**Application of Medicinal Plants on Menopause Symptoms**

D

DAVID PUBLISHING

Yosvany Urquiola Martínez, Ana Elena Rodríguez Cadalso, Regina de Caridad Rodríguez Muñoz, Viviana Silvia Rodríguez Jiménez, Marelys Medina Barroso and Ramón Florencio Duarte Chaviano

*Trinidad 62600, Sanctis Spíritus. Cuba*

**Abstract:** Objectives: To relate the symptoms of menopause and the use of medicinal plants. Methods: it was carried out a study that applied the qualitative method, by means of a bibliographical and documental revision in sources of digital data of wide reach (Google, SciELO, DOAJ, Latindex and SCOPUS). It was kept in mind the quality and the present time. Conclusions: It was based on the search of articles in Virtual the Library in Health (Spanish: BVS) and using the key words: menopause, medicinal plants, phytotherapy, menopause symptoms.

**Key words:** Menopause, medicinal plants, phytotherapy, menopause symptoms.

 1.Introduction Menopause is a psychophysiological process, caused by endocrine, mediated by stress, and accompanied by serious manifestations [1], such as: irritability, alterations of dream, heart rate acceleration, migraine, signs of anxiety (perspiration, fear, agitation) and depression, forgetfulness, sadness, fatigue and other symptoms. It is believed that 95% of women will experience menopause [2].

Today, there is more interest in so-called naturopathies, which use herbals, homeopathy, acupuncture and other alternative therapies, with a frequency similar to that of hormone replacement therapy for post-menopausal women in Europe [1]. According to experts encountered during the III Course of Continuous Formation of Climacteric and Menopause taken place in Almeria, phytotherapy is an alternative method to combat menopause because it can reduce the risk of cardiovascular disease and increase bone density [3]. 2. Development

*2.1 Brief History of Menopause*

The fact that women lost their menstruation at some point in their lives has been well known since ancient times. The monthly loss of impurities has been mentioned in Genesis. In Egyptian papyrus, it is also pointed out that the menopausal women are white women, and the red women are those who come to menstruation. In Genesis, Abraham also knows that reproduction fails when considering the possibility that very old couples have few offspring [4].

Hippocrates mentioned the cessation of menstruation in his writings, and Aristotle described the cessation of menstruation around the age of 50 in his “Animals” in 322 BC. In the VI century (sp:a.n.e)before our era, Aecio of Amida described women who had never stopped menstruating until the age of 35, usually around 50. Other works coincide with this period, such as John Friend described in 1729, the cessation of menstruation occurring around the age of 49. Many modern writers believe that the age of menopause is slowing down, but the menopause has remained constant since distant times [5].

Menopause is a physical process that occurs between the ages of 45 and 55. In most countries with health registries, the mean age of menopause is 48 years. Venezuela is 48.7 ± 4.6 years old, the same as Cuba and most Latin American countries. According to the Spanish study, it starts at age 50 [4, 6].

There are few references to this transitional period in the classical anthropological literature. Although some references are made to a woman's ability to conceive or to her role in the group, the emphasis is still on reproductive period or age. For example, one describes Iroquois, town of lineage matrilineal, where “matrons”, adult women (presumably menopausal), although they have not reached the point of exercising political power, still have considerable power and they are neither equal to men in the decision-making process [7].

In the Arabic society, the family is a tightly nested group whose authority lies in men. Until menopause, women play a subordinate and limited role in housework and reproduction. From the moment the female reproductive cycle ends, postmenopausal women gain power and prestige in front of other young women in their families [8].

In other cultures, prevailing notions of humoral regulation and balance or of contamination and purity, express taboos related to menstruation and place women in a “dangerous” and impure situation. Such as the amenorreic women Samo of the Africa, because the hippocratic fluid theory associated with the theory of heat and cold, so the essence characteristic of the mentioned elements - when they associate with men, they were in a disgraceful position, because there is no menstrual blood of women do not own fever, forthcoming month classics in this state is considered to be characteristic of women. Among the Ashanti people of Ghana, postmenopausal women are not only considered to be gender-neutral, but also without any protection. Among the nomadic Nuer people in the towns of Sudan, postmenopausal women are considered to be men and wives, facing permanent risk of death [9].

In Taiwan, the emotions that women express during their periods breed rituals of purity and impurity. Staying in the presence of gods or getting married during a woman's menstruation was not right, as the body was considered dirty and contaminant [10]. However, in the town of Hazda in northern Tanzania, people owe their survival to their grandmothers. Because postmenopausal women do not have the energy and nutritional requirements of pregnancy and breastfeeding, they are dedicated to take care of children and people who gather fruit in the small village [7, 11].

Towards the half of the decade of the 70’s, medical science tried to identify the common features of menopausal syndrome and its corresponding manifestations. In this model, the data came from a Western population that focused on clinical attention. The first batch of cross-cultural works took the opposite view, outlining the diversity of symptoms and their relevance to individual and cultural influences in the context of the partner-economy-political determinacy [12].

In studies of women, it has been recognized that the relationship between menopausal women’s perceptions and experiences and sociocultural significance is variable and fragmented. Even when women are in menopause, their own health is not a high priority [13, 14]. These initial surveys focused on differences, starting with symptoms and attitude indices, began to paint a picture of groups where symptoms were not present [13-15].

The anthropologist Margaret Lock believes that the symptoms associated with menopause can be based on culture or genetics. That is, they can be biologically experienced but not culturally perceived or articulated, or they can’t physically exist or even be recognized or experienced. In some cultures, for example, the cessation of menstruation does not mean that a woman considers herself to have gone through menopause. In Japan, it is considered a complex set of physiological changes associated with aging, including amenorrhea, but a Japanese woman cannot go more than 12 months without noticing she is menopausal [10].

These cross-cultural studies also challenge the widespread medical claim about the natural history of menopause that women in non-industrialized countries or traditional societies are at different hormone levels because they have different reproductive patterns. Research suggests that the lack of menopausal symptoms is not due to endocrine differences. Beyene highlights that the Mayan postmenopausal woman has low levels of estrogens and a bony demineralization that doesn’t belong together with a high incidence of fractures [16].

Other studies have analyzed the changes in beliefs and practices that occurred during the transition from traditional to modern societies with the conceptualization of biomedical models and their relationship to socioeconomic change, modernization, and education. 50 years ago in Taiwan, it was easy to find poor women with blood on their bodies because they didn’t use any type of protection. Because of these taboos, they run the risk of leaving a stain in the public environment. Taboos against temples and feelings of shame and dirt are still effective among the poorest women, despite the influence of modernization. [12, 13].

Over the past decade, these studies have repositioned the research on menopause in a qualitative way, helping to understand and deepen the understanding of differences, and proving that, according to ethnological data, the experiences of menopausal women are partly captured by medical models or their understanding methods [14-16].

However, the consequences of ovarian aging have been studied in all organs and female systems. Demographic changes in the world’s population, especially in industrialized countries and developing countries, have led to a continuous increase in the proportion of elderly people. Once the tumor, gynecology, genital and breast problems are controlled, women will face a longer life span, but face other problems no less than cancer. The hope of life has been extended, but the risk of cardiovascular, bone and joint and neurodegenerative diseases has also increased. Clinical and epidemiological investigations show that from the beginning of menopause, woman has a special vulnerability due to insufficient ovarian function during it. When aging manifests itself in a more obvious way, one-third of a woman’s life occurs with insufficient ovarian function [17].

*2.2 Symptoms Related with Menopause*

Vasomotor symphtoms or asphyxia are the most typical clinical manifestations of menopausal patients [18]. They are defined as the subjective sensation of heat that is customarily associated with skin vasodilation, and continues to sweat as the body temperature drops and the heart rate briefly accelerates. They can last from a few seconds to a few minutes [19], and their intensity and frequency are very variable. When the night is suffocated and intense, they can change their dreams.

In western countries, 45-54% of women will experience varying degrees of suffocation in the first few years after menopause [12]. In most women, the duration of symptoms fluctuates between 6 months and 5 years [20, 21].

At present, it is believed that the lack of estrogen, or the lack of certain metabolites of estrogen, may change the normal work of the hypothalamic temperature regulation center. This fact can explain the vasomotor symptoms after ovariectomy [22].

The most severe symptoms in some women can be explained by a significant decrease in plasma estrogen [23]. In fact, the theory is supported by the fact that women who go through surgical menopause show more intense symptoms [24].

Various observational studies have consistently demonstrated the causal relationship between vasomotor symptoms and estrogen reduction [25, 26]. Suffocation and night sweats can lead to changes in dreams, leading to fatigue, irritability, inattention and lack of memory [27]. Although insomnia, migraine, and disease may occur in women with strong vasomotor symptoms, they do not show a causal relationship with estrogen reduction [28].

Hormonal changes that occur during menopause can affect those organs that have estrogen receptors. After menopause, the vulva loses its elasticity, vaginal gland activity decreases, vaginal squamous epithelium activity decreases, lubrication decreases, and some women develop vaginal dryness and vaginal incontinence [29]. Vaginal atrophy is more important, and symptoms of vaginal dryness and dyspareintercourse are more obvious [30]. Some observational studies have shown that sexually active women have less vaginal shrinkage [31, 32].

Urinary incontinence is a complex, multifactorial problem, and its prevalence increases with age. Although a decrease in estrogen may contribute to urinary incontinence and urination symptoms (urination pressure) [33], other factors are more prominent (parity, traumatisms of the childbirth, uterine prolapse, and certain medications). The relationship between urinary incontinence and estrogen reduction is controversial. Some studies have shown an association [34, 35], while others have not [36]. On the other hand, different studies have shown that compulsion and effort in the urinary process increase and urinary incontinence decreases after menopause [37, 38]. Physiological changes (reduction of the distal urethra, alkalization of vaginal pH and absence of lactic acid bacteria) may increase the susceptibility of some women to urinary tract infections.

The cause of breast pain, whether it is before or after menopause, is uncertain, although it may be related to hormonal mutations before ovarian function ceases. Different horizontal [37] and vertical [39] studies have shown that breast pain decreases with menopause.

Major prospective studies [40] and systematic revisions (available RS) [41] have not found an association between changes in mental status (depression and anxiety) and menopause. Previous changes in social, family, labor factors, and mental state have shown more determinants [42, 43].

As people grow older, people usually lose interest in sex. Various existing revisions believe that there is a connection between certain aspects of sexual behavior (decreased sexual interest, frequency of intercourse, and vaginal lubrication) and menopause, but the factors that affect this loss of interest are complex and multiple [42]. Among these factors, the most important are social and psychological factors, including each woman's sexual experience, personality, education level, stress level, physical and psychological conditions, changes in the relationship between husband and wife, and how they feel about them.

With the growth of age, people's cognitive ability will gradually decline, which is different from person to person. The determinants of this variability are uncertain, but it seems that women are more likely to develop Alzheimer's than men. Although women have longer life expectancy than men, their frequency of developing mental disorders is higher, and the incidence rate of age is also higher.

Although it has been suggested that estrogen deficiency may protect women against cognitive decline and psychosis, it has not been directly linked to menopause. Population studies have shown inconsistency, with longitudinal studies finding no association between menopause and cognitive decline (attention difficulties and memory loss) [40].

Cohort studies did not show an association between menopause and musculoskeletal manifestations (joint pain). Although many women mentioned pain and stiffness, there was no evidence that these symptoms changed with menopause [45].

*2.3 Phytotherapy for Menopause*

It has been carried out a study of the articles of medicinal plants based on the Pittsburgh Sleep Quality Index (PSQI) and in the polysomnography (PSG) for the evaluation of dysfunctions of dream, and in the scales used in the international mensuration of the quality of life in the climacteric that are the MENQOL, the climacteric scale of Greene, the index of Kupperman, the Inventory of Anxiety State-feature of Spielberger (STAI) and the quality of the woman’s life (SF-36).

The PSQI survey is divided into 7 components (quality, latency, efficiency, duration and dysfunctions of the dream, use of medications to sleep and day dysfunction), and scores are assigned from 0 to 3. Therefore, the total partition of PSQI is 0 to 21, which is the highest indicator of dream quality changes [46].

Polysomnography (PSG). The objective proof provided quantitative parameters such as total dream time, dream latency, dream efficiency, dream REM latency, wake time (WASO) after the dream started, and number of nocturnal awakenings [47].

Menopause specific quality of life questionnaire. Reflex menopause symptoms are divided into four areas: vasomotor, psychosocial, physiological and sexual. Rating 0 (not annoying), 6 (extremely annoying) [48].

Greene’s menopause scale. Composed of 21 symptoms, these symptoms are divided into 4 areas (psychological, somatic, vasomotor symptoms, reduction of sexual desire).In individuals with climateric symptoms the punctuation is superior to 21 [49].

Kupperman index was common to evaluate the frequency and intensity of 11 vasomotor symptoms. They were classified as severe (15-20), moderate (20-35), and less severe (> 35).

The Inventory of Anxiety State-feature of Spielberger (STAI) questionnaire is divided into 20 parts to measure the anxiety state and other 20 parts to study the characteristics of anxiety. The lower the value, the lighter the anxiety state; the higher the value, the more serious the anxiety state [50].

Quality of Life for Women (SF-36). Thirty-six questions were asked to assess psychosocial parameters of well-being. The values range from 0 to 100, with the lowest indicating a more severe psychosocial discomfort [51].

**3. *Valerian officinalis* (valerian)**

Valerian is a perennial herb whose roots often have hypnotic and sedative properties and are used to relieve menopausal symptoms such as depression and anxiety. Although there is a large number of studies showing that dream dysfunction is effective in individuals of different ages, the number of studies in postmenopausal women is limited.

Most women experience postmenopausal suffocation, such as anxiety, which negatively affects a woman’s quality of life. As a result, many scientists have studied the role of valerian root in the suffocation. The efficacy of valerian root has been studied in 68 women aged 45 and 55 years that presented suffocation. The intervention group received 225 mg of valerian root 3 times a day and the control group received the same amount of placebo. There was significant difference in the suffocation between the two groups (p < 0.001). In fact, there was a statistically significant difference in suffocation before and after valerian treatment (P < 0.001), whereas there was no statistically significant difference in suffocation in the placebo group. The incidence of suffocation was decreased in the valerian group after treatment, and the difference was statistically significant [52].

Another study was carried out with postmenopausal women from 50 to 60 years that presented alterations of dream, it was a randomized, **triple-blind** and **placebo-controlled study.** The main objective was to evaluate the effects of the extract of root of valerian in the quality of dream. The PSQI in the group tried with valerian before the intervention it was of 9.8, and after the intervention it diminished at 6.02. However, in the control group, the stocking of the PQSI was of 11.14 before the intervention and only diminished at 9.4 after the placebo administration. Therefore, it is observed that the Valerian group and the control group have significant differences in the impact on PQSI [50].

*Melissa officinalis* (Lemon balm) is a grass that presents anxiolytic and antistress properties, being a good alternative for handling of symptoms related with the insomnia and anxiety. There are few studies on the effect of lemon balm on the dreamland change of menopausal women, but there are many studies on different age individuals. In a clinical rehearsal carried out with menopausal women the PSQI in the experimental group improved 36% after a month of treatment, however, only 8% improved in the control group. In addition, no adverse reactions associated with prescription hypnotics were observed [53]. According to a systematic revision of plants used to deal with menopausal symptoms, the balm of non-monomeric lemons is used to treat dysfunction in dreams or anxiety, but it can also relieve gastrointestinal problems during menopause [50].

Another of the studies was carried out with participants that presented dysfunctions of dream and of anxiety, *Melissa officinalis* hydro alcoholic extract was administered (Cyracos®) to all the volunteers and a significant improvement was observed in the anxiety and in the related symptoms anxiety and insomnia. The initial insomnia, the half insomnia and the slowed insomnia decreased respectively in 53%, 45% and 28% after 15 days of treatment [49].

Vitex agnus-castus (VAC) (sauzgatillo): Vitex agnus-castus has been used traditionally in many feminine alterations as there are menstrual dysfunctions, infertility, premenstrual disphoric dysfunction, acne or the off nursing. Also, it favors the melatonin liberation, being able to improve dysfunctions of dream and vasomotor symptoms. A great quantity of studies examines the effectiveness and sauzgatillo security in menopause, however, a limitation of all these investigations is the employment of VAC in combination with other herbal complements. In one of the studies carried out in postmenopausal women it was administered jointly with extract of bark of *Magnolia officinalis* whose active component is the honokiol is used due to its anxiolytic, neurotropic and tranquilizers properties. In this clinical rehearsal the intervention group (group ESP) received isoflavones, VAC and Magnolia officinalis and the group of control (group C) received single isoflavones whose main objective was to evaluate the security and effectiveness in the insomnia and in the vasomotor alterations. The effectiveness of the treatment was evaluated starting from the severity of suffocations, of the index of Kupperman, PSQI and SF-36. After 12 months, the graveness of the suffocations diminished in the intervention group from 4.31 to 2.12 points, but in the group that was administered placebo so alone it diminished from 3.7 to 2.5 points; when comparing both groups a significant difference was observed as for the decrease of the severity of suffocations. The index Kuppermann diminished significantly in 31.3% in the intervention group and alone 17.3% in the group of control. SF-36 increased significantly in the group that received sauzgatillo and magnolia, but it didn't show any improvement in the group of control. Lastly, the punctuation PSQI, the subjective punctuation of the quality of dream and the punctuation of the latency of dream diminished significantly in the intervention group as for the security, data of the mammary density were picked up, of the thickness of the endometrium and of the hepatic function. According to a systematic revision, Sauzgatillo has effect on the receiving dopaminergic, for this, its use is contraindicated next to other medications that modify the prolactin secretion and dopamine like the antiparkinsonian among many others [54].

*Passiflora incarnata* (flower of the passion): Investigations made in experimentation animals and in humans have shown that *Passiflora incarnata* has anxiolytic and hypnotic effects, being beneficial to improve anxiety and alterations of dream [52]. There are scarce investigations of this herbal complement in women in menopause, on the other hand, it has demonstrated to be beneficial for the handling of anxiety and of insomnia in a great quantity of studies with participants of all the ages. One of them was carried out with men and women between 18 and 35 years whose main objective was to investigate on the positive effect of the tea of the flower of passion in comparison with the parsley in the group of control. For the subjective measure of the dream it was registered a newspaper of the dream while, for the quantitative parameters it was informed by means of the polysomnography (PSG). When comparing the results of both groups, it was observed that the quality of dream improved significantly in the group of *Passiflora incarnata* in comparison with the placebo. Also, in this study the effect of the flower of the passion was examined on the symptoms of the anxiety starting from an inventory on the state of anxiety, in the one which, the highest punctuations informed higher levels of anxiety. After the intervention, there were not observed significant differences in the effect on anxiety between the intervention group and the group of control [50]. On the other hand, in this stage of the woman’s life the atrophy of the genitourinary apparatus takes place due to the reduction of the estrogens levels, for this reason, pains appear during the coitus and there is a reduction in the sexual desire. As much the sexual dysfunction as the syndrome vasomotor affect negatively in the quality of woman’s life. In a study with perimenopausal women of 46 to 53 years *Passiflora incarnata* was administered together with other components as flavonoids and the effects on the vasomotor symptoms, quality of woman’s life and sexual dysfunction were evaluated.

Women presented serious vasomotor symptoms and an index of Kupperman similar to 35 ± 4; to the three months the index of Kupperman improved 21 ± 3 and to the six months decreased to 18 ± 2. As for the quality of woman’s life, the test SF-36 informed of the improvement in all the psycho-physical parameters of well-being to the six months of treatment. Lastly, the index of the feminine sexual function (FSFI) and the scale of sexual suffering (FSDS) to the beginning of the study they were of 23.1 ± 1.2 and of 18.1 ± 1.4, respectively, to the six months of the beginning of the treatment the FSFI improved 27.6 ± 1.5 and FSDS it diminished to 11.3 ± 1.2. In definitive, the decrease of the index of Kupperman is correlated with the improvement in the quality of women’s life and in the FSFI [54]. According to a systematic revision on medications with the help of plants to control the symptoms of menopause, the flower of the active passion the receiving GABAA and it has effects in the treatment of suffocations, neurological dysfunctions, anxiety and insomnia. It was not informed of harmful secondary effects related with the ingestion of therapeutic dose of this plant [51].

*Hypericum perforatum* (grass of San Juan): *Hypericum perforatum* is a grass that has been used to alleviate psychological dysfunctions as depression and as natural alternative to the selective inhibitors of the serotonin recaptation and norepinephrine. The active principles responsible for the antidepressant effect are the hypercin and hyperforin whose effectiveness and security has been observed in numerous clinical rehearsals [50]. Also, it presents phytoestrogens, for what can be used as alternative to the therapy of hormonal substitution [49]. In spite of being a grass traditionally used for the handling of the depression, it has demonstrated its effectiveness in the treatment of dysfunctions of dream and for the rest of characteristic symptoms in the period of menopause. It was carried out a randomized clinical rehearsal, blind double, whose main objective was to determine the effectiveness of *Hypericum perforatum* in the treatment of symptoms in women perimenopausal from 40 to 65 years.

Women received 900 mg to the day of grass of San Juan or placebo during three months and they pointed the number and intensity of suffocations and the adverse effects. Sleep problems and menopausal quality of life were assessed starting with a scale that examined sleep problems and MENQOL, respectively. At three months of treatment, there was a statistically significant reduction in the index of sleep problems in the intervention group (P=0.009), while no such reduction was observed in the control group. Compared with placebo, after three months of treatment, sleep problems in *Hypericum perforatum* group were significantly reduced (P = 0.05). Regarding the results of menqol, a statistically significant decrease in specific quality of life (P = 0.01) and vasomotor domains (P = 0.03), physical (P = 0.06) and psychosocial quality was observed during the three months of intervention（P = 0.01), about the control group. On the other hand, no significant reduction was observed in the number of asphyxia, the number of asphyxia per day, the quality of sexual life and general fatigue compared with placebo. In terms of safety, the most common adverse events in the San Juan grass-taking group were constipation and drowsiness, while the most common adverse events in the control group were constipation, drowsiness, nausea, and dry mouth. No more frequency of these adverse reactions was observed in the San Juan grass group than in the placebo group [51].

*Cimicifuga racemosa*: The Cimicifuga rhizome contains more than fifty active components, the most outstanding are triterpenic glycosides, sour phenolic, flavonoids, volatile oils and ectoine, and most of them present gabaergic and serotoninergic activity in essential cerebral regions for the regulation of dream. Also, during decades it has substituted the hormonal therapy to alleviate the climacteric symptoms. The Cimicifuga effectiveness has been examined in postmenopausal women, in a clinical rehearsal controlled with placebo, randomized and double blind. The data of the polysomnography were picked up (PSG), the survey of the PSQI and the questionnaire about the quality of specific life of the menopause (MENQOL). The objective parameters of the quality of dream were evaluated starting from the PSG and a decrease of the duration of the awakenings was demonstrated after the beginning of the dream (WASO) and an increase of the efficiency of the dream (YOU) in the intervention group, however, any change was not observed in the group of control. When comparing with the placebo, a significant difference was observed in the efficiency of dream (P = 0.01) and in the number of awakenings after the beginning of the dream (P = 0.009). As for the subjective quality of dream, it was proven a decrease of the punctuation PSQI in the group of Cimicifuga racemosa after the treatment (P = 0.001), however, when comparing it with the placebo any decrease was not observed. It has also seen that it improves the vasomotor and physical symptoms, and it was proven a significant reduction of the vasomotor symptoms (P = 0.015) and physical symptoms (P = 0.041) regarding the group of control. It was not effective in the decrease of psychosocial and sexual symptoms. Any anomaly was not observed in the tests of the hepatic and renal function, neither in the tests of ultrasound of the mammary glands and of the uterus, therefore, the use of *Cimicifuga racemosa* is safe [53]. Data in rodents and in human cellular lines affirmed the protector function of the Cimifuga extract on the bones that increases the osteoprotegerin production and acts inhibiting the differentiation of the osteoclasts and increasing the function of the osteoblasts. It has also being seen that the treatment with isopropanolic extract of *Cimicifuga racemosa* in women in menopause improves the levels of two bony markers as it is the N-telopeptido of collagen type I (NTx), indicator of bony reabsorption and the levels of the alkaline phosphatase (ALP), indicator of the bony formation. It was observed in women that received Cimifuga differ statistically significant in the decrease of NTx and in the increase of ALP, reducing the reabsorption of the bone and increasing the formation of them [50, 51].

*Lavandula angustifolia* (Lavender): Lavender flowers have an active ingredient, linalool, which increases dopamine levels and norepinephrine, producing a calming effect that promotes good dreams. Good dreams are characterized by the decrease of the quick ocular movements and the increasing of the second stage of dream. In addition, this species has traditionally been used for hypnotic effects as an anti-anxiety and antidepressant. In different studies, lavender therapy has shown its anti-anxiety and sedative effects in its use in menopausal women, and many of them compared it to the hypnotic effects of *Citrus aurantium* (bitter orange), which also contains linalool and thus has similar effects in promoting sleep and anti-anxiety. To evaluate PQSI, one of the clinical trials of postmenopausal women was randomly assigned to one of three groups (lavender, bitter orange or placebo). During the eight weeks of intervention, the lavender group showed significant improvement in dream quality compared to the placebo group (P = 0.003) and the bitter orange group showed significant improvement compared to the control group (P < 0.001).

Lavender has been shown to be very effective in controlling anxiety. Studies have shown that sadness, worry and fear can increase other symptoms of menopause. In addition, lavender has been widely used for decades for its anti-anxiety effects due to the low percentage of adverse events associated with lavender use. Clinical studies investigating this effect of lavender, including one on women with anxiety symptoms, found significant reductions in anxiety status (P = 0.004) and anxiety characteristics (P = 0.019) compared with placebo [55].

**4. Recommendations to Prevent and Improve Symptoms in Menopause**

We consider that the most important thing, besides to take care or to take some type of therapy during the mature age, is to take things calmly. Among recommended practical advices there are the following that consist in changes on lifestyle, then the emphasis will be made in:

* Try to stay activates: Practice gratifying exercises as yoga, Pilates, and aerobic.
* Eat well: Follow a healthy, balanced and regular diet, eat more fiber, and reduce the intake of sugar and stimulating drinks (caffeine and alcohol, etc.).
* Be moisturized: Use personal necessities correctly.
* A Relaxed lifestyle: Focus on stress, relax exercises to reduce shame, practice mediation, and practice breathing control.
* Don’t smoke.
* Dietary Complements: The natural nutrients found in fruits, vegetables, grains and medicinal plants are more bioavailable to the human body. Magnesium protects against cardiovascular risk, atherosclerosis and osteoporosis. Vitamin E prevents atherosclerosis (because of its antioxidant effects on HDL and cholesterol, which inhibit plaque buildup). We think it has some benefits for shame, back pain, mouth, impatience, fatigue, migraines, illness, and the throat. Vitamins B6, B12 and folic acid protect against osteoporosis. Calcium is mainly used for osteoporosis.
* Sleep: Maintain good dream hygiene, that is, always go to bed at the same time, get up at the same time, don’t eat or study in bed, and don’t fall completely asleep after exercise or having a big dinner .

**5. Conclusions**

Medicinal plants are effective to treat the symptoms of menopause, but also other recommendations should be kept in mind.

**References**

1. Hernández Mesa N, Anías Calderón J. Estrés. 2006. “Salvia officinalis, fitoestrógeno natural para mejorar síntomas de la menopausia.” *Rev Cubana Med Gen Integr* 8 (3): 261-70.
2. Cabezas Cruz, E. 2004. “Epidemiología del cáncer ginecológico.” *Rev Cubana Med Gen Integr* 10 (1): 9-16.
3. Brandi, M. L. 1997. “Natural and Synthetic Isoflavones in the Prevention and Treatment of Chronic Diseases.” *Calcif Tissue Int* 61 (Suppl 1): S5-8.
4. Lugones Botell, M. 2001. “El climaterio y el síndrome del nido vacío en el contexto sociocultural.” *Rev Cubana Med Gen Integr* 17 (2): 206-8.
5. Pythagorean Knowledge from the Ancient to the Modern World: Askesis, Religion, Science © 2016, Otto Harrassowitz GmbH & Co. KG, Wiesbaden ISBN Print: 9783447105941 # ISBN E-Book: 9783447195126.
6. Heritier F. Masculin/Féminin. La perse de la différence. París: Edition Odile Jacob; 1996.
7. Judith K. Brown. 1970. “Economic Organization and the Position of Women among the Iroquois.” *Ethnohistory* 17 (3-4): 151-167.
8. Mir Candal L. Historia de la vida de una mujer mesquita. Universidad de Buenos Aires: Facultad de Filosofía y Letras. Argentina; 1986.
9. Mir Candal L. 1986. “Historia de la vida de una mujer mesquita”.
10. Marcha Prottas Flint, 1974. Menarche and Menopause in Rajput women. [PHD dissertation]. City University of New York pp. 23-37.
11. Furth, C., Chén Shu-Yueh. 1992. “Chinese Medicine and the Anthropology of Menstruation in Contemporany Taiwan.” *Medical Anthropology* 6 (1): 27-48.
12. Kaufert, P., Lock, M. et al. 1986. “Menopause Research: The Korpilompy Workshop.” *Soc Sci Med* 22 (11): 1285-9.
13. Loch, M. 1986. “Ambiguities of Ageing: Japanese Experience and Perception of Menopause.” *Cult Med Psychiatr* 10 (1): 23-46.
14. Bell, S. E. 1987. “Changing Ideas: The Medicalization of Menopause.” *Soc Sci & Med* 24 (6):535-42.
15. Davis, D. L. 1997. “Blood and Nerves Revisited: Menopause and the Privatization of the Body in a Newfoundland Postindustrial Fishery.” *Medical Anthropological Quarterly* 11 (1): 3-20.
16. Beyene, Y., Martin, M. 2001. “Menopausal Experiences and Bone Density of Mayan Women in Yucatan, Mexico.” *Am J Hum Biol* 13 (4): 505-11.
17. Jan M. Zeserson. 2001. “Chi no michi as Metaphor: Conversations with Japanese Women about Menopause.” *Anthropology and Medicine* 8 (2-3): 177-199.
18. Siseles, N., Pecci, C., Mir Candal, L., Gutiérrez, A. P. 2005. “Impacto de la menopausia sobre la calidad y expectativa de vida de la mujer en la mediana edad.” Available in: http://www.aagop.com.ar/articulos/Calidad\_de\_Vida22-07-05.pdf.
19. Lavín Acevedo, P. A. 2006. “Envejecimiento poblacional y menopausia.” Available in: http://www.sociedadclimaterio.cl/.
20. Achío Tacsan, M. 2003. “Salud de las mujeres de edad mediana: Reto para los servicios de salud.” Available in: http://redalyc.uaemex.mx/redalyc/src/inicio/ArtPdfRed.jsp?iCve=15310208.
21. María Isabel Capote Bueno., et al. 2011. “Climateric and Menopause.” *Rev Cubana Med Gen Integr* 27 (4): 543-557.
22. Navarro Despaigne, D., Pérez Piñero, J., Bayarre Vea, H. D. 2007. “El climaterio y la menopausia como expresión del envejecimiento femenino.” Available in: http://www.sld.cu/galerias/pdf/sitios/gericuba/menopausia\_y\_envejecimiento.pdf.
23. Sherwin, B. B., Gelfand, M. M. 1984. “Effects of Parenteral Administration of Estrogen and Androgen on Hormone Levels and Hot Flushes in the Surgically Induced Menopause.” *Am J Obstet Gynecol* 148 (5): 552-7.
24. McKinlay, S. M., Brambilla, D. J., Posner, J. G. 1992. “The Normal Menopause Transition.” *Maturitas* 14 (2): 103-15.
25. Dennerstein, L., Dudley, E. C., Hopper, J. L., Guthrie, J. R., Burger, H. G. 2000. “A Prospective Population-Based Study of Menopausal Symptoms.” *Obstet Gynecol* 96 (3): 351-8.
26. Obermeyer, C. M. 2000. “Menopause across Cultures: A Review of the Evidence.” *Menopause* 7 (3): 184-92.
27. Avis, N. E., Stellato, R., Crawford, S., Bromberger, J., Ganz, P., Cain, V., et al. 2001. “Is There a Menopausal Syndrome? Menopausal Status and Symptoms across Racial/Ethnic Groups.” *Soc Sci Med* 52 (3): 345-56.
28. Brown, W. J., Mishra, G. D., Dobson, A. 2002. “Changes in Physical Symptoms during the Menopause Transition.” *Int J Behav Med* 9 (1): 53-67.
29. Robinson, D., Cardozo, L. 2003. “The Menopause and HRT. Urogenital Effects of Hormone Therapy.” *Best Pract Res Clin Endocrinol Metab* 17 (1): 91-104.
30. Leiblum, S., Bachmann, G., Kemmann, E., Colburn, D., Swartzman, L. 1983. “Vaginal Atrophy in the Postmenopausal Woman.” *JAMA* 249 (16): 2195-8.
31. Thomas, T. M., Plymat, K. R., Blannin, J., Meade, T. W. 1980. “Prevalence of Urinary Incontinence.” 281 (6250): 1243-5.
32. Iosif, C. S., Bekassy, Z. 1984. “Prevalence of Genito-Urinary Symptoms in the Late Menopause.” *Acta Obstet Gynecol Scand* 63 (3): 257-60.
33. Jolleys, J. V. 1988. “Reported Prevalence of Urinary Incontinence in Women in a General Practice.” *BMJ* 296 (6632): 1300-2.
34. Thom, D. H., Brown, J. S. 1998. “Reproductive and Hormonal Risk Factors for Urinary Incontinence in Later Life: A Review of the Clinical and Epidemiologic Literature.” *J Am Geriatr Soc* 46 (11): 1411-7.
35. Chen, Y. C., Chen, G. D., Hu, S. W., Lin, T. L., Lin, L. Y. 2003. “Is the Occurrence of Storage and Voiding Dysfunction Affected by Menopausal Transition or associated with the Normal Aging Process?” *Menopause* 10 (3): 203-8.
36. Holte, A. 1992. “Influences of Natural Menopause on Health Complaints: A Prospective Study of Healthy Norwegian Women.” *Maturitas* 14 (2): 127-41.
37. Kaufert, P. A., Gilbert, P., Tate, R. 2008. “The Manitoba Project: A Re-examination of the Link between Menopause and Depression.” *Maturitas* 61 (1-2): 54-66.
38. Cody, J. D., Jacobs, M. L., Richardson, K., Moehrer, B., Hextall, A. “Oestrogen Therapy for Urinary Incontinence in Post‐Menopausal Women.” Cochrane Database of Systematic Reviews 2012, Issue 10. Art. No.: CD001405. DOI: 10.1002/14651858.CD001405.pub3. Accessed 05 March 2021.
39. https://www.cochranelibrary.com/cdsr/doi/10.1002/14651858.CD001405/full.
40. Avis, N. E., Crawford, S., Stellato, R., Longcope, C. 2001. “Longitudinal Study of Hormone Levels and Depression among Women Transitioning through Menopause.” *Climacteric* 4 (3): 243-9.
41. Nicol-Smith, L. 1996. “Causality, Menopause, and Depression: A Critical Review of the Literature.” *BMJ* 313 (7067): 1229-32.
42. Deeks, A. A. 2003. “Psychological Aspects of Menopause Management.” *Best Pract Res Clin Endocrinol Metab* 17 (1): 17-31.
43. Myers, L. S. 1995. “Methodological Review and Meta-Analysis of Sexuality and Menopause Research.” *Neurosci Biobehav Rev* 19 (2): 331-41.
44. Kuh, D. L., Wadsworth, M., Hardy, R. 1997. “Women’s Health in Midlife: the Influence of the Menopause, Social Factors and Health inEarlier Life.” *Br J Obstet Gynaecol* 104 (8): 923-33.
45. Dennerstein, L., Alexander, J. L., Kotz, K. 2003. “The Menopause and Sexual Functioning: A Review of the Population-Based Studies.” *Annu Rev Sex Res* 14: 64-82.
46. Moehrer, B., Hextall, A., Jackson, S. 2003. “Oestrogens for Urinary Incontinence in Women.” *Cochrane Database Syst Rev* doi: 10.1002/14651858.CD001405.
47. Holte, A. 1992. “Influences of Natural Menopause on Health Complaints: A Prospective Study of Healthy Norwegian Women.” *Maturitas* 14 (2): 127-41.
48. Kaufert, P. A., Gilbert, P., Tate, R. 1992. “The Manitoba Project: A Re-examination of the Link between Menopause and Depression.” *Maturitas* 14 (2): 143-55.
49. McCoy, N. L. 1998. “Methodological Problems in the Study of Sexuality and the Menopause.” *Maturitas* 29 (1): 51-60.
50. Hogervorst, E., Yaffe, K., Richards, M., Huppert, F. 2002. “Hormone Replacement Therapy to Maintain Cognitive Function in Women with Dementia.” *Cochrane Database Syst Rev* doi: 10.1002/14651858.CD003799.
51. Kondo, A., Kato, K., Saito, M., Otani, T. 1990. “Prevalence of Handwashing Incontinence in Females in Comparison with Stress and Urge Incontinence.” *Neurourology & Urodynamics* 9: 330-1.
52. Meyer, P. M., Powell, L. H., Wilson, R. S., Everson-Rose, S. A., Kravitz, H. M., Luborsky, J. L., et al. 2003. “A Population-Based Longitudinal Study of Cognitive Functioning in the Menopausal Transition.” *Neurology* 61 (6): 801-6.
53. Coope, J. 1996. “Hormonal and Non-Hormonal Interventions for Menopausal Symptoms.” *Maturitas* 23 (2): 159-68.
54. Haas, S., Schiff, I. Síntomas de déficit de estrógenos. En Studd JWW, Whitehead M, editors. Menopausia. Barcelona: Carlos Alejandra editor, 1990; 17-26.
55. Hardy, R., Kuh, D. 2002. “Change in Psychological and Vasomotor Symptom Reporting during the Menopause.” *Soc Sci Med* 55 (11): 1975-88.