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## ***New Trends in Non-Pharmacological Treatment of Alzheimer's Disease***

### **ABSTRACT**

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**RESEARCH OBJECTIVE:** The aim of this paper is to summarize the knowledge of non-pharmacological treatment in the care of people with Alzheimer's disease. The contribution is theoretical and provides a suitable prerequisite for further examination of the subject matter, namely the need for quality education and the need to change the approach of care for people with Alzheimer's disease.

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**THE RESEARCH PROBLEM AND METHODS:** The presented contribution approaches the preferred values of care such as coping, self-decision and identity from the clients perspective, as well as new trends in non-pharmacological treatment of Alzheimer's. Based on the study of professional domestic and foreign literature of social, psychological and medical orientation, we approach selected non-pharmacological therapies.

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**THE PROCESS OF ARGUMENTATION:** After defining the goal of the contribution and the basic concepts of Alzheimer-type dementia, it follows (i) the theory of physical environment adaptation, (ii) Tom Kitwood's approach to care and (iii) health promoting and preventive approach in the social-healthcare sector. A substantial part of the argumentation is the need to create a new culture of care provision.

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**RESEARCH RESULTS:** The result of this argumentation is the need for quality preparation of future generations of healthcare professionals and the need for a change in the philosophy and culture of providing care for people with dementia in the countries of Eastern and Central Europe.

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**CONCLUSIONS, INNOVATIONS AND RECOMMENDATIONS:** This analysis confirms the need to change the attitudes and self-reflection of helping professionals in the care of people with Alzheimer's disease. There is also an urgent need to change the preparation of future generations of assisting professionals

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and further education in line with the latest research and knowledge on the provision of social and health care.

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→ **KEYWORDS:** **NON-PHARMACOLOGICAL TREATMENT, ALZHEIMER'S DISEASE, PERSON CENTRED CARE**

## Introduction

Progression of civilization diseases and problem of providing high-quality social and health care are main challenges of the twenty first century. Alzheimer's disease does not only affect elderly population, but also persons with mental disabilities as well as persons in productive age (Larsen & Wigaard, 2014; Solheim, 2015; Tretteteig, 2016; Alzheimer's Association, 2016) and their close ones or family members. These people create a specific social group of informal caretakers and patients of various neurological, psychiatric and geriatric departments and later also receivers of social services in the local community. To ensure quality of life for affected patients it is essential to follow new trends in pharmacological as well as non-pharmacological treatments. At the same time it is important to replace general traditional approaches (from passive care receiving) with innovative methods and approaches in care (active involvement in self-care with an assisted support of a helping professional).

## Dementia of Alzheimer's type

Alzheimer's disease is the most frequent form of dementia and by experts counts between 60 and 80% of all types of dementia (Alzheimer's Association, 2016, p. 6). The disease is considered for one of the most destructive brain diseases which are still diagnosed too late. Its onset is slow and inconspicuous. The first-contact doctor is usually contacted after occurrence of first serious symptoms such as disorientation in time and space, cognitive decline, massive change in behaviour or incapability of common communication. In some countries it is still believed that forgetting is a natural symptom of getting old. However, this progressive neurodegenerative disease is typical by neuronal loss in the brain. In clinical picture this is presented by the syndrome of dementia, meaning that a person fails in common daily activities. Prevalence of the disease

in the population under 65 years old is 4% of patients, in the age over 65 it is 15%, between 65 and 74 years there are 44% of persons affected by the disease and in the age over 85 years there are 37% of senior population diagnosed with the disease (Herbert et al., 2013). Prevalence of Alzheimer's is doubled every 5 years after 60 years of age.

### Adjustment of environment as a new trend in non-pharmacological treatment

Non-pharmacological interventions have been part of the pharmacological treatment of all kinds of dementia in the past decade. Sørensen (2010, p. 14) summarised an overview of non-pharmacological interventions based on a study of research overview articles from the period since 1975 until 2004 and their influence on treatment of patients. Non-pharmacological therapies involve various interventions considered for secondary prevention of cognitive decline. They include cognitive rehabilitation, interventions focused on specific ADL activities such as care related to food intake, physical training, adjustment of environment, communication and mutual interaction between a patient and helping professional, reminiscence, light therapy, communication via reality orientation, validation, aromatherapy, massages, musical therapy, dance-movement exercises and sense stimulation. At the same time it is important to consider education of the employees and their further education, training of skills, supervision of personnel as well as support of combined interventions focused on identity and integrity of the person affected by the disease. Selection of a non-pharmacological therapy has to be assessed based on patient's needs, behaviour observation, life story and other factors influencing the situation of a patient. The approach of staff as well as their devotion for the work of helping professionals are also important.

Kraus (2006) stated that non-pharmacological approach is recommended in care for persons with dementia in early stage of the disease. According to Pidrman (2007, p. 93), the aims of non-pharmacological treatment are:

- Preserving or improvement of level of single skills.
- Meaningful free-time spending.
- Affecting behavioural and psychological symptoms of dementia and daily-life activities.
- Improvement of verbal and non-verbal communication.

He also mentions the relevance of activities supporting strong features of seniors with dementia, complexity and adequacy of offered leisure-time activities. Pidrman (2007) considers life style, physical and psychical activities, optimising of sensory functions and proper nutrition as important for a treatment. Ballard et al. (2013) later describes that non-pharmacological care is the first choice for patients with dementia.

Psychiatric institutions, mainly daily care centres, use an unusual expression for treatment by environment – “milieu therapy” (environmental therapy) where it is essential for the environment and therapeutic activities to evoke domestic environment. In social work it is more common to use the term of “adjustment of environment” than environmental therapy. It is nonetheless clear that environment affects behaviour of each individual (e.g. aggressive behaviour can be significantly changed by adjustment of environment) and also affects treatment of patients. According to Sheard (2010), milieu therapy/ environmental treatment requires a complex individual approach and adjustment of patient’s environment for better orientation and comfort (approach of reality orientation, safe movement across a large space, providing sensory stimulation such as aromatherapy, musical therapy and disposal of disturbing elements from the environment).

Methodical Instructions for Establishment and Operation of Psychiatric Care Centres in Slovakia state that in

milieu therapy it is essential that the environment for therapeutic activities remind non-stigmatizing social environment as much as possible (e.g. civilian clothes of personnel and patients, calming environment with lots of pleasant and inspiring objects etc.) (Methodical Instructions No. 27, 2006).

In historical sources it is mentioned that in 18th century a French psychiatrist Pinel introduced treatment by “moral control” involving physical, social, spiritual and aesthetic aspects of care, which was very similar to what is now called *milieu therapy* (Janosiková & Davies, 1999).

In Slovakia services for patients with dementia are provided via social services and not only with the help of nursing (medical) services in geronto-psychiatric units. Such departments are also created by some Slovak social service centres dedicated to seniors with a higher number of personnel and higher security, i.e. with a controlled daily program and movement of clients. These departments however are not fully adjusted to the needs of clients and the only adjustment of environment is just locked main entrance to the departments or bars on windows.

Procházková (2014) deals with the environmental therapy in the Czech Republic via psychobiographical approach in care. In this approach,

environment plays the cardinal task and is based on the principle of normality. The approach also prefers domestic architecture (physical furnishing of patient's environment) that reinforces and supports the principle of normality by strengthening a relationship potential towards single pieces of furniture from a certain period of a patient's life. For helping professionals the concept of environmental therapy also means change of approach to patients and performance of activities included in their profession. It means shift from the traditional authoritative personnel attitude to control the life of a patient (the role of a control manager) to the innovative and fully supportive attitude of viewing the patient as somebody who has a priority right for self-determination and decision about their life. This way the personnel obtain a new professional role of an advisor and supporter. The aim of psychobiographical model, to which environmental therapy belongs, is to support a patient in his autonomy and capability to decide about his own matters as long as possible.

In Scandinavian countries this concept has lasted until now and is considered for the first principle in work with a person with dementia which by International Classification of Diseases is classified as a psychiatric diagnosis. Environmental therapy (in Norwegian *miljøterapi*) has been since 1983 considered for a systematically deliberate relief of psychosocial and physical environment of patients in relationship to their situation and needs. This approach provides larger opportunity for education, coping and personal responsibility (Larsen & Selnes, 1983). This model of environmental therapy is also common in Denmark. It is applied mainly in psychiatry and long time care. It is a social-psychological treatment method based on specific problems of a patient. Environmental therapeutic treatment is planned with focus on attitudes, underlining the relationships among patients, between patients and environment and between patients and personnel. It is always a complementarity of forms of the therapy itself and personnel (Kronsted et al., 2007).

Grue (2010) nowadays explains that therapeutic interventions always should be performed in the environment using all the sources of a client for improvement of his or her quality of life. The basic elements of environmental therapy are consistent care, tact against patients and support in self-decision about anything that patients share or can participate in and self-determination (preservation of identity). The important factor of this therapy is creating a calm, harmonic environment with an atmosphere of trust, mutual psychosocial support and support of patients' identity. The main aim of this therapy is providing possibilities for preservation of identity and self-reflection of patients with Alzheimer's in a safe and fully respecting environment. Only in the environment adjusted this way it is

possible for a person with Alzheimer's to use all their remaining capabilities and skills. The role of professional personnel is important in this interaction between environment and a patient. Environmental therapy is further developed and clarified by Solheim (2015, p. 52) as displayed in picture No. 1.



*Picture 1.* Schematic figuration of environmental therapy.  
Source: Solheim, 2015, p. 52

Wogn-Henricksen (2004) in Solheim (2015) describes two basic elements in care of patients with Alzheimer's:

- a) Behaviour of the personnel in the interaction with patients. Personnel's behaviour should primarily create a good and calm atmosphere so that patients feel comfortable, safe and regularly verbally praised for what they are.
- b) Physical layout of the environment where both the patients and personnel stay. Physical layout refers to colour of walls, furniture, functionality of the building, technical aids, proper lightning and sound.

When selecting any non-pharmacological therapy, it is important to also consider the personnel providing care and services. As well as physical environment that is a part of creating a favourable atmosphere, the staff is equally important. These two aspects are in a complementary and reciprocal relationship. Even if the environment was ideal and perfectly furnished, but the personnel did not have adequate education and was not able to create a proper atmosphere, the care would be at a low-quality level. The personnel have to understand that knowing a patient closely, accepting him or her in the given situation ("here and now") and adjusting their behaviour in the way to make a patient manage self-decision and self-determination, are the main pillars in the non-pharmacological approach. Nylenna (2017) develops the knowledge about environmental therapy and points out that it is a systematic and deliberate adjustment of psychological, social and material/ physical conditions of the environment in relation to a situation and needs of individuals and groups. The purpose of the environmental therapy is to support individuals' opportunities

for education, coping and personal responsibility or their maintenance. This therapy tries to provide environment that is most similar to a natural environment of a patient and that contributes to handling new interactive abilities between a patient and the environment. Placing the emphasis on a patient is considered a positive signal of inclusion of close persons to the care of a sick family member. Non-formal care takers have higher and higher meaning and role in care taking. The new trend of non-pharmacological treatment is confirmed exactly by this aspect of perceiving a patient (holistic approach).

### Approach focused on care as a basic theoretical resource

Theory focused on care of a person emphasizes meaning and value of a patient with dementia: "...patient is at the first place ...means more than his or her medical diagnosis" (Kitwood, 2001, p. 2). Patients with dementia by Kitwood (2001) do not lose their personality and own identity and both these components can be preserved if they are included and integrated into interpersonal relationships, because personal and social identity of a patient with dementia is formed in a social interaction. For Kitwood (2001) deep esteem and respect are important attributes and processes in which human personality is formed. Slowík (2010) completes Kitwood's view and points out following principles:

- active and attentive listening,
- accepting the other one as an equal partner,
- respecting communication possibilities,
- adjustment to a communication situation.

The above-mentioned principles for helping professionals mean a positive approach to work with a person with dementia aiming to providing social support, enforcing people with dementia control over their own life in everyday situations and interactions according to their needs. In practice it means perceiving receivers of social services or persons living in a domestic environment as valuable beings regardless their physical and psychological condition even in case of full dependence on help of another physical person. Approach to a person suffering from dementia should be maintained under all conditions, aiming to respecting their dignity and treating them like adults, not children. Kitwood states an example of seventeen various interactive processes negatively affecting personality of patients with dementia, that he calls "psychosocial malignancies." In a practical life of a helping professional, psychosocial malignancies are demonstrated as destructive communication patterns (Janečková & Vacková, 2010):

- Cheating and betrayal – not keeping a promise made by a helper such as: “I’ll go out with you later,” hoping the client will forget.
- Objectification of a person – treating a dementia patient as if he or she did not have any opinion: “Missis T. likes most...”, “For her, the best would be...”, “This is not good for him...”
- Infantilization and condescension – e.g. a comment of a helper when serving food: “Now we are going to eat, aren’t we?”
- Labelling, stigmatization – appearing in verbal communication of professionals, e.g.: “He has dementia so he cannot understand that.” “The client is from a department for demented.” A person with dementia gets a label or stigma, often assigned to a weakness or something other in common life of a sick person, that is not working, in this case loss of brain function as one of symptoms of dementia.
- Ignorance – when a speaker talks about a sick person in their presence as if they were not here.
- Refusal, withholding of attention – neglecting the person in a space. For example, if a sick person asks for attention by the eye contact or raising a hand, but a helper deliberately does not pay attention.
- Forcing to do things or ordering – if a helper forces and orders a client to perform some acts while the client feels confused and does not understand what is required. For example: “Do it once again and properly!” or “Put it away where it belongs.”
- Showing impatience, outrunning some acts or not respecting pace (helping person dresses a client instead of letting them to dress up by themselves).
- Chasing away, isolation, keeping distance – a helper chases away a client asking for attention. For example, sits the client to a room and closes the door. The helper “hides” from the client (in a staff room) to avoid a contact.
- Manipulation – abusing a client by ordering them to bring or did something under the excuse they would be busy in a useful way, unlike an organised activation occupation with a therapeutic effect.
- Sarcasm, mockery, making fun of patients – when a helper taps a client’s shoulder remarking: “Even if you are becoming soft-headed, you are funny.”
- Incapacitating – learned helplessness and passivity when a helper substitutes for a client activity which they are still able to do.
- Interrupting – when a client is doing something and a helper is disturbing them by other orders. For example, a client is folding serviettes and the helper says: “now sign it here and then you can go on folding.”



- Humiliation, contempt, depreciation – “They are all demented, they do not understand...”
- Understating – when a client complains about something and a helper accepts it saying: “It is nothing, tomorrow it will be better, just hold on.” “Do not bother, it is not important, everything will be good.”
- Hurrying up – “Come, come, everybody is already waiting!”
- Accusing, intimidating – “If you do not do it today, you will not get a dinner...”

All the above-mentioned ways of treating persons with dementia lead to consequences like loss of self-confidence and identity, increasing of dependence, falling into apathy or becoming aggressive. From helping professionals those are often unconscious reactions which show as learned automatisms, behavioural patterns or routine work of staff or family members.

One of the types of a psychosocial malignance as a destructive communication pattern is “betrayal” which can be described as a certain form of manipulation or getting control over a person with dementia by a helping professional. Another type of psychosocial malignance is objectification which means treating a person with dementia like they had no opinions or feelings, like they were a lifeless thing. There are ten various types of a correct communication supporting positive development of a person, called “positive work with a person” by Kitwood. One of examples of positive work with people with dementia is work in the environment where people can go through a lot of sensual experiences such as music, light and pleasant smells. Another form of positive work with people with dementia is sensual activation (Vojtová, 2014). A positive response of sensual activation is engaging of all sensual organs perceived as person’s sources and using their potential to awareness of their own personality and support in common daily activities. It is a non-violent, natural communication via colours, sounds, touches, tastes and smells between a patient and personnel. Meaning and aims of sensual activation are reflected in examples of positive communication with a person with dementia by Kitwood:

- Celebration – an approach expressing a joint joy over achieved results. For example, if a client stays alone in the dining room, slowly finishing the last mouthful, a helping professional might say: “I am glad you like it. It makes me happy to see people with an appetite.”
- Validation – recognizing emotional condition of a person, confirmation of his or her feelings and asking right questions: “What is it like?”, “How can I help you?”.
- Honesty – showing real interest and willingness.

- Involvement – encouraging patients with dementia to get involved into society (to not sit alone in the corner of the room) and to feel involved. (Janečková & Vacková, 2010, p. 50)

Theoretical resources focused on care for a person with dementia confirm positive approaches and attitudes of helping professionals in a direct contact with patients. Methods of work and communication are various and the resource for their applying is positive “tuning” of a helping professional for work with dementia patients. Seniors with dementia, according to Kitwood, are persons with their own identity which can be further maintained and to a little extent also developed by helping professionals. Using wrong procedures and attitudes, especially approaches described in malignant social pathology, can disrupt the identity of a person.

Kitwood (2001, p. 8) assumed that all patients with dementia have five basic needs and all the care of a person should come from pure love:

- Comfort – providing warm and force by professionals in the form of encouraging, understanding, showing empathy and an honest relationship.
- Bond – emotional bond, creating and maintaining relations within a community, group as well as client’s family members.
- Inclusion – being a part of a group, either a department in a social care institution or a group within activation programs.
- Activities – persons with dementia are involved in the process of life (maintaining common living with as many as possible possibilities of client’s self-realization and its usage in common activities such as physical hygiene, food intake and movement in space).
- Identity – importance and good feeling of themselves are a positive consequence of a correctly set up helpers and their commitment in favour of clients.

Attitudes of helping professionals and approach in providing care in a large extent affect quality of life of every patient as well as quality of provided care. Indicators of a well-done job are satisfaction of patients and their close ones but also satisfaction of the personnel. Harmony among all the actors is possible via a process of improving themselves and further education of helping professionals with regard to new trends.

## Health-supporting approach in the social-medical sector

One of resources for work with patients with Alzheimer’s is a salutogenic approach coming out from a health concept of medical sociologist Aaron Antonovsky (2004). His view of the world is defined by this idea: “all the people in the world are exposed to lots of risks and yet they stay

healthy". This philosophy also applies to persons with Alzheimer's who are especially vulnerable and prone to get in dangerous situations with fatal consequences. Salutogenesis deals with health development and its main focus is CONTROL and COPING of existing or remaining health of each human being. Health is not considered a non-presence of sickness but as "health and sickness" together, at the same time making a unique quality of life. Current trend is aiming attention in care for a patient to holistic, so called "social model" of providing help to a person – also emphasising secondary needs of a client rising from the interaction of an individual with social environment during development. The need of self-realization, personality development, examining and creating, leading to prevention of personality degradation emphasising independence, did not get into foreground in the past. Antonovsky (2004) perceives health as a continuum between full health and serious illness and salutogenetic perspective focuses on factors closing to health. There is a complementary relation between salutogenesis and pathogenesis, which is affected by the environment where a patient lives. Lorenz (2006) point out salutogenesis in a social context and claims that reliable social relations are a pre-condition for healthy living up to the identity. The term of salutogenesis comes from Latin words of *salus* – happiness, salvation and *genese* (of Greek origin) – beginning, formation, origin. Salutogenesis is the opposite to pathogenesis the meaning of which is looking for the origin of a disease. This word includes scepticism and negative attitude to a client. In the past so called "biomedical model" of providing care for a person was preferred, meaning focusing on sickness, ill condition of a person and development if the disease while self-realization of a senior in the range of his or her remaining skills, capabilities and knowledge was totally missing.

To bring attention of helping professionals to patients with their capabilities and set targets for maintaining their dispositions is a practical salutogenetic work. The core of salutogenetic perception and applying principles in helping profession lies in searching well-functioning health in sickness, which means that patients with Alzheimer's are also able to take care of their own body with correct adjustment of environment, attitudes and approach of helping professionals.

## Preventive approach in the sector of social and health care

Lifestyle as a significantly controllable factor contributes to many diseases. Krajčák (2006) describes aims of geriatric prevention which prolong patient's life, improve quality of life and self-sufficiency and allow

reasonable spending costs for treatment of patients since secondary and tertiary prevention decrease cost for institutional care. He finds integrated prevention also significant as it includes right lifestyle, pharmacotherapy and in some cases also vaccination. Persons in elderly age should change their lifestyle from a passive one to active one, which refers especially to physical and mental activity. To physical activities profitable for overall health belongs movement in fresh air taking at least 30 minutes and suitable are regular daily walks (combined with Nordic walking with the help of sticks). Positive effects are also brought by traditional Chinese meditation based on Asian spiritual Taoism called Tai Cchi, gaining more and more popularity in the countries of eastern and northern Europe. Another important preventive program is mental activities via memory trainings. For persons with a cognitive disorder it is especially significant to train and maintain memory in the best possible condition, which is done by social stimulation and cognitive training. For elderly people memory trainings mean not just the opportunity of training the memory and decreasing forgetting, but also degradation of depression conditions and feelings of loneliness. With the help of a cognitive training it is possible to improve memory abilities as well as understand how memory works. Such trainings include information on the mechanism of forgetting, remembering, influence of disturbing effects on memory, teach seniors to use various memory aids and entertaining exercises with the help of which seniors can improve concentration, speed of recalling information, creativity in thinking and remembering numbers, words, names and so on. It is possible to train numeric memory, verbal, eidetic, episodic and semantic memory (Nadácia Memory, 2007). In practice laymen can find various names for cognitive rehabilitation, memory trainings (called also cognitive training) or the term of neurorehabilitation. The authors Klucká & Volfová (2009, p. 19) explain differences in the terms:

Cognitive rehabilitation is correction of damaged cognitive functions. Cognitive training (memory training) means training of cognitive abilities at healthy persons that are activated by this activity and contribute to prevention of cognitive disorders in the sense of involution changes. Neurorehabilitation is a complex care of patients with a severe brain damage using various activation methods and support of spiritual coping with functional deficits as a result of severe damage.

Solheim (2015, p. 130) describes sensual and mental stimulation as an activity increasing satisfaction and life joy, at the same time meaningful and stimulating activity decreasing pains and finally, an activity for prevention of restlessness and nervousness.

To a healthy lifestyle inseparably belongs variable food, sufficiency of fresh vegetables and fruit, fish and whole-grain pastries. Maintaining of proper body weight, non-smoking and avoiding stress or its elimination, devotion to interests and hobbies as well as good relations in a family can be considered the most important measures in relation to prevention of civilization diseases such as Alzheimer's disease.

Habits, customs and routine of a patient with Alzheimer's have to be accepted, maintained as long as possible and adjusted to. Only that way patients can preserve their identity and support their self-decision and feeling of coping with life. Experiencing own self-value and feeling of coherence supports the identity of each patient. Free decision about what a patient wants or wishes supports his or her integrity. Every selection of an approach should consider these basic principles of care of a person.

## Necessity of creating a new culture in providing care

Planning social services is not only related to planning financial and personal services but also to planning the necessity of a new culture in social and health care. Rokstad (204, p. 84-86) points out that the basic elements in the approach focused on care as one of non-pharmacological approaches in practice are following:

- Focus on personality features and skills of personnel, especially on the capability to work with own attitudes and reactions.
- Environment of care – it is essential to build up a new culture of providing care in the environment where all are equal and mutual psychosocial support is provided (headquarters to the personnel, personnel to the clients, family to the personnel and all one to another).
- Emphasis is put on a patient – in the new culture of providing care it is necessary to change traditional attitudes (passive receiving of care) to active cooperation of a patient and his or her family.
- Regular assessment of a feeling of satisfaction, well-being and involving patients to self-care is an inevitable part of personnel's job.

The necessity of change also brings risks and benefits, demanding setting on innovations and long-time collection of skills, observation, recording, reassessing and assessing. This effort is not possible to perform as an individual, it is always a job of the whole team as much as its results.

## Conclusion

According to the estimates, in 2050 51% people older than 65 years will suffer from Alzheimer's (Herbert, 2013). Statistics point to the necessity of a high-quality preparation of future generations of helping professionals. Theoretical resources by Tom Kitwood and other authors stated in this contribution confirm it is essential for helping professionals to realize their own habits, emphasizing common communication with patients with dementia. A larger importance is put on self-reflection of helping professionals at the performance of the job. Every human being deserves to be treated in a human way with the main attitude that in helping profession it is a man and only after his or her stated diagnosis.

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