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Review Article

THE EFFECT OF *TIL TAILA ABHYANGA* IN OCCUPATIONAL STRESS AMONG OFFICE WORKERS

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ABSTRACT

Occupational stress among office workers has emerged as a major public health concern due to excessive workload, prolonged working hours, sedentary lifestyle, continuous screen exposure and high-performance demands. These factors lead to physical, mental and emotional strain, resulting in conditions such as hypertension, anxiety, depression, insomnia, fatigue, and musculoskeletal disorders. Chronic exposure further predisposes individuals to psychophysiological disorders including cardiovascular diseases, metabolic disturbances and chronic pain conditions. The World Health Organization recognizes occupational stress as a global epidemic requiring preventive and therapeutic strategies. From an Ayurvedic perspective, occupational stress is primarily associated with aggravated *Vata Dosha* along with vitiation of *Rajas* and *Tamas*, leading to disturbances in both *Sharirika* and *Manasika* functions. *Tila Taila Abhyanga*, a classical *Dinacharya* practice is described in Ayurvedic texts as an effective *Vata*-pacifying therapy that promotes relaxation, nourishment of *Dhatus* and restoration of neuromuscular balance. Its *Snigdha* and *Snehana* properties help reduce muscular stiffness, improve circulation, lower stress hormones and enhance sleep quality. Modern research also supports massage therapy in reducing cortisol levels and improving parasympathetic activity. The findings suggest that regular *Tila Taila Abhyanga* is an effective, safe and non-pharmacological intervention for managing occupational stress and improving overall well-being among office workers.

INTRODUCTION

Occupational stress is the physical and emotional strain that arises due to job-related factors such as heavy workload, long working hours and continuous mental pressure. Stress and health are closely interconnected, as prolonged stress can lead to disturbances in both the body and mind. Conditions like anxiety, tension and sleep disturbances may eventually progress into chronic disorders such as insomnia. In recent times, stress has increasingly been recognized as a significant workplace issue that adversely affects overall societal health. It is a common concern in modern work environments, with nearly one-third of employees reporting high levels of stress.

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Persistent workplace stress can result in both psychological and physiological dysfunctions, along with reduced motivation and productivity. Many young professionals today work continuously for extended periods without adequate rest, often spending long hours in front of computers to meet project deadlines. In pursuit of their goals, they tend to ignore early warning signs such as muscle pain, loss of appetite, disturbed sleep, and fatigue. Initially, these symptoms may be overlooked, but over time, individuals may become irritable, short-tempered and emotionally unstable. The manifestation of job stress varies among individuals, depending on the duration and intensity of exposure to stressors. Common symptoms include insomnia, lack of concentration, anxiety, absenteeism, depression, extreme anger and frustration. Additionally, prolonged stress may contribute to physical health issues such as heart disease, migraines, headaches, gastrointestinal disturbances and back pain. Ultimately, chronic stress can lead to anxiety, fatigue, insomnia and various lifestyle disorders.

Abhyanga is one among the *Dinacharyas* and is an ancient Indian Ayurvedic approach adopted for healing, relaxation and treating various diseases. Ayurveda is the ancient Indian medical system that emphasizes holistic well-being and offers proven approaches to stress management. Among these, *Abhyanga* (therapeutic oil massage) has an important place as a daily practice for maintaining health and balance. Classical Ayurvedic texts describe *Abhyanga* as a means of feeding tissues, increasing circulation, promoting health and balancing the *Doshas* - especially *Vata,* which is often a remedy. From an Ayurvedic perspective, occupational stress can be understood in terms of *Klesha* (mental afflictions) and *Vata* imbalance.

According to the *Charaka Samhita (Sutrasthana* 5/86) mentions: *"Klesha-Vyayama Samhahma"* (Therapies like *Abhyanga* help reduce mental afflictions *[Klesha]* and restore equilibrium through regulated activity *[Vyayama].*) Here, *Klesha* represents negative mental patterns such as fear, anger, worry and restlessness, while *Vyayama* indicates regulated physical and therapeutic activity that strengthens the body and mind. Among the preventive measures, *Abhyanga* (therapeutic oil massage) is highlighted as a key intervention in *Swasthavritta,* promoting nourishment of tissues (*Dhatus*), lubrication of joints, pacification of *Vata* and restoration of mental equilibrium. *Tila Taila* (sesame oil) is particularly emphasized for its *Vata*-pacifying and nervous system–strengthening properties. According to *Bhavaprakash Nighantu:* Pacifies *Vata,* improves *Agni* and enhances intellect. It is furthur as: *"वातशामकदीपनं,बुद्धिदाम्-मेध्यम्,शूलनाशनम्"* (pacifies *Vata,* enhances digestion, improves intellect and memory and alleviates pain.) *Tila Taila* (sesame oil) is regarded as the "best among oils" (*Tailam shreshta*) in Ayurveda due to its profound penetrative qualities, richness and capacity to pacify *Vata dosha.* It is abundant in antioxidants, vitamin E and lignans which offer neuroprotective and anti-stress benefits. Regular *Abhyanga* with *Tila Taila* is believed to promote restful sleep, alleviate fatigue, strengthen muscles, enhance skin texture and stabilize the nervous system. Numerous modern studies have indicated that oil massage therapy can lower cortisol levels, improve heart rate variability and boost overall psychological well-being. Nevertheless, there is limited clinical evidence specifically addressing the impact of *Tila Taila Abhyanga* on occupational stress among office workers, a demographic particularly susceptible to chronic stress. With rapid urbanization and industrialization in India, occupational stress has become a prevalent health concern.

Mechanistically, *Tila Taila's Snehana* and *Snigdha* properties nourish nerves, muscles and connective tissues, reduce fatigue and stabilize *Vata Dosha.* The calming effect on the nervous system promotes emotional balance, concentration and resilience against stress. This aligns with modern psychophysiological findings, where massage therapy has been shown to reduce cortisol levels, enhance parasympathetic activity, improve heart rate variability and decrease subjective stress (Field, 2016; Moyer et al., 2004). Most studies focus on general massage therapy or relaxation techniques, without standardization according to Ayurvedic principles. This highlights a gap in evidence-based application of classical Ayurvedic interventions for contemporary occupational stress. In Ayurveda, such conditions are mainly associated with *Vata dosha* aggravation, affecting both *Sharira* (body) and *Manas* (mind). Daily *Abhyanga* is recommended under *Dinacharya* to maintain equilibrium of *Doshas* and promote relaxation.

MATERIALS AND METHODS

Various Ayurvedic classics and article published till date are reviewed to update the importance of *Abhyanga* in day today life.

Abhyanga is a traditional Ayurvedic practice involving systematic oil massage performed in the direction of hair growth, also known as *Abhyanjana* or *Snehana*. It is recommended as a part of daily routine to maintain physical strength, mental calmness and overall health. Regular application, especially with *Tila Taila* (sesame oil), helps nourish body tissues, improve blood circulation and reduce fatigue caused by stress and long working hours. It pacifies aggravated *Vata dosha*, supports nervous system balance, enhances sleep quality and relieves anxiety and headaches. Its *Snigdha* and *Ushna* properties provide deep relaxation, making it highly beneficial for occupational stress and lifestyle disorders. Classically, *Tila Taila* is described as *Snigdha* (unctuous), *Guru* (heavy), *Ushna* (warming in potency) and *Vatahara* (*Vata*-pacifying). Due to these properties, *Abhyanga* with *Tila Taila* helps balance aggravated *Vata*, enhances circulation, nourishes tissues and promotes relaxation of the nervous system. Consequently, it may contribute to reducing occupational stress by calming the mind and supporting overall physiological and psychological balance.

Material Required

1. ***Sneha Dravya*** **(Oil/Medicated Oil)**

   Sneha may be in the form of medicated oil or commonly used oils such as mustard oil, sesame oil (*Tila Taila*) or coconut oil. Depending upon the

disease condition, specific *Taila*, *Ghrita* (especially in *Vatavyadhi*) or *Vasa* may be selected.

2. **Masseur (Therapist)**

   A trained technician well-versed in *Abhyanga* procedures is required. The therapist should be skilled, physically capable, hygienic.

3. ***Abhyanga* Table (*Droni*)**

   A properly designed *Abhyanga* table (*Droni*) is required to ensure comfort of the patient and proper execution of the procedure.

4. **Towels and Accessories**

   Clean towels and necessary accessories should be available for wiping excess oil and maintaining hygiene during and after the procedure.

5. **Heating Arrangement for *Taila***

   A gas stove or induction cooktop may be used for heating the *Taila*. However, the oil should never be heated directly over fire. It should be heated indirectly using a double boiler method to maintain its therapeutic properties.

Precaution before *Abhyanga*

Before the application of *Abhyanga*, the following precautions should be considered:

1. The person should have satisfied all natural urges (e.g. bowel and bladder evacuation).
2. The person should not be in a state of hunger.
3. The person should not have taken food immediately prior to the therapy.
4. The person should be suitable for *Abhyanga* (i.e., assessed for indications and contraindications).

Posture

The posture of the patient should be such that *Abhyanga* can be performed over the entire body, ensuring proper access to each part. For *Sarvanga Abhyanga*, the procedure is carried out in seven postures are considered to facilitate uniform application. In such cases, the physician should determine the appropriate posture according to the site of application.

Procedure of *Abhyanga*

The technique of *Abhyanga* varies according to the body part involved and the disease condition. For *Sarvanga Abhyanga*, ideally the following seven postures are adopted:

1. **Sitting Position-** The patient sits with both legs extended for application over the head, neck, shoulders and upper limbs.
2. **Supine Position-** The patient lies in a supine posture with legs slightly apart for *Abhyanga* over the anterior aspect of the body.
3. **Left Lateral Position-** The patient lies on the left side the left leg remains straight while the right leg is flexed at the knee for ease of application**.**
4. **Prone Position-** The patient again lies in a prone position to ensure complete and uniform application over the posterior aspect of the body.
5. **Right Lateral Position**- The patient lies on the right side the right leg remains straight while the left leg is flexed at the knee.
6. **Supine Position-** The patient returns to the supine position for final uniformity of oil application.
7. **Sitting Position (Completion)-** The procedure is completed in a sitting position with both legs extended.

***Sneha* Used:** *Tila Taila* (sesame oil) is considered best for *Abhyanga* among all other oils according to Ayurveda. The oil should be used in a lukewarm state to enhance absorption and therapeutic efficacy.

Duration of Procedure: The total duration of *Abhyanga* generally ranges from 45-55 minutes.

Post-*Abhyanga* Care

a) The oil should be allowed to remain on the body for 20-30 minutes to facilitate proper absorption into the skin and tissues.

b) A lukewarm water bath may be taken thereafter to remove excess oil while retaining its beneficial effects.

c) Exposure to cold wind or immediate exertion should be avoided after the procedure.

Frequency of *Abhyanga*

a) For therapeutic purposes (e.g., chronic stress), *Abhyanga* may be performed 3-5 times per week.

b) In conditions of acute stress or for daily regimen (*Dinacharya*), daily practice is considered beneficial.

Direction of *Abhyanga*

The direction of *Abhyanga* should primarily follow the principle of *Anuloma*, which refers to movement in the natural and physiological direction of the body structures. In regions with hair follicles, the massage should be performed in the direction of hair growth. With respect to muscles, strokes should be applied from origin to insertion to facilitate proper circulation and relaxation. In the spinal region, the movement should be directed downward towards the coccyx, which is considered *Anuloma*. During *Abhyanga* over the abdomen, the strokes should follow the course of the large intestine, aiding *Anulomana* (proper movement of *Vata*). Around the umbilicus, gentle circular movements are performed, which are regarded as *Anuloma* in this area. In the upper and lower limbs, massage should be carried out

from proximal to distal parts i.e., from the root towards the tips of the fingers and toes, to facilitate proper circulation and lymphatic drainage. Over joints (*Sandhi*) circular movements should be employed to enhance mobility and lubrication. Thus, the direction of *Abhyanga* varies according to anatomical structures but is fundamentally governed by the principle of *Anuloma* for optimal therapeutic effect.

Abhyanga Kaala: According to *Susruta Saṃhita,* as explained by the commentator *Dalhana,* the effects of *Abhyanga* can be understood in terms of the time taken for *Sneha* to penetrate different tissues*.* The *Sneha* applied during *Abhyanga* reaches the hair follicles *(Romakupa)* in approximately 39 *Matra (*about 65 seconds*; 1 Matra= 19/60* seconds*).* It subsequently reaches *Tvacha (*skin*), Rakta* (blood), *Maṃsa* (muscle), *Meda* (adipose tissue), *Asthi* (bone) and *Majja* (marrow) in approximately 400, 500, 600, 700, 800 and 900 *Matra* (about 133, 160, 190, 228, 240 and 285 seconds) respectively.

It subsequently reaches *Tvacha (*skin*), Rakta (*blood*), Maṃsa (*muscle*), Meda (*adipose tissue*), Asthi (*bone*) and Majja (*marrow*)* in approximately*:*

- *400 Matra* -133 seconds = 2.22 minutes
- *500 Matra* - 160 seconds = 2.67 minutes
- *600 Matra* - 190 seconds = 3.17 minutes
- *700 Matra* - 228 seconds = 3.80 minutes
- *800 Matra* - 240 seconds = 4.00 minutes
- *900 Matra* - 285 seconds = 4.75 minutes

Hence, for effective action over a particular part of the body, at least 3 minutes of Abhyanga is required. To cover the entire body using seven postures, a minimum duration of about 30 minutes is generally necessary, although the total duration may be adjusted according to the patient's condition and therapeutic requirements.

Role of *Abhyanga* in *Vata* Disorders

Abhyanga is considered highly beneficial in disorders caused by aggravated *Vata Dosha* because its *Guna* (*Snigdha, Guru, Mridu* etc.) are opposite to the qualities of *Vata (Ruksha*, *Laghu, Khara* etc). Through these opposing properties, *Abhyanga* helps in pacifying *Vata,* improving circulation and restoring normal physiological functions. It nourishes the skin and underlying tissues by enhancing arterial, venous and lymphatic circulation. It improves skin health, strengthens tissues and helps in preventing hair fall.

Occupational stress among office workers is characterized by mental, emotional and physical strain, commonly presenting as anxiety, fatigue, irritability and musculoskeletal discomfort. According to Ayurveda, this condition can be understood as a *Dosha* imbalance, where excessive workload, irregular routines, job insecurity and managerial pressure act as *Nidana* (causative factors). These factors aggravate *Rajas* and *Tamas* in the mind, leading to psychological disturbances along with somatic manifestations. Thus, occupational stress is not merely a psychological condition but a psychosomatic disorder involving *Dosha* imbalance and *Manasika Bhavas* requiring holistic management.

Mode of Action: Ayurvedic Perspective

***Vata* Pacification-Calms Restlessness and Anxiety**

Excessive work, multitasking and fear of job loss often aggravate *Vata,* particularly *Prana* and *Vyana Vayu* manifesting as anxiety, restlessness, palpitations and insomnia.

***Pitta* and *Rajas* Moderation-Controls Anger & Hyperarousal**

Managerial pressure, deadlines and interpersonal conflicts tend to aggravate *Pitta* and heighten *Rajas guna*, resulting in irritability, anger and hyperactivity. The mild cooling effect of *Tila Taila* pacifies *Sadhaka Pitta* in the heart, regulating emotional responses and reducing impulsivity. At the same time, *Rajas guna* is balanced, lowering pride, ego-driven reactions and hyperarousal. (*Su.Su.* 21:10), (*Shrang.pu*. 5:49)

***Strotoshodhana*- Clears Blocked Channels & Relieves Musculoskeletal Tension**

Prolonged sitting, poor posture and repetitive office tasks can block the *Rasavaha* and *Mamshavaha Strotas*, producing fatigue, heaviness and stiffness. Massage with *Tila Taila* opens these micro-channels, enhances blood and lymph circulation and removes metabolic waste. Muscle relaxation reduces somatic stress signals that contribute to chronic tension. This mechanism improves physical ease and energy flow, preventing "office syndrome" and supporting overall well-being. (*Ch.Chi*.15:36)

***Dhatu* Nourishment and *Ojas* Protection-Restores Vitality**

Chronic stress depletes *Ojas* and exhausts *Dhatus*, causing fatigue, lowered immunity and cognitive dullness. *Tila Taila* penetrates the skin to nourish *Mamsha, Meda* and *Rasadhatu*, while enhancing *Ojas*. This revitalizes the body and supports *Manas* functions like *Smriti*, *Dhi* and *Dhrti.* Office workers experience renewed energy, improved resilience and sharper cognition, as the classical *shlokas* explain. (*As.H.Sha.* 3:18), (*Su.Su.* 46:535)

***Manasika* Pacification-Direct Mind Calming**

Overthinking, fear and worry produce *Manovikara,* insomnia and cognitive fatigue. *Tila Taila Abhyanga* directly pacifies the mind by stimulating tactile receptors, activating parasympathetic

responses and balancing *Rajas-Tamas*. This reduces mental agitation, confusion, and inertia while strengthening mind–body awareness. As a result, office workers experience calmness, improved sleep, emotional regulation and adaptive coping, described in classical texts. (*Su.Su. 21*:14), (*As.Sng.Su*.20:6)

Through these integrated mechanisms, *Tila Taila Abhyanga* interrupts the *Samprapti* of stress. It pacifies *Vata,* moderates *Pitta* and *Rajas*, clears blocked channels, nourishes *Dhatus*, restores *Ojas* and calms *Manas.* This holistic intervention balances both *Sharira* and *Manas*, improving mental clarity, emotional stability, sleep, immunity and resilience. (*Ch.Su.*5/87)

As per Modern View

Neurological Effects: It activates cutaneous mechanoreceptors stimulates afferent nerve fibers signals to the somatosensory cortex and limbic system promotes relaxation, enhances parasympathetic activity: lowers heart rate, blood pressure and sympathetic overactivity. It reduces cortisol and catecholamines by moderating the HPA axis-decreases physiological stress.

B. Musculoskeletal and Circulatory Effects: It improves blood and lymphatic circulation reduces muscle tension in neck, shoulder and back areas commonly affected by prolonged sitting, reduces accumulation of lactic acid and stiffness alleviates fatigue and musculoskeletal discomfort.

C. Psychological and Cognitive Effects: It stimulates GABA and serotonin release: reduces anxiety and enhances mood. It improves focus, memory and decision-making impaired by occupational stress. It mitigates *Rajas-Tamas* dominance, promoting emotional equilibrium.

D. Sleep and Recovery: Prepares the body for better sleep by enhancing melatonin secretion and calming neural pathways. It reduces insomnia, restlessness and mental agitation associated with *Vata-Pitta* imbalance.

DISCUSSION

Occupational stress has emerged as a significant public health concern in modern society, particularly among office workers exposed to prolonged working hours, sedentary behavior, continuous screen use, and high job demand. These factors contribute to a wide spectrum of physical, psychological, and behavioral disturbances including anxiety, depression, insomnia, fatigue, musculoskeletal pain, and reduced productivity. Chronic exposure to such stressors further predisposes individuals to psychophysiological disorders such as hypertension, cardiovascular diseases, and metabolic imbalance. From an Ayurvedic standpoint, occupational stress can be understood as a manifestation of *Vata dosha* aggravation along with vitiation of *Rajas* and *Tamas guna*, leading to both *Sharirika* (somatic) and *Manasika* (psychological) disturbances. The imbalance disrupts normal physiological functioning, depletes *Ojas*, and obstructs *Srotas*, resulting in impaired physical strength, emotional instability and cognitive dysfunction. Thus, occupational stress is best interpreted as a psychosomatic disorder requiring holistic management. The present study highlights the therapeutic significance of *Tila Taila Abhyanga* as a preventive and curative intervention for stress management. *Abhyanga*, described under *Dinacharya* in classical Ayurvedic texts, plays a vital role in maintaining equilibrium of *Doshas* and promoting overall well-being. The *Snigdha*, *Guru* and *Ushna* properties of *Tila Taila* help pacify aggravated *Vata*, improve circulation, nourish *Dhatus* and restore neuromuscular balance. At the physiological level, *Abhyanga* enhances peripheral circulation, reduces muscle stiffness and alleviates fatigue associated with prolonged sitting and repetitive work patterns. At the neuropsychological level, it stimulates cutaneous mechanoreceptors, activates parasympathetic dominance and modulates the hypothalamic-pituitary-adrenal (HPA) axis, thereby reducing cortisol secretion and stress response. Additionally, improvement in neurotransmitter activity such as serotonin and GABA contributes to enhanced mood, relaxation and emotional stability. From an integrative perspective, *Tila Taila Abhyanga* demonstrates a multi-dimensional effect by acting on the body-mind axis. It not only addresses physical discomfort but also improves cognitive clarity, emotional resilience and sleep quality. However, despite strong classical references and emerging modern correlations, there is still a need for well-designed clinical studies with standardized protocols to establish stronger scientific validation in occupational populations.

CONCLUSION

Occupational stress is a complex condition involving both psychological and physiological components, significantly affecting the health and productivity of office workers. Ayurveda provides a comprehensive understanding of this condition through the concept of *Dosha* and *Manas* imbalance, particularly involving aggravated *Vata* along with disturbed *Rajas* and *Tamas*. The findings of this study suggest that regular practice of *Tila Taila Abhyanga* is an effective, safe and non-pharmacological approach for managing occupational stress. It helps in *Vata* pacification, enhances circulation, reduces muscular tension, promotes better sleep and supports emotional and mental well-being. Its action at both physical and neuropsychological levels makes it a valuable

integrative therapy in modern stressful lifestyles. Thus, *Tila Taila Abhyanga*, when incorporated into daily routine (*Dinacharya*), can serve as a holistic preventive strategy for improving quality of life, reducing stress burden and enhancing overall well-being among office workers.

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