

Impact of Occupational Hazards on Vision in BPO Employees: An Ayurvedic Perspective

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Abstract

In the present era, the role of BPO has extended significantly. Though this business provides young professionals with attractive career opportunities, it also exposes them to occupational hazards that can adversely affect their health. This study evaluates the impact on the sensory faculty of vision in BPO employees, through an Ayurvedic perspective. A survey of 210 BPO employees in Pune, Maharashtra, was conducted to find crucial etiological factors and their health consequences. Statistical analysis showed high prevalence rates of symptoms such as eye dryness, redness, itching, and sticky discharge, correlating with Ayurvedic aetiologies.

Key Words

Occupational hazards, B.P.O. employees, Vision Health, Computer Vision Syndrome.

Introduction

In the present era, the World has come closer, permitting continuous access to goods and services across distances. Behind this digital ease lies the effort of BPO employees, to upkeep client services, customer relation, data management, and more. High salary and easy entry, attracts young population towards this BPO job. But there are hazardous effects of this job on B.P.O. employee's health. They face several health challenges allied with their job environment and lifestyle, which, according to Ayurved, align with disease contributing factors or "Hetu Seven." This includes prolonged screen time, night shifts, daytime sleep, and secondary habits.

From an Ayurvedic viewpoint, these work related factors represent “*Asatmyendriyarth* sanyog” (inappropriate use of sensory faculties) and “*Pradyaparadha*” (errors in judgement), predominantly affecting “*chakshurendriya*” (the sense organ of vision).¹

In order to prevent and manage vision-related problems, this study will examine how occupational hazards affect BPO workers' eyesight and suggest Ayurvedic treatments. It focuses on determining the symptoms that BPO workers describe and examining the underlying causes that impact the sensory faculty of vision, which has high prevalence rates. The study also assesses the frequency and severity of visual problems such as Computer Vision Syndrome (CVS), examines Ayurvedic preventive and therapeutic strategies for preserving ocular health, and uses Ayurvedic principles to associate occupational risk factors with visual health. The main objective is to raise knowledge of workplace ergonomics and Ayurvedic techniques for enhancing general well-being and eyesight health, as well as to offer insights into successful Ayurvedic approaches.

This study inspects these occupational hazards and their effect on vision and explores probable Ayurvedic reasoning behind the symptoms observed.

Materials and Methods

A survey (retrospective observational study) was conducted by taking total of 210 BPO employees from different B.P.O. organizations in Pune, Maharashtra as sample and the age group was between 20-50 years. They were working for more than one year. These subjects were surveyed with the help of A Self-Designed Questionnaire which was constructed by using Standard Tools such as General health questionnaire (GHQ-12).² Nordic Musculoskeletal Questionnaire, Hamilton Depression scale. This Questionnaire was constructed by keeping in view of Ayurvedic perspective and the nature of work of BPO employees causing effect on health. Institutional Ethics committee permission was taken before the commencement of the study. Statistical analysis of the data obtained by survey was done by using SPSS software.

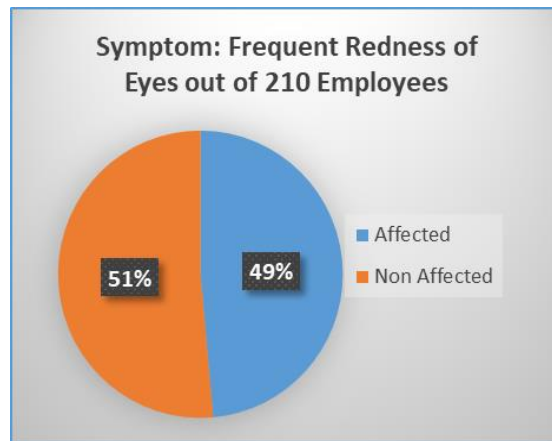
Observation and Results

In present study, the causative factors found, affecting sensory faculty of vision among BPO employees, with prominent prevalence rates:

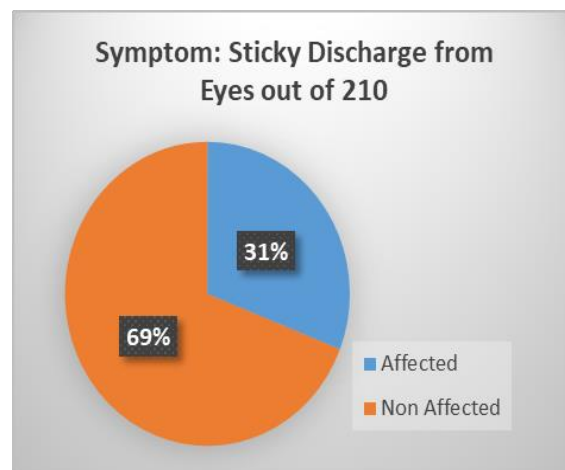
- Continuous working in front of bright screen of a computer- *Asatmendriyarth Samyog of Dnyanendriya (Chakshurendriya)* (100 %)
- Overtime (43 %)
- Remaining awake at night (*Ratri Jagaran*) (81 %)
- Sleeping in day time (*Diwaswap*) (90%)

In present study, the Symptoms Reported are viz.

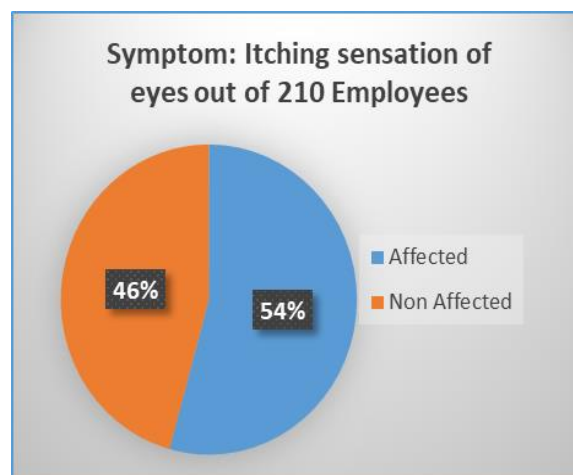
1. Frequent redness of eyes: Out of 210 employees 102 complained frequent redness of eyes.



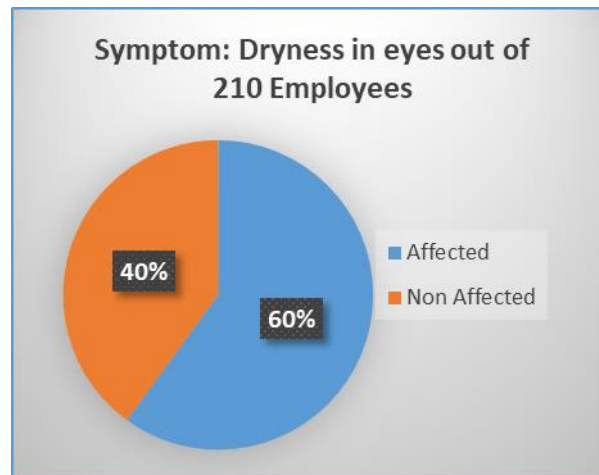
2. Sticky discharge from the eyes: Out of 210 participants 65 reported frequent sticky discharge from the eyes "Yes", while 145 answered "No".



3. **Itching sensation of eyes:** Out of 210 participants 114 reported itching sensation of eyes "Yes", while 96 answered "No"



4. Dryness in eyes: Out of 210 participants 60% reported dryness in front of your eyes "Yes", while 40% answered "No".



From above observations it is clear that dryness, redness, itching and watering of eyes are predominant, suggesting *Shushkakshipak*³. these symptoms correspond with Ayurvedic explanations, including aggravated “Vata” and *Pitta*” doshas due to night shifts and “*kapha*” dosha due to daytime sleep.⁴

Reasoning behind which can be postulated as Continuous staring at bright screen and causes *Atiyog* and *Mithyayog* of *Chakshurendriya*, and causes *Sthanvaigunya* i.e. weakening of sensory organ of vision. Remaining awake at night causes aggravation *Vat* and *Pitta* Dosh⁵. Due to aggravation *Vat*, there is dryness of eyes. Due to aggravation *Pitta*, there is redness of eyes and watering of eyes. Aggravation *Kapha Dosh* is caused due to sleeping during day time⁶. This aggravated *Kapha Dosh* causes itching of eyes.

Discussion

The observed data reveals high incidence of ocular symptoms among BPO employees, supporting Ayurvedic principles:^{7,8}

With an emphasis on the underlying causes and symptoms, the current study emphasizes the substantial effect that occupational hazards have on BPO workers' sensory faculties of vision. The results highlight how often vision-related problems are brought on by extended usage of bright screens, erratic work schedules, and poor sleep habits. The Ayurvedic principles of *Asatmendriyarth Samyog*, *Atiyog*, and *Mithyayog* of *Chakshurendriya*, which affect the structural and functional integrity of the eyes (*Sthanvaigunya*), are closely related to these occupational stressors.

Ayurvedic Correlation and Causative Elements

The most common cause of excessive *Chakshurendriya* use was found to be constant exposure to bright screens (100%). Long periods of screen time without adequate breaks cause eye strain, dryness, and weariness, which is consistent with vitiation of the *Vata-Pitta* dosha. Similarly, 81% of participants said that working night shifts (*Ratri Jagaran*) aggravated their *Pitta* and *Vata* doshas. Dryness (*Vata*) and redness or a burning feeling (*Pitta*) are indications of the physiological disruption of these doshas. It's interesting to note that 90% of subjects reported getting 90% of their sleep during the day (*Diwaswap*), which was found to irritate *Kapha* dosha and cause eye irritation. This demonstrates how lifestyle choices have a direct impact on dosha balance and the associated sensory dysfunctions.

The study revealed a high prevalence of vision-related symptoms among BPO employees:

- 60% of people have dry eyes, which is correlated with an aggravated Vata dosha.
- Eye redness (48.5% prevalence): A sign of an imbalance in Pitta dosha.
- Itching (54% prevalence): Indicates participation of the Kapha dosha.
- Sticky discharge (31% prevalence): Also indicates vitiation of the Kapha dosha.

These results are consistent with Ayurvedic interpretations of Shushkakshipak, which state that ocular discomfort symptoms are caused by a combination of Vata, Pitta, and Kapha vitiations.

Modern Occupational Hazards' Role

This study's high rate of vision-related conditions emphasizes how contemporary workplace risks might upset the physiological equilibrium of sensory abilities. Computer Vision Syndrome (CVS), which is also described in Ayurvedic terminology, is a disorder marked by eye strain, irritation, and dryness that is exacerbated by prolonged screen time and poor ergonomic setups.

An Ayurvedic Approach to Management

Ayurveda places a strong emphasis on curative and preventative approaches to lessen these kinds of work-related risks. Restoring doshic balance and revitalizing ocular tissues may be accomplished with the help of techniques like Rasayana treatments, Nasya Karma, and Netra Tarpana. The negative consequences of night shifts and irregular sleep patterns can be lessened with the use of Dincharya (daily routine) and Ratricharya (night work rules). Eye strain can also be lessened by being aware of good office ergonomics, which include ambient lighting, screen time management, and regular eye exercises.

Conclusion

The study highlights the influence of work-related hazards on vision-related health of BPO employees, relating these with Ayurvedic principles of "*Asatmyendriyarthā sanyog*" (describes improper or excessive engagement of sensory faculties) and *dosha* imbalance. This study offers valued understanding into occupational health risk and highlights the need for preventive Ayurvedic practices to alleviate these hazards.

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