

Survey Study Evaluating The Role Of Nidra Vega Dharan (Late Night Sleep) On Head And Eye Heaviness As Per Ayurvedic Principles

Asmita Raut¹, Sachin Kulkarni²

¹UG Scholar; Bharati Vidyapeeth (Deemed to be University) College of Ayurveda, Pune. Email:- rautasmita2020@gmail.com

²Associate Professor, Department of Samhita, Siddhanta & Sanskrit; Bharati Vidyapeeth (Deemed to be University) College of Ayurveda, Pune.

Corresponding author: Sachin Kulkarni, Email:- sachin.kulkarni@bharativedyapeeth.edu

ABSTRACT:-

Background: Nidra(sleep) is considered as one of the trayopasthambha(three pillars of life) in Ayurveda. Suppression of natural urge to sleep (Nidra vega dharana) is said to disturb the tridosha, particularly vata. Sleep deprivation or disturbed sleep lead to Vata prakopa leading to many diseases. In this reserch the scholar has done work focusing on two diseases i.e, role of nidra vega dharana on head and eye heaviness.

Objective: To study impact of Nidra Vega Dharan on Head heaviness & Eye heaviness on the basis of survey study.

Methods: A survey involving 107 individuals aged 18–45 was conducted, dividing participants into two groups: those sleeping after 12 Am (Group A) and those sleeping before 12 Am (Group B). Using tools such as Ayurvedic guidelines, the Pittsburgh Sleep Quality Index (PSQI), Visual Analog Scale, and Numeric Rating Scale, the study assessed the impact of delayed sleep. symptom-based surveys, and statistical analysis of the correlation between late sleep and the prevalence of head and eye heaviness.

Results: The values indicate that late-night sleep may be moderately associated with increased physical symptoms, particularly those related to head and eye strain.

Conclusion: Findings confirmed the Ayurvedic view of Nidra Vega Dharana as a major contributor to both physical and mental disturbances, bridging traditional concepts with contemporary sleep science. The results underscore the significance of proper sleep timing in sustaining holistic health and preventing modern sleep-related disorders.

Keywords: Nidra Vega Dharana, Late-night sleep, Head heaviness, Eye strain, PSQI, Ayurveda.

INTRODUCTION:

As with increasing technological inventions, people are more reliable on technological devices rather than themselves. They are involved in knowing the knowledge and inventing better, to upgrade their livelihood, which leads to more work and less sleep. Sleeplessness or disturbed sleep is becoming a big concern in the recent world. In this increasing era of competition, and to live a better life, or give better life to family, people are sacrificing sleep whether they are students handling academic pressure or corporate people having night shifts, IT professional using computer /laptop till late night or people just scrolling mobile application for enjoyment, no one is left out. This have contributed to widespread sleep deprivation, which leads to mood swing, fatigue, metabolic dysfunction, and increased risk of chronic disease.

Ayurveda is a science, which aims for keeping the people healthy, who is healthy and treating the person who is not healthy. It provides a comprehensive guidance on the importance of not suppressing natural bodily urges such as Nidra, offering valuable insights for addressing the growing problem of sleep deprivation in modern lifestyle.

Ayurveda has acknowledged Nidra as one of the Trayopasthambha among Ahara, Nidra, Brahmacharya. Trayopasthambha means three pillars of life. It shows that how important must be Nidra is. The suppression of Nidra Vega, disrupts the equilibrium of Tridosha in the body that are Vata, Pitta and Kapha, which leads to psychological and even emotional dis-balance.

Sleep deprivation or disturbed sleep leads to Vata Prakopa leading to many diseases. As Vata is only movable dosha in our body, so this Prakupita (vitiated) Vata vitiates Kapha, Pitta, Dhatu, and Mala, leading to a diseases. Suppression of urge to sleep leads to Moha (delusion), Murdha Gaurava (head heaviness), Akshi Gaurav (eye heaviness), Alasya (lassitude), Jrumbha (yawning), Angamarda (body pain). These symptoms are explained by Acharya Vagbhat.¹

In context with this, Acharyas has described about how a person should live life or what should be the lifestyle of a person by describing about Dinacharya (daily regimen), Ratricharya (Night regimen), Ritucharya (seasonal regimen), non-suppression of Adharaniya Vega (bodily urges) and suppression of Dharaniya Vega (mental urges) Like Krodha (anger), Lobha(greed), Shoka(sorrow) and many more.

By following the described rules for lifestyle, individual can cultivate habits that honour the body's sleep need, thereby preventing the adverse effects of sleep deprivation or sleep disorders in this era.

Sleep occurs when the Manas (mind) becomes fatigued, and the sensory and motor organs withdraw from their respective objects, leading to a state of complete disengagement and rest. When the kapha is in predominant state and Tamas is seen or when the Tamo Guna combines with Kapha dosha this stage is called Nidra.²

This highlights the crucial importance of sleeping at the right time and for an appropriate duration.³

Acharya Vagbhata emphasizes that sleep profoundly influences every aspect of life—happiness and misery, nourishment and emaciation, strength and weakness, virility and sterility, knowledge and ignorance, even life and death—all depend on the quality and regularity of sleep.⁴

Acharya Sushruta also mentioned the importance of sleep at proper time as it bestows nourishment, good complexion, strength, and enthusiasm, increases digestive power, wakefulness and maintains normalcy of the tissues.⁵

According to contemporary medical sciences also, sleep causes effect on both physiological and psychological effect i.e., first effect on Nervous system and second on bodily functions. Lack of adequate sleep also affects emotions like judgement, mood, ability to learn retain information and this may lead to serious accidents and injury. Sleep deprivation is linked to poor attention, poor memory, poor decision making, poor problem-solving capacity, headache, eyestrain, fatigue, irritability, mood swings, negative emotions like anger and sadness, mental health symptoms like hallucination etc. If this persists for long time this may even lead to disease like obesity, diabetes, cardiovascular disease and early death.⁶

Despite the access to these Ayurvedic wisdom, about Dharaniya Vegas, there is a knowledge gap between understanding and applying these Principles to address the growing problem of sleep deprivation /disorder in today's era.

Objective :-

1. To study Nidra Vega Dharan in details with help of "Pittsburgh sleep quality index".
2. To study impact of Nidra Vega Dharan on Head heaviness & Eye heaviness on the basis of survey study.
3. To evaluate the relationship between late-night sleep and the emergence of heaviness in the head and eyes.

Material And Methodology:-

Material used:

- 1) Specifically designed questionnaire to highlight head heaviness & eye heaviness in participants.
- 2) Pittsburgh sleep quality index (PSQI)

Participants:

100 individuals divided into two groups: 50 participants in each group. (Scholar has collected data of 107 participants and analysis of 107 participants has been done.)

- Group A (research group): Regular late-night sleepers (habitually sleep after 12AM).
- Group B (control group): Early sleepers (habitually sleep before 12 AM).

Inclusion Criteria:

- Age range: 18–45 years.
- Participants of either sex

Exclusion Criteria:

- History of neurological or ophthalmological conditions.
- Current use of medication that affects sleep patterns or mood.

Withdrawal criteria:

- If participants refuse to participate at any point of time.
- If participant seems to be mentally unstable to give proper information.

Tools used:-

- Structured questionnaire
- Pittsburgh Sleep Quality Index (PSQI)
- Visual Analog Scale (VAS) for head heaviness

- Numeric Rating Scale (NRS)for eye heaviness

Statistical Analysis:-

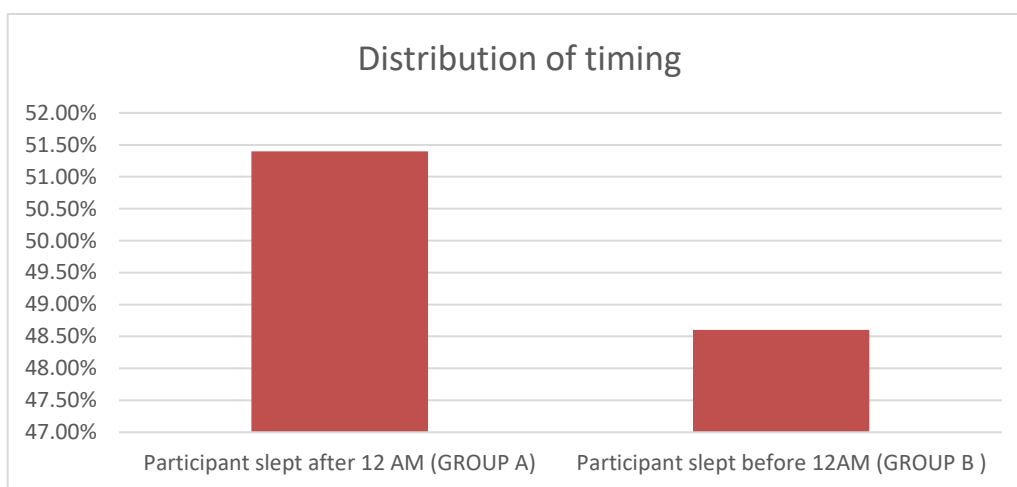
- Chi-square test
- Cramer's V
- Median comparison
- $p < 0.05$ considered significant

Observation:-

1. Distribution of timing :-

- Participant slept after 12 AM(Group A)- 51.40%
- Participant slept before 12 AM(Group B)-48.60%

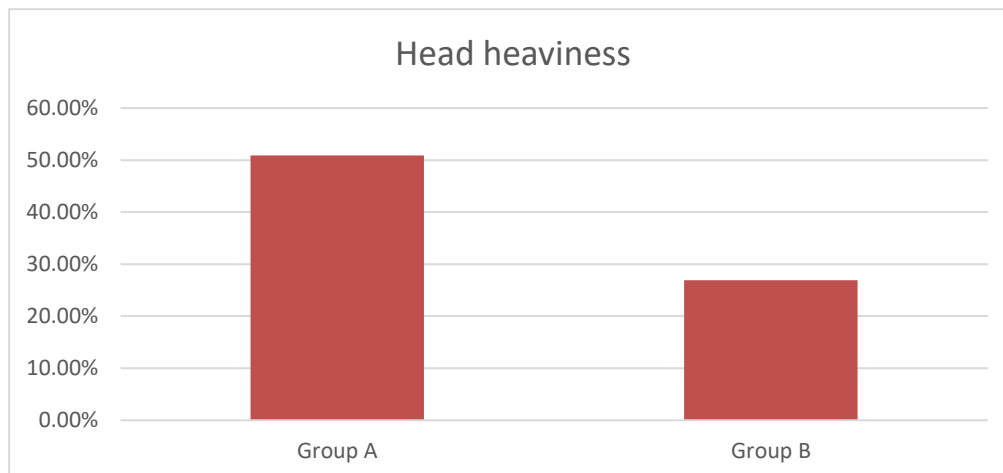
Table: 1



2.Head Heaviness:-

- Group A: 50.91%
- Group B: 26.92%
- $p = 0.028$
- Cramer's V = 0.21 (moderate)

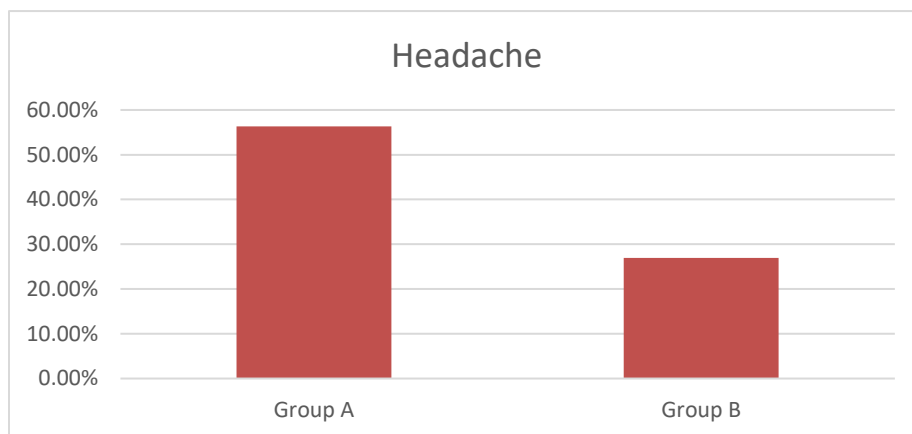
Table:2



3.Headache:-

- Group A: 56.36%
- Group B: 26.92%
- $p = 0.013$
- Cramer's $V = 0.24$

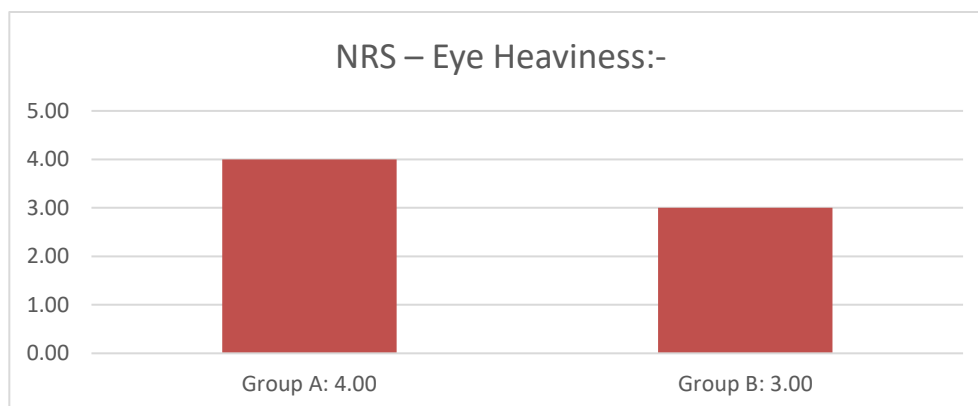
Table: 3



4. Eye Heaviness:-

- Group A: 60%
- Group B: 42.31%
- $p = 0.044$
- Cramer's $V = 0.19$

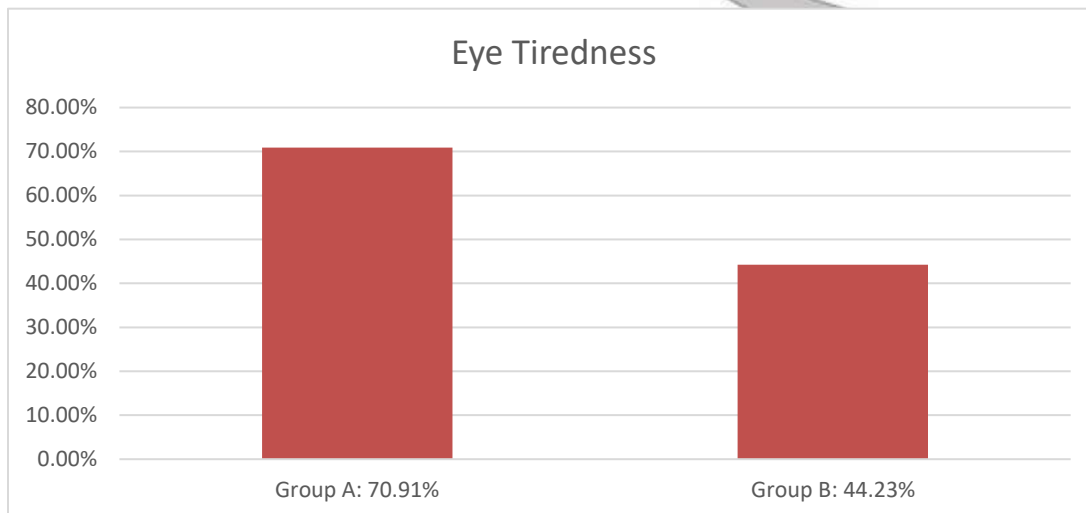
Table 4:



5.Eye Tiredness:-

- Group A: 70.91%
- Group B: 44.23%
- $p = 0.020$
- Cramer's $V = 0.23$

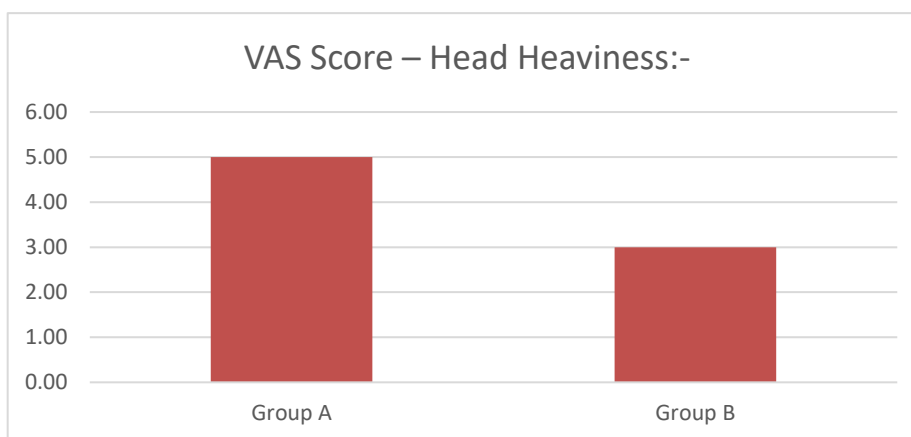
Table:5



6.VAS Score – Head Heaviness:-

- Median:
- Group A: 5.00
- Group B: 3.00
- $p = 0.008$ (Significant)

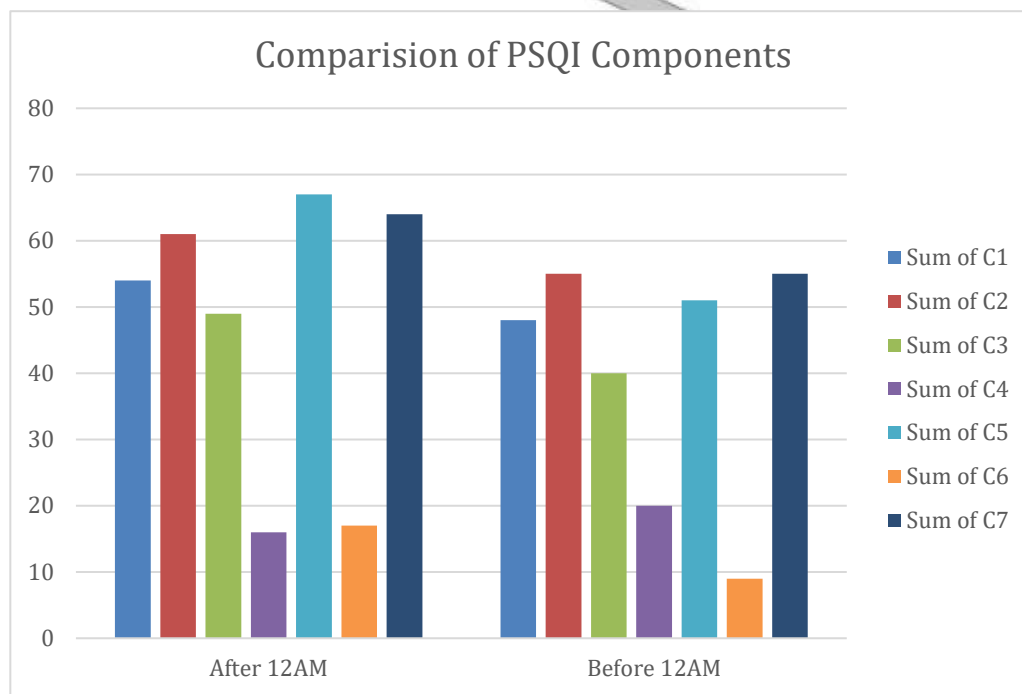
Table: 6



7.NRS – Eye Heaviness:-

- Median:
- Group A: 4.00
- Group B: 3.00
- $p = 0.020$ (Significant)

Table: 7



Result:-

Statistical Analysis Report on Nidra Vega Dharan.

Objective 2:

To study Nidra Vega Dharan in detail with the help of "Pittsburgh Sleep Quality Index (PSQI)".

Row Labels	Count of sleep_time
After 12AM	55
Good Sleep Quality	25
Poor Sleep Quality	30
Before 12AM	52
Good Sleep Quality	28
Poor Sleep Quality	24
Grand Total	107

The association between bedtime (Before 12 AM vs. After 12 AM) and sleep quality (Good Sleep vs. Poor Sleep).
Contingency Table:

Sleep Time	Good Sleep	Poor Sleep	Total
Before 12 AM	28	24	52
After 12 AM	25	30	55
Total	53	54	107

Interpretation:

- Since p-value: $0.5001 > 0.05$, the difference between the Before 12 AM and After 12 AM groups in terms of sleep quality is not statistically significant.
- Conclusion: Bedtime (Before vs. After 12 AM) does not significantly impact sleep quality in this dataset.

Objective 3:

To study the impact of Nidra Vega Dharan on head heaviness & eye heaviness based on survey study.

Chi-square test results for categorical variables:

symptom	Chi-Square Value	p-value	Significant ($p < 0.05$)?	Cramer's V (Effect Size)
Headache	6.172	0.013	Yes	0.24 (Moderate)

Head Heaviness	4.814	0.028	Yes	0.21 (Moderate)
Eye Tiredness	5.453	0.020	Yes	0.23 (Moderate)
Eye Heaviness	4.043	0.044	Yes	0.19 (Moderate)
Eye Redness	0.412	0.521	No	–

Interpretation:

Significant association ($p < 0.05$) found for head heaviness, headache, eye tiredness, and eye_strain. This implies that individuals who sleep late (After 12 AM) report higher levels of these symptoms.

Objective 4:

To evaluate the relationship between late-night sleep and the emergence of heaviness in the head and eyes.

Variable	Median (Before 12 AM)	Median (After 12 AM)	p-value	Significant?
Head Heaviness VAS	3.00	5.00	0.008	Yes
Eye Heaviness VAS	3.00	4.00	0.020	Yes
Sleep Quality Rating	6.00	5.00	0.065	No
Work Interference Score	2.00	4.00	0.031	Yes

Interpretation:

A significant difference ($p < 0.05$) was observed in "vas_head" between Before and After 12 AM groups. To evaluate the relationship between late-night sleep and its effects on eye tiredness and daily functioning,

Variable	p-value	Significant?
Eye Tiredness (NRS)	0.096	No

Interpretation:

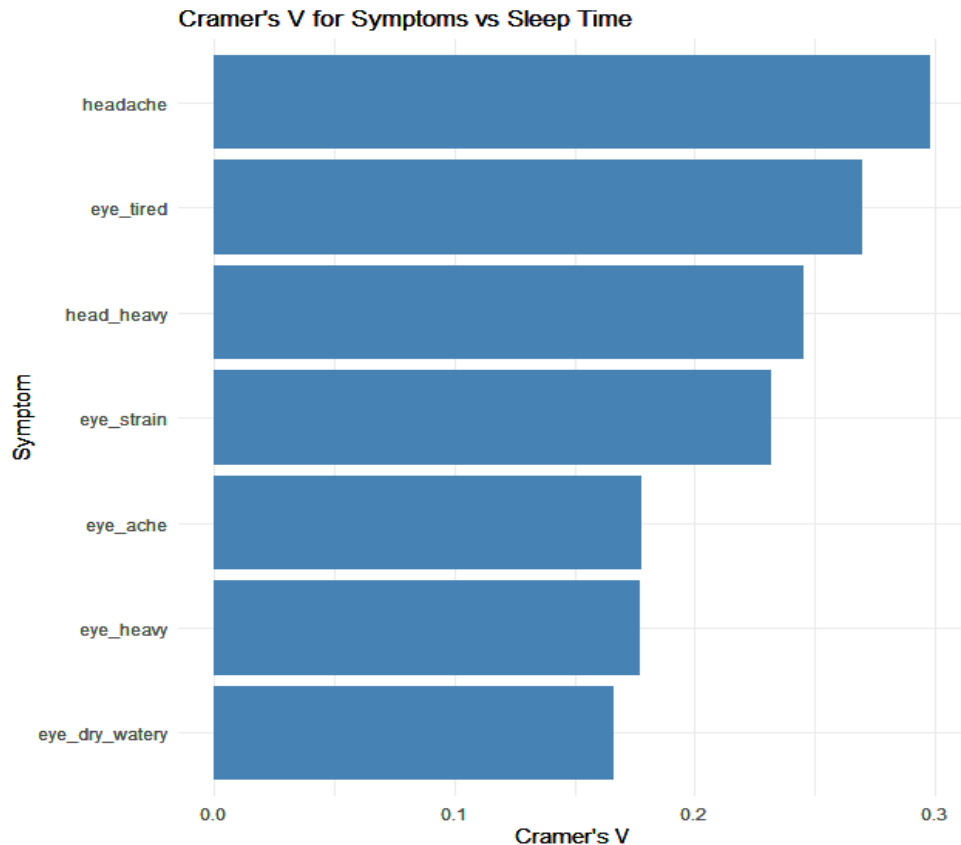
A slight increase in eye tiredness (NRS) was observed among those who slept after 12 AM, but this difference was not statistically significant ($p = 0.096$).

To assess whether late-night sleep influences daily functioning.

Variable	p-value	Significant?
Impact on Daily Functioning	0.922	No

Interpretation:

No statistically significant difference was observed in daily functioning impact scores between individuals who slept before and after 12 AM ($p = 0.922$), indicating that late-night sleep did not appear to affect perceived daily performance.



Interpretation:

The heatmap visualizing Cramer's V values shows moderate association (Cramer's V ranging from 0.17 to 0.30) between late-night sleep (After 12 AM) and symptoms such as:

Headache (V = 0.298)

Eye tiredness (V = 0.270)

Head heaviness (V = 0.246)

These values indicate that late-night sleep may be moderately associated with increased physical symptoms, particularly those related to head and eye strain.

Discussion :-

Ayurveda has acknowledged Nidra as one of the Trayopasthambha (three pillars of life). In context with this, Acharya has described about how a person should live life or what should be the lifestyle of a person by describing about daily regimen (Dinacharya), seasonal regimen (Ritucharya), and non-suppression of bodily urges (Adharaniya Vega) and suppression of mental urges (Dharaniya Vega) Like anger (Krodha). Nidra is one of the natural urge which should not be suppressed. The suppression of Nidra Vega, disrupts the equilibrium of Tridosha in the body, which leads to physiological, psychological and even emotional dis-balance. Sleep deprivation or disturbed sleep leads to Vata Prakopa leading to many diseases.

In today's life, there are increase in diseases, especially lifestyle disorders. The fast-paced modern lifestyle can indeed take a toll on our health. Many people prioritize career success, material wealth, and social status over their well-being, often leading to Irregular sleep patterns, Unhealthy eating habits, Increased stress levels, Decreased physical activity. These habits can contribute to various health issues, such as Sleep disorders, Digestive problems, mental health concerns (anxiety, depression), chronic diseases (diabetes, hypertension, cardiovascular disease). It's essential to strike a balance between ambition and self-care. By prioritizing healthy habits, individuals can improve their overall well-being and reduce the risk of health problems.

Sleep is biological necessity and lack of sleep may lead to detrimental effects on health, wellbeing and public safety. Just like nutrition, exercise, affects health, sleep also affects the health in similar manner.

In this project we have carried out a Survey study evaluating the role of Nidra Vega Dharan (Late Night Sleep) on head and eye heaviness. A survey involving 107 individuals aged 18–45 was conducted, dividing participants into two groups, those sleeping after 12 AM (Group A) and those sleeping before 12 AM (Group B) using tools such as Ayurvedic guidelines, the Pittsburgh Sleep Quality Index (PSQI), Visual Analog Scale, and Numeric Rating Scale, the study assessed the impact of delayed sleep onset. In this project scholar has considered late night sleepers under suppression of natural urge to sleep. This research project was structured in four phases: a literary review of Ayurvedic texts, application of the PSQI to evaluate sleep quality, symptom-based surveys, and statistical analysis for the correlation between late sleep and the prevalence of head and eye heaviness.

After applying heatmap visualizing Cramer's V values shows moderate association (Cramer's V ranging from 0.17 to 0.30) between late-night sleep (After 12 AM) and symptoms such as Headache ($V = 0.298$), Eye tiredness ($V = 0.270$), Head heaviness ($V = 0.246$). These values indicate that late-night sleep may be moderately associated with increased physical symptoms, particularly those related to head and eye strain.

Thus, findings confirmed the Ayurvedic view of Nidra Vega Dharana as a major contributor to both physical and mental disturbances, bridging traditional concepts with contemporary sleep science. The results underscore the significance of proper sleep timing in sustaining holistic health and preventing modern sleep-related disorders.

CONCLUSION:

1. According to Ayurvedic texts, sleep (Nidra) is considered one of the three pillars of health (Traya Upastambha), and maintaining proper sleep practices is essential for sustaining physical vitality, mental clarity, and emotional balance. By applying these Ayurvedic principles, one can enhance the quality of sleep, which in turn positively impacts cognitive functions and overall health. Therefore, the suppression of the natural urge to sleep (Nidra Vega Dharan) should be avoided, as it can lead to both physical and mental imbalances.
2. Bedtime (Before vs. After 12 AM) does not significantly impact sleep quality in this dataset. Significant association ($p < 0.05$) found for head heaviness, headache, eye tiredness, and eyestrain. This implies that individuals who sleep late (After 12 AM) report higher levels of these symptoms.
3. A slight increase in eye tiredness (NRS) was observed among those who slept after 12 AM, but this difference was not statistically significant ($p = 0.096$).
4. The heatmap visualizing Cramer's V values shows moderate association (Cramer's V ranging from 0.17 to 0.30) between late-night sleep (After 12 AM) and symptoms such as Headache ($V = 0.298$), Eye tiredness ($V = 0.270$), Head heaviness ($V = 0.246$). These values indicate that late-night sleep may be moderately associated with increased physical symptoms, particularly those related to head and eye strain.

ACKNOWLEDGMENT: This survey-based research was conducted under the SPARK scholarship program and is sponsored by the Central Council for Research in Ayurvedic Sciences (CCRAS). Authors express gratitude to the Central Council for Research in Ayurvedic Sciences (CCRAS).

REFERENCE:

1. Paradakar, H., (Ed.). (2002). Astangahrdaya by Vagbhata (9th ed.). Varanasi, India: Chaukhambha Orientalia, Sutrasthan - 4, Verse- 12.
2. Malavika, G. T., & Gogate, V. E. (2025). A critical review on Nidra Vega Dharana. European Journal of Pharmaceutical and Medical Research, 12(5), 45–49.
3. Jadhav, S. T., & Sharma, A. K. (2020). A conceptual study on Nidra as Adharniya Vega with special reference to shift work sleep disorder. Global Journal for Research Analysis, 9(1), 1–4.
4. Paradakar, H., (Ed.). (2002). Astangahrdaya by Vagbhata (9th ed.). Varanasi, India: Chaukhambha Orientalia, Sutrasthan .7, Verse- 53-54.
5. Jadavaji, T., Acharya (Ed.). (1997). Sushruta Samhita (6th ed.). Varanasi, India: Chaukhambha Orientalia, Chikitsasthan-24, Verse-88
6. Patel, D. (2018). Harmful Effect of Suppression of Nidra Vega Dharana. Pharma Science Monitor, 9(2), 45–49.