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## Chapter

# Non-pharmacological Treatment of Alzheimer's

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## Abstract

Caring for a patient with dementia is challenging, as we cannot cure Alzheimer's disease but only slow its progress. In the presented chapter, we offer non-pharmacological approaches for influencing the patient's behaviour, actions and emotions, and to arouse their interest and motivation, while preserving the highest quality of life. In the past, many experts have looked at specific approaches to dementia patients and devoted their entire professional lives to senior citizens. Our aim is to offer an overview of the most frequently used therapeutic approaches with dementia patients and use practical demonstrations to reinvigorate the theoretical basis. At the end of the chapter we deal with the burden on the carer in the family environment.

**Keywords:** Alzheimer's disease, memory, non-pharmacological, treatment, carer

## 1. Introduction

With the increasing number of seniors, the number of newly diagnosed patients with dementia syndrome, including Alzheimer's disease, is rising. At the same time, the costs of treatment are increasing. This has led experts to focus on less costly, non-pharmacological treatment of dementia.

Examining non-pharmacological approaches to patients with dementia and their family carers does not have such a long tradition or history as the scientific examination of pharmacological approaches. Certainly, scientists have always taken it as given that besides pharmacotherapy, it is useful to activate, reassure, adapt the environment and other procedures experienced by non-medical staff in particular. These procedures have long been considered appropriate and useful, but not too stimulating or interesting for further scientific research. However, in the last decade, work has appeared examining non-pharmacological approaches to dementia patients and their family members [1].

The goal of non-pharmacological treatment is to maintain or improve the level of gross and fine motor skills, walking, self-sufficiency and cognitive functions. At the same time, another goal is to meaningfully fill free time and to influence the symptoms of dementia and activities of daily life, to improve verbal and non-verbal communication between the sufferer and their relative or nurse....

The activities we choose must be appropriate to the condition of the sufferer. There are multiple non-pharmacological approaches; the therapist selects from a spectrum of options, taking into account the age of the patient, the stage of the disease, the gender, therefore it is necessary to emphasize the individual approach.

Activities should be comprehensive, adequately influence the mental and physical aspects and the psychosocial contacts. Activities should always promote the patient's strengths. It is important to have a familiar environment for the patient. The process of the activities themselves is important. An activity that does not come off successfully does not mean a loss. Treatment of this type should become a regular part of the daily regimen of a patient with dementia [2].

Non-pharmacological approaches to dementia management focus on the following problem areas:

- Early diagnosis and patient support in the initial phase of the disease.
- Providing information, preserving or improving cognitive functions.
- Preservation or improvement of the patient's self-sufficiency.
- Mitigating or eliminating problematic behaviour and the psychological symptoms of dementia.
- Improving the quality of life for the patient with dementia.
- Improving the communication between the patient and the doctor treating them.
- Improving the quality of life of patients in the terminal stages of dementia.
- Support for carers [3].

The aim of our work is to summarize current theoretical knowledge about non-pharmacological approaches with patients with Alzheimer's disease and to illustrate examples of the implementation of specific approaches. When formulating the theoretical basis, we used the available specialist and scientific publications. The practical examples are the result of qualitative research aimed at verifying activation approaches for Alzheimer's disease patients.

Caring for a patient with Alzheimer's disease requires that we recognize the basic principles and recommendations for care.

## **2. Non-pharmacological treatment of Alzheimer's**

A regular daytime routine is an important part of care for a patient with dementia because in the advanced stages of dementia, patients benefit from a certain regularity of the daily routine. A natural rhythm comes from the time of eating, time for leisure activities or for hygiene. If we offer a variety of options to the patient and we program the individual activities for specific days, we fill the patient's time meaningfully, thereby preventing periods of troubles. Overly interesting or too many activities can have the opposite effect, so we emphasize the individual approach and accepting the patient's abilities.

**Nutritional support** is part of comprehensive therapy and has an important place in the comprehensive treatment of dementia patients. Nutritional care can improve the results of treatment [4]. Epidemiological and clinical studies abroad have shown that dietary supplements can reduce the risk of cognitive impairment and greatly improve its further course. Aging individuals who consume enough fish (sea fish two to three times a week) and fish products, omega-3 fatty acids

and *Ginkgo biloba* see an effect on their cognitive function which can slow down the development of cognitive deficits [5]. Walnuts are an important part of nutrition for a patient with dementia. They are rich in protein, vitamins, omega 3 fatty acids, trace elements, lecithin and oils. Walnuts are an important part of the diet with regard to brain activity. Compared to other nuts, which usually contain a large amount of monounsaturated fatty acids, walnuts contain especially polyunsaturated fatty acids. They have only a negligible amount of sodium and are free of cholesterol. They also contain enough folic acid and thiamine and a useful amount of vitamin E in the form of tocopherol. They contain manganese, magnesium, phosphorus and iron. The folk saying is that walnuts have the shape of a brain so they undoubtedly support the health of the brain [6, 7].

Apples, spinach, extra virgin olive oil, grape juice and red wine, salmon, curry pepper and curcumin, cinnamon, coffee and hot chocolate improve brain activity and have a preventive effect.

When stretching our thinking or memory, we lean towards the substances that irritate the nervous system. They are sometimes called 'memory poisons'. These substances stimulate the current intellectual capacity and improve memory and focus. Substances like this include: caffeine, nicotine, alcohol, calming drugs (tranquilizers) [8].

**Leading the patient towards self-sufficiency** is an important principle in the care of a dementia patient. All care providers should be sufficiently qualified and have the patience to use gradual steps, instruction and help to lead patients to perform their own care by themselves. This approach too must be applied sensitively, with knowledge of the condition and the patient's capabilities, the patient cannot be expected to perform activities that they are no longer able to do. This approach is recommended in the mild and moderate stages of the disease.

Patient activation is understood the preservation and improvement of their capabilities by assigning different tasks. Particularly, pet therapy is more of a home-based type of therapy when the dementia patient's level of activity is maintained by looking after a pet [9].

**Orientation in reality** is one of the oldest approaches to patients. At present, only some elements of orientation in reality are used. This approach, if applied consistently and thoroughly, improves patient orientation but at the cost of total discomfort [10]. Nowadays, orientation in reality is used mainly in the initial stages of Alzheimer's disease when the patient has short-term losses of memory. The patient has a calendar, saying the day, month, year, their name, address, and other information that would return them to reality during a short-term loss of memory. Suitable approaches include the colour coding of rooms and the use of pictograms to improve the spatial orientation of the patient. Orientation in reality is important in the light and moderate stages of the illness, when the patient experiences memory loss, and aids can be used to orient them in the real situation.

**Programming activities** is suitable for people undergoing advanced dementia. The progression of the disease leads to a worsening of the overall condition, when patients need the most individualized care. In the event that the individual activities burden the patient, we stop trying to force their active participation and adapt to the specific pace, needs and possibilities of the patient. Programming activities is an important part of care in the advanced stage of the disease and it can be said that it is to a great extent a specific need at this stage of the disease [10].

**Milieu therapy** is also known as environmental manipulation. Its use is appropriate in the mild and moderate stage of Alzheimer's disease. It is a comprehensive individual approach to the patient and the adaptation of the environment in which they function so that they feel pleasant and can better orient themselves through plenty of sensory stimuli provided. Some facilities for seniors that are specially

designed for dementia patients accept this concept in advance. In particular, it is important for the patient to be easily orientated in the interior. One problem may be, for example, an unusual design for flushing the toilet, which the patient may not know or the taps/faucets. Sometimes it is advisable to camouflage the entrance door, for example with wallpaper, so as not to tempt the patient to leave the ward. The space should be stable and should change as little as possible [10].

*Practical demonstration:*

*In the gerontological psychiatry ward, patients' rooms were numbered. Patients found it harder to orient themselves in this space and often did not return to their room. When the door of the room was marked with pictures of fruit (pear, apple, plum, banana, oranges), it turned out that the orientation of the patient in the space was easier.*

**Lifestyle approach** is sharing information among care providers. Patients may have different individual habits, which should also be accepted during dementia. They include the daily routine of the patient, their habits, way of dressing, using the toilet, the activities they perform by themselves, and those for which they need help. If the treating staff respect long-followed habits and rituals, it will facilitate care. Failure to do this often causes aggression, unrest, and other situations that lead to a worsening of the patient's condition. Some facilities have questionnaires, entry interviews to this end, which aim to get as much detail as possible. If the attending staff does not accept routine habits and rituals, it usually increases the aggressive behaviour of the patient. Practice shows that the experience of family carers is a valuable aid in the care of the sick [10].

*Practical demonstration:*

*In a social care facility for the elderly, a patient did not evacuate into the toilet but always onto the floor. Repeated instructions from the treating staff did not help, nor did labelling the toilet with a pictogram. Unpleasant and bewildering situations occurred like this. In a deeper study into why the patient does not accept evacuating into the toilet, it was found that the patient was from a socially deprived environment and he only began using a toilet during adulthood. By simple intervention—removing the toilet door and the coloured curtain at the entrance to the toilet, the patient was able to learn where to evacuate. Another solution to the situation could be, for example, the use of a disposable diaper, which would be uncomfortable for the patient, but would facilitate the work of the attending staff. An individual approach can also bring about an easy solution to a seemingly simple situation.*

## 2.1 Cognitive training

In the following section we list non-pharmacological approaches to dementia patients. For each approach, we provide practical examples of how we have used them in the care of patients with dementia.

Cognitive training is targeted stimulation of brain functions with a focus on multiple cognitive abilities. It is mainly used in initial and middle stage Alzheimer's patients who want to train their cognitive skills by themselves. It slows the development of the disease and improves the quality of life. Sometimes it also serves as a daily activity or fun, depending on how the patient takes it. Studies have shown that in some patients in the moderate and serious stages of the disease cognitive training leads to negative reactions, such as depression and frustration [11]. We can use the techniques of cognitive training in ordinary life. For example, we can go shopping without a shopping list, solve mathematical problems without a calculator, sometimes we can even learn something 'by heart' such as a song or poem, or we can imitate the main actors after a film has ended [12]. Cognitive training has a particularly important role to play in preventing cognitive decline, strengthening self-esteem, self-confidence, promoting self-sufficiency in day-to-day activities, helping maintain quality of life, promoting social contacts, and enhancing welfare

and enjoyment of success [13]. The worst thing for memory is inactivity and a lack of stimuli for processing. If the memory is not regularly stimulated it gets 'lazy' and its functioning worsens, just like another organ or muscle [12].

*Practical demonstration:*

*Example 1: An 81-year-old patient has observed over several years that her memory is getting worse and she forgets everything quickly. She forgets everything she wants to buy or take out of the refrigerator, she does not remember her relatives' birthdays and other special days. All her information and appointments must be written in a calendar or diary. She does smaller shopping trips on her own, but she always has to prepare a shopping ticket. The client leads an active life. Every day she goes for 30-minute walks, which promotes brain oxygenation and supports memory functions. She attends university of the third-age and a retirees' club, where she gets new enthusiasm and meets people. She reads books every day, does crosswords, watches quizzes on television. These day-to-day activities are a natural part of the daily life of an active senior which stimulate cognitive functions and train the brain in an unforced way.*

*Example 2: In a retirement home, seniors trained their memory functions. As an activity they chose preparing food. Patients under the supervision of their therapist, remembered a variety of different recipes, specifically for: pancakes. Because they are in a social care facility and are not preparing meals themselves they had to think more deeply about recipes. Together, they agreed on a recipe which they then prepared under the supervision of the therapist.*

*This activation is an example of how we could implement cognitive training without realizing it and it can become a natural part of the daily program of senior citizens in institutionalized care.*

## **2.2 Snoezelen therapy**

Snoezelen therapy is a multifunctional method that is performed in a particularly pleasant and adapted environment. This therapy offers patients with dementia a suitable alternative solution with the ability to become aware of their surroundings. It allows them to better respond to the environment they are part of. The stimulating environment helps to reduce aggression and improve the mood just by calming the body and mind, so it can induce inner balance and peace. Through stimuli, such as sound and light effects, relaxing music, tactile surfaces, or the pleasant smell of essential oil, it stimulates external senses such as hearing, sight, touch, smell or taste. It creates an environment that creates nice and pleasant memories, and it also helps stimulate and activate old habits [14].

Snoezelen is the name for a multi-sensory room that provides beautiful sensory experiences using technology that generates sensual responses and reactions from the client. This room produces a sense of well-being, it releases and relaxes, activates and awakes the senses. But it also provokes memories, directs and unites stimuli, destroys fear, brings security, reduces aggression, self-destruction and violent behaviour [15].

When using Snoezelen therapy, it is not possible to determine in advance how the patient will respond. Even if it makes us feel comfortable, we can equally expect the opposite reaction. Multi-sensory stimulation is recommended at least once or twice a week with an interval of at least 30 minutes to prevent the patient from becoming saturated with stimuli. Snoezelen therapy is appropriate in all stages of dementia, but it is especially beneficial if we are interested in a patient in a severe stage and we can stimulate the psyche and arouse pleasant feelings.

*Practical demonstration of a negative reaction:*

*An 86-year-old patient with a severe degree of Alzheimer's dementia does not recognize his relatives, he is limited in movement, speaks incomprehensibly, sleeps during the*

day and is restless at night. At the entrance to the Snoezelen room, the patient sharpened his gaze and began to look around. The patient was placed in the centre of the room in the wheelchair, we began the light effects: bubble cylinders, starry sky, we quietly turned on the music. Through his knees, we passed interactive optical fibers that he touched with his hands. The patient was silent for about 10 minutes, observing the surroundings, playing with the interactive fibers in his hands. After a while the patient began to be nervous, he was fidgeting, he lowered his eyes, and muttered something quietly. After a while, he started to shout nonsensically. He was aggressive. We finished the Snoezelen therapy.

In repeat therapies, the patient responded in the same manner, so we will not use this multisensory stimulus for the specific patient, but we will choose another non-pharmacological approach.

### 2.3 Reminiscence therapy

Reminiscence therapy is a method that uses memories and their recall using various stimuli. Of course, it is also suitable for healthy seniors, for its preventive and activating significance. It is mainly useful for patients with dementia, who have short-term memory disorders, but conversely, they often have surprisingly good recall of events from the past [3].

Reminiscence therapy typically refers to a therapist's conversation with an elderly person (or group) about their life up to that point, their past activities, events and experiences, often using appropriate tools (old photographs, objects, tools and home appliances, and old working tools, fashion accessories, movies, folk or dance music, and so on). The activity may be more or less structured, but also completely spontaneous, unstructured, with the therapeutic aspect sometimes coming more or less to the fore. The use of reminiscence is especially useful for people with dementia, when it comes to reviving past experiences, especially those that are positively and personally important, such as family events, holidays, weddings, celebrations, etc. [16].

This type of therapy uses memories and stimulates their recall using various stimuli. Its goal is to improve the overall state and strengthen human dignity, and improve communication. It can be individual or group and its methods vary, such as: viewing photo albums, watching old films, telling old stories, and other activities such as singing, reciting, etc. [17].

In some facilities, memory rooms are also available for clients, in which the interior furnishings and environmental adaptations correspond to the period of the youth of clients [18].

#### Practical recommendations:

*In reminiscence therapy, different situations can arise that cause both positive and negative emotions, such as memories of parents, siblings, time that can no longer be returned. If the patient expresses anger or sadness, we do not have to worry about these emotions and avoid them at all costs. An individual approach is very important, because in some people the emotional expression will cause relief, while conversely in some people it will deepen their depressive mood. Aging is a natural cycle of life that must be accepted and accepted with respect and sometimes it is necessary to lead the patient to that.*

*If reminiscence leads to very unpleasant and painful memories, it is more appropriate to avoid such an approach.*

### 2.4 Validation therapy

Validation therapy is considered to be one of the first specific non-pharmacological approaches to patients affected by dementia.

Considering the specifications of the procedure we devote greater attention to the theoretical basis, which should be of more benefit to the reader. The validation

method was developed by Naomi Feil. Naomi Feil was born in Munich in 1932 and grew up in a retirement home where her father was the director. She was also employed by her mother, who worked there as head of the social department. After completing her studies of social work, she was awarded a Master's degree in social work, after which she started working with the elderly. Based on her dissatisfaction with the approaches and methods of old-age care of time, she began to develop a different manner of therapy. The whole development of this therapy took place between 1963 and 1980. In addition to the theoretical foundations, she developed her model primarily from her own experience. As long as she had spent almost all her life among old people, she had a lot of experience. As a child grew up among the seniors, she worked with them for 7 years. Later she worked for over 40 years with very old and confused people aged over 80.

Nowadays, the Naomi Feil Validation Concept is recognized as a method based on the latest knowledge in the care of elderly people with Alzheimer's disease, dementia or related diseases. This method is accepted in both palliative medicine and gerontology [19]. Validation is a form of communication and therapy used with old people suffering from dementia syndrome or other disorders whose manifestation is mental disorientation. It is based on the different principles of psychology, therapeutic approaches and biography [13]. The validation method is considered to be high moral support and a form of assistance we can provide to a senior with dementia syndrome. However, the springboard to providing it must be the willingness of workers to take a completely different view of this issue, to try to understand the right cause of the behaviour of disoriented seniors, and also effort and consistency in using new approaches to the patient.

Validation as such is a sensitive generalization by experts dealing with people with dementia. Its main principle is respect for the person. We do not violently oppose the misconceptions of a person with dementia, nor do we support them in that. Validating someone means accepting their emotions, telling him that their emotions are true. The refusal of emotion causes uncertainty.

The purpose of validation is to help elderly people stay as long as possible in their home environment, to restore self-confidence, to reduce stress, to make sense of life as experienced, to deal with unaddressed conflicts of the past, to improve verbal and non-verbal communication, to prevent a return to vegetation, to improve the ability to walk and physical health in general, to provide the carer with joy and energy, to help families communicate with their disoriented relatives [20].

There are several principles that a user of validation must consider if they want to perform validation therapy on old, disoriented people. One must realize a few facts:

1. Even poorly oriented or disoriented seniors are unique and have their value.
2. Do not try to change them at all costs, accept them as they are.
3. We must be able to listen; empathic listening creates an environment conducive to confiding, reduces their anxiety and, above all, brings dignity.
4. Expressed, accepted and validated painful feelings become weaker. But if ignored and suppressed they remain strong.
5. There are reasons for the behaviour the poorly oriented and disoriented old people.
6. The behaviour of these people can be rooted in one or more human needs.  
Processing unresolved task for a peaceful and balanced death, the need to live

in peace, the need to regain their balance, as mobility memory and senses are lost, the need to give meaning to a gloomy reality, to find a place where they can feel happy, the need for status, recognition, self-sufficiency, the need to be productive and useful, the need to be respected and to belong, the need to express their feelings and be heard, the need for human contact, the need for certainty and security, not limitation, the need for any stimulation, and finally the need to reduce pain and complications.

7. In the case of failure of verbal expression and short-term memory, old learned patterns of behaviour return.
8. Things, persons, or objects of the past are replaced by personal symbols that represent them and have an emotional charge.
9. Disoriented or partially oriented seniors live at different levels of consciousness, often at the same time.
10. By weakening the five senses, these seniors can stimulate and use their own ‘inner meaning’, seeing through their inner vision and hearing the tones from the past.
11. Various emotions, colours, sounds, coincidences, smells, tastes and images can now awaken emotions that recall similar emotion from the past [21].

During validation, we do not quarrel with the old person and do not confront them with the opposite view, we do not try to provide a view of their behaviour, and we do not try to improve their orientation in time unless it is of interest to the old person. Individual or group therapy does not establish firm rules to target it over time. The user of validation is not perceived as an authority but as a diligent assistant.

#### *2.4.1 Forms of validation therapy*

The basic forms of validation therapy include individual and group forms. In the **individual form**, the therapist works in three steps.

1. In the first step, they collect all available information that is needed for the validation itself, but also for evaluating its effectiveness. The therapist gets information on things ‘here and now’ and about ‘things then and there’.
2. The second step involves determining the phase in which the person is. In this step, they compare the information obtained with the individual’s statements and determines the stage or phase in which the old person is located.
3. The third step is the validation therapy itself. A therapist should come regularly and use validation techniques that can help them at different stages.

**Group therapy** is conditional on the creation of mutual trust so that individual members can express their own feelings, communicate verbally and non-verbally, solve problems, be active in selected social roles, learn the highest possible degree of control and, in particular, to gain a feeling of their own about their own value. The goal of group validation is to reduce fear, reduce the need for limiting and calming methods, and prevent vegetation in old dementia patients. Another less important goal for relatives and staff is for validation to reduce their risk of burnout syndrome [21].

It is possible, for the best use of the validation team, to involve all workers—not only nursing staff, but also staff from cleaning, kitchens, offices, social workers or physiotherapists. The most appropriate solution is to create a validation team that would stimulate the client or patient with the same validation techniques [22].

The therapy itself in the group consists of seven steps.

**The first step** is getting to know the person. At this point it is necessary also to evaluate the phase or stage of disorientation in individual validation too. For the correct evaluation, it is possible to use the questionnaire 'Selecting members of the validation group' or the 'Life story and basic behaviour' form can be used. All this is necessary, because the knowing the group members is also the basis for its success.

**The second step** is selecting the group members. As the group is diverse, it is necessary to assemble it so that everyone has its place in it. A former clergyman can begin by praying, a former teacher of singing can lead singing. Naomi Feil exactly describes what the composition of the members should be like and at what stage of disorientation they should be. There should be five to ten people in the group—one leader personality, one wise and hospitable person, four or five people who like discussion, about two people in the third stage who could respond to the validation therapist, and two people still do not feel threatened by disoriented persons.

**The third step** is to find a role for each member. At each meeting an individual should play the same role, because it represents a certainty for him and promotes dignity. As an example, Naomi Feil gives an introducer, who opens and ends the meeting, a singer who sets the rhythm and conducts, someone who reads in the group, the person who prepares the chairs, the flowers, the secretary, the host.

**In the fourth step**, it is appropriate to involve all the staff in the validation. This can help with preparation and implementation. They can provide a room and/or refreshment, bring individual members of the group, and suggest new members or new topics.

**The fifth step** is music itself, the discussion, movement, eating. The music should start and end the session, and one song is enough. For the discussion, it is advisable to choose the topics in advance—the loss of a loved one, home or work, boredom, searching for a new sense of life.

**The sixth step** is to schedule a meeting. This step consists not only of a meeting plan, but also of the preparation of materials and room, of the timetable and all the information available to help the meeting.

**In the seventh step** is meeting itself alone. It should be done at least once a week at the same time and in the same place. It is composed of four parts—introduction, life, conclusion and preparation of the next meeting [21]. The basis for validation meetings is how and what a person with dementia really wants to express themselves, and even if it does not coincide with reality, appropriately and adequately respond to it [23].

#### *Practical demonstration:*

*An 82-year-old patient in a severe stage of Alzheimer's disease was admitted to the psychiatric ward. The patient was disoriented in time and space. The patient had an increased risk of falls due to his advanced age and limited mobility. The patient used antipsychotics and sedatives. Hospitalization was necessary because in the domestic environment the patient was always going away, not accepting the guidance of the carers, he was restless at night, he shouted. During hospitalization, despite the psychopharmaceuticals, the patient's behaviour did not change. During the day he was restless, always wanting to go home, he ran out of the room. The treating staff constantly focused on reality and reminded him that he was hospitalized, could not go home, must lie in bed...The patient's behaviour was difficult to handle. According to the Naomi Feil validation concept, we are not trying to improve his orientation, we do not argue and do not confront him with the opposite view. We tried to use these recommendations in communicating with the patient. If the patient requested to go home, we did not give him the reasons why he could not go*

*home and where he was, but we turned the communication in a different direction. We asked why he wanted to go home, what he would do at home, what he used to do outside in the garden, with whom he met...The patient began to talk about what he used to do at home and where he worked. This does not mean that the patient was getting better, but he lightened his tone in communication, he did not shout, after a group walk around the department, the patient could be directed and was sitting quietly in the chair.*

*We have found a way how we can influence patient behaviour and actions....*

## 2.5 Doll therapy

Doll therapy is a very effective form of comprehensive therapy in patients with various forms and degrees of dementia, mental retardation, physical disability, and various psychiatric disorders. It is known for its low financial burden and easy accessibility. The therapeutic dolls resemble young children in terms of their size and appearance. Dolls are made with natural material, which is also anti-allergic. To touch it is pleasant, soft and positively stimulates the patient's senses. The individual body parts are specially balanced for better handling. The legs are malleable, suitable for enveloping the patient and encouraging hugging. Such manipulation is used as part of basal stimulation. The indirect gaze of all the dolls (eyes do not look ahead) is deliberately neutral. It feels peaceful to the patients and does not cause negative emotions. Doll therapy is based on long-term memory paths. It is normal that these patients, especially women, are looking for their children and want to take care of something or someone. It is through dolls that we try to stimulate this ability. Furthermore, we try to stimulate fine motor skills, nerve activity, especially attention, memory, supporting patient activity, dialog, establishing relationships, inducing a sense of security, love and peace. In some cases, the use of psychopharmaceuticals has been reduced.

The use of dolls with a patient is associated with a number of benefits that include increasing welfare, inducing positive emotions, good sleep, improving eating habits, reducing agitation, irritability, anxiety episodes, apathy, depression, aggression and tension by distraction towards a substitute, improving communication and sociability. In spite of the benefits, the use of therapeutic dolls also has its negatives, such as the infantilization of the senior, thereby breaking ethics. For these reasons, we must emphasize the individual approach and we cannot generalize their mass use under any circumstances [24].

Before starting to use therapeutic dolls with a patient with Alzheimer's disease, it is necessary to train the attending staff or relatives. It is essential to realize the benefits and potential problems that may arise over time. Success also depends on the attitude of the staff. In the case of an uncommitted or negative attitude on the part of the staff, success will usually not occur. Before starting doll therapy, one needs to get some fundamental information about their role as a mother or father, because sometimes negative experiences in the life of the patient may render the use of doll therapy inappropriate. This is, for example, the death of a child, a severely ill child, or a child not interested in the parent....

Each patient should have their own doll. It is recommended to find out whether the patient had a son or daughter, to find their hair colour and choose the type of doll accordingly. Dolls should be different, whether in terms of their faces, height or clothing, to minimize confusion issues. Clothing may vary according to the wishes of the patient or be supplemented with appropriate accessories such as a cap, socks, gloves, boots, blankets, and the like. We try to keep them clean. With doll therapy, we begin slowly and gradually to avoid problems that may be expressed as negative behaviour on the part of the patient, or repulsion from therapy, or the therapist.

We leave the doll for a short time, it is not appropriate to leave it all day, because the feelings that we should re-find in a patient with dementia may be lost that way.

We give the doll to the patient in an unforced manner, in order for them to decide whether to pay attention or not. It is appropriate if we place it in a well-visible and easily accessible place, where it can be seen and asked about or taken. If the patient is immobile or has a bad eyesight, we take the doll in our arms, sit down near them and start talking about it and talking to it. We monitor the patient's responses carefully, and when they show interest, we give it to them. Women and men may equally be interested in the doll, we do not discourage them from being so. When the patient communicates with their doll, we monitor and listen carefully to how they address her. We make sure we use their form of address to reassure them that we perceive it in the same way they do.

Some patients think the doll is their baby and they expect emotions and surprises, in which case we only leave it only for a short time. We take it only with their permission, with a logical explanation and detailed descriptions of where we are taking it and when we will return it. We do not leave the doll all day with the patient because it will stop interesting them. We never use the doll as something to negotiate or force the patient to do something. They can become emotionally attached to it, and so this can cause negative behaviour (anxiety, agitation, aggression). We can use it as an intermediary for other activities such as walks, talking and work.

There can also be undesirable situations in doll therapy. One of these is the recall of memories of a patient's negative life experiences. In such situations, the therapist must identify these events and pacify the patient appropriately.

*Practical example:*

*We used doll therapy with a patient who had been diagnosed with Alzheimer's disease at a moderate level. She is aware of her illness, so she is reticent when talking about herself. From her past, she remembers most about the countryside near her home village. She answered every question asked after a pause and often indefinitely. She does not sufficiently show her emotions externally. She attributes her memory loss to age.*

*Sometimes she has hallucinations and attention disorders. Sometimes she talks nonsense. When communicating, she avoids direct gaze. We decided to use a therapeutic doll with the patient. We started in an unforced manner. One morning we brought the therapeutic doll that we held in our hands to the patient, and after a while the patient began to ask who it was, she wanted to take it in her arms. She began talking with her, singing her nursery rhymes. At other meetings she even named her after her daughter. We left the baby 1 or 2 hours, according to the interest shown. We did not use the baby every day so that the therapy did not become jaded but a pleasant emotional experience to revive the patient's psyche.*

## 2.6 Ervin Böhm's psychobiographic model

Ervin Böhm's psychobiographic model is an internationally recognized nursing model and is currently the most widely used in German-speaking countries in the field of geriatric and gerontological psychiatric care. The model is aimed at supporting the ability to care for oneself, for old and confused people, and at ways to retain or restore this ability for as long as possible, by resurrecting the seniors' interest and reviving their psyche. In the psychobiographic model, one seeks to broaden the perspective on the patient—the senior, when care must become more tolerant and leave the 'caring mother' role. Previous methods of care, where the attending staff took care of all the tasks, did not reflect the retained skills and knowledge of the client, focused primarily on fulfilling needs, and created client dependence on care [25].

Böhm puts the following goals at the forefront of care:

- a. reviving the human psyche,
- b. reviving the interest of the carers, and
- c. broadening the perception of social normality.

Reviving the Human Psyche—the ultimate goal of Böhm's care is to revive the soul of the old person, described as the human energy of the soul, the 'elan vital', which is the original source of our action and life-motivation. Revitalizing the interest of carers—reviving the professional interest of care providers can be achieved by increasing their expertise [25].

Böhm perceives his model of care as a complete systemic theory to supplement medical care. Regardless of whether a patient has organ damage, therapeutic treatment must be based on a thymopsychic biography, and must provide an improvement in their mental and physical well-being, even without psychopharmaceuticals [25].

If we focus on the medical and nursing diagnosis, then we take care of dementia, whereas if we focus on the biography of the client, we look after patient as a personality, so we see a person with his soul as a priority [26].

*Practical demonstration:*

*A 67-year-old patient with a severe degree of Alzheimer's disease is hospitalized in the psychiatric ward for behavioural disorders, verbal and physical aggression, insomnia. At the age of 62 he had a stroke. The patient is disoriented with increased irritability and impulsiveness. Despite pharmacotherapy, the patient's behaviour is difficult to manage, and cooperation is limited. We focused on the biography of the patient, and together with the patient's wife, we looked for options that could influence patient behaviour and actions. The wife began talking about a special blanket that the patient had received as a wedding gift, having an emotional relationship, so we decided to use it during the hospitalization. The patient immediately recognized his blanket and expressed interest in it. The patient did not immediately reverse his behaviour, but with an empathic approach we managed to influence collaboration with the patient and mitigate aggressive behaviour.*

*Sometimes human desire is enough to achieve great goals.*

### 3. The patient in the home environment

The family plays an essential role in the care of Alzheimer's disease. Most often it is the care provided by husbands, wives or children. In addition to the role of family members in the care of the sick, it is necessary to provide the carers with the support required. A common component of Alzheimer's disease is, in addition to behavioural disorders from disturbed cognition, various psychiatric symptoms. These are the main source of burden for carers and the most common cause of institutionalization of the sick. Problem behaviour by a sick person is often an effort to express or demonstrate their need. It arises as a result of the lack of consistency between the patient's needs and the ability of the environment to meet these needs. It may be a consequence of boredom or fatigue or the consequence of a psychiatric disorder. It is only a symptom of dementia, not deliberate or a bad intention. If we learn to recognize the needs of the sick, to satisfy them, then we can prevent these difficulties. Most often, this includes non-cooperation with care, restlessness, aggressive behaviour, wandering, getting lost and sleeping disorders [10].

### **3.1 Burden on the carer**

The treatment of Alzheimer's disease stands on two pillars, but some authors add a third pillar, namely caring for the carer.

Nursing care provided in the home social environment is a historically proven form of effective care for an individual, family or community. It has a series of benefits for the care recipient themselves. The management of nursing care in the natural social environment varies in the individual countries of the European region, depending on historical development, the educational system, the financial possibilities and the requirements of society [27].

The family is the simplest, best and at the same time the most important source of support in old age and aging.

The family is the guarantor of the interconnection and continuity of individual generations and, under optimal functioning, forms an irreplaceable environment of mutual assistance, support and understanding for all its members, despite the intergenerational differences [28].

A home carer who provides care to a family member has an important place in the social and healthcare system. A home carer is a person who helps meet the needs of their family member—the person cared for. They also carry out activities that the patient would perform themselves if they had enough strength, will or the necessary knowledge [29].

The carer's role in the care of a sick person with dementia is a key factor. The work of caring for an elderly person is a task requiring a great deal of patience, empathy and sensitivity; it cannot be compared to normal work, especially if they do not feel satisfaction. Being the carer of an older person is to take on the responsibility of another person and includes the overall care for the person cared for. The carer must perform their duties extremely conscientiously and must think primarily of the welfare of the other person.

People who have to take care of the sick are exposed to many negative influences, because care is physically and mentally strenuous. Families often go through financial problems. The carer often loses the option of leaving the sufferer and it completely alters their rhythm of life. They may have problems at work, or have to leave employment. In addition to the above-mentioned negatives, they often feel helpless because they cannot help as they would wish, because the medical and nursing options are limited.

The perceived burden on the carer may be physical, psychological, social and financial. It can be a burden in areas such as free time, obligations towards one's own family, employment, but also relationships with others [29].

Counselling, self-help groups and nursing education programs are proven to de-institutionalize the patient, improve their quality of life and the satisfaction of family members and those affected by dementia [3].

In 2012, we conducted research aimed at identifying the extent and nature of the burden on people caring for relatives with Alzheimer's disease in the home environment. As a method for collecting empirical data, a valid, reliable questionnaire, The Zarit Caregiver Burden Interview, was used. The sample group consisted of 50 respondents, family carers for people with Alzheimer's disease. The results of the survey concurred with the results of several studies confirming that dependence of the patient on one caregiver is the most important factor affecting the caregiver's subjective burden.

## **4. Discussion**

Caring for a patient with dementia is demanding, whether in the form of home or institutionalized care. Many experts have devoted large periods of their professional

lives to studying care for patients with dementia, summarizing their knowledge and practical experience in theses as stated in the previous section. If we are concerned with the question of why the area of care for people with dementia is interesting for us, the answer is clear. Where pharmacological treatment is unsatisfactory and the actions and behaviour of the patient are impossible to control or predict, we search for opportunities to activate, stimulate, calm and fill time with meaningful activities. Doing nothing, lying in bed, wandering, negative moods and aggressive behaviour aggravate the overall condition of the patient and accelerate the progression of the disease. In addition to these important facts, it is important to remember the inability of a family carer or professional carer in institutionalized care to reverse this negative situation and do something extra for the sufferer. This is exactly how we see non-pharmacological approaches, which are based on a deep human principle. The experience of other professionals is extremely beneficial to those whom can be helped by these approaches to manage the actions and behaviour of patients and to arouse their interest. When working with relatives, we were deeply impressed by the approach of a daughter who was caring for her mother with Alzheimer's disease in her home environment. To the question: 'Why don't you put your mother in an old people's home, she doesn't know who you are anyway?' the daughter of the patient said, 'But I know who *she* is, she's my mother...' Not everything can be quantified, verified or proven, so we continue to find new opportunities to improve the care of patients with dementia. The family or professional carer is the person who knows the patient very closely and chooses the approach that suits a particular patient. The conclusions of the experts are advisory, and the patient determines what is best. That is why care for a given patient can only ever be highly individualized.

The first empirical research into using therapeutic dolls for Alzheimer's disease was carried out in England in 2006. Later, further studies were performed and these confirmed a reduction in negative behaviour and wandering in patients, increased attention during contact with other people, increased food intake and improved mood [30].

Feil and de Klerk-Rubin proved their positive reactions by disoriented seniors.

If staff can create an atmosphere without conflict for their patients, and without the feeling that each thing has to be 'fought for' it means a lot to them. Another benefit to the patient is undoubtedly the fact that validation treats each person as a unique personality and respects them exactly as they are. This aspect applies in all spheres of the lives of seniors, starting with how they are spoken to [20].

Based on our findings, we can assume that the use of the psychobiographic model helps alleviate negative psychological phenomena, which is consistent with E. Böhm's assertions, and therefore the closer we approach the client with structured care, the more we reduce the many conflicting and hectic situations that lead to regression and pathological changes in client behaviour. Many studies have shown that increasing emotional stability leads to improvement of cognitive functions and conversely, decreasing emotional stability increases the progression of the cognitive deficit [25].

## 5. Conclusion

Given the demographic evolution of the population, it is essential to focus on identifying risk factors, focusing on appropriate planning of health care at the primary secondary and tertiary level [3]. Until there is a drug available to eliminate the cause of the disease, we rely on current therapeutic procedures, including pharmacological and non-pharmacological treatment and in the state of dependence not excluding care for the carer.

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## Conflict of interest

The authors report no conflict of interest.

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