facilities using only conventional methods of treating AD. The application of innovative interventions in nursing care is required. Clients with Alzheimer's disease need a professional approach of care teams, who are also familiar with non-pharmacological methods to ensure the satisfactory quality of life

of patients. Nurses play an important role whose professional care can eliminate unpleasant symptoms of the disease and thus arouse clients' sense of security and confidence. Ideally, an advanced nurse practitioner could have a significant effect on managing alternative treatments as a clinical specialist and be a member of teams [15]. Communication is an important element in dealing with negative behaviors in clients with Alzheimer's disease. Communication with clients suffering from Alzheimer's disease is always problematic. The nurse should be able to implement appropriate approaches and communication techniques based on a credible and comprehensible communication. Empathy is very important, also trying to understand the client, identifying causes of negative behaviour [16]. The basis of successful management of nursing care is to identify negative behaviours, monitoring of adverse events and interventions to maximize mental and physical potential of the client [17].

Conflict of Interest

The authors declare that they have no conflict interests.

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