

Neuropersonality and neurotherapy - Anatomical description of personality therapeutic process

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ABSTRACT : This article aims to map neurotransmitters related to specific-primary personality traits as well as adjacent and subsequent personalities. The purpose of the study is to begin the series called *neuropersonality* and present the innovative treatment called *neurotherapy*, starting with the narcissistic personality, from the instinctive, as a homeostatic factor, to its exacerbation and imbalance. Narcissistic personality can be natural or pathological leading to disorders and other aspects that harm mental health, as well as behavioral expression in society, bringing disapproval due to lack of adequacy. Histrionic personality, conversely, is always pathological and consists of people who use their physical appearance, acting inappropriately seductively or provocatively, to attract the attention of others. Based on this knowledge and with the case report of two patients, one with narcissistic personality disorder and other with histrionic personality disorder, the authors created the so-called neurotherapy, personalized treatment with the biochemical determinant, that is, the neurotransmitters specific to each personality. Ensuring the uniqueness of patient management, according to its specific characteristics.

KEY WORDS: narcissism, neurotransmitters, histrionic, biochemical.

I. INTRODUCTION

The human brain is constantly changing and adapting, always seeking maximum performance or lower energy expenditure. Several case reports and neuroimaging studies have already demonstrated that there is a change in the brain of people with narcissistic personality disorder (NPD) and histrionic personality disorder (HPD), even though science has not been able to prove whether the bearer of these disorders is born with this genetic marker or if the behavior and the environment trigger the onset of diseases. Therapeutic cognitive assessment reveals an increase in the number of patients with NPD and HPD in two evaluated clinics and in the Gaio Institute of psychoanalysis. This leads to the possibility that the change is due to everyday habits with influence of technological culture. Thus, this article aims to map the behaviors and neurotransmitters related to NPD and HPD, creating a type of therapy customized and based on the biochemical profile of the patient, *neurotherapy*, with its own protocol and personalized management according to specific characteristics of each patient. In addition, two cases of patients are presented, one with NPD and other with HPD, where *neurotherapy* was applied directly together with the traditional therapies already known.

II. NARCISSISTIC PERSONALITY (NATURE) :

psychosis. In his inner world, he is "goodness", and all evil resides in others, who want to attack him. Insecure about his own kindness, however, he becomes furious when he realizes that others are better than him. Lamarck in 1809 proposed that the adaptation of the species was due to environmental changes, and that these changes would be passed down from generation to generation. It is known that neurons do not have DNA replication because they are very differentiated post-mitochondrial cells, from this, epigenetics emerged. This theory studies the alterations of histonas, proteins that make up nucleosomes, in which DNA is coiled in the nucleus. The tails of these histonas are subject to post-transcriptional modifications, the so-called "code - histona" that affects gene expression. These modifications can be dynamically regulated in response to environmental stimuli and this process has been associated with the transmission of phenotypes over generations. Still on narcissism, Jacques Lacan stated that the baby at birth does not know itself and seeks, in its development, to identify with the image of a child that the mother would like to have. Movement called by him the "subject assumption", making the "presence of the other" fundamental at this stage. In this phase occurs the "mirror stage", where the subject observing his own reflection in the mirror begins to recognize himself in the reflected image, which he believes to be real, identifying himself from the image of the other (MEYER, 2014). The search for the mother's conquest is an instinctive biological factor for survival. The unconsciousness of fragility and necessity shapes, over time, the personality that has a dual but semantic sense of conquest; be it to achieve reproductive needs to maintain the species through reproduction (survival), as well as to conquer food and care to survive.

Our instinct is predominantly related to survival and behaviors and personality traits are derived from this condition. This dependence of the baby and the child by the mother not only involves neurotransmitters and hormones related to the feeling (love) of the child by the mother, but also shape personalities related to creation, while education, having as trigger the genetic personality, interferes in all other personalities. All primates are already born programmed to form a powerful emotional bond with the mother or other figure of primary attachment (BOWLBY, 1969/1990), and the main hormone related to this affection is oxytocin, also called the love hormone. Together with dopamine, serotonin and endorphins, oxytocin is part of the group called "happiness neurotransmitters" because they have the function of increasing feelings of well-being and reducing stress and anxiety. The newborn receives the oxytocin produced by the mother through breast milk, but also produces its own by contact with the mother's skin and feeling the maternal smell, thus reinforcing the bond between them. The semantic link of narcissism with the human reproductive system since its transmission and connections in the brain is revealed when it is considered a disorder due to the intensity and partial loss of consciousness revealed in behavior, related to generalized dysfunction in neurotransmitters.

BEHAVIORS RELATED TO NARCISSISM IN HOMEOTASE :

Natural narcissism is part of the instinct necessary for survival, seeking in self-love self-affirmation that conditions attitudes that can attract the partner and/or position itself in society. Some symptoms of this behavior are: Feeling of superiority that varies according to the intensity of the personality; Motivation through admiration; Controlled empathy; Thoughts of achievements, crucial for motivation, action and determination; Natural sense of ability, helping in the process of attempts; Critical analysis through negative and positive possibilities; Search for skill enhancement; The feeling of authority may refer to a family member or any opportunity; The pleasure of attention and special treatment without having to go over the coherence of the limit for action; Arrogance in its natural state is only determined to answer incoherent questions in response to dissatisfaction for a tailored positioning; Healthy self-reference as assertive and determining recognition and homeostatic egocentrism, necessary for social and attractive positioning.

The brain connections of natural narcissism are related, *a priori*, to the genetic factor, to determine the production of related neurotransmitters. An analysis of the personality of parents already defines a preview of possibilities about the child considering the process of education and life experiences. However, these behaviors, when out of balance become a pathology called narcissistic personality disorder (NPD).

III. NARCISSISTIC PERSONALITY DISORDER

People with NPD are extremely vain, to draw attention to the physical state (aesthetic capital), and practice intellectualism regarding their goals. They are often selfish for the consideration of personality as the center of attention and prevalence. Authoritarianism is also a strong trace of subsequent personality to achieve what you want, as well as manipulation; and insecurity happens in peaks of reality that favor more actions for the purpose of reversal in their favor. Irritability happens when they do not get what they want, as a way of trying, "by force", to achieve their goal, thus devaluing the other, diminishing, belittling, is part of the manipulation process. Victimism is a way to draw attention to yourself and the inconvenience borders on the lack of education that interferes with the ability to manipulate people. They can abuse terms to draw attention, but they manipulate and dominate so that they do not reach the level of disapproval. Gaslighting is a cruel way of manipulation widely used by psychopaths, sociopaths, and other psychopathies, where it is denied that something really happened and tries to convince until one believes the opposite, that everything was a great misunderstanding of interpretation. Getting to the point of making them believe that one is imagining things, size the power of convincing and emotional blackmail, based on systematic and convincing lies. The patient with NPD may be dominant, passive/aggressive, imperative mainly verbally, so that he can feel superior and make the other feel inferior and even fear the threats that the patient of NPD makes against himself and those who live with him. Your action always holds an emotional coercion.

NPD BEHAVIOUR :

The behaviors related to personality reflect personality that reveal other behaviors and, these, become a problem when they go beyond the stage of the natural reaching the disorder. These are: Selfishness; Vanity; Authoritarianism; Manipulation; Insecurity; Irritability; Devaluation of the other; Victimism; Inconvenience; Gaslighting; Lying and Assault. In NPD, as well as adjacent disorders that reveal narcissism outside of homeostase, the carrier of the disorder is seductive, provocative, conquering and tends to have more constant sex. Corroborating the narcissism with reproduction that is related to the natural need for the survival of the species that, when in a less controlled stage, the reason affected by entropy transseems the need more evidently. Sexual narcissism is a sexual variant of the clinical construction of NPD, includes sexual concern and compulsiveness, promiscuity, an inflated sense of sexual ability, interpersonal exploitation and an inadequate sense of

entitlement(HURLBERT, 1991; HURLBERT, 1994). These factors associated with characteristics that lead them to be more deceiving and less repentant in their quests to obtain alternative sexual partners, causes the condition to be strongly associated with infidelity(DEWALL, 2011; DRIGOTAS, 1999). Conversely, it is also related to sexual dissatisfaction, sexual boredom, inability to feel empathy and emotional intimacy(WATSON, 1984)and high levels of hostilityand exploitation(RASKIN, 1991), a combination of characteristics that can stimulate them to fortly assume the sexual relations they desire, even if they realize that sexual assault can harm their victims. NPD is an invasive pattern of grandiosity in front of othersgenerating unrealistic success fantasies and placing the person with the disorder in abstract realities that comfort him in his disturbed state. There is, among many behaviors, the lack of empathy and the need for admiration. The NPD can be defined as natural narcissism at high potency, adding some adjacent and consequent behaviors of personality in the disorder characteristic. People with NPD may face problems in various areas of life related to the relationship, whether family or work. Their interpersonal relationships are often compromised by complications resulting from the feeling of entitlement, the need for admiration, and lack of empathy. While ambition and self-righteous confidence can lead to great achievements, his professional performance can be disrupted due to intolerance to criticism or defeat. This performance can also be very low, as these people are reluctant to take risks in competitive situations where defeat is possible. There is alsopersistent feeling of shame or humiliation,and persistent self-criticism may be associated with social retraction, depressed mood, and major or dysthymic depressive disorder, thus, narcissistic disorders have a high risk of depression and suicide(APA, 2013).For the diagnosis of NPD,patients should present: Persistent pattern of grandiosity; Exaggerated and unfounded feeling of its own importance, talents and perception of competence; Concern for fantasies of unlimited achievements, influence, power, intelligence, beauty or perfect love; Conviction of being special, unique and that it should associate only with people of the highest caliber; Unconditional need to be admired; Feeling of deserving; Exploitation of others to achieve their own goals; Lack of empathy; Envy of others and conviction of being envied, arrogance and haughty.

IV. HISTRIONIC PERSONALITY DISORDER

In histrionic personality disorder (HPD) patients continually require them to be the center of attention, most often getting depressed when they are not. They are highly dramatic, enthusiastic and flirtatiary people, often delighting unknown people. They often dress and act inappropriately seductively and provocatively in inappropriate places such as school and work, not just with potential romantic interests. Their intention is to impress others with their appearance, so they often become too concerned about the way they are performing. The expression of emotion can be superficial (turned off and on very quickly) and exaggerated, with speeches in a dramatic way, expressing strong opinions, but with few facts or details to support their opinions. They are also easily influenced by others and by momentary tendencies, with a tendency to rely heavily on others, especially authority figures who imagine they can solve all their problems. Patients with this disorder often find that relationships are closer than they are. On the other hand, they crave novelty and tend to get bored easily in relationships, being able to change jobs and friends frequently. Deferred gratification is very frustrating for them, so their actions are often motivated by the need for immediate satisfaction. Getting emotional or sexual intimacy with these people can be difficult, as patients often become victims, trying to control their partners using seduction or emotional manipulations and, at the same time, become very dependent on their partner(APA, 2013; FULFORD, 2008; LENZENWEGER, 2007).

HPD BEHAVIOUR :

In general, patients withHPD are not able to live normally, and sometimes do not achieve professional success, with a low rate of social success. They usually have good social skills in a small circle of people who tend to use them to manipulate others to make them the center of attention. However, this "stability" does not last long, and they end up affecting such social, professional or romantic relationships, as well as their ability to deal with losses or failures. They tend to start relationships well, but hesitate when one needs depth and durability, alternating between extremes of idealization and devaluation. Infidelity is blunt and inconsequential in love relationships. With the end of romantic relationships, they can seek treatment for depression, although it is not an exclusive feature of this disorder. Initially, HPD may be confused with mitomania.They often fail to visualize their own personal situation realistically and tend to dramatize and exaggerate their difficulties and/or pretend that they are understanding and analyzing, but just want to put an end to it. Because they get bored easily and have problems dealing with frustration and criticism, they end up changing jobs frequently, which can reach a critical point where they can no longer place on the market. This craving for novelties and excitement can put them at risk. For the diagnosis of HPD,patients should present: generalized pattern of excessive emotionality and attention seeking, which is characterized by 5 or more of the following behaviors: discomfort when not the center of attention; inappropriately seductive or provocative sexual interaction; rapid change and superficial

expression of emotions; consistent use of physical appearance to draw attention to themselves; extremely impressionist and vague discourse; self-dramatization, theatricality and extravagant expression of emotions; suggestibility (easily influenced by other people or situations); interpretation of relationships as more intimate than they are. In addition, symptoms must have occurred in early adulthood.

V. NEUROTRANSMITTERS

Neurotransmitters are chemical messengers that can transmit, stimulate and balance signals between neurons or other cells in the body. These billions of chemical messengers work constantly and can affect a variety of physical and psychological functions such as heart rate, appetite, sleep, fear, breathing emotions, learning, concentration among other various functions(JONASON, 2009). Neurotransmitters can be classified by function or type. Here we will use the classification by type: monoamines, amino acids and peptides.

MONOAMINES

Epinephrine: also known as adrenaline, epinephrine is considered a hormone and a neurotransmitter. It is usually the stress hormone released by the adrenal system;however, it can act as a neurotransmitter in the brain. Protein-rich foods, when digested, break down into amino acids. An amino acid, known as tyrosine, can increase dopamine and adrenaline production.

Norepinephrine: This naturally occurring chemical is a neurotransmitter that plays an important role in the alertness and participates in the body's fight-or-flight response. Its role is to help mobilize the body and brain to act when facing danger or stress. The level of this neurotransmitter is usually lower during sleep and higher during stress. Vitamin B6, found in whole grains, sesame seed, banana and tuna integrate an enzyme that plays an important role in the production of norepinephrine and serotonin.

Dopamine: Often called the wellness neurotransmitter, dopamine is related to reward and motivation. It also plays an important role in coordinating body movement and when there is loss of neurons producing this substance, increases the risk of developing Parkinson's disease. Avocado, banana peel (can be used in farofas, for example), apple, orange, tomato, spinach and carioca beans are some of the food sources of this neurotransmitter.

Serotonin: hormone and neurotransmitter that has as a precursor tryptophan, serotonin plays an important role in regulating mood, anxiety, sleep, libido and appetite, in this way it is known as happiness hormone. Selective serotonin reuptake inhibitors (SRIs) are antidepressant medications commonly used to treat depression, anxiety, and panic syndrome, preventing serotonin reuptake in the brain. When there are serotonin-related disorders it is interesting to include food sources of this substance as a way to aid in the improvement of the picture, such as greener silver banana, pineapple, strawberry, spinach, lettuce, passion fruit, plum, tomato and wild rice.

AMINO ACIDS

Gamma-aminobutyric acid(GABA) acts as the body's main chemical messenger inhibitor. GABA contributes to vision, motor control and plays a role in regulating anxiety. Benzodiazepines, used in the treatment of anxiety, work by increasing the efficiency of GABA neurotransmitters, which can increase the feeling of relaxation and calm. The main foods that concentrate this neurotransmitter are fermented dairy products, germinated grains (azuki beans, soybeans, carioca beans and peas), oats, rice (white, black and red), cabbage, broccoli, shiitake, bitter chocolate, potato and sweet potatoes.

Glutamate is the most abundant neurotransmitter found in the nervous system and plays an important role in cognitive functions such as memory and learning. Excessive amounts of glutamate can excitotoxic swell cell death. This accumulation is associated with some diseases and brain lesions such as Alzheimer's disease, stroke and epileptic seizures. The main sources of glutamate are animal foods such as egg, milk, cheese and meat, but can also be found in some vegetables such as asparagus, watercress and lettuce.

PEPTIDES

Oxytocin is known as the love hormone, released in large quantities in women at the time of delivery in order to increase contractions, increase dilation and decrease maternal anxiety, but is also recognized for its role in improving mood, social interaction and increased bonding between partners. It is a hormone that also acts as a neurotransmitter, is produced by the hypothalamus and plays a role in social recognition, connection with other people and sexual reproduction. Its synthetic form is already on the market and several studies point to other

beneficial effects such as: memory creation, attachment, generosity, empathy. Some foods that can improve oxytocin secretion are: Chocolate; Oilseeds such as chestnuts, hazelnuts and pistachios; Banana; Dark green leaves; Proteins, especially eggs and seafood; Milk, milk, milk.

NEUROTRANSMITTERS IN RELATIVE BEHAVIORS

One of the triggers of these disorders is the need for dopamine release and the presence of dysfunction in other neurotransmitters, especially serotonin which has as one of its functions, increase dopamine secretion. Dopamine involves the need to gradually conquer, not exact, semantic, relative or distinct that is related not only to the need for constant actions, as well as vanity to position itself narcissica. Serotonin is closely related to anxiety, sleep, feeling of well-being, among the other factors that can harm the pursuit of more achievements. Decreased serotonin levels increase pain sensitivity, exploratory behavior, locomotor activity, and aggressive and sexual behaviors. Some psychic and mood disorders have already been well correlated with changes in serotonin concentrations, such as aggressive and obsessive behaviors, depression and attention deficit. In relation to sexual behavior, this neurotransmitter plays an inhibitory role on the hypothalamic release of gonadotrophins, with a consequent decrease in sexual response, however, the decrease in serotonergic activity makes sexual conduct easier. There are several situations in which serotonin is decreased, the stress of NPD and HPD, together with inadequate feeding can decrease its concentration (HENINGER, et al., 1996). Despite all the beneficial effects of oxytocin, there are several studies that suggest otherwise. An English study has shown that this hormone is linked to risky behaviors. The authors compared two groups, one that administered intranasal oxytocin and ingested moderate doses of alcohol. According to the authors, a dose of any of the compounds can influence the way people treat others, increasing the perception of confidence, which would increase the possibility of taking unnecessary risks (MITCHELL, et al., 2015). An Australian study showed that volunteers who administered oxytocin just before playing a game of chance with a fake opponent had more envy and pleasure. These are also social emotions, but they are negative. This data led researchers to think that oxytocin promotes social emotions in general, both negative and positive. The hypothesis is that oxytocin does not lead to a specific direction, depending on the social situation, and, when increased, social suggestions seem amplified (KEMP, et al., 2011).

VI. BRAIN CHANGES

Despite the various definitions of NPD and HPD, the following traits are shared: selfishness, disregard for others, self-centrism and low empathy (WINK, 1991). Some studies have shown that these empathy deficits relate to levels of affective sharing or arousal (FAN, 2011; RITTER, 2011), understanding of emotions (MARISSSEN, 2021) and emotion regulation (RITTER, 2011).

BRAIN OF A PERSON WITH NPD

A German study demonstrated a significantly lower volume in the left and right anterior insula beyond the prefrontal cortex and the frontal paralymphan network in patients with NPD when compared to normal neuroimaging patients. A lower volume of gray matter in these regions of the brain, particularly in the left anterior insula, may be related to deficiencies in empathy, a striking feature of patients with narcissistic disorder. Although lack of empathy is one of the main characteristics of the narcissist, it is also present in other conditions such as psychopathy, for example. Still, this data has high relevance for the advancement of traditional therapies and new therapies for this disorder (SCHULZE, 2013). A Polish study concluded that there is a faulty commutation between the Central Executive Network (CEN) and the Standard Mode Network (DMN), leading to increased activation of NMD, which in turn focuses *attention on itself*. At the same time, the high activation of the Leach Network (SN - formed by the anterior insula and the cingulate dorsal anterior cortex), caused by a great stimulus during empathy with others, can lead to decreased affective sharing and increased personal suffering. High amounts of stimulus within the internal world in narcissists can impair the function of the anterior insula even more. Consequently, the processing of external stimuli can be contorted and, from a psychological point of view, NPDs will be observed as having problems capturing the perspectives of others (JANKOWIAK-SIUDA, et al., 2013).

BRAIN OF A PERSON WITH HPD

People with HPD may have cognitive deficit to varying degrees. Burgess demonstrated that people with dramatic personalities (histrionic, narcissistic, borderline and antisocial types) presented significant impairment in their performance in cognition and information processing tests, particularly in subtests that require multi-stage and multi-element associative operations (Burgess, 1992). Deficits in cognitive functioning may be present due to inadequate planning and impulsivity: problems associated with HPD. Cognitive functions are controlled by the frontal cortex, which shows a marked development in adolescence and early adulthood - a period in which HPD

manifests itself - and are related to motivation and learning - domains associated with the functioning of the behavioral inhibition system and behavioral activation system(TAYLOR, 2005).

VII. WORK ON NEUROTRANSMITTER FUNCTION THROUGH SUPPLEMENTATION AND BEHAVIORAL THERAPY

All neurotransmitters are involved in processes that result in personality. The neural network is connected, and the malfunction of a neurotransmitter can cause malfunction of others. The main neurotransmitters related to this study personality were determined. It is appropriate to analyze the results of neurotherapy for the need for actions related to the other neurotransmitters not chosen here.

VIII. THE BRAIN CHANGES ACCORDING TO HOW IT IS USED

This study proves what had already been previously revealed by neuroplasticity, where new connections are formed, increasing the gray matter region and strengthening neuronal connections.

Michael Merzenich argues that it is possible, throughout life, to create neuronal circuits and connections in response to stimuli and experiences, which would result in functional changes. In the 1970s and 1980s, through animal experiments, Merzenich demonstrated that neuronal circuits and synapses change rapidly according to the activity practiced, confirming brain plasticity. In one of the trials, he rearranged the nerves in a monkey's hand and observed that the cells of the animal's sensory cortex quickly reorganized to create a mental map of that limb(MERZENICH, et al., 2014).

According to Merzenich, the brain was built to change according to experiences and how it is used. A good example is in sport, where training causes it to increase skills due to the brain plasticity that drives and models the brain for better performance. Another example is neglected children with a history of abuse, who modeled their brains and presented a poor repertoire of learning and self-harmful behavior(MERZENICH, et al., 2014).

IX. NEUROTHERAPY

Based on the knowledge acquired, neurotherapy was created with the biochemical determinant, that is, focusing on neurotransmitters specific to personality. Describing it anatomically and working it in a targeted manner. The following will be reported two cases of personality disorder (PD) and the treatment used associated with personalized neurotherapy focused on each patient. Both patients were previously informed about the research and agreed to participate by signing a consent form.

NEUROTHERAPY IN NPD

The therapy was tested in a 28-year-old female publicist with major complaints of anxiety crises, impatience, irritability, she felt the object of envy and a "fat eye". His secondary complaint was of constant dissatisfaction, frustration, did not deal well with rejection and felt wronged. In the first therapy session, the clinical observation was that the patient-maintained fixation in the phallic phase, with restrained aggressiveness, was exhibitionist, fetishist, self-centered, goddily, with superficial feelings and little empathy. In the second session, the application of the self-image questionnaire revealed that the patient was constructing a parallel reality, showing what she was not and trying to hide who she was. He felt superior to everyone, physically and mentally. I'd like to seduce and conquer, but I didn't have the skills to maintain an emotional commitment. He had difficulty dealing with the passage of time in his body, because he did not want to grow old. It did not articulate thought with a lack of derivation of knowledge without understanding metaphors or analogies. The *House, Tree, Person*(HTP) test showed impulsive behavior, lack of inhibitive control, and little emotional maturity. The self-knowledge questionnaire revealed that the patient looked only out, being extremely critical, but not having self-criticism. The self-esteem questionnaire identified an exacerbated narcissism, with difficulty dealing with rejection and frustration, feeling of constant superiority and that was always wronged, because life owed him something, added to an arrogant, arrogant and presumptuous behavior. In the third session, the diagnosis of narcissistic personality disorder was consolidated with fixation features in the phallic phase. The person with fixation in the phallic phase tends to physical and mental exhibitionism, to the narcissism of their qualities, attributes and powers. Besides being an exhibitionist, the phallic type can be aggressive, nosy, arrogant, arrogant and convinced, deeming itself worthy of "penetrating" in any space that it considers as its right.

The treatment was started in the fourth session with the establishment of a new routine and recommendation to exercise empathy, solidarity and humility in teamwork, starting the working day greeting colleagues and being generous. The adoption of the Mediterranean diet (high consumption of vegetables, fruits, vegetables, nuts, beans, cereals, grains, fish, seafood and unsaturated fats such as olive oil, usually with low intake of meat and dairy products) was recommended. These foods are rich in tryptophan, an essential amino acid in the endogenous production of serotonin, a neurotransmitter that is fundamental in maintaining the body's well-

being(LASSALE, 2019). It was also established a cognitive training, new sleep hygiene routine, suggestion of the adoption of the walking routine, books and films were indicated with small audio recording with their understanding and emotional interpretation of the characters involved and the psychological profile of each one. In the following session, the patient remained engaged in treatment, but still complaining, with frequent and systematic repetitions and behavior of pride and lack of humility, but with the purpose of improving. In the following sessions, the patient remained committed to evolve and it was identified that her narcissistic characteristics and fixation traits in the phallic phase could be well used if she receives positive reinforcement with each new achievement. It is possible to turn pride into honor, and vanity into pride for achievement. A new routine evaluation and placement of new goals, new mental challenges and emotional management were performed. The patient evolved with weight loss, fine-tuning the real image with the constructed one. Developed empathy and gained real recognition and admiration. For the first time he felt effectively belonging to the group. It gained quality in relations through solidarity and reciprocity. Improved vocabulary, conversation and listening had greater repertoire and quality.

The patient has been progressing significantly and does not want to abandon the therapeutic process, following therapy by his own choice, because there was already evidence for high therapy. She has been feeling truly admired, accepted and well-lived, for she has learned about real human feelings such as compassion, solidarity and reciprocity, altruism. He transformed his vanity by migrating from aesthetic to intellectual capital, thus generating honor and gaining respect from his peers. A person with narcissistic trait can not only seek supplementation in tryptophan, either food or manipulated in the laboratory, but also an inverse therapeutic process. If consumption is low, leading to stress, one can indicate an anti-stress therapy... And so on. The processes that can be linked to neurotherapy are psychodynamic psychotherapy, which focuses on the underlying conflicts; approaches to disorders such as adapted borderline; mentalization-based treatment; psychotherapy focused on transference; cognitive behavioral therapy, among others. Patients with NPD have difficulties in regulating self-esteem and devalue other people so that they can feel superior. Working awareness is not a determining factor since people with NPD have a loss of rationality. NPD is usually more common in males and testosterone may be determinant for this facilitation. The hereditary factor has significance, as well as education, conviviality, among other external factors that are part of the cognitive development process that we can call experience. The person with NPD has difficulty accepting the disorder and treatment, because they live in an abstract reality, passing on fantasies to the therapist and a belief about therapeutic approaches such as simplistic or generic, among other factors. These perceptions after evaluation of many patients were the trigger for the creation of this therapy as another segmented and priority process so that all other treatments can have a better effect.

NEUROTHERAPY INHPD

Female patient, 74 years old, diagnosed with HPD. Through traditional therapeutic processes, it was suggested the reason for the patient's disorder being her mother who treated her differently from her siblings because she had darker skin. The mother constantly compared and decreased it, making the patient at one point believe, as a child, the possibility of being adopted. The patient had all the personalities of the disorder very accentuated, harming her in living with the family and in society. A DNA test (MyHeritage-Genera) was performed, where not only his ancestry but also possibilities of diseases as well as possible nutritional deficiencies were requested. The test revealed what was already known, confirmation as the daughter of her parents, both Europeans from Portugal. Also brought to light was the cognition to accept that her mother was from a remote region with old customs and lack of perception and education for a better creation, however, that this did not make her a bad person, since the patient's reports are that her mother was affectionate, despite this prejudice of color. This helped the patient to have the perception that her mother's prejudice was just ignorance, but that this did not fail to make her a good mother and redeem herself with the passing of age. Several traditional therapies are used for the treatment of HPD, with additional solutions to possible DNA-derived deficiencies suggesting the adoption of the Mediterranean diet to help solve the lack of vitamin B6, K, D, Iron, lactose intolerance, among others reported in the examination, which participate in the patient's well-being process, which was also indicated to a nutritionist and routine implementation of physical exercises with physical educator accompaniment.

Habits were indicated for behaviors that could bring homeostasis in the body in what aids in the treatment such as cognitive training, books and films indicated by the therapist. As well as the use of neurotherapy related to neurotransmitters affected by HPD. It was recommended to break certain self-destructive habits such as depressive films, tragedies, tragic news, so as not to feed this need for self-destruction and consequent obsession to be the center of attention.

The existence of prejudice in the patient herself was also worked. In this case, the HPD derived from a childhood trauma related to prejudice, generated in the victim the same prejudice with other people. In this way, prejudice was worked on. Other than that, there would be no acceptance of its own that defined the perception that what affected it was not only ignorance, but also a prejudice that the patient herself has and that needs to resolve. After the suggested changes, the patient demonstrated significant improvement in both her well-being and behavior and family relationship. He has been fed better and has done regular physical activity and reports no longer suffering from frequent mood swings of HPD. It continues with psychotherapeutic treatment for follow-up demonstrating high adtake and energy deposited in its evolution, which demonstrates a genuine effort of the patient in its improvement, because characteristically patients with HPD believe that they do not require any treatment and that they do not have any pathology.

X. FINAL CONSIDERATIONS

Given the high increase in vanity and narcissistic personality behavior, which causes exponential ramifications for pathological narcissism and/or disorders, including the main ones, NPD and HPD; after analysis of reports, reports, surveys and interviews with normal patients with NPD/HPD and other disorders. Considering brain neuroplasticity and the adaptation of the brain and its regions to habits and behaviors. It is concluded that disorders such as NPD and HPD have hereditary influence, but that this is not the only triggering factor and may or may not be determinant. Factors such as the internet, social networks, games, among others, are raising the levels of anxiety that, as a pending factor, requires the release of reward neurotransmitters such as dopamine, becoming a vicious cycle and thus potentiating narcissism, both by the cultural factor, of the power that the social network makes to think of, as well as the dopamine cycle that makes it seek constant achievements by raising and triggering narcissism as a mechanism of social positioning. Personality and its nuances are related to biochemical agents, the neurotransmitters that conduct all functioning for all behavior-related processes. Neuropersonality is a neuroanatomy of the construction of subjectivity, as identity; and neurotherapy is a therapeutic process that aims at better efficacy by working directly on reason, focus or originating springs that result in syndromes, disorders or diseases.

There are obstacles to the treatment of disorders with narcissistic bond due to the lack of awareness of the patient. As well as the permanence of abstract reason, the construction of a parallel and fictional reality on the part of patients affected by Personality Disorders. Who end up underreputing the therapeutic process. As well as belittled by the therapist and his entire professional framework, due to the belief of superiority of the patient before other people. The patient also suffers from a logical cognitive loss due to dysfunctions in the Paralympic region and the prefrontal cortex. The treatment directed to the characteristic traits of these personalities and to specific neurotransmitters can, together with the assertiveness of therapeutic processes, bring an efficacy in a shorter period, simplifying the treatment. Especially when we consider the anxiety factor, which contributes to the patient's lack of patience, as well as the fact that people with NPD and HPD need a clear view of the result so that there is no treatment withdrawal. The type of management with protocol determined for each type of PDT, ensures patient engagement, thus ensuring the success of the Neurotherapy method.

REFERENCES

1. AMERICAN PSYCHIATRIC ASSOCIATION. **Diagnostic and Statistical Manual of Mental Disorders**, Fifth Edition (DSM-5), 2013.
2. ARAÚJO, MG. Considerations on narcissism. **Psychoanalysis Studies**, n.34, p. 79-82, 2010.
3. BOWLBY, J. Attachment and loss, Vol 1. **Attachment: the nature of the bond** (2nd ed). São Paulo: Martins Fontes, 1990 (Original work published in 1969).
4. BURGESS, J. Wesley. Neurocognitive impairment in dramatic personalities: histrionic, narcissistic, borderline, and antisocial disorders. **Psychiatry research**, v. 42, n. 3, p. 283-290, 1992.
5. DEWALL, CN; et al. So far away from one's partner, yet so close to romantic alternatives: avoidant attachment, interest in alternatives, and infidelity. **J Pers Psychol Soc**. Dec; 101(6):1302-16, 2011.
6. DRIGOTAS, SM; SAFSTROM, CA; GENTILIA, T. An investment model prediction of dating infidelity. **Journal of Personality and Social Psychology**. 77:509-524, 1999.
7. FAN, Y. The narcissistic self and its psychological and neural correlates: an exploratory fMRI study. **Psychol med**. Aug; 41(8):1641-50, 2011.
8. FULFORD, D; JOHNSON, SL.; CARVER, CS. Commonalities and differences in characteristics of persons at risk for narcissism and mania. **Journal of Research in Personality**, v. 42, n. 6, p. 1427-1438, 2008.

9. HENINGER, GK; DELGADO, PL; CHARNEY, DS. The revised monoamine theory of depression: a modulatory role for monoamines, based on new findings from monoamine depletion experiments in humans. **Pharmacopsychiatry**, v. 29, n. 01, p. 2-11, 1996.
10. HURLBERT, DF; APT, C. Sexual narcissism and the abusive male. **Journal of Sex & Marital Therapy**, 17, 279-292, 1991.
11. HURLBERT, DF; et al. Sexual narcissism: A validation study. **Journal of Sex & Marital Therapy**, 20, 24-34, 1994.
12. JANKOWIAK-SIUDA, K; ZAJKOWSKI, W. A neural model of mechanisms of empathy deficits in narcissism. **Medical science monitor: international medical journal of experimental and clinical research**, v. 19, p. 934, 2013.
13. JONASON, PK; et al. The dark triad: Facilitating a short-term mating strategy in men. **European journal of personality**, v. 23, n. 1, p. 5-18, 2009.
14. KEMP, AH; GUASTELLA, AJ. The role of oxytocin in human affect: a novel hypothesis. **Current Directions in Psychological Science**, v. 20, n. 4, p. 222-231, 2011.
15. LASSALE, C. et al. Correction: Healthy dietary indices and risk of depressive outcomes: A systematic review and meta-analysis of observational studies. **Molecular psychiatry**, v. 24, n. 7, p. 1094-1094, 2019.
16. LENZENWEGER, MF; et al. DSM-IV personality disorders in the National Comorbidity Survey Replication. **Biological Psychiatry**, 62 (6), 553-564, 2007.
17. MACÊDO, KB. The multiple faces of narcissus. **Psychology and Health Magazine**, 2010.
18. MARISSIN, MA; DEEN, ML; FRANKEN, IH. Disturbed emotion recognition in patients with narcissistic personality disorder. **Psychiatry res.** Jul 30; 198(2):269-73, 2012.
19. MERZENICH, MM.; VAN VLEET, TM.; NAHUM, M. Brain plasticity-based therapeutics. **Frontiers in human neuroscience**, v. 8, p. 385, 2014.
20. MEYER, AV. The metamorphosis of narcissism: Lacan, the mirror stadium and aggressiveness. **Revista Brasileira de Psicoanálise**, v. 48, n. 3, p. 69-79, 2014.
21. MITCHELL, IJ; GILLESPIE, SM; ABU-AKEL, A. Similar effects of intranasal oxytocin administration and acute alcohol consumption on socio-cognitions, emotions and behaviour: Implications for the mechanisms of action. **Neuroscience & Biobehavioral Reviews**, v. 55, p. 98-106, 2015.
22. RASKIN, R; NOVACEK, J; HOGAN, R. Narcissistic self-esteem management. **Journal of Personality and Social Psychology**. 60:911–918, 1991.
23. RITTER, K. Lack of empathy in patients with narcissistic personality disorder. **Psychiatry res.** May 15; 187(1-2):241-7, 2011.
24. SCHULZE, L; et al. Gray matter abnormalities in patients with narcissistic personality disorder. **Journal of psychiatric research**, v. 47, n. 10, p. 1363-1369, 2013.
25. TAYLOR, J. Substance use disorders and cluster B personality disorders: Physiological, cognitive, and environmental correlates in a college sample. **The American journal of drug and alcohol abuse**, v. 31, n. 3, p. 515-535, 2005.
26. WATSON, PJ; et al. Narcissism and empathy: validity evidence for the Narcissistic Personality Inventory. **J Assess Pers.** Jun; 48(3):301-5, 1984.
27. WINK, P. Two faces of narcissism. **J Pers Psychol Soc.** Oct; 61(4):590-7, 1991.