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Occupational health in information technology professionals - An Ayurvedic Purview

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ABSTRACT

Occupational Health mainly aims at promotion and maintenance of the highest degree of physical, mental, social wellbeing of workers in all occupations. Working environment is also important for a person, as he spends nearly 6-8 hours/day and about a minimum of 3 decades of his life span in his respective occupations. Now, around the world the occupational health personnel are witnessing the emergence of health-related problems in computer users. In the present era, younger generation is behind the technology and attractive job opportunities as it affects the total economy of the country. Some of the commonly seen health problems among them are Repetitive Stress Injury (RSI), Ocular disorders and Stress. The principles of Ayurveda are focusing on promoting health and preventing the diseases. In regards to this, following *Dinacharya*, *Ritucharya*, *Sadvritta*, *Achara Rasayana* have a major role to play in it. Thus, by adopting the regimes told by our *Acharyas* will contribute effectively in improving the quality of health and standards of living in Informational Technology Professionals.

Key words: RSI, Ocular disorders, Stress, *Dinacharya*, *Ritucharya*, *Sadvritta*, *Achara Rasayana*

INTRODUCTION

Occupational Health mainly aims at promotion and maintenance of highest degree of physical, mental and social wellbeing of workers in all the occupations.^[1] Working environment is also important for a person, as he spends nearly 6-8 hours/day and about a minimum of 3 decades of his life span in his

respective occupations.

Information Technology (IT) is defined as "the study, design, development, implementation, support and management of computer based information systems, particularly software applications and computer hardware".^[2] IT professionals perform a variety of duties that range from installation of applications to designing complex computer networks and information databases. A few of the duties that IT professionals perform may include data management, networking, engineering computer hardware, database and software design as well as the management and administration of the entire systems. Some of the commonly seen health problems among them are Repetitive Stress Injury (RSI), Ocular disorders and Mental Stress and as per the latest reports the prevalence rates are 98% of RSI, 64.5% of ocular disorders and 35.3% of mental stress in Information Technology Professionals.^[3]

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OBJECTIVE OF THE STUDY

To review the role of Ayurveda in improving the quality of health and standards of living in Informational Technology Professionals.

Repetitive Stress Injury (RSI)^[4]

It is also known as occupational overuse syndrome or work related upper limb disorder resulting from overuse of a tool such as computer keyboard or other activity that requires repeated movements. It is a syndrome that affects muscles, tendons, and nerves in hands, arms and back. It is medically accepted condition in which muscles in these areas are kept tense for very long period of time, due to poor posture and/or repetitive motions. These conditions are usually caused or aggravated by poor work process and unsuitable working conditions.

The characteristic symptoms of RSI; often include swelling, numbness, pain, restricted movements and weakness in or around muscles and tendons of back, neck, shoulders, elbows, wrists, hands or fingers

Ocular disorders^[5]

Computer users are at a greater risk of developing eye problems and visual fatigue. Work, using a computer demands close up view, straining eye muscles and leading to eye fatigue. Computer vision syndrome (CVS) may affect as many as 70% of all computer users. Visual effort is greater when looking at the computer screen as compared to when looking at paper. This can be attributed to the fact that the blinking of eyes is 22 times per minute when looking at a paper which reduces to 7 blinks per minute while looking at the computer screen. This leads to dryness of the eyes.

CVS is marked by ocular symptoms like irritation, burning sensation, redness, tears, dryness, double vision and blurred vision. Extra ocular symptoms like headache, neck and back pain, and muscle spasms may also be present.

The position of the screen, especially the height and the distance, has been shown to cause eye strain and focusing difficulties. The nature of their job also requires IT professionals to spend enormous amount

of time in front of computer monitor exacerbating the eye disorders.

Stress

Stress is seen among IT professionals due to heavy work load, tremendous work pressure and never ending deadlines. The stress experienced varies from mild to severe depending on one's physiological and psychological makeup as well as the nature of the work itself. Stress is the mental, physical and emotional reactions one experiences as a result of demands of their life. Every worker would have experienced stress at one point of time or another.

The common short term or early stress symptoms include: head ache, stomach upset, sleep disturbance, chronic mild fatigue, over and under eating, muscle aches and pains, forgetfulness, anger, use of alcohol or cigarettes, and irritability. The common long term stress symptoms include: hypertension, diabetes, ulcers, heart diseases, depression, violence, alcoholism.^[6]

These health problems are prevented by following *Swasthavritta* and as a result of it they will be healthy always. In RSI, following *Dinacharya* procedures which helps in preventing the diseases and promoting the health. They are;

Prathimarsha Nasya, instillation of one or two drops of oil into the nose. It gives *Bala* to *Skanda*, *Greeva* and *Vaksha*.^[7]

Abhyanga (Massage) is one among the *Dinacharya* procedure. It acts as *Pusthikaraka*, *Rujahara*, *Shramahara*.^[8] If not possible, then apply oil to head, ears and feet. *Abhyanga* delays aging, reduces the stress as well as strengthens the body.

Vyayama (physical exercise) is an important preventive, curative and rehabilitative measure. It increases *Karma Samarthya* of a person, produces lightness of the body and it does *Shareera Upachaya*. Individuals who daily practice *Vyayama* will have physical development, luster, compactness of body parts, stimulation of digestive power, firmness, lightness, cleanliness, tolerance to fatigue, cold, heat and provide optimum immunity.^[9] A person desirous

of good health and longevity should do **Vyayama** in the right way and in the right amount.

Udwarthana, massaging the body with soft, fragrant powders, produces stability of the body parts and excellence of the skin. It does *Sthirikarana* of the body. Doing *Udhvarthana* as a part of *Dincharya* destroys *Gurutva* (heaviness), *Tandra* (drowsiness), *Kandu* (itching), *Arochaka* (anorexia) and *Sweda* (sweating).^[10]

Snana, regular bathing as a part of *Dinacharya* not only keeps us fresh but also serves to keep us fit and healthy. While bathing we stretch and move our body parts as well as we give gentle massage to joints, muscles and organs by our hands or scrubber. This is very effective in providing an adequate workout through resistance. It acts as *Shramahara*, *Tusthikara*, *Sarvendriya Vibhodhanakrut*.^[11] *Seka*, acts as *Roojahara*, *Sramaghna*.^[12]

Karnapoorana, procedure of instilling medicated oils or ghee in the ears, mainly indicated in *Manyagraha*.^[13]

In ocular disorders; Use of **Anjana** (collyrium) daily, helps to improve eyes health, prevents eye diseases and cures several eye diseases. It removes dirt from eye, subsides burning sensation itching and pain of eye.^[14] *Rasanjana* improves colour and visual acuity; it is *Hita* to *Akshi*.^[15] *Anjana* is not a cosmetic kajal or the eye liner, its herbal preparation from *Daruharidra*.

Dhoomapana, where the person inhales herbal smoke helps in treating or preventing the diseases mainly indicated in *Urdwajatrugataroga*.^[16]

Karnapoorana, helps in headache^[17] **Shiroabhyanga**, massage over head it relieves headache, strengthens the *Indriyas*.^[18] **Padabhyanga**, massage over foot acts as *Chakshushya*, improves the vision of the person, relieves from burning sensation of eyes.^[19]

In stress, doing **Shiroabhyanga** massage over head is beneficial as it relaxes the person.^[20] **Padabhyanga**, massage over foot helps in indulging in sleep and also relaxes the mind.^[21] Intake of **Medhya Rasayana**, helps to improve the memory. Sleeping in proper *Shayyasana* helps to relax the body.

In *Ritucharya*, by following suitable *Ahara* and *Vihara* according to the particular season will help in enhancing the strength of the person.^[22] *Ritushodhana*, helps to remove the accumulated toxins from the body.

Ergonomics, science of designing the workplace. This concept is explained in *Sadvriita*, codes of conduct where things which should not be done are told. One should not do *Vegadharana*, one should not sit continuously and even in improper posture, one should not keep their neck improperly while doing the work, one should not see the bright objects continuously.^[23] Man with man in working environment is also explained in **Achararasayana**, where person should speak calmly and pleasantly.^[24]

DISCUSSION

Practicing **Abhyanga** daily helps in strengthening and toning up the muscle. It improves the circulation in our body. It relaxes and also rejuvenates the body. It increases joint mobility and flexibility. It helps in reduction of stress hormone because it prompts the release of endorphins, neurotransmitters that produce the feeling of wellbeing. It also reduces anxiety and depression.

Prathimarsha Nasya helps to strengthen the neck and upper back muscles. It helps to improve health of the eye. It nourishes the tendons, ligaments of the neck.

In present era due to dependence of humans on machines, physical activities are diminished. Therefore practicing **Vyayama** helps to strengthen bone and muscles, reduces the risk factors of non-communicable diseases and slows down aging

Udwarthana, stimulates the nervous system and improves the blood circulation. It promotes strength and helps prevent drowsiness during the day time. It promotes mobility in the joints and tones up the muscles.

Snana, helps in stretching the muscles, reduces the pain. It enables glands to secrete hormones like cortisol, serotonin which gives feeling of happiness and well being. It cleanses the skin and regulate the core body temperature.

Padabhyanga, improves the blood circulation. It helps in relaxation. It promotes sleep and relieves body pain and also it improves eye health.

Shiro Abhyanga, relieves stress and reduces tension. It improves the circulation to head and neck. It improves the concentration and memory by increasing the blood flow to nervous system. It calms and relaxes the mind. **Karnapoorana**, smoothens the nerves, reduces neck pain and jaw pain. It relieves the head ache. **Dhoomapana**, helps to prevent upper clavicular diseases and nourishes sense organs. **Anjana**, applying it removes dirt from eye, subsides burning sensation itching and pain of eye.

Therefore, in daily routine they can adopt *Dinacharya* procedures by waking up early in the morning, and following *Abhyanga*, *Shiro-Abhyanga*, doing *Vyayama* followed by *Udwarthana*, *Snana* and after that performing *Pratimarsha Nasya* followed by *Dhoomapana* and *Anjana*. Before going to sleep, doing *Padabhyanga* will be beneficial. It may take almost 1 hour in their routine, which can be easily be adopted in their daily routine. Following these activities daily as routine in their life style helps to improve the quality of health.

CONCLUSION

Occupational health affects the total economy of the country, where younger age groups are involved more. As their jobs are desk jobs, and are having sedentary life style and irregular food habits, they are prone to diseases. Therefore, daily Routine like waking up early in the morning, doing *Vyayama*/yoga/ walking/ jogging, practicing *Abhyanga* / *Udwarthana*, *Snana*, *Anjana*, *Pratimarsha Nasya* and in night practicing *Padabhyanga* and going early to bed are to be followed to maintain health. If they had night shifts, in morning they are permitted to sleep half the time of his awaken time and then they can follow the routine. The principles of Ayurveda are focusing on promoting health and preventing the diseases. In this regard, following *Dinacharya*, *Ritucharya*, *Sadvritta*, *Achara Rasayana* have a major role to play in it. Thus by adopting these regimes, will contribute effectively in improving the quality of

health and standards of living in Informational Technology Professional.

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