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ASSESSMENT OF RELATIONSHIP BETWEEN DAIHIK PRAKRITI AND QUALITY OF SLEEP IN PERIMENOPAUSAL WORKING WOMEN: - AN OBSERVATIONAL STUDY

Dr. Pooja Prajapati[1]* and Dr. Shuchi Dubey[2]

[1]PG Scholar, Department of Kriya Sharir, Pt. Khushilal Sharma Govt. (Autonomous) Ayurveda College & Institute, Bhopal (M.P.).

[2]Reader, Department of Kriya Sharir, Pt. Khushilal Sharma Govt. (Autonomous) Ayurveda College & Institute, Bhopal (M.P.).

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***Corresponding Author**
Dr. Pooja Prajapati
PG Scholar, Department of Kriya Sharir, Pt. Khushilal Sharma Govt. (Autonomous) Ayurveda College & Institute, Bhopal (M.P.).

ABSTRACT

Background: Perimenopause, the most critical transition in every woman's life, is characterized by fluctuating levels of estrogen and progesterone, causing very distressing symptoms such as hot flashes, mood swings, fatigue, and most markedly sleep disturbances. The sleep quality during this transitional phase distinctly matters for the well-being of an individual, be it physical, emotional, or occupational, especially for working women who have to jugble with many roles. According to global studies, including the Study of Women's Health Across the Nation (SWAN), 40-60% perimenopausal women report sleep-related issues. The mean age for natural menopause in India ranges from 41.9 to 49.4 years; hence midlife sleep health becomes a strong public health issue. It is considered Rajonivritti stage according to Ayurveda, which is a natural increase in Vata dosha. Daihik Prakriti plays a pivotal role in determining the physiological tendencies as well as susceptibilities to diseases. One of the three pillars of life (Trayopasthambha) is Nidra (sleep) in Ayurveda and any disruption in sleep (Nidranasha) can lead to health deterioration. This sets the stage for the investigation of the inter-relationship between Prakriti and sleep disturbances among perimenopausal working women through a combination of Ayurvedic principles and modern clinical assessment tools.

INTRODUCTION

Perimenopause is a biological phase marked by a decline in ovarian function, leading to the cessation of menstruation and the onset of symptoms like hot flashes, mood fluctuations, fatigue, and one of the most distressing—sleep disturbance.[1] In India, most women experience the mean age of natural menopause ranges from 41.9 to 49.4 years.[2] During this period, the hormonal imbalance, particularly reduced estrogen and progesterone levels, affects neurotransmission and sleep regulation.[3] According to Study of Women's Health Across the Nation (SWAN), sleep disruption affects 40–60% of perimenopausal women, significantly impairing their daily functioning and long-term health.[4]

Ayurveda, the traditional Indian system of medicine, addresses this phase as *Rajonivritti*, a natural yet critical period in a woman's life.[5] It attributes individual variability in disease susceptibility to *Prakriti*, the unique combination of *Vata*, *Pitta*, and *Kapha* doshas that define a person's constitution.

Sleep (*Nidra*) is one of the three pillars of life (*Trayopasthambha*), and disturbances in it are considered major disruptors of homeostasis. Particularly, *Vata dosha*, responsible for movement and nervous regulation, is regarded as a key contributor to *Nidranasha* (insomnia).[6] Sleep disturbance is common among Perimenopausal women and is considered to hamper their quality of life and it bothers more when she is working.[7]

This review article is based on an observational study aimed at examining the association between *Daihik Prakriti* and sleep quality in perimenopausal working women, thus bridging classical *Ayurvedic* thought and modern health challenges.

KEYWORDS: *Prakriti*, Perimenopause, Sleep quality, *Vata Dosha*, *Ayurveda*, PSQI, MRS.

Objective: The study aims to explore the association between *Daihik Prakriti* and sleep quality in perimenopausal working women using standardized assessment tools.

MATERIALS AND METHODS

2.1 Study Design

This observational study included 100 perimenopausal working women aged 41–50 years from o.p.d. of Pt. Khushilal Sharma Government Ayurveda College, Bhopal. *Daihik Prakriti* was assessed using the CCRAS *Prakriti* Portal, sleep quality was evaluated with the

Pittsburgh Sleep Quality Index (PSQI), and menopausal symptoms were recorded using the Menopausal Rating Scale (MRS).

2.3 Inclusion and Exclusion Criteria

Inclusion Criteria

- Women aged 41–50 years
- Working professionals
- Experiencing natural perimenopausal symptoms

Exclusion Criteria

- Pre-existing psychiatric or systemic conditions
- Use of hormone therapy or sleep medications
- Chronic systemic diseases

Assessment Tools

- **Menopausal Rating Scale (MRS):** Assessed symptom severity across psychological, somatic, and urogenital domains.
- **Pittsburgh Sleep Quality Index (PSQI):** Assessed sleep quality using seven components.
- **CCRAS Prakriti Assessment Tool:** Categorized participants into *Vata*, *Pitta*, or *Kapha*-dominant constitutions.

3. RESULT

3.1 Participant Demographics

The majority of the participants (62%) were between the ages of 45 and 50. Most belonged to the middle-income group in terms of socioeconomic status. Regarding dietary habits, 73% of the participants were vegetarians. In terms of physical activity, 58% of the women reported not engaging in regular exercise.

3.2 Symptom Profile (Menopause Rating Scale - MRS)

All participants (100%) reported experiencing irregular menstruation, hot flashes, and sleep disturbances. Other common symptoms included irritability in 92% of participants, mood swings in 88%, musculoskeletal discomfort in 77%, and anxiety in 69%.

3.3 Sleep Quality (Pittsburgh Sleep Quality Index - PSQI)

Sleep latency exceeding 30 minutes was observed in 73% of participants, while 86% reported a sleep duration of less than six hours. Subjectively, 68% rated their sleep quality as 'fairly bad.' The global PSQI scores revealed that 15% of participants had mild poor sleep, 72% had moderate poor sleep, and 13% had severe poor sleep.

3.4 Prakriti Distribution

The distribution of **Daihik Prakriti** among participants showed that 62% were *Vata* dominant, 28% were *Pitta* dominant, and 10% were *Kapha* dominant.

3.5 Correlation Between Prakriti and Sleep Quality

Among those categorized as severe poor sleepers, 76.92% were found to be *Vata* dominant. Similarly, 69.44% of moderate poor sleepers were also *Vata* dominant. Interestingly, among those with mild poor sleep, 66.66% were *Kapha* dominant, suggesting a possible relationship between *Prakriti* type and sleep quality.

4. DISCUSSION

The findings from this study underscore a fundamental tenet of *Ayurveda*—**that each individual's constitution governs their physiological tendencies, disease predisposition, and response to stress and aging.** The study establishes a clear link between *Vata Prakriti* and disturbed sleep quality in perimenopausal working women.

4.1 *Ayurvedic* Perspective

In *Ayurvedic* theory, *Vata dosha* is linked to neural activity, mental alertness, sensory coordination, and circadian regulation. The menopausal transition marks a natural phase of *Vata predominance* in a woman's lifecycle, known as *Jara Avastha*. As estrogen and progesterone levels decline, the regulatory influence on *Vata* wanes, leading to:

- Nervous instability
- Increased restlessness
- Sensory hypersensitivity
- Altered thermoregulation (hot flashes)

The aggravation of *Vata* during perimenopause manifests clinically as **sleep latency, fragmented sleep, nocturnal awakenings, and fatigue**—symptoms that match with modern diagnoses of menopausal insomnia.

In contrast, *Kapha-dominant* individuals—known for stability, slowness, and groundedness—showed **less vulnerability** to severe sleep disturbances. This further validates classical *Ayurvedic* knowledge, which associates *Kapha* with *Snigdha* (moisture), *Sthira* (stability), and *Nidra-karaka* (sleep-inducing) qualities.

4.2 Biomedical Interpretation

Sleep disturbances in perimenopause are often linked to:

- Decreased melatonin and estrogen production
- Night sweats and vasomotor instability
- Anxiety and depression
- Sleep apnea and restless leg syndrome

These conditions are exacerbated by stress, caffeine, lack of exercise, and irregular routines—all of which were reported more frequently among *Vata*-dominant participants. **PSQI results**, including high scores in **sleep latency**, **short sleep duration**, and **habitual sleep inefficiency**, further confirm this pattern.

Moreover, **subjective sleep quality** and **daytime dysfunction**—important measures in PSQI—were significantly worse in *Vata Prakriti* individuals. These observations emphasize that Vata types may be more sensitive to environmental and hormonal changes.

4.3 Relevance to Working Women

Perimenopausal working women face unique challenges: managing households, careers, caregiving, and hormonal transitions. Sleep disturbance not only affects their **productivity** but also heightens the risk of chronic conditions such as:

- Hypertension
- Type 2 diabetes
- Depression
- Cognitive impairment

Hence, understanding *Prakriti* allows clinicians to **individualize prevention strategies**, focusing on:

- ***Vata*-pacifying regimens** (abhyanga, warm meals, stable routines)
- ***Kapha* balancing** for excess sluggishness
- Mind-body practices like ***Yoga* and *Pranayama***

4.4 Implications for Integrative Medicine

This study demonstrates the power of combining traditional *Ayurvedic* profiling with modern tools like PSQI and MRS. A ***Prakriti*-based diagnostic framework** can enrich clinical decision-making in the following ways:

- Predict vulnerability to sleep disorders
- Tailor non-pharmacological interventions
- Educate patients about self-care strategies aligned with their constitution

It also opens avenues for further interdisciplinary research on how *Prakriti* correlates with neuroendocrine biomarkers, circadian biology, and sleep physiology.

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