

**AFRICAN WOMEN EXPERIENCING PERIMENOPAUSE:
FATIGUE AND DIZZINESS**

By

Dr. Brenda Nelson-Porter

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This paper focuses on women in the poorer nations, such as in Africa, who experience perimenopause and are coping with symptoms associated with perimenopause. Fatigue is a symptom associated with perimenopause, a condition involving changes in the hormones impacting women age 20-45 lasting 4-10 years (“American Society for Reproductive Medicine,” 2008; “Perimenopause Symptoms,” n.d.). Adrenal fatigue is referred to as feeling tired after awakening or exercising; whereas, muscle fatigue is referred to as the decrease in physical performance (Cheikin, 2007; Enoka & Duchateau, 2008). The association between fatigue and dizziness experienced by women of African descents and natural approaches aimed to help women who experience these symptoms will be presented.

Forms and Causes of Fatigue

Research and findings are limited on the specific causes of fatigue (Cheikin, 2007; Enoka & Duchateau, 2008). Adrenal fatigue can be measured based on the level of pregnenolone, being 30 or below (Cheikin, 2007). During perimenopause, the adrenal gland performs at a lesser capacity when the adrenal gland has to assume the function of the fatigued ovaries (Cheikin, 2007). The demand for the production of adrenal hormones (Dehydroepiandrosterone [DHEA]) begins to exceed the capabilities of the adrenal gland, resulting in adrenal fatigue. African Americans, more so than Caucasians Americans, have been reported to experience a decrease in estradiol (sex hormones) and DHEA sulfate levels that result in fatigue (Kurina, Gulati, Everson-Rose, Chung, & Karavolos, 2004). A 23-year old African American female (B. Nelson, personal communication, February 3, 2014) said, before her cycle begins to flow, she becomes fatigue, has no energy, and can take naps back-to-back.

Chronic fatigue syndrome (CFS, myalgic encephalomyelitis [ME]), often affects individuals between the ages of 20-40 (Afari & Buchwald, 2003). Because of the availability to

access to medical care and utilization, White women are mostly found to experience CFS (Afari & Buchwald, 2003). “Chronic fatigue syndrome is an illness characterized by profound disabling fatigue lasting at least 6 months and accompanied by numerous rheumatological, infectious, and neuropsychiatric symptoms” (Afari & Buchwald, 2003, p. 221). The diminished physiological and cellular energy of individuals with CFS result from the capacity of human internal organisms (mitochondria) to utilize oxygen and transport chemical energy (adenosine triphosphate [ATP]) throughout the body (Lemle, in press).

Many individuals with CFS experience dizziness and other disorders (Afari & Buchwald, 2003). Dizziness is classified as vestibular (vertigo, rotary) or non-vestibular (non-vertiginous, imbalance, lightheadedness, faintness (syncope); Eggenberger & Lovell, n.d.). Perimenopausal women may more likely experience vestibular or peripheral vestibular dysfunctions accompanied by positional phobic dizziness (psychological dizziness) and psychogenic dizziness (imbalance reoccurrence; Korsunskaja & Meshcheryakova, 2013).

During the perimenopausal transition, researchers believed the cause of mental as well as muscle fatigue may be mediated by the aging process or hormonal changes (estrogen; Kurina et al., 2004). Researchers have to determine if mental fatigue often derives from age-related diseases that diminish cognitive capabilities or from demand placed on the cognitive processes (Bonomo, Rigamonti, Giunta, Galimberti, & Guaita, 2009; Van der Linden, Frese, & Meijman, 2003). Comparing perimenopausal with menopausal women, neurotoxic alterations were mostly identified during the perimenopausal period than the menopausal period (Bonomo et al., 2009).

The changes in the psychophysiological state associated with sustained performances, however, result from individuals' inability to regulate perceptual and motor processes (external control; Van der Linden et al., 2003). The changes may be measured using various scales, such

as Rating Scale Mental Effort, Profile of Mood States, and Advanced Progressive Matrices Van der Linden et al., 2003). Factors to consider pertaining to mental fatigue include the tasks, variations in the tasks, and motivation level of individuals to complete the tasks (Van der Linden et al., 2003). A 27-year-old female Advocate working at a medium sized law firm living in Kenya shared:

I guess everyone has her own way of getting rid of fatigue. Personally, I prefer having some time to meditate and relax, which I only get during the weekends as I work all week long. In fact sometimes, you have to push yourself so hard that you don't even know you are tired just to make ends meet. We carry out litigation in various towns, and I have to travel to court most of the time. This means that I wake up very early and get home late most of the time. I don't have a car, so I use public transport. (Anonymous, social media communication, April 27, 2014)

Researchers, however, have found that the demands placed on muscles during physical activities lead to muscle fatigue, which can be measured by electromyography (EMG) signals (Enoka & Duchateau, 2008). Many women in Africa have access to land and use primitive hand tools to cultivate the lands and plant foods, thus, the women may experience muscle fatigue (International Fund for Agricultural Development [IFAD], 1998). Because the heavy soil found in Sudan and Ethiopia, such as Vertisols however unlike Andisols, holds high concentration of water, more muscle power is necessary to dig and break through the clay to make the soil agriculturally productive (Sant'Anna, 1993; Takahashi & Shoji, 2005). Being that research is limited on the specific causes of fatigue and no reliable medical treatments have not been found, the approach to finding a specific cause(s) may be found in homeopathic discoveries, whereby

scientists follow the *law of proving* (Afari & Buchwald, 2003; Cheikin, 2007; Enoka & Duchateau, 2008; Lemle, in press; Panos & Heimlich, 1980).

Approaching Fatigue Through Mediums

The following suggestions aim to help women, to include women in Africa or other nations, who experience fatigue associated with perimenopause and are not aimed to diagnose, prescribe, treat, or cure. Natural techniques discussed in this paper aim to enlighten women on lifestyles and healthy living. Until newer natural herbal compounds are further tested, physicians or researchers may refer to creditable published literature as a guide to gain insight on possible approaches or focus on mediations associated with natural environmental and agricultural constraints. Women who believe their condition results from a medical disease are recommended to seek assistance from an MD, naturopathic doctor (ND), or homeopathic physician (D.Ht.).

Herbs and vitamins are recommended to restore the body natural function. Feverfew has been used to approach dizziness associated with migraines (Rose, 1998). Through *proving*, scientists administer healthy individuals an herbal compound to emerge symptoms under study (Panos & Heimlich, 1980). A 33-year old female living in Nusa Tenggara Barat, Indonesia (E. Marlina, social media communication, April 27, 2014) shared she usually consumes herbal drinks made from roots and also massages all her body when she experiences fatigue. One herbal formula reported to approach CFS contains *Astragalus membranaceus*, *Berberis vulgaris*, *Picrorrhiza kurroa*, *Eleutherococcus senticosus*, and *Hypericum perforatum* (Sims, 1997). Many herbs or combinations of herbs, however, stimulate side effects. High dosage of ginseng has been reported to cause dizziness (Ratini, 2013).

Muscle fatigue experienced by women in developing nations may be alleviated by using livestock (cattle, oxen, donkeys, horses, and camels) to assist with performing physical agricultural activities associated with cultivating the lands for food production and grazing (IFAD, 1998; Mohamed & Ahmed, 1991). Caution must be taken when making physical contact with the livestock, as many have and transmit diseases that may result in dizziness and other disorders (Von Kaufmann, Okigbo, & Oppong, 1985). The Classification of Farming System in Africa links the adaptation and progression of cultivation and herding in an attempt to derive policies, guidelines, and developmental initiatives (Von Kaufmann et al., 1985).

In reference to the metacontent featured in the International Soil Taxonomy, natural resources researchers may consider further correlating the type of soil found in Africa with the scope of the soil defined by representatives of Occupational Safety & Health Administration (OSHA) to other classification systems (Takahashi & Shoji, 2005; U.S. Department of Labor [DOL], 2014; Virmani, Sahrawat, & Burford, 1982). An international reclassification of the metadata or expansion of the metacontent, coined by Dr. Brenda Nelson-Porter as *Classification System of Natural Earth Sediments and Livestock (CSNES-L)*, may help environmentalist and farmers, prior to performance, recognize what soils are (a) easier to transport, cultivate, and grow foods and herbs and (b) easier to pasture or graze for livestock. Based on synthesizing classification systems, Vertisols seem to be cohesive in nature and would not be beneficial for agricultural production, and Andisols, which seem highly effective for the production of food and herbal crops as well as forage, do not seem to reflect the scope of any of the soils defined by OSHA (Sant'Anna, 1993; Takahashi & Shoji, 2005; U.S. DOL, 2014).

In addition to using camels as a supplementary agricultural tool, the camel milk, which stores a low level of Vitamin B₁₂ in comparison to cow milk, may be consumed to alleviate

muscle fatigue (Mohamed & Ahmed, 1991; Nikkhah, 2011; Singh & Sachan, 2011). The pastoralization (herding) and pasteurization (processing) of camel milk are popular farming methods in Somalia, Ethiopia, Kenya, Sudan and so forth (Mohamed & Ahmed, 1991; Musinga, Kimenye, & Kivolonzi, 2008). Women in Sudan and other regions (Beja, Red Sea Hiils) where camel herding is popular, however, had not been allowed to participate in the milking processes, which are mostly performed by the hand (Mohamed & Ahmed, 1991; Musinga et al., 2008). Women predominantly participate in the informal trading processes (Musinga et al., 2008).

Mental fatigue may arise when women in Africa attempt to increase milk production by training farmers, especially from urban communities, on how to manage pastures and records and process milk (Musinga et al., 2008; Musisi & Kawuma, 2011). Through empowerment initiatives, African women may subdue mental fatigue (Muthui, 2011). To remain competitive, women in Africa may consider engaging in research whereby the metadata that construct the classification systems are aligned to gain a full understanding of the markets, product quality, and nutritional value to approach symptoms and underlying health conditions (Njuki, 2011).

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