International Journal of Research Studies in Medical and Health Sciences
Volume 8, Issue 1, 2024, PP 28-36
ISSN 2456-6373

Non-Pharmacological Therapies in Patients with Alzheimer's Disease: Interventions on the Patient and the Caregiver

Letteria Tomasello[1], Miriana Ranno[2]

[1]*Department of Cognitive Sciences, Psychology, Education, and Cultural Studies, University of Messina, Italy*

[2]*Department of mental health Sert, drug addiction assistance Provincial health authority Siracusa*

[*]***Corresponding Author:*** *Letteria Tomasello, Department of Cognitive Sciences, Psychology, Education, and Cultural Studies, University of Messina, Italy*

ARTICLE INFO

Received: 21 May 2024

Accepted: 03 Jun 2024

Published: 05 Jun 2024

Cite this article as:

Tomasello L, Ranno M. Non-Pharmacological Therapies in Patients with Alzheimer's Disease: Interventions on the Patient and the Caregiver. Int. j. res. stud. med. health sci. 2024;8(1):28-36.

DOI: https://doi.org/10.62557/2456-6373.080104

ABSTRACT

Dementia consists of a slow and progressive global, chronic and generally irreversible cognitive deterioration. Memory, reasoning, behavior and social skills are compromised and interfere with the normal course of daily life.

The care of a patient with dementia becomes very complex with the progress of the pathology, especially in the home, the care load is particularly heavy for the caregiver, usually a family member and is a cause of physical and psychological stress[(1)].

In advanced stages, the sick person needs constant assistance and monitoring throughout the day, including night; the institutionalization of the patient is therefore the decisive choice to ensure the safety of the patient and his family[(2)]. Hospitalization in the facility is represented by the extreme psychological load of the caregiver (caregiver burden) and the inability to manage sudden violent acts and psycho-behavioral disorders (BPSD) typical of dementia, such as vagrancy, restlessness, agitation, aggression, sleep problems, depression [(3)].

Non-drug therapies to support dementia are a little known and in-depth topic. In this review of the literature we want to offer a reflection and a contribution on the importance of non-pharmacological interventions on the patient and the caregiver, that can have positive effects on the daily life of the patient and reduce the burden of care for a better quality of life of the patient and the family member who assists him.

KEYWORDS: Alzheimer's Disease, Non-Drugtherapy, Caregiver Burden, Intervention.

INTRODUCTION

The 2015 World Alzheimer's Report[(4)] defined dementia as one of the leading causes of disability in old age. This disease, which is increasing in the general population, has been defined in the 2012 WHO-ADI Report as "a global, national, regional and local public health priority".[(5)]

The incidence of dementia in fact increases rapidly with age and gradually doubles every 6.3 years, from 3.9 cases per year every 1,000 people aged 60-64, to 104.8 cases per year every 1,000 people over 90 years (Dementia: a public health priority, WHO, 2015) [(6)]. The age of onset varies, but mainly affects elderly people over 65, the prevalence increases with age, and reaches about 30 % at the age of 80[(7)].

The major risk factor associated with the onset of dementia is age. As a result, the increase in the elderly population has led to an increase in cognitive deficits and dementia[(5)].

It is estimated that over 40 million people worldwide suffer from dementia and this number is expected to reach 115 million by 2050, this pathology is one of the main causes of disability and carries a huge emotional, social and financial burden (8) making research in this area a global priority[(5)].

Despite years of research and numerous clinical trials, no cure is yet available for any of the irreversible causes of dementia. Cholinesterase inhibitors remain the primary pharmacological treatment for cognitive symptoms in Alzheimer's dementia; however, the effects of these

drugs are not universal and are always temporary[9]), which is why it is essential to supplement drug treatment with alternative therapies, which seem to have beneficial effects on clinical syndrome, associated disability and the burden of the caregiver[10].

DEMENTIA

The term dementia indicates a syndrome characterized by a series of cognitive, behavioral and psychological symptoms that may include memory loss, difficulties in reasoning and communication and personality changes that impair the ability to carry out daily life activities. There is a progressive loss of autonomy and self-sufficiency, with varying degrees of disability and consequent dependence on others, to the point of immobilization in bed[11].

In DSM 5 (Diagnostic and Statistical Manual of Mental Disorders, it is a manual for the assessment and diagnosis of mental disorders) the term dementia is replaced with that of Neurocognitive Disorder, distinguished in mild or major. This new terminology, in fact, places more emphasis on decline than a previous level of performance, underlining the acquired nature of these syndromes. It is also detached from identifying as a key symptom the memory deficit, characteristic of Alzheimer's disease, recognizing how deficits in other cognitive domains (language, executive functions, etc.) can be compromised before the memory domain[12].

Dementias include a complex set of chronic diseases that lead to progressive and irreversible degeneration of the central nervous system and impair cognitive functions. Alzheimer's disease is the most common cause (60-80%) of dementia[13].

DIAGNOSIS

The diagnosis of dementia, is based on the clinical history of the person, with the involvement of family members, examining the cognitive alterations present and how these have changed over time and how they cause a compromise in the development and use of the tools of daily activity[14].

In order to be able to diagnose dementia, it is essential to include elements relating to:

Clinical history of the patient; neurological examination, with emphasis on the assessment of the mental state of the person; selective laboratory examinations and tests of brain Neuroimaging

CLINICAL MANIFESTATIONS

The onset of the disease is gradual and is usually manifested by short-term memory loss. Symptoms can be distinguished in the early, intermediate and late stages, depending on the time of onset, the severity and the impact the disease has on the person[6].

In general, signs and symptoms can be divided into the following stages.

Initial Phase

- alteration of short-term memory;
- progressive difficulties in carrying out ADL (Activities of Daily Living; or activities of daily life);
- learning and acquiring new information become tasks

Complexes

- speech problems, mood instability and changes in the personality;
- abstract thinking, insight and judgment are compromised;
- agnosia, apraxia and aphasia (possible).

Patients may react to memory loss and self-sufficiency with irritability, hostility, agitation.

However, at this early stage, often social life does not turn out compromised.

Intermediate Stage

- decline in autonomy in the implementation of ADL (need for aid);
- long-term memory impairment (but still present);
- inability to learn and recall new information;
- personality changes: subjects can become irritable, anxious, inflexible and easily irritable; or they can become more passive, with an affective impoverishment, depression, indecision, lack of spontaneity and general abandonment of social relations.

Late Stage

- total dependence on ADL;
- total loss of memory and short and long term;
- possible appearance of dysphagia, incontinence, muteness;
- high risk of malnutrition, infections (especially pneumonia) and pressure injuries

PSYCHO-BEHAVIOURAL DISORDERS

The behavioural and psychological symptoms associated with dementia are indicated by the acronym BPSD, by "Behavioral and Psychological Symptoms of Dementia", on the initiative of the International Psychogeriatric Association[15] and are defined as a set of symptoms that manifest disturbed perceptual thinking, mood and/or behavior changes, including agitation, depression, apathy, repetitive questions, psychosis, aggression, sleep problems and vagrancy[16] Hallucinations and delusional seizures may also be present[17]. Another frequent behavioural symptom is agitation, with a prevalence

ranging from 63-70%[18].

It is a very common symptom and can manifest as a verbal activity, or inappropriate motor activity[19]. Symptomatology includes physically aggressive behaviors and not the latter called wandering[19]. Another manifestation in patients suffering from dementia is that of the "Sun downing", marked psycho-motor agitation, which arise in the late afternoon/evening hours, the phenomenon is related to changes in the normal control of the circadian rhythm and is accentuated in conditions of particular discomfort for the patient, such as hospitalization or any transfer [17].

The multidimensional approach called Pratical Dementia Care states that, the treatment of such a disease is based on treating the disease, treating the symptoms, supporting the patient and the caregiver[20].

To date, there are no therapies that can cure the progress of the disease, the doctor's task is to manage the neuropsychiatric and cognitive symptoms of the patient, for an improved quality of life of the latter and those around him[20]. The therapies used in the treatment of dementia are both pharmacological and non-pharmacological, although the former are the most widely used[20]. The US Food Drug Administration has approved the use of anticholinesterase drugs for the treatment of cognitive symptoms related to this disease, in 10-15% of cases the use of such drugs lead to a regression of symptoms, even if temporary[20].

Antipsychotic drugs are used in behavioral disorders, some studies have shown that the use of typical and atypical antipsychoticin dementia patients lead to an increase in cerebrovascular and cardiovascular events[20].

Although drugs are often considered first-line therapy, various psychosocial and psychotherapeutic strategies must also be taken into account, since the results in the literature, Efficacy on symptomatology has been demonstrated and avoids the occurrence of risks related to pharmacotherapy, such as side effects, intolerability and even death[20].

Etiopathogenesis is extremely complex as there are multiple direct and indirect factors. It is an interaction between biological (brain changes, drugs, comorbidities), psychological (individual life history, character, personality) and social aspects (lifestyle, support network, social interactions).

Since there is currently no treatment for dementia, psychosocial intervention is associated with drug therapy, as well as non-pharmacological treatments that offer the patient a significant improvement in the quality of his life. Many of these interventions become real routine activities within the Health Care Homes but are also applied to the elderly who reside in their homes. The behavioral-sensory approach is based on interventions such as music therapy, aromatherapy and phototherapy; these are interventions that exploit the sensory modalities (music, essential oils, light) as a means of transmitting non-verbal information, whose understanding is preserved even in the most advanced stages of the disease. They have a benefit on mood and contain behavioral disorders[21]

In addition, several studies have also identified in art therapy, dance therapy, snoezelen therapy and validation therapy the most effective treatments in the non cognitive symptoms of Alzheimer's disease[22].

Music Therapy

According to the World Federation for Music Therapy, WFMT, 1996, music therapy is <<the use of music and its musical elements (sound, rhythm, melody and harmony) by a professional music therapist, with a patient or group in a process designed to promote and facilitate communication, interaction, learning, mobility, expression, organisation and other significant therapeutic objectives to meet physical needs, emotional, social and cognitive people. >>[23].

The impact of music therapy on the treatment of dementia for patients with Alzheimer's disease is well recognized. Music is able to alter different aspects of the disease thanks to sensory, cognitive, emotional, behavioral and social impacts. Music therapy corresponds to two fundamental techniques; one that is based on listening to music (receptive call), the other set to instrumental practice (active call).

The behavioral-sensory approach is based on interventions such as music therapy, aromatherapy and phototherapy; these are interventions that exploit the sensory modalities (music, essential oils, light) as a means of transmitting non-verbal information, There are two types of receptive techniques:

1. Music therapy receptive "type relaxation': is a technique that is used in the treatment of anxiety, depression and cognitive disorders;
2. Receptive 'analytical' music therapy whose purpose is to promote the expression and development of thought.

The most widely used technique when it comes to dementia is 'relaxing' receptive music therapy

Some studies have been done on different populations in the field of Alzheimer's disease and the impact of music therapy has caused the increase of motivation as well as the improvement of the expression of their feelings and communication with others, increased sociality, improvement of depressive symptoms and cognition[24]

Moreover, listening to music, in deep connection with emotions, evokes autobiographical memories increasing or inducing emotions in the listener leading to an improvement in eliciting memories. The re-enactment of

an autobiographical memory leads people to feel the same emotions as when that event was happening[25].

Art Therapy

Art therapy is a form of psychotherapy aimed at using artistic media as a means of communication. To do artetherapy it is not necessary that the patient has great experience or skills in art. The purpose of therapy is to be able to grow on a personal level using artistic materials in a safe and facilitating environment. Limb-based therapies are considered interventions to manage the manifestations of dementia, as they can help in reducing cognitive deterioration, to address symptoms related to psychosocially difficult behaviours and improve quality of life[26]

People with Alzheimer's disease can use artetherapy as a sensory stimulation intervention to increase pleasant sensations. This treatment requires the patient to establish a trusting relationship with the therapist; the therapist's empathic behavior can help the individual develop self-confidence. The idea of having self-confidence leads the patient to engage more in the activity and the 'artistic doing' leads to a decrease in anxiety. Art, thanks to the artistic-therapeutic processes, can promote psychological well-being, stimulate creativity and artistic expression, re-educate people and facilitate social connections. Artetherapy has significant effects on anxiety[27].

Dance Therapy

The American Dance Therapy Association (ADTA) speaks of dance movement therapy as the psychotherapeutic use of movement as a process to promote the emotional, social, cognitive and physical integration of the subject. Dance therapy has effects on motor function, cognitive impairment, mood and quality of life[28].

Thanks to the interventions of dance therapy we work by setting goals aimed at improving the well-being of the patient by acting on the cognitive area, the emotional area where the patient has the opportunity to improve the ability to positively manifest his emotional experiences, overcoming phobias, fears and increasing self-esteem, psychomotor area and relational area, improving personal relationships and decreasing forms of maladaptive behavior. Dance therapy can intervene on disorders such as neurosis, psychosis, eating disorders, depressions. Further objectives of dance therapy are related to growth, personal development, the enhancement of their potential, taking awareness of their behaviors.

For this therapy no dance skills are required, as it is based on searching for those movements that everyone considers most congenial[29].

Snoezelen

Snoezelen is an approach that aims to seek contact with the patient's inner world through stimulation of the senses that improves people's well-being. The Snoezelen technique (from 'snuf-felen', explore, and 'doezelen', relax), was born in Holland in the sixties, despite beginning to spread in the seventies by intervening initially towards people with learning disabilities to reduce the effects of sensory deprivation.

The treatment is lived in an environment aimed at promoting 'multi-sensory' stimulation where sight, hearing, touch and smell are stimulated thanks to lighting effects, surfaces to touch, music and scents. It is a technique that promotes relaxation and stimulation, developing the absence of "unsuccessful' emotions, the stimulus to interaction, the responsiveness to subjective aspects.

In the nineties this treatment is also aimed at people suffering from dementia, as they have been noted the correlations between learning disorders and dementia inherent in the decrease of cognitive functions and communication skills. Snoezelen treatment has positive effects on residual sensorimotor abilities and further studies have shown that subjects using a multisensory stimulation program had reduced apathy, neglect, opposition, aggression and depression, as well as an increase in perceived well-being and adaptive behaviour.

Multisensory stimulation reduces, within dementias, maladaptive behaviors increasing positive ones; there is an improvement in mood, ease of interaction and communication, promotes the relationship with the caregiver and reduces the stress of care.

The Snoezelen technique has reduced aggressive behavior, vagrancy and agitation, favoring sleep and rest; it helps the approach to meals and communication with operators avoiding isolation and apathy. The sitting in the Snoezelen room in many cases has led people towards a fragmented verbalization of memories of the past in a very free, so that the environment considered protected was a container in which the patient could live emotions and sensations (30)

Validation Therapy

This technique was proposed by Feil in 1967; the therapist tries to know the vision of reality by patients, through listening, trying to create meaningful emotional contacts. The main purpose of treatment is to identify with the patient's world in order to understand his behaviors, emotions and feelings. Validation therapy (VT) uses a 'humanistic' approach, believing that the way in which the subject sees and interprets surrounding reality (individual reality) is more important than objective reality[30].

This technique can take place individually or even in a group and when your emotions and feelings are verbalized and shared with the therapist and the rest of the group, the patient increases his or her self-esteem and

perceives that he or she is accepted as a subject who shows meaningful interpersonal skills. In each meeting there are moments dedicated to music, conversation, exercise and food[30].

Doll Therapy

Among the non-pharmacological therapies used to manage the agitation of patients suffering from dementia we find the Doll Therapy which consists in providing a doll with precise anthropomorphic characteristics (facial expression, weight, height. Several evidences have shown the impact of Doll Therapy on behavior, therapy with dolls, reduces anxiety, agitation, vagrancy and apathy, improving communication skills and quality of life in patients with moderate to severe dementia[31, 32]. The mechanism of action of doll therapy, as it is not yet clear, is presumed that the theory of attachment represents the cause of its effectiveness in the control of agitation states[32]. The doll represents the translational object, with the task of catalyzing the attention of patients thus reducing the attachment demand given by the symptomatology. If you observe patients suffering from dementia during the interaction, you notice that they treat the doll, as a real child in need of care, the elderly, interacting with the doll, puts into practice caring, taking care, lulling and reassuring her, and all this has an impact on the patient's behavior that calms and calms[32].

Cognitive Stimulation Therapy and Reminiscence Therapy

Cognitive stimulation therapy (Cognitive Stimulation Therapy), also approved by the World Alzheimer's Report of 2014, consists of a rehabilitation approach used in mild and moderate dementia; is based on the assumption that lack of cognitive activity would favor cognitive decline[33].

Cognitive stimulation therapy consists of a series of nonpharmacological (NPI), in which techniques involving thought and cognition are applied. Unlike other NPIs, which are aimed towards behavioral, emotional or physical results, treatments oriented towards cognition (COT) are aimed at maintaining and enhancing residual cognitive functions and slowing cognitive decay caused by pathology neurodegenerative. This treatment has also shown important benefits in terms of improving quality of life and some cognitive functions such as memory[34]. Reminiscence Therapy (Reminiscence Therapy or Life Review Therapy) consists of a psychosocial rehabilitation intervention in which memories play the key role, being considered the starting point to stimulate the remaining mnesic resources and to recover emotionally pleasant experiences. It is based on the natural propensity of the elderly to recall their past and uses memory as an indispensable tool to integrate past memories with recent ones, in order to better interpret and live everyday reality. The effectiveness of reminiscence therapy in the elderly with Alzheimer's disease is manifested in the cognitive area, depression, daily life activities and quality of life[35].This treatment helps to prevent the disintegration of the personality, ensuring the mental training necessary for the introspective activity, enriching their memories and facilitating the relational aspects.

The Caregiver

The treatment of the patient with neurocognitive disorder involves more areas, as it involves the participation of more figures, health and not, through the creation of an alliance that must be built and grown. Surely this way of taking charge is not easy.

The caregiver is defined as 'the caregiver' of the person with dementia. In scientific literature there are two types: formal and informal. The formal caregiver is a social worker whose role is to operate in a professional way, whereas the informal caregiver is usually a family member who assists the person suffering from dementia without having specific training. Most of the time, the informal caregiver is not informed about the course of the disease and the daily management of the family member with dementia and may have the need to confront the general practitioner, first point of contact to ask for support regarding the taking charge of your patient.

The elderly person suffering from neurocognitive disorder, especially in the moderate and advanced stages of the disease, needs a high load of assistance that falls on the shoulders of the family member who assists[21]

In Italy, it is the family that constitutes the greatest response to care for loved ones suffering from Alzheimer's disease. Caregivers are often spouses or children who choose to keep the patient at home. The higher the level of cognitive impairment of the patient and the less independent he is, the more care and attention he will need[36]

The experience of caregivers is in connection with the evolution of the disease and has a strong incidence in their choices and in their personal lives. Because of the characteristics of the degenerative course of the disease, caregivers experience a daily psycho-physical decline in their loved one[37]. To be able to assist the patient, it is important to manage their emotions. When one becomes aware of the diagnosis, the family member may have an initial shock and later on one may experience emotions of different kinds. You can ignore your own feelings to focus all your attention on the subject with Alzheimer's, with the idea of having to do everything you can to make his life a little lighter. Other emotions can be guilt, anger against the disease; many wonder if they will be able to manage the situation by harboring doubts about the future. All these emotions are natural and human[38].

Caregivers may lose their strength because they feel helpless; they may begin to question themselves about the meaning of life or the onset of illness by feeling a sense of loneliness. They feel they don't have a strong support that can offer them the affection and understanding they need.

For the caregiver the assistance indicates not only a high physical commitment, but also a not indifferent mental and emotional involvement. Sometimes caregivers feel the need to escape and find their freedom. Caregivers feel trapped in the situation, taking away the enthusiasm and experiencing a situation of loss of hope and suffering.

Caregivers must adapt their lives to the needs of their loved one, making important choices and changing their habits. They often face significant lifestyle changes as a result of care commitment.

Caregivers can often lose their jobs as assistance requires continuous surveillance. The implications of informal caregivers are evident and supported by a huge affection from the moment you are part of the same family.[37]

The Stress of the Caregiver

The care that the caregiver gives to patients with Alzheimer's disease undermines their physical health and psychological well-being; this leads to the development of negative effects on quality of life. Many studies have shown that in caregivers of people with dementia there may be a risk of developing the so-called caregiver burden, or a condition that is characterized by psychophysical manifestations that can lead to a deterioration in physical health resulting in a decrease in the immune system, emotional exhaustion, development of anxiety, depression, sleep disorders, gastrointestinal disorders and worsening of cognitive functioning[21].

In particular, it is the BPSD that provides a greater load of assistance to caregivers by creating in them all these high levels of anxiety and stress[39].

Stress is the most widely used synonym to indicate the load of the caregiver. The stress of the caregiver can be subjective and objective. Subjective stress refers to the emotional or cognitive responses of the caregiver including fatigue, inequality, the perception of the current state of the caregiver. Objective stress refers to the care responsibility that the caregiver has, which is based on the need of the recipients of assistance[40].

With the progression of the disease the weight of the situation management increases, as the evolution of cognitive disorders, the decrease in daily life and the non cognitive symptoms of the patient with Alzheimer's feed the discomfort, anxiety, depression of the caregiver[36]. The use of the multidimensional scale of evaluation 'Caregiver Burden Inventory', can obtain useful data in order to identify the subjective load experienced by caregivers.

There are many factors that can feed the presence of this symptomatology: the female sex, old age, the relationship of marital kinship, stressful life events, poor physical and mental health, low life satisfaction, high levels of neuroticism, extroversion. This symptomatology in the caregivers does nothing but worsen the behavioral disorders of the person with neurocognitive disorder, in turn increasing the levels of burden; in this way a vicious circle is created. This is why it is essential to direct the caregiver to support interventions in order to manage stress and its life.[21]

Interventions for the Caregiver

The scientific literature confirms that supporting interventions are important to reduce anxiety-depressive symptoms and stress in the caregiver, but they are also effective for increasing general well-being. These interventions have positive consequences for the quality of life of the family member with dementia[21]

There may be different types of support interventions that are categorized as follows:

Of a psycho-educational nature

- Of psychotherapy
- Based on mindfulness
- Social support
- Patient training with caregiver involvement
- Multicomponents
- Mixed

PSYCHO-EDUCATIONAL INTERVENTIONS	They are structured interventions whose purpose is to provide the caregiver with information and knowledge about the progression of the disease of his family member and to teach special skills of coping to be able to manage the behavioral problems that associate with the disease. These interventions also include the teaching of functional strategies in order to manage their emotions, stress situations and have greater awareness of the illness of their family member.
	These are individual or group psychotherapy interventions that can give psychological support to the caregiver in managing stress, anxiety or depression associated with the assistance of their family member. Among the various psychotherapeutic

PSYCHOTHERAPY INTERVENTIONS	approaches, cognitive-behavioral therapy is preferred, which allows caregivers to increase the awareness of their thoughts and their dysfunctional emotions so that they can modify or modulate them
INTERVENTIONS BASED ON MINDFULNESS	Interventions that are based on mindfulness meditation approach that teaches caregivers the assumption of an attitude and mental state directed to decrease stress levels, improve mood, sense of self-efficacy and perceived quality of life.
SOCIAL SUPPORT MEASURES	Interventions that involve more people whose goal is to provide support and mutual support through the sharing of concerns and personal experiences. The purpose of these interventions is to improve well-being and psychological and social functioning.
PATIENT TRAINING INTERVENTIONS INVOLVING THE CAREGIVER	They are interventions that are put to the patient with dementia but in which the caregiver is also involved as an integral part of the intervention.
MULTI-COMPONENT INTERVENTIONS	These interventions indicate the implementation of two or more approaches in the same intervention, such as: example the union of social and psycho-educational support intervention
MIXED INTERVENTIONS	In this category there is the inclusion of those interventions that cannot be classified in the previous categories but can be: -Exercise interventions for the caregiver -computerised interventions (use digital platforms to provide information to address disease progression) -measures to improve communication -interventions based on art and reminiscence.

Scientific literature has shown that individual interventions are more effective in reducing perceived stress, because they are adapted to the specific needs of the caregiver; Instead, group interventions diminish the perception of social isolation that caregivers feel.

Psycho-educational, psychotherapeutic and multidimensional interventions show positive effects on depression and anxiety in the short term, managing to maintain these benefits up to seven months after the end of the surgery.

In addition to supporting interventions aimed directly at the caregiver, it is important to report services on the national territory whose purpose is to provide relief from the high burden of care that is required. These include the 'Relief Centres', day care centres and home care. Another very important aspect in the support of caregivers is given by the Associations that give information at national and local level, emotional support, practical advice, support groups and training programmes to help people with dementia and their families. It is good for caregivers to participate in these types of interventions not only in burden situations, but also as a form of prevention already when you become aware of the diagnosis of dementia of your family member[21]

The approach to the patient with dementia must be based on a principle of sharing both goals and care plans. The needs analysis must be carried out within the "social care triangle", a person with dementia- informal caregivers - formal caregivers, and it allows to cope with numerous ethical dilemmas that emerge during the course of the illness in compliance with the principles of autonomy, self-determination, charity, and social justice.

The capacity of each assistant to have an interpretative approach to the disease, with its set of cognitive and noncognitive symptoms, is the guarantee of an adequate interpretation and management of behavioural disorders, for a better quality of life for all family members or for patients or caregivers.

Psychotherapists must be aware of their intrusion in a system which balance is threatened by the disease-driven change. Indeed, there is a painful anticipation of the loss both in the patient and in the caregiver, with a wide range of intense emotions and complex interactions. On the one hand, if without memory there is no self, on the other hand, whoever is not recognized by their beloved, after a life together, runs the risk of feeling deprived of their relationship and of their emotional background[41].

Acknowledgment

None.

Conflict of Interest

The authors declare that there is no conflict of interest.

Funding

No funding was received for this work.

Ethical Consideration and Informed Consent

Not applicable.

References

[1] Connors M.H., Seeher K., Teixeira-Pinto A., Woodward M., Ames D., Brodaty H. (2020), Dementia and caregiver burden: a three-year longitudinal study, Int J Geriatr Psychiatry, 35(2):250-258, doi: 10.1002/gps. 52 44.

[2] Tible O.P., Riese F., Savaskan E., von Gunten A. (2017), Best practice in the management of behavioural and psychological symptoms of dementia, Ther Adv Neurol Disord, 10(8):297-309, doi: 10.1177/175628561 7712979.

[3] Förstl H., Kurz A. (1999), Clinical features of Alzheimer's disease, Eur Arch Psychiatry Clin Neurosci, 249(6):288-290. doi: 10.1007/s004060050101

[4] ADI – Alzheimer's Disease International (2015). World Alzheimer Report. https://www.alzint.org/resource/world-alzheimer-report-2015/(Data ultima consultazione: 27/09/2022)

[5] Organizzazione Mondiale della Sanità, Alzheimer'sDisease International (2012). Demenza: una priorità di salute pubblica. http://www.alzheimer.it/reportoms.html (Data ultima consultazione: 27/09/2022)

[6] OMS – Organizzazione Mondiale della Sanità (2015). World Alzheimer Report. https://www.epicentro.iss.it/alzheimer/WAR2015 (Data ultima consultazione: 27/09/2022)

[7] Vanacore N. (2011), I farmaci per la demenza, Centro Nazionale di Epidemiologia, Istituto Superiore di Sanità (ISS), in collaborazione con Agenzia Italiana del Farmaco (AIFA).

[8] Wimo A., Guerchet M., Ali G.C., Wu Y.T., Prina A.M., Winblad B., Jönsson L., Liu Z., Prince M. (2015), The worldwide costs of dementia 2015 and comparisons with 2010, Alzheimers Dement, 13(1):1-7, doi: 10.1016/j.jalz.2016.07.150

[9] Birks J.S. (2006) Cholinesterase inhibitors for Alzheimer's disease. Cochrane Database of Systematic Reviews, Issue 1, doi: 10.1002/14651858.CD005593.

[10] Olazarán J., Reisberg B., Clare L., Cruz I., Peña-Casanova J., Del Ser T., Woods B.,Beck C., Auer S., Lai C., Spector A., Fazio S., Bond J., Kivipelto M., Brodaty H., Rojo J.M., Collins H., Teri L., Mittelman M., Orrell M., Feldman H.H., Muñiz R. (2010), Non pharmacological therapies in Alzheimer's disease: a systematic review of efficacy, Dement GeriatrCogn Disord, 30(2):161-178, doi: 10.1159/000316119

[11] Ministero della salute. Demenze. https://www.salute.gov.it/portale/demenze/homeDemenze.jsp (Data ultima consultazione: 14/09/2022)

[12] American Psychiatric Association. Diagnostic and statistical manual of mental disorders (DSM-5), American Psychiatric Publishing, Washington DC, London, 5°edizione, 2013, pagg. 602-614.

[13] ISS – Istituto Superiore della Sanità, EpiCentro. Demenze: documentazione. https://www.epicentro.iss.it/demenza/documentazione-mondo (Data ultima consultazione: 15/10/2022)

[14] Arvanitakis, Z., & Bennett, D. A. (2019). What Is Dementia? JAMA, 322(17), 1728. https://doi.org/10.1001/jama.2019.11653

[15] International Psychogeriatric Association (IPA). Guide complete IPA ai sintomi comportamentali e psicologici della demenza (BPSD). https://www.ipa-online.org/publications/guides-to-bpsd (Data ultima consulazione: 10/10/2022)

[16] de Oliveira A.M., Radanovic M., de Mello P.C., Buchain P.C., Vizzotto A.D., Celestino D.L., Stella F., Piersol C.V., Forlenza O.V. (2015), Non pharmacological interventions to reduce behavioral and psychological symptoms of dementia: a systematic review, Biomed Res Int, 218-980, doi: 10.1155/2015/ 218980

[17] Bertora, P. (2015). Neurologia per i corsi di laurea in professioni sanitarie. Piccin.

[18] Turten Kaymaz, T., & Ozdemir, L. (2017). Effects of aromatherapy on agitation and related caregiver burden in patients with moderate to severe dementia: A pilot study. Geriatric Nursing, 38(3), 231–237. https://doi.org/10.1016/j.gerinurse.2016.11.001

[19] Wall, M., & Duffy, A. (2010). The effects of music therapy for older people with dementia. British Journal of Nursing, 19(2), 108–113. https://doi.org/10.12968/bjon.2010.19.2.46295

[20] Nowrangi, M. A., Rao, V., &Lyketsos, C. G. (2011). Epidemiology, Assessment, and Treatment of Dementia. Psychiatric Clinics of North America, 34(2), 275–294. https://doi.org/10.1016/j.psc.2011.02.004

[21] Govoni S., Del Signore F., et al. Demenze: trattamento farmacologico e non farmacologico e gestione dello stress del caregiver. Rivista SIMG 2020; 27 (5): 50-56. Pg 52

[22] Monteleone A., Filiberti A., Zeppegno P. Le demenze: mente, persona, società. Santarcangelo di Romagna (RN): Maggioli Editore, 2013

[23] Gomez-Romero M., Jiménez-Palomares M., et al. Beneficios de la musicoterapia en lasalteraciones conductuales de la demencia. Revision sistematica, Neurologia, volume 32, issue 4, 2017, pages 253-263

[24] Guetin S., Portet F., et al. Intérêts de la musicothérapie sur l'anxiété, la dépression despatients atteints de la maladie d'Alzheimer et sur la chargeressentie par l'accompagnantprincipal (étude de faisabilité). L'Encéphale Volume 35, issue 1, 2009 pages 57-65

[25] Marrone F. La medicina narrativa e le buone pratiche nei contesti della cura. Metodologie, strumenti, linguaggi. Lecce: Pensa MultiMedia Editore s.r.l, 2016, pg 169

[26] Deshmukh L., Holmes J., Cardno A. Art therapy for people with dementia. Cochrane Database of Systematiic Rewiews. London UK: 2018, Issue 9. Art No

[27] Deygout F., Auburtin Guy. Art therapy for elderly women diagnosed with Alzheimers: A positive person-centred approach increases ease in the care process. Annales Médico-psychologiques, revue psychiatrique. Volume 178, issue 10, 2020, pages 961-969

[28] Wu C-C, Xiong H-Y, et al. Dance movement therapy for neurodegenerative diseases: A systematic review. Front Aging Neurosci. 14:97511, 2022

[29] Federico R. Dalla danza alla danzaterapia. Introduzione alla DMT. Roma: Associazione Rocco Federico Onlus. Youcanprint Self-Publishing, 2017, pg 57-58

[30] Monteleone A., Filiberti A., Zeppegno P. Le demenze: mente, persona, società. Op cit, pg 142

[31] Braden, B. A. , Gaspar , P. M. (2015). Implementation of a baby doll therapy protocol for people with dementia: Innovative practice. Dementia, Sep; 14(5): 696-706.

[32] Santagata, F., Massaia, M., & D'Amelio, P. (2021). The doll therapy as a first line treatment for behavioral and psychologic symptoms of dementia in nursing homes residents: A randomized, controlled study. BMC Geriatrics, 21(1), 545. https://doi.org/10.1186/s12877-021-02496-0

[33] Woods B., O'Philbin L., Farrell E.M., Spector A.E., Orrell M. (2018), Reminiscence therapy for dementia, Cochrane Database Syst Rev, 3(3), doi: 10.1002/14 651858.CD001120.pub3.

[34] Yates L.A., Orrell M., Spector A., Orgeta V. (2015), Service users' involvement in the development of individual Cognitive Stimulation Therapy (iCST) for dementia: a qualitative study, BMC Geriatr, 15:4, doi: 10.1186/s12877-015-0004-5.

[35] Cuevas P.E.G., Davidson P.M., Mejilla J.L., Rodney T.W. (2020), Reminiscence therapy for older adults with Alzheimer's disease: a literature review, Int J Ment Health Nurs, 29(3):364-371, doi: 10.1111/inm.12692.

[36] Aguglia E, Onor ML, Trevisiol M, Negro C, Saina M, Maso E. Stress in the caregivers of Alzheimer's patients: an experimental investigation in Italy. Am J Alzheimers Dis Other Demen. 2004 Jul-Aug;19(4):248-52

[37] Daga E., Corvo E., et al. L'esperienza dei caregiver primari che assistono a domicilio le persone affette dalla Malattia di Alzheimer [Alzheimer'sdisease and caregivers experience in home care.] Professioni infermieristiche, 67(1). Pp 5-14. ISSN 0033-0205. Canterbury Christ Church University

[38] Alzheimer Europe, Manauale per prendersi cura del malato di Alzheimer. Op cit, pg 17

[39] Tampi RR., Bhattacharya G., Marpuri P. Gestione dei sintomi comportamentali e psicologici della demenza (BPSD) nell'era degli avvertimenti in scatola. Curr Pischiatria 2022, Rep 24, 431-440

[40] Liu Z., Heiffernan C., Tan J. Caregiver burden: A concept analysis, Internation Journal of Nursing Sciences, volume 7, issue 4, 2020, pages 438-445 ISSN 2352-0132

[41] Tomasello L, Zaccone C, Galletta S, Laganà A, Pitrone C, et al. Alzheimer's disease and caregiver's burden: The efficacy of a psychoeducational and psychotherapeutic groups. J Clin Images Med Case Rep. 2023; 4(9): 2585.DOI: www.doi.org/10.52768/2766-7820/2585