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### CLIMACTERIUM: EFFECTS AND MANAGEMENT AMONG WOMEN

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### **ABSTRACT**

This paper examined the signs symptoms effects and management of menopausal problems among women folks. Issues related to the concept, physiological view and types of menopause were discussed. The predisposing factors responsible for menopausal discomforts and health psychological consequences of menopause were also reviewed. The management therapies for menopausal problems among women were also investigated. Recommendations were made towards relieving menopausal problems such as regular exercises, intake of balanced diet, engaging in mental exercises and the application of vaginal lubricants.

**Key Words:** Climacterium: Effect, Management and women.

### INTRODUCTION

Women today are always in a state of limbo with the assumption that they will end up their reproductive years. The primary misconception is that this is a terrible time when all women suffer horrible symptoms. However, when a person looks at healthy women in the community in terms of what actually affects their lives, their menstrual period stoppage comes into the mind.

Most women enter and complete menopause between the ages of 45 and 55. However, the age of onset of menopause varies widely. Generally, the average age of natural menopause is 50.5 (51) (Hall, 1999). By age 58, 99 % of women are post-menopausal (Miller, Wilbur and McDentt, 1997).

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Consequently, as the aging trend continues, a higher proportion of women experiencing or haven experienced menopause. Globally, women are undergoing the transition into menopause.

The sheer size of this age group (45 - 55) is profoundly influencing how society addresses a fundamental, natural facet of women's reproductive health. Menopause is the permanent cessation of menstruation resulting from the loss of follicular activity of the ovaries (Bumin, 2005). Menopause has long been a source of confusion for women. The problems created by various myths and misinformation have been compounded because it has been neglected as a research area. Until recently, the life expectancy of women has reached the point that took women into are beyond the age of menopause. Today, most women will live a third or more of their lives post – menopausal and exposing them to various menopausal problems.

# **Menopause in Perspectives**

Menopause is a normal change of life in women when the ovaries no longer release an egg cell every month and menstruation ceases. The woman is normally no longer able to bear a child and the average age at which menopause occurs is 51.

(Mountcastle, 2008 and Bentley, 2009). In short, it is the complete cessation of menstrual periods for 12 consecutive months. Women think that because they are having a menstrual period monthly, they are too young to think about menopause. But the change of life starts in the thirties with irregular menstrual cycles and then heats up in the forties with hot flashes and night sweats (Owen and Mathew, 1998).

Globally, the change of life has traditionally been perceived as a difficult time for women during which they experience uncontrollable extreme moodiness, irritability and depression. The menopausal woman is portrayed as a burden to herself, to the family, and if eventually she is married, her husband suffers it. The cessation of menses frees women from contraception concerns, in some cases, leading to increased satisfaction. Others appreciate the freedom from menstrual periods which may have been inconvenient or uncomfortable.

Social and cultural influences have encouraged more positive attitudes towards menopause. It may be a time of fewer obligations accompanied by increased opportunities in the workforce. This experience can be inviting and invigorating for women who are seeking added dimensions in their personal professional lives in terms of leisure time and financial resources.

### Menopause: A Physiological View

Menopause may occur suddenly or over a period of years, sometimes as long as 10 years. It can be considered to have four stages namely

(i) Pre-menopause - the entirety of a woman's reproductive life from first menstruation to menopause;

- (ii) Per-menopause –the stage immediately prior to menopause in which physical changes begin to accelerate and women most likely to experience perceptible changes due to drops in hormone production.
- (iii) Menopause a woman is considered to be in menopause when she has gone through 12 months without menstruation, and
- (iv) Post-menopause the life after the first menstrual period (Linda, Judith, Helaine and Susan, 2004).

In short, these stages describe the entirety of a woman's mature life in terms of her reproductive function.

Physiologically, menopause is caused by the changes in the concentration of the sex hormones – Follicle Stimulating Hormones (FSH) and Levitenizing Hormones (LH) – estrogen and progesterone (Kathleen and Anne, 2000). The ovaries stop producing eggs, menstrual flow ceases and the woman is no longer able to have children.

Generally, the menopause arises gradually with increasing menstrual periods changing in frequency and level of flow. There is a hormonal imbalance in the body during the menopause with less estrogen from ovaries and a higher level of Follicle Stimulating Hormone to compensate (Geddes and Grossets: 2001).

## **Signs of Menopause**

There are about thirty four (34) signs of menopause:

Hot flashes, flashes night sweat and / or cold flashes clammy feeling (related to increased activity in the autonomic / sympathetic nervous system, bouts of rapid heartbeat, irritability – this results to anger, crying for no apparent reason or provocation. The anger can be in form of rage, mood swings, sudden tears – this includes mood shifts, crying when nothing overt has happened. This has been in most cases diagnosed as bipolar disorder. This can be in form of extremes of emotions due to hormone imbalance. Anxiety, depression, panic attacks and even feelings of agoraphobia are very common during menopause. Trouble sleeping – this is accompanied with night sweats. This can result to insomnia. Irregular periods shorter; lighter or heavier periods flooding and phantom periods, loss of libido (sex drive) – women have decreased interest in sex because they don't feel well and sex is the last thing in their minds.

Dry vagina (results in painful intercourse), crashing fatigue — premenopausal women are so fatigued. Anxiety, feeling ill at ease. There are complaints of illness during menopause. Feelings of dread apprehension and doom. There are thoughts of death, picturing one's own death. This can be a manifestation of depression associated with menopause. Difficulty concentrating, disorientation and mental confusion, forgetfulness during premenopause is often referred to lightly and humorously as "brain fog". Disturbing memory lapses, incontinence — especially upon sneezing, laughing, this reflects a general loss of smooth muscle tone. Itchy, crawly skin (feelings of ants

crawling under the skin, not just dry, itchy skin, this is called fornication. Aching, sore joints, muscle and tendons – this may include such problems as carpal tunnel syndrome. Osteoarthritis can develop during the menopause transition. Increased tension in muscle, breast tenderness – there is breast swelling, soreness and pain. Headache change – Many women develop migraine headaches during pre – menopause. Gastrointestinal distress, indigestion, flatulence, gas pain nausea: For some, it can be an uncomfortable feeling of severe burning sensation in the throat. Sudden bouts of bleat acid reflux and heartburn are very common.

Depression: The inability to cope is overwhelming. There is a feeling of loss of self. Exacerbation of any existing conditions: Conditions women had prior to entering perimenopause become exaggerated or worse during the menopause transition. Increase in allergies: Women who suffer from allergies develop worse allergies. Many women who have never had allergy or respiratory problems may develop them for the first time. Weight gain is peculiar to the waist and thighs resulting in the disappearing waistline and changes in body shape. Hair loss or thinning head or whole body increase in facial hair, there is often a loss of pubic hair during menopause. Many women are more comfortable simply shaving their pubic area instead of having patches of hair. Dizziness, Light headedness, episodes of loss of balance, women can experience these symptoms during perimenopause without having hypertension. Changes in body odor, electric shock sensation under the skin and in the head, these are part of hormones, nerve endings and electrical waves running through our bodies when our hormones are constantly fluctuating. Many women experience this during menopause. Tingling in the extremities, this can also be a symptom of B – 12 deficiency, diabetes or from an alteration in the flexibility of blood vessels in the extremities. Gum problems, increased bleeding, burning tongue, osteoporosis (after several years), brittle fingernails which peel and break easily.

Other signs are dry skin changes, internal shaking, tremor – life feelings. Acne and other skin eruptions.

- Itching, wildly and erratic rashes;
- Shoulder pain / joints / arthritis development or flare up in preexisting conditions.
- Heart pain a feeling of pain in the area of the heart.
- Acid reflex / heartburn / difficulty digesting certain foods.

## Menopause and Counselling

Menopause is not a disease it is a common expected occurrence and expectation for all women. It becomes pathological when it disturbs the physiological, psychological, sociological wellbeing of the person undergoing menopause. Menopause care entails or requires a comprehensive examination and assessment of the needs of the persons undergoing menopause. There is need to provide the opportunities to manage symptoms and to improve the health status of menopausal women especially before and after menopausal transition. The most reliable care is Counselling and education.

Counselling and education must be based on accurate knowledge about menopause. Alexander (2004) found that many women actually preferred counselling especially offered by nurse practitioners over physician care due to the focus of nurse practitioners on education and counselling and the greater amount of time that nurse practitioners were able to spend in appointments with patients. Christeusen, Bohmer and Kenagy (2000) describe nurse practitioners as a disruptive innovation. They describe disruptive innovations as both less expensive and less complex than the status quo, yet able to provide consumers with what they need.

Professional Counsellors should be educated in menopausal care and counselling to menopausal women. Counsellors will be able to complement care if they have the philosophy of menopause that employs a holistic model of care focusing on wellness and quality of life issues. This is a perfect need for providing care to women during the menopausal transition. Sarrel (1990) observed that majority of women experience changes in their sexual function in their perimenopausal and postmenopausal stage. There are often complaints about loss of desire, decreased frequency of sexual activity, painful intercourse, diminished or decreased sexual responsiveness and dysfunctions of the male partner, even though sexual function is a factor of biologic and non biologic factors, sexual arousal including sensory perception, central and peripheral blood flow and the capacity to develop muscle tension as well as sexual desire and frequency of sexual activity, can all be influenced by ovarian hormone levels. Sexual function is also influenced by the interplay psychological socio-cultural and interpersonal factors

Counsellors and health care practitioners can play an important role in the evaluation, education, counselling and treatment of the menopausal woman. This is based on the fact that the researchers' interaction with clients reveals that a lot of houses are at the verge of breakage or had broken because of perimenopausal and postmenopausal problems. It was revealed that both men and women needs adequate knowledge of symptoms, signs and peculiarities of menopause so that there will be adequate understanding of menopause.

## **Lifestyle Changes**

This primary level of menopause treatment involves the least amount of risk; it needs the highest amount of self discipline. Changes in lifestyles can bring about huge benefits in fighting menopausal symptoms and achieving a higher overall level of health techniques for stress reduction such as yoga or meditation, combined with regular exercise and an improved diet can be a great natural menopause treatment. This can also come in form of diet rich in foods that promote estrogen levels such as say apples, alfalfa, cherries, potatoes, rice, wheat and yams are great menopause treatment.

### **Alternative Medicine**

This level of therapy involves several different techniques. Herbal supplements are the most prominent; women may also use menopause treatments such as acupuncture, biofeedback,

massage, aroma – therapy or hypnosis. All of these treatments can be valid and effective though most women find that herbal supplements are the easiest menopause treatment to follow. Other menopause treatments require a greater time and monetary commitment. In addition, herbal supplements are the most viable option to treat the hormonal imbalance directly at its source.

There are principally two types of herbs that can be used for treating the 34 menopausal symptoms. Phytoestrogenic and non – estrogenic herbs.

- i) **Phytoestrogenic herbs** (Black Cohosh) contain estrogenic components produced by plants. This first provide a menopause treatment for hormonal imbalance by introducing these plant based estrogens into the body. This menopause treatment adds outside hormones; a woman's body may become less capable of producing estrogen on its own. This causes a further decrease of body hormone levels.
- Non Estrogenic Herbs don't contain any estrogen. These herbs provide the menopause treatment of stimulating a woman's hormone production by nourishing the pituitary and endocrine glands causing them to more efficiently produce natural hormones. This menopause treatment ultimately results in balancing not only estrogen but also progesterone and testosterone. Non estrogenic herbs like Macafam can be considered the safest way to treat these 34 menopause symptoms naturally as the body creates its own hormones and doesn't require any outside assistance.

A combination of approaches is usually the most potent effective route to take. Lifestyle changes combined with alternative medicine will most likely be the best treatment for menopause.

### **Drugs and Surgery**

This involves the highest risk and often the highest cost. The most common drug therapy for treating the 34 menopause symptoms in the US is Hormone Replacement Therapy (HRT). This may be a quick and strong menopause treatment that combats hormonal imbalance but unfortunately, it entails serious side effects and increases the risk of different types of cancer among women as the following study has proven.

In 1991, the National Institute of Health (NIH) launched the Women's Health Initiative (WHI), the largest clinical trial ever undertaken in the United States. This was designed to provide answers concerning possible benefits and risks associated with the use of Hormone Replacement Therapy (HRT) as a menopause treatment. This study was cancelled in July 2002 after it was proven that synthetic hormones increase risks of ovarian and breast cancer as well as heart diseases, blood clots and strokes. The findings on the menopause treatment were published in JAMA, the Journal of the American Medical Association and are yet to be disputed.

These three levels of menopause treatments are not mutually exclusive. A woman may use different menopause treatments at different times or any combination of them depending on the duration and severity of symptoms.

### The Beginning of Menopause Signs and Symptoms

Nearly all women notice early menopause signs and symptoms while still having periods. Hormonal fluctuation starts to occur and this can prompt many menopause signs and symptoms. The stage of fluctuating hormone levels is called peri – menopause and the age at which peri – menopause begins is different for each woman, but for most, it starts in the early 40s. It is possible that peri-menopause signs and symptoms can begin 10 to 15 years before actual menopause occurs.

A lot of women experience symptoms and wonder whether they are peri-menopause signs and symptoms. It is important to recognize and understand peri-menopause signs and symptoms and the changes that body is about to go through during the menopausal transition; so you know how best to deal with them. It is advisable to visit medical doctor during the peri-menopausal stage to learn more about peri-menopausal signs and symptoms and how to treat these effectively. Read on to find out about the nature of peri-menopause signs and symptoms.

In a study conducted by Okonofua (1990) on the age of menopause and the clinical features of menopause, he surveyed 563 Nigerian women of Yoruba descent who have been menopausal for at least 5 years. The mean and median ages of menopause were 48.4 and 48.0 years respectively. No relationship could be established between menopausal age and various bio-social factors such as age of menarche, social class parity, smoking and place of residence.

The commonest menopause related symptoms were joint pains and hot flash and only 42% of them still practiced sexual intercourse. These findings when compared to those from other populations indicate that there is need for more work on menopause in Nigerian women.

Women who were younger had managerial or professional jobs and had used oral contraceptive pills were less likely to have attained natural menopause. Efforts should be made to provide education about the menopause to all women in their respective communities especially those approaching their fifth decade.

## **Types of Menopause**

Technically, menopause refers to the cessation of menses; the gradual process through which this occurs, which typically takes a year but may last as little as six months or more than five years is known as 'climacteric'. However, menopause can be natural or physiological and superficially induced (Babalola, 2008).

A natural or physiological menopause occurs as part of a woman's aging process or associated with advancing age. This occurs when the ovaries fails to respond to the sex hormones FSH and LH

(Northrup, 1998). A woman beginning natural menopause will have more FSH and LH present in the blood stream and less estrogen and progesterone than she had during her regular menstrual period. For most women, menopause lasts from a few months to two or three years. Pregnancy remains a possibility because ovulation may occur in sporadic intervals during this time. After menopause, far less estrogen is produced, not in the ovaries but through a process in which the adrenal gland makes precursors of estrogen that are converted by stored fat to estrogen (Women Heart Access: 2001).

### **Pre-Disposing Factors for Menopause**

The average age (51 years) at which a woman has her last menstrual period appears to be the main factor for menopause. This age of inset of menopause varies widely among women. For instance, in the United States of America, the average woman who reaches menopause has a life expectancy of about 30 more years (Lyndaker and Hulton: 2004).

Family history is one major factor. Increased body mass index and history of more than one pregnancy are linked to later menopause, whereas smoking, abusing various harmful substances (drugs) and never being pregnant are related to earlier onset. Smokers generally experience menopause about two years earlier than non – smoking women (Miller: 1997 and Hall: 1999).

Race and ethnicity profoundly affect women's experience during menopause. For instance, Aris (2004) reported that African – American women experienced more hot flashes and night sweats but have more positive attitudes towards menopause. Japanese and Chinese women experience more muscle stiffness and severe hot flashes but view menopause negatively. Hispanic women reach menopause a year or two earlier than Caucasian women; Asian women, a year or two later.

### **Consequences Associated with Menopause**

Hormonal changes during menopause are largely responsible for the physical effects women experience. While the occurrence of menopause – related symptoms varies dramatically among women, available statistics reveal the following interesting patters according to Samsote (1991), Northrup (1998), Women Heart Access (2001) and Bentley (2009).

- Hot flashes or flushes (increased heart rate, finger temperature, shallow breathing or sweating and chills) affect 50% to 80% of women at some point.
- Urinary inconvenience (urine leakage) in 40% of women between the age of 45 and 64.
- Thinning hair as experienced by 30% of menopausal women.
- Thinning of the vaginal lining (Vaginal atrophy) which make them more vulnerable to frequent vaginal infections.
- Insomnia / early morning awakenings.
- Fearfulness.
- Night sweats and fatigue.
- Vaginitis and painful intercourse.

- Vaginal dryness.
- Anxiety, depression and irritability.
- Perception of memory loss and shrinkage of the breasts.
- Loss of bone mass and slow increase in blood cholesterol levels resulting to various cardiovascular diseases (CVD).
- Physiological changes that affect the vaginal tract affect a woman's sexual response as well.

For example, lack of vaginal lubricant may affect sexual arousal. A change in hormone levels specifically androgen production may diminish a woman's libido (Hales: 2005).

The long term effects of menopause on women include Alzheimer's disease due to estrogen loss (slow and progressive loss of mental function (Hammond: 1999) in addition to cardiovascular diseases and osteoporosis.

# Menopause Management

Many confusions and controversies abound in the appropriate treatment for menopausal symptoms and the prevention of long term problems associated with post-menopausal women. However, Hormone Replacement Therapy (HRT) is commonly used for the management of menopause as reported by the Office of Technology Advancement (1992) and Geddes & Grosset (2002).

Women naturally produce steroidal sex hormones including estrogen, progesterone and androgens (testosterone). During menopause, some may find that replacement of these hormones particularly estrogen can provide positive effects on their overall well-being through the use of Hormone Replacement Therapy (HRT). This type of therapy can be in three types or forms namely:

- Replacement of estrogen in form of estradiol alone;
- Replacement of estrogen and progesterone in form of progestin.
- Replacement of estrogen, progesterone and testosterone.

Replacement of hormones can be taken on a variety of different preparations and by various routes of administration – orally, vaginally or transdermally (through skin patches). Vaginal estrogen containing creams can help women whose only symptom is vaginal dryness. A thin, transparent, flexible vaginal ring can be inserted into the vagina to treat hot flashes and vaginal dryness. A skin patch – transdermal therapy is another estrogen delivery mechanism.

The use of Selective Estrogen Receptor Modulators (SERM) called "Designer Estrogen" is also used in menopausal management. They are designed to act like estrogen by providing the same beneficial effects. The use of HRT has positive effects such as relief from hot flashes, improve symptoms related to urogenital changes such as atrophy, vaginal dryness, reduce frequency of urinary tract infections and urinary stress incontinence on some women. It increases bone density and protect women from bone loss and tooth loss (Kribbs, Chestnut & Ottis: 1990 and Jeffcoat & Chestnut: 2007). However, frequent use of estrogen has been associated with endomenial cancer (Hulley, Gorady, Bush, Furberg, Herington, Riggs and Vittinghoff, 1995).

The decision to use HRT is a personal and private one. Several factors should be carefully considered when making the decision to avoid its side effects. Such factors according to Schaiver (2000) are:

- (i) Medical history (history of breast cancer, blood clots on the legs, lungs or eyes, abnormal vaginal bleeding, preexisting cardiovascular conditions such as blood clots, stroke or uncontrolled high blood pressure, liver, gallbladder in pancreatic diseases.
- (ii) Menopausal symptoms and their severity such as hot flashes, vaginal irritation and discomfort, urinary tract infections, emotional and mood changes.
- (iii) Review of risks and benefits.
- (iv) Reevaluate decision periodically.

Other methods of menopause management include good nutrition and regular exercises. They are important factors in maintaining well – being of women experiencing pre-menopause and post-menopause. A diet rich in fruits, vegetable, whole grains and low in saturated fats and cholesterol has been shown to be beneficial through most stages of life. Adequate Calcium C, D and E are also important for bone health and possibly prevention of cardiovascular diseases (CVD) and cancer.

Exercise is critical in the menopausal years. Weight bearing exercises can increase bone density and improve balance and flexibility to decrease falls, thereby reducing fractions. Aerobic exercises reduce a woman's risk for CVD by improving cardiac functions, decreasing high body weight and lowering cholesterol levels.

Regular exercises also may reduce the incidence and severity of hot flashes and other symptoms associated with hormonal changes of menopause such as insomnia, depression, other mood changes, weight gain and headache (Burghartt, 1999).

Traditional herbal medicines (black cohash and vitex) containing estrogen – like compounds have offered a variety of treatments to address some of the symptoms of menopause in many women (Hudson, 2000).

### **CONCLUSION**

Today, menopause is seen as the beginning of a second life and no longer confined or defined by procreative abilities. The phobia about aging, myths and misconceptions about the aging process should be replaced by adequate health knowledge on the second half of a woman's life.

Menopause is a time of change of life for many women. For some, it brings physical symptoms, for others, it inspires questions about changing roles. Menopause management – especially HRT is an ideal solution for some women for their health issues and associated with the menopause in addition to other therapies.

### RECOMMENDATIONS

Towards relieving menopausal symptoms among women, the following recommendations were made:

- Menopausal Education should be incorporated to the educational curriculum since all females will undergo menopause. All the males should also be given menopausal education this will enhance their understanding of menopause expectations.
- 2. There should be a change in lifestyle of women in terms of dressing, eating and sleeping to avoid being too warm.
- 3. A menopausal woman should try deep breathing and stress reduction techniques including meditation and other relaxation methods to reduce hot flashes and flushes.
- 4. The use of antidepressants proves moderately effective as alternatives to relief menopausal symptoms.
- 5. A menopausal woman should apply vaginal lubricants and moisturizers for vaginal dryness and products that release estrogen locally such as vaginal creams, a vagina suppository (Vagifem) and a plastic ring (Estring).
- 6. A menopausal woman should be physically active by engaging in regular relaxation exercises and getting enough sleep.
- 7. The taking of milk products of fat free varieties at bedtime, hot shower or bath immediately before going to bed and the use of over-the-counter sleep aids will reduce insomnia in a menopausal woman.
- 8. A menopausal woman should engage in mental exercises, get enough sleep and be physically active to reduce mental problems.
- 9. Menopausal women should seek for counseling to be able to understand anatomical differences and expectations to be able to alley the fears and phobia of problems of menopause and to be able to face the challenges with reduced problem.

### REFERENCES

**Alexander, I. M.** (2004) Characteristics of and problems with primary care interactions experienced by an ethnically clueerse group of women Journal of Am Acad. Nurse Pract: Vol .16, pp.300—310.

**Avis, N.** (2004) Quality of life in diverse groups of midlife women: Assessing the influence of menopause, health status and psychological and demographic factors. Quality of Life Research. Vol.13, No.5, pp. 933.

**Babalola, J. A.** (2008) Introduction to human anatomy and physiology. Lagos: Beacon Books Ltd. **Bentley, G. O.** (2009) Growth, development and decline (7<sup>th</sup> ed). In Popular Science. China: Grolier International Incorporation.

Bumin, D. (2005). Embrace the change. Journal of Parade. Vol. 10, No.4, pp. 13—16.

**Burghardt, M.** (1999) Exercise at menopause: A critical difference. Medscope Women's Health. Vol. 4, No.1.

Christensen, C. M.; Bohmer, R. & Kenagy, J. (2000) Will disruptive innovations cure health care? Harv Bus .Vol.78, pp. 102—112.

Geddes, S. & Grosset, M. (2001) Women's health. Scotland: Geddes & Grosset Publishers.

Geddes, S. & Grosset, M. (2002) Sexual health. United Kingdom: Geddes & Grosset Publishers.

**Hales, D.** (2006) Problems of menopausal women. American Journal of Public Health. Vol. 95, No.9, pp. 1607—1613.

**Hall, L. L.** (1999) Taking charge of menopause. US Food and Drug Administration. FDA Consumer Magazine. Vol. 5,No.3, pp. 260—263.

**Hammond, C. B.** (1999) Confronting aging and disease: The role of HRT. Medscope. Women's Health. Vol. 4, No.1, pp. 44—46.

**Hudson, T.** (2000) Six paths to menopause wellness. Herbs for Health Magazine. Vol. 6, No.16 Hulley, S.; Grody, D.; Bush, T.; Furberg, G.; Herrington, D.; Riggs, B. & Vittinghoff, E. (1995). The use of estrogen and progestins and risk of breast cancer in post-menopausal women. New

**Jeffcoat, M. K. & Chestnut, C. H. (2007)** Systemic osteoporosis and oral bone loss. Journal of the American Dental Association. Vol.124, pp.49—56.

**Kathleen, J. W. & Anee, W. (2000).** Anatomy and physiology in health and illness. London: Harcourt Publishers Limited.

Kribbs, P. J.; Chestnut, C. H. & Ottis, M. (1990) Relationship between mandibular and skeletal bone in a population of normal women. Journal of Prosthetic Dentistry. Vol. 63, pp. 86—89.

**Linda, L. A.; Judith, H. L.; Helaine, B. & Susan, G. (2004)** New dimensions in women's health (3<sup>rd</sup> ed). London: Jone and Balett Publishers.

**Lyndaker, C. & Hutton, L. (2004)** The influence of age on symptoms of menopause. Journal of Obstetrical Gynecology and Neonatal Nursing. Vol.33, No.3, pp.347.

Miller, A. M.; Wilbur, J. & McDentt, J. (1997) Health promotion: The perimenopausal to mature years (45—64). In K. M. Allen & J. M. Phillips: Women's health: Across the lifespan. Philadelphia: Lippincott-Raven.

Mountcastle, S. B. (2008) The menopause. Lancaster: M7P Press.

England Journal of Medicine. Pp.332, 1589.

Northrup, C. (2008). Women bodies, women wisdom. New York: Bantam Books.

Office of Technology Advancement (1992) The menopause, hormone, therapy and woman's health. Samsoie, G. (1998) A hidden problem. American Journal of Obstetrics and Gynecology. Vol. 178, pp. S245--S249.

Sarrel, P. M. (1990) Sexuality and menopause. New Haven, Connecticut.

**Schairer**, C. (2000). Menopausal estrogen and estrogen-progestin replacement therapy and breast cancer risk. Journal of the American Medical Association. Vol. 284, No. 4, pp. 485—491.

Women Heart Access ((2001) Estrogen and progesterone: The right regimen for you. Women Health American Fact Sheet.