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SHIFT WORK SLEEP DISORDER: A HOLISTIC APPROACH

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ABSTRACT

Shift work sleep disorder (SWSD) commonly affects those who work outside the typical 9 a.m. to 5 p.m. work day. Shift work schedules go against internal body clocks or circadian rhythms. SWSD is acknowledged to hamper with a person's normal level of work performance and causes difficulties adjusting to a different sleep/wake schedule resulting in lack of refreshing sleep. It can cause chronic sleep deprivation; this kind of persistent loss of sleep has grave implications for health, productivity and safety. Ayurved along with Yoga may give a ray of hope to overcome SWSD. Ayurved procedure like oil massage and Yoga postures like *shavasana*, *Yog Nidra* and *Pranayam* might be helpful. There is a strong need for intervention programmes in shift workers to conquer the problem of shift work sleep disorder.

Keywords: Occupational health, Shift work sleep Disorder, Ayurved, Yoga

INTRODUCTION:

Modernization gave birth to the Industrialization; to achieve the demands of modern society 24 hrs working culture has been evolved posing new and more difficult

problems. These are strange times where in work hours become demanding. Shift workers are backbone to the travel, hospitality and e-commerce industries as well

as 24 hours hore up needed from nurses, physicians and first responders like police and firefighters. Shift work sleep disorder (SWSD) is an occupational health hazard characterized by sleepiness and insomnia, which can be attributed to an individual's work schedule [1]. Near about 16% of the wage and salary workers participate in shift work [2]. The prevalence of shift work sleep disorder is around 10% of the night and rotating shift work population [3]. The persons with shift work sleep disorder are at risk for considerable behavioral and health-related morbidity linked with their sleep-wake symptomatology [3]. Long and variable working hours in shift workers lead to disruption of circadian rhythm causing hormonal disturbances including melatonin and cortisol thus leading to an increased risk of metabolic syndrome disorder such as obesity and type 2 diabetes mellitus also there is increased white blood cell in shift workers as compared to non shift workers which is one of the reason for low immunity [4]. Many studies revealed that working in shift work may affect the physical, mental and social wellbeing of an individual resulting in accidents and errors at working places. The Joint ILO/ WHO committee stated that Occupational health should aim at the promotion and maintenance of the

highest degree of physical, mental and social well being of workers in all occupations so this paper aims to explore holistic management for the same. Shift works are unavoidable and they come with their own challenges and to counter the damage adapting some healthy ways will be advantageous.

Aim –Aim of this paper is to explore possible interventions for shift work sleep disorder

MATERIAL AND METHODS

Symptoms of Shift work sleep disorder:
[5]

Excessive Sleepiness

Difficulty sleeping

Difficulty concentrating

Headache

Lack of energy

Ayurved and Yoga module for Shift work sleep disorder:

Human resources are not able to change their work hours but there are ways to reduce the effects of SWSD by Holistic Approach

Ayurved Management

Shift work has a large impact on circadian rhythm and sleep function as shift workers have to suppress their natural urge of sleep. According to Ayurveda, Shift work sleep disorders can be explained under forcible suppression of sleep (*nidravegavidharana*)

and Sleeplessness (*nidranasha*). Forcible suppression of sleep leads to delusion, feeling of heaviness of head and eyes, lassitude, too much yawning and squeezing pain all over the body [6]. Its management can be done by soothing massage [7] and allowing the person to sleep on the next day for an interval which is half of the time he was awake in the night without having food [8]. Remaining awake in the night (*ratrijagara*) promote dryness thus increase *Vata dosha* in the body. Disturbed sleep and wakefulness are the prevailing problems reported by the shift workers resulting in decreased alertness and performance thus leading to accidents and safety issues at workplace and to overcome these Ayurved suggests daily oil massage (*Abhyanga*) which helps to get exonerate fatigue as well as alleviates aggravated *vata* and conquer sleeplessness. Pouring oil over the head (*Shirodhara*) and nasal instillation of oil (*Nasya*), whole body massage (*Abhyanga*), anointing and mildly pressing the body may relieve the sleep deprivation. Various CNS active Ayurved herbal medicines like *Withania somnifera*, *Centella asiatica*, *Celastrus paniculatus* and *Bacopa monnieri* have shown cognitive improvement in experimental models when given as prophylactic treatment; [9] these are known

to produce calming and relaxing effect on mind and thus induced sound sleep.

Yoga Management

Many studies have linked yoga's benefits to improved sleep. A regular night shift is linked with greater risk for sleep and mental health crisis and might be mediated by sleep disturbances [10]. Yoga is a form of meditative movement that combines attentiveness and focused breathing with physical exercise. Yoga interventions bring numbers of benefits to people suffering from various sleep disturbances. Yoga practices are appropriate to harmonize existing therapies as well as tackle sleep problems in a more holistic way. Yoga practice performed occasionally will probably improve sleep quality more rather than no practice at all [11]. The various yoga postures (*Asanas*) may increase patients' physical suppleness, adroitness and vigor while breathing techniques (*Pranayam*) and meditation may serene and focus the mind to build up greater attentiveness and reduce anxiety [12]. SWSD could result in disruption of the circadian rhythm of cortisol secretion, resulting in hyperactivity of the hypothalamic-pituitary-adrenal axis, resulting in long-term elevated cortisol levels. Long term yoga practice is associated with significant psycho-biological differences,

including better sleep quality as well as a modulator action on the levels of cortisol [10].

Pranayama is a type of breathing technique and is considered to be very important for improving sleep disorders and stress in Yoga. *Bhramari pranayama* is helpful for physical, mental and emotional relaxation. It increases concentration, relieves stress and cerebral tension, and so helps to enhance inhibitory response as well as cognitive control [13] which in turn will reduce the accidents at work places. It will also improve the quality of sleep and general wellbeing [14].

Yoga nidra, is a state of consciousness between waking and sleeping and is an immensely powerful meditation technique which has a potential to activate the parasympathetic nervous system and positively influence cortisol level [15].

DISCUSSION

Individuals working in late shifts such as 11 pm -7 am, or the 'graveyard' shift, are more likely than people with traditional daytime work schedules to develop a chronic medical condition shift work sleep disorder that disrupts their sleep. Essential workers such as Doctors, Policemen etc have to work in shift duties in order to fulfill peoples need. Many studies proven that shift work sleep disorder is leaving behind very detracting ill effects

on health but as its unavoidable its need of hour to find the solution or efforts should be made to overcome the health issues by holistic approach . Behavioral changes can be made to overcome the problems like Ayurved suggests if someone stays awake at night he should sleep during day time before taking meal in order to fulfill his sleep less hours. Employees should be promoted to massage oil all over the body and to instill *Nasya* oil in the nostrils. Massaging helps in stress relief, makes feel relaxed, improves blood circulation and thus helps to overcome the sleep deprivation. *Bhramari pranayam* can be done to relax the mind.

CONCLUSION

Ayurved and yoga may give that hope to reverse the effect of shift work by holistic approach. A concrete strategy should be planned to minimize the ill effects of Shift Work Sleep Disorder by arranging remedial mind relaxing meditation session once a week for employees. There is a necessity for intervention programmes to conquer physical as well as psychological issues arising from shift work. This review recommends the strong strategy should be implemented for shift workers to become a part of their work schedule.

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