

## **MENOPAUSE - NEURO-VEGETATIVE MULTIDISCIPLINARY APPROACH**

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### **Abstract**

*Menopause is considered the time in a woman's life that coincides with the absence of gonadal hormones secreted by the ovaries responsible for inducing the menstrual cycle. Emotional menopause is classified in the physiological menopause due to decreased endocrine function of the ovaries, surgical menopause induced by total hysterectomy (uterine and ovarian extirpation) and menopause due to age-related ovarian pathology. Subjective symptoms are manifested by: hot flashes, sweating, insomnia, nervousness, irritability, depression, anxiety, etc. The hormone replacement therapy is used to treat these symptoms, and the patients are monitored by a medical team consisting of: family doctor, gynecologist and endocrinologist. These symptoms lead to the need to study the psychological factors involved in menopause. The treatment of the symptomatology for maintaining the quality of life of women who reached this period of menopause refers to both the medical and the psychological field. The study investigates the mental representation of menopausal symptoms, hormone replacement therapy, and adherence to treatment.*

**Key words:** Menopause, mental representation, hormone replacement therapy

### **INTRODUCTION**

The definition of menopause originates in the nineteenth century. Menopause is considered the time in a woman's life that coincides with the absence of gonadal hormones secreted by the ovaries responsible for inducing the menstrual cycle. Perimenopause refers to that period before and after the menopause where endocrine function of the ovaries begins to decrease. Premenopause includes somatic manifestations before the menopause itself, which is an indication of decreased ovarian function. Postmenopause refers to the post-menopausal period.

Emotional menopause is classified into natural menopause due to decreased endocrine function of the ovaries, surgical menopause induced by total hysterectomy (uterine and ovarian extirpation) and menopause due to age-related ovarian pathology. The biomedical aspects described above must be related to psychosocial ones.

The subjective symptoms are manifested by: hot flashes, sweating, insomnia, nervousness, irritability, depression, anxiety, etc. The hormone replacement therapy is used to treat these symptoms, and the patients are

monitored by a medical team consisting of: family doctor, gynecologist and endocrinologist. These subjective symptoms lead to the need to study the psychological factors involved in menopause.

Treating symptomatology for maintaining the quality of life of women who reached this period targets both the medical and the psychological field.

Both biomedical and socio-cultural models are limited as ways to explain menopause and provide suggestions for intervention to improve the quality of life of women in the menopause. An alternative would be a psychosocial model that takes into account the mental representation that women have about menopause, their perceptions and attitudes. This paradigm would take into account both the psychosocial and cultural factors and the subjective experience of somatic changes associated with menopause.

Mental illness representation - the study of cognitive factors impacting on healthy behavior has led to a number of research, the development of new theoretical models and tools for measuring healthy behaviors. Leventhal's model is based on research of the impact of fear on messages that promote preventative behavior. The basic premise of this model is that the patient is an active participant in problem solving, and his behavior is an attempt to cover the distance between the current health status and the desired status. Patients respond to the instituted treatment (medical and psychological) depending on the interpretation (mental representation) they give it.

The model has three main components: 1. The cognitive representation of the threat, it can be activated by external events or internal stimuli; 2. Threat management and action plans; 3. Evaluation of the coping result (Leventhal, H., Leventhal, E.A. and Cameron, L., 2001)

A key element of the model is the duality of information processed at the cognitive and emotional level. The relationship between cognition-behavior is like a dynamic interaction as it is in the model of health beliefs. Studies have identified five components of mental illness representation: the identity and label of the disease; evolution over time; the cause of the disease; the consequences of the disease and the control over the disease. The model of self-regulation emphasizes the role of concrete experience, symptomatology in the formation of mental representations and in the assessment of coping activity. The subsequent studies of Leventhal have enriched the model by introducing new variables: social influence on mental representation, role of self in guiding the coping activity. (Brownlee, S., Leventhal, H., & Leventhal, E. A., 2000).

The mental representation of menopause is investigated in a series of studies. Thus Rosemeier's study (Rosemeier, H., & Schultz, B. 2001) with 600 participants investigated the menopause symptoms and the women's

attributions to these symptoms. Symptoms attributable to women's hormonal deficits associated with menopause are: hot flashes, sleep disturbances, weight changes, depression, irritability, and changes in sexual life. There are also a number of negative consequences: status change, health damage, lifestyle change.

Thus the study identifies 3 ways to look at menopause: 1. menopause as a less problematic condition, leading to modest changes in lifestyle; 2. menopause as a positive change, which leads to the reorientation of women and their involvement in solving the problems caused by menopause; 3. Menopause as a negative thing, the loss of attractiveness, a condition associated with many somatic and psychic problems.

Ballard tells us that there is a change in time of the perception of menopause, which corresponds to the "adaptation" to this condition. The stages of women's perception of menopause are: a). the expected state of symptoms; b). the stage of experience of symptomatology and loss of control; c). the stage of regaining control; d). the stage of perception that menopause is positive. (Ballard KD et al, 2001).

The treatment of menopause is also discussed at the level of mental representation. Thus, mental representation is defined as the set of beliefs, patient's beliefs, attitudes and secular theories that it has toward treatment and medical recommendations. (Horne R., 1997, Horne R. et al., 1999, Horne R., Weinman, J, 2002) many qualitative qualities being based mostly on anamnesis. Patients' attitudes towards treatment may be in one of three categories: 1. The negative view of drugs, they are seen as a necessary evil and should be avoided whenever possible; 2. positive vision: drugs have positive consequences and act in symbiosis with the body to maintain health; 3. Intermediate vision, drugs have both positive consequences and side effects as a sign of their effectiveness. (Jones I., Britten N., 1998; Butler CC et al., 1998; Bari CA et al., 2000).

Leventhal identifies three rules governing people's attitudes towards drugs: 1. The efficacy of a drug is judged by the disappearance of symptoms, and medication is stopped when the symptoms disappear; 2. Any disease is caused by a pathogen, and an effective drug is one that acts directly on this agent; 3. The dose of a medicine depends on the severity of the disease; severe disease can only be treated with high doses of medication or very strong medications. (Leventhal H. et al., 1997).

Horne included in the mental representation of the treatment and the type of treatment, the duration or the sense of control of the treatment. Thus, are patients who perceive their disease as a lasting condition and have many symptoms and strong attitudes towards the necessity of drugs (Horne R. et al, 2001). At the same time, concerns about the specific effect of medication

are common among patients who do not trust treatment, tend to change it often and need information. (Horne R. et al, 1999).

Regarding adherence to treatment, it is correlated with compliance and refers to the degree to which a person's behavior coincides with medical recommendations. Among the factors that concern the patient, his beliefs and attitudes play a major role. (Myers LB, Midence, K., 1998) Patients with strong treatment-related beliefs are more inclined to adhere to it, while those worried about negative effects have a lower adherence (Horne R. et al 1999).

Attitudes and beliefs about menopause treatment, hormone replacement therapy, have been investigated by many researchers over the years, referring to women's view of hormone replacement for its benefits and disadvantages (Hunter MS, Mann E., 2001, Toozs-Hobson P. et al. 1996, Holst T, Salbach B., 2001).

#### **MATERIAL AND METHODS**

The study investigates mental representation of menopausal symptoms, hormone replacement therapy, and adherence to treatment.

Research is an approach to cognitive factors in menopause by investigating a small group of patients. This research uses Leventhal's autoregulation model, as well as that proposed by Horne, in the mental representation of hormone replacement therapy.

The research was conducted on a heterogeneous group of 48 patients, the information being obtained by interview (anamnesis) in the endocrinology cabinet. The study was conducted over a 6-month period. The research used the maximum variance selection criterion. Thus, the patients participating in the study differ in age, educational level, background and menopause.

#### **RESULTS AND DISCUSSIONS**

The results of the research were analyzed by the phenomenological analysis method, which allowed to investigate the subjective symptoms and objectives described by patients about menopause and its treatment.

The patients are aged between 32 and 70 years, the average age is 51 years.

In terms of educational level, 5 (10%) patients have primary education, 9 (19%) with gymnasium, 20 (42%) high school and 14 (29%) university. From the point of view of the home environment: 17 (35%) are from rural area and 31 (65%) from urban area. Another criteria utilization of this study is that of the menopause: 28 (58%) physiological menopausal patients, 19 (40%) patients with surgical menopause (total hysterectomy

with bilateral anexectomy), 1 (2%) patient with ovarian failure through ovarian dysgenesis, never had menstrual cycle, somatic development was normal except for hot flashes, perspiration and irritability she had nothing (somatic development was done through the adrenal cortex).

The evaluation of neuro-vegetative disorders was carried out by the following questions:

*Table. 1*

1.	Have you had hot flashes or palpitations?	100%
2.	Have you shown night sweats?	100%
3.	Do you feel more tired than usual?	83%
4.	Do you have trouble sleeping?	92%
5.	Do you have problems with concentration or memory?	77%
6.	Have you shown restlessness, sadness, irritability?	67%
7.	Have you had menstrual cycle disorders?	75%
8.	Have you experienced breast pain?	33%
9.	Have you noticed changes in your skin, hair?	88%
10.	Do you have pain during sexual intercourse or vaginal dryness?	50%

Patients also reported about menopause disturbances: high blood pressure 30 (63%) patients, obesity 24 (50%) patients, osteoporosis 17 (35%) patients and type II diabetes 14 (29%) patients.

As shown in the table above, in the patients' group predominate vasomotor disorders, but also difficulty falling asleep, sleep problems. Thus, literature (Joffe H. et al., 2010) reports that vasomotor symptoms, hormonal changes, sleep-related modifications, comorbid affections, and psychosocial factors have been cited as factors to increase sleep disturbance in women in menopause. Sleep disturbances may have implications for women's health, causing risk of cardiovascular disease and accelerated biological aging (Thurston R.C. et al, 2017; Sands-Lincoln M., 2013, Carroll J.E et al., 2017).

In terms of cognitive impairment and dementia, they represent a public health crisis, the number of cases of dementia is estimated to triple by 2050. (Brookmeyer R. et al., 2007). A number of studies have suggested that cardiovascular disease risk factors such as diabetes, obesity, hypertension and smoking are important determinants of cognitive impairment in menopause (Exalto L.G. et al., 2014, Sperling R.A. et al., 2011). Another major problem of women's health at menopause is depression. In our study there were 15 (31%) patients with depression, who were treated with antidepressants, under which the subjective symptoms disappeared. Longitudinal studies conducted across the world and various populations confirm that women are 2 to 5 times more likely to suffer a depressive disorder during perimenopause than during premenopausal years (Freeman EW., 2010; Bromberger J.T. et al., 2011; 2015, Freeman E.W. et

al., 2014). The causes of menopause may have a significant impact on the risk of depression and include the influence of endocrine changes on the brain, the symptoms of menopause (vasomotor symptoms, sleep problems) and major life events (Freeman E.W. et al. 2004).

Apart from typical menopause symptoms, women face concomitant changes in their physical, psychological health and cognitive functioning, all of which have implications for mental and physical health. (Rebecca C. et al, 2018,).

Mental representation of menopause in our group of patients gives us information of how they see menopause: menopause as a disease or as normal physiological state for a woman of a certain age. Many women consider it a sign of old age, loss of youth and beauty. Patients consider causes of menopause as being advanced age, family stress, and surgery(for surgically induced menopause).

The mental representation of hormone replacement therapy derives from control over menopause. The desire to control menopause is especially manifested by women with hysterectomy to remove acute symptomatology, the result being the doctor's search to find effective drug therapy. Patients try to control menopause through hormone replacement therapy, but also through alternative treatments: teas and natural products. Thirty of the patients undergo hormone replacement therapy for the symptoms of menopause, resulting in their reduction. Other patients who refused substitution treatment mentioning the fear of adverse reactions: getting fat, dizziness, migraine, risk of liver injury.

## **CONCLUSIONS**

1. Menopause is a physiological stage in a woman's life where she spends about 1/3 of it (considering average life expectancy is 70 years), and the intensity of the neuro-vegetative phenomena that arises depends on the psychic balance of the person concerned.
2. Consultation of a psychologist and possibly a psychiatrist by these patients with neuro-vegetative phenomena and especially depression is absolutely necessary for increasing the quality of life.
3. The hormonal replacement therapy should take into account the heredo-collateral history of the subject, particularly ovarian, uterine and breast cancer.
4. The duration of hormonal replacement therapy in menopause, when the patient accepts, it is necessary to be at least 2-3 years, helping the patient to overcome the menopause period.

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