International Journal of Science and Research (IJSR) ISSN: 2319-7064

SJIF (2022): 7.942

Sleep also Depends on the Gravity

Vaidhshiromani Dheeraj Sharma¹, Rajesh Kumar Mishra²

¹B.A.M.S. Scholar, Patanjali Bhartiya Ayurvigyam Evum Anuushandhan Sansthan, Patanjali Yogpeeth Phase 1 Haridwar, Uttrakhand,

India

²Assistant Professor, Patanjali Bhartiya Ayurvigyam Evum Anuushandhan Sansthan, Patanjali Yogpeeth Phase 1 Haridwar, Uttrakhand, India (Corresponding author)

Abstract: Sleep also depends on the gravity and gravity plays a major role in inducing sleep and it manifests sleep in the Body. Gravity plays a major role in inducing sleep and it manifests sleep in the body. Gravity plays a major role most of the systemic and functional process in our body and also plays a major role in the growth and development of our body. Gravity manifests sleep by suppressing the cellular and intercellular discharge in our body and gravity is an essential force for proper sleep and manifesting inertia in our body. Gravity is a major contributor to the state changes in living and non living. Gravity is one of the factors affecting our body. We can say that gravity is a basic unite of sleep because it is the force acting on the whole body which affects our body functions and covers our body slowly and due to this internal matter and physical changes take place in our body. Objectives: The objective is to study and analyzing the sleep also depends on the gravity and main role of gravity in sleep. Data Source: Sleep also depends on the gravity related Literature from various Journals. Articles and previous Research Papers related to this Subject. Review Methods: All the publish and unpublished literature related to sleep and reviewed by comparing and analyzing the different meanings and thoughts of classical as well as contemporary authors. <u>Result and conclusion</u>: This article highlights the sleep also depends on the gravity and gravity play important role in the sleep.

Keywords: Sleep, role of gravity in sleep. Gravity sleep tamonidra, gravitational sleep

1. Introduction

Sleep also depends on the gravity and it has major contribution in the process of generating sleep. The proper generation of sleep depends on gravity. The root cause of sleep is gravity and it is plays major role in generating sleep. We can say that gravity is a basic unit of sleep because gravity is a force acting on the whole body and that which acts on our body and manifests inertia in our body. Gravity slows down the secretions in our body and gradually covers our body because all human activities are based on the force of gravity and the gravity is also responsible for most of the state changes that occur in the human body and it is a factor responsible for most of the Activities that take place in our body. Due to the force of gravity, there are some in intracellular and internal fluid changes in our body. Due to which sleep occurs in our body. Gravity also affects the intercellular fluid communication in our body and gradually manifests inertia in the body. Gravity is also called sleep generating factor and it is a basic factor of sleep and produces sleep by affecting the function of our body parts. most of the activities of the plant world and living world are based on gravity. We can say gravity has an importance contribution in growth and development of plant and animal kingdom because most of the activities of plants and animal kingdom are governed by gravity and it is a major aspect of the major activities that take place in all living beings. So from above lecture it is concluded that sleep depends on the gravity.

Aim

The aim of this study is to analyze and study sleep also depends on the gravity.

Introduction of sleep according to Vedas:-;nk rq eufl dykUrs dekZReku% dyekfUork%A fo'k;sH;ks fuorZUrs rnk Lofifrekuo%AA ¼p-lq-21@35½

When the mind gets tried of working and the senses also get free from their verbal objects due to tiredness. Then sleep occurs in the body

Introduction of sleep According to Modern:

Sleep is defined as Unconsciousness form which the person can be aroused by sensory or other stimuli. It is to be distinguished from coma. Which is unconsciousness from which the person cannot be aroused. (Medical Physiology by c Guyton. Page No. 689)

The tama's guna is most Responsible factor for sleep:-**funzk gsrq% lRoa cks/kus gsrq mP;rs%AA 1/4lq-"kk-4@ $34\frac{1}{2}$

Tamas guna is a form of gravity and this guna is an important factor in generating sleep in the body and tama's guna is a prime basis of sleep.

Main coordination of tama's guna and gravity

Gravity and tama's guna show equivalence to each other and it is a completely co-related force with each other and both these forces generate pull or attraction towards other objects and both the force are an attraction force generated by the earth, gravity and tama's guna are equal working forces which have special importance in the creation of the universe, and the working of both these forces is similar in living and non-living things. Gravity and tama's guna have a major contribution in the physical and mental development of living beings. And this force slowly envelops the organs of the beings and manifests inertia in the body. Gravity and tama's guna play a major role in every event happening in the human body and the earth, it also plays a major role in the movement and stability and it manifests its effect in terms of results and functionality.

So this proves that the properties of gravity and tama's guna

Volume 11 Issue 12, December 2022

www.ijsr.net

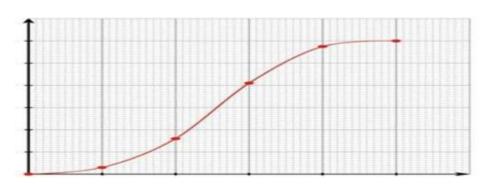
Licensed Under Creative Commons Attribution CC BY

are completely similar to each other.

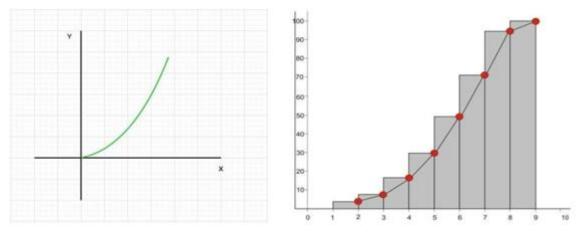
Gravity ∝ tama's guna

Mechaism of sleep according to Ayurveda: "y's ek vko`rs'kq Lkzksr% lq Jekn'q kjr's kq p bfUnz;s'kq LodeZH;ks funzk foa"kfr nsfguke**1/4v-l-lw-9@391/2 Due to the covering of Srotas by the mucous produced in the body and due to the exhaustion caused by the senses by absorbing their objects, the senses move away form their objects, resulting in sleep.

Graph between sleep and tama's Guna:-

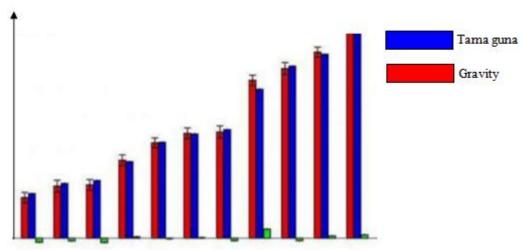


Graph between sleep and gravity:-



Gravity \propto sleep

Graph of coordination between tama's guna and gravity:-



Presence of triguna's at different places:-

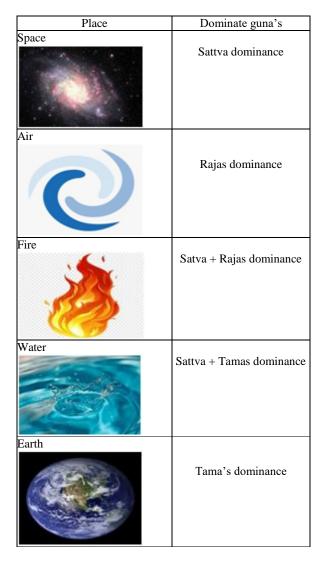
r= lRo cgqyks vkdk"k jtks cgqyks ok;q lRo jtks cgqyks vfXu lRo re cgqyks vki re cgqyks i`Foh ¼lqJqr lafgrk½

Volume 11 Issue 12, December 2022

<u>www.ijsr.net</u>

Licensed Under Creative Commons Attribution CC BY

According to this shalokas



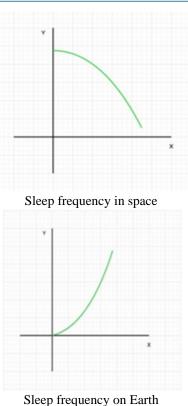
Sleep depends on gravity prime example of its presentation:- Frequency of sleep in space:

In generally due to the presence of sattva in the maximum and tama guna being less in the space, a person cannot get proper sleep in the space and the person is unable to get full sleep because there is absence of tamas guna in the space. This is main reason of astronauts cannot sleep properly in space due to lack of tamas guna.

Frequency of sleep on earth:

Generally, due to the presence of tama's guna on the earth, a person gets proper sleep on earth because the main factor in the origin of sleep is tama's guna, which is found in abundance on the earth. That's why most of the living beings on earth get proper sleep.

Sleep frequency graph between earth and space:-



Astronauts special remarks

A new study has found that astronauts in space suffer from sleep deprivation. Researchers at the Brigham and Women's Hospital (BWH) Division of Sleep and Circadian Disorders found that astronauts rarely get more than six hours of sleep during space flights. In addition, many astronauts have to use sleeping pills to fall asleep. Because of this, it was found that due to this their performance can also be greatly affected. The study was carried out on missions sent to the International Space Station (ISS) over the past ten years. Data from 80 shuttles and 21 astronauts were included. Sleeping in space can be difficult because the Sun changes its angle further every 90 minutes. Due to which the passengers living inside the spacecraft are at risk of sleep disturbance due to sunrise and sunset. It has been clearly observed that sleep deprivation has significant effects during space flight in lab and field studies. Researchers have found that even NASA has told that astronauts need at least 8.5 hours of sleep. While they sleep there for an average of 6.09 hours only. A part from this, about 78 percent of astronauts save sleeping pills while going there, which can affect their ability to work.

2. Conclusion

Gravity is a very important factor to generate sleep in our body and most of the functions of our body depend on gravity. It plays major role in inhibiting and controlling most of the functions of our body. So this proves that sleep also depends on gravity.

References

[1] Guyton and Hall, John E. Hall, Michael E. Hall textbook of medical physiology. 3rd edition 2020,

Volume 11 Issue 12, December 2022

<u>www.ijsr.net</u>

Licensed Under Creative Commons Attribution CC BY

Elseviev, ISBN 9788131257739

- [2] H.C. VERMA Concept of Physics Bharti Bhavan Publishers New Delhi 4271/3 Ansari Road Daryaganj New Delhi.
- [3] S.L ARORA New Simplified Physics Volume 1 Reprint 2017 Dhanpat Rai Co. (P) LTD. Delhi 10006.
- [4] DC PANDE Understanding Physics Volume Arihant Prakashan Series Meerut ISBN 978-93-13-90-55-4.
- [5] Davidg Simpson, Larry L. Simpson General Physics 1 Last Update; OCT 8 2020.
- [6] Physics Text Book Part 1 Edition 2006 National Council Of Educational Research And Traning ISBN 81-74-50-508-3.
- [7] Dr. Shelja Shrivastava Astanga Hrdayam Edition 2015 Chaukhamba Orientalia Varanasi 221001.
- [8] Dr.Brahmanand Tripathi Charak Samhita Volume 1 Edition 2020 Chaukhamba Subharti Prakashan Varanashi 110002 ISBN 978-93-81484-75-3.
- [9] Dr. Keval Krishan Thakaral Sushrut Samhita Volume 1 Chaukhamba Orientalia Varansi 221001
- [10] Charya Udayveer Shastri Vaisheshik Darshan Edition 1 Shree Pandit Gayan Chandra Ji (b.a) Sarvdeshik Press, Patodi House, Daryaganj Delhi
- [11] Uday Narayan Singh, Surya Siddhant Edition Samat 2043, Shrimati Savitari Devi 170 g Block New Alipur Kolkata
- [12] Uttam Narayan Tripathi (b.Tech, Iit Kanpur), Morden Abct Of Physics New Edition 2020-2021 Morden Publishers, Mbd House 4587/15, Opp, Times Of India Daryaganj Delhi
- [13] Mtg Objection Ncert Physics Text Book, Edition 2022, Mtg Learning Media (p) LTD. New Delhi Coprate Office :- Plot 99, Sector 44 Institutional Area Gurugram Haryana.
- [14] Smart Errorless Physics Universal Physics Book Edition 2022, Ubd1960, Origenal Authentic Book By Universal Book Depot 1960.
- [15] Dr. K.I. Gomber, k.I. Gogia, Pradeep's Fundamental Physics Book Edition 2020-21, Pradeep Publication, Shyam Lal Road, Duryaganj Delhi.
- [16] V.k. Mehta, Rohit Mehata, s.Chand's Principles Of Physics. Revised Editions, Schand Publications ISBN 9788121919340.
- [17] D.k. Banerjee ISC Physics Book, Revised Edition Schand Publication ISBN:- 9789352532032.
- [18] Halliday/ Resnick/ Walker Fundamentals Of Physics 6 Edition, Authorized Reprint By Wiley India (p) LTD, ISBN 10 = 81 - 265 - 0823 -x. ISBN - 13 =978 - 81 - 265 - 0823
- [19] -5 [18] B.k Pandey, Manoj k. Harbolo, t. Vijaya Krishana, t. Madhu Mahon, s. Chaturveti First Edition, 2019. Cengage Learning India Pvt. LTD.
- [20] Arihant Physics Hand Book, Arihant Publication Edition 2nd 2019 ISBN- 10 = 9313196484 ISBN13=978-9313196488.
- [21] Dr. Vs Bhasin Girjesh Giri, Neha Jindal Prachi's Conceptual Physics, Revised And Update Edition (2) 2019, Prachi India Pvt. LTD. ISBN- 10 = 8177305883, ISBN -13 = 978 - ISBN - 13 = 978 -8177305883.
- [22] Paul g. Hewitt, Twelfth Edition Conceptual Physics, Pearson Education 15 Sep. 2017 ISBN -13 = 978 – 9352861774, ISBN -10 =9352861779

- [23] Rusty I. Myers The Basics Of Physics, Green Wood Press: Edition (Dec. 2005) ISBN -10 = 0313328579ISBN -13 = 978-0313328572.
- [24] Hugh d. Young, Roger A, Freedman, University Of Physics Education ISBN -10 = 9353949297, ISBN -13 = 978 - 9353949297.
- [25] Holger Kubel, Behind Fundamental Physics An Ether Wave Model Of The Physical World, Lulu.Com(30 Jun 2013) ISBN-10 = 1300289058, ISBN - 13 = 9781300289050.
- [26] Serway / Jewett, Physics For The Scientists And Engineers 9th Edition, Cengage India Pvt.LTD. July 2017 ISBN -10 =9789389650672 ISBN - 13: 9789386650672"
- [27] Albert Eitstein, Relativity The Space And The General Theory, Finger Print Publishing 15 Sun 2017, ISBN – 10 = 9788175994652, ISBN -13 = 978 -8175994652
- [28] Stephen Hawking, Black Holes, Bantan Publisher, Latest Edition July 2016, ISBN -10- 085750357x, ISBN -13- 978- 0857503572"
- [29] D.C. Pandey, Understanding Physics, Arihant Prakasan, 14 April 2021, ASIN, BO8YXXSKB. Ashish Arora, Physics Galaxy, 2nd Edition, (Jan 2019) G.K. Publication, ISBM -10 :- 8193975243, ISBn - 13 :- 978-8193975244.
- [30] All in one Physics CBSE Book, 8th edition Jan 2021, Arihant Publication, ISBN :- 10 9325299518, ISBN :- 978-9325299511.
- [31] Feynman, Leighton, Sands, the Feynman Lectures on Physics, Narosa Publishing House, Dec. 2008, ISBN – 10 :- 8185015821, ISBN – 13 :- 978-8185015828,
- [32] George Gamow, Gravity Classic and Modern Views, Genral Press, Jan 2018, ISBN:- 10:- 9388118480, ISBN - 13 :- 978 - 9388118484,
- [33] James B. Hartle, Gravity Anintodution to Einsten's General Relativity, 1st Edition, Pearson Publication, Jan 2003, ISBN- 10 :- 0805386629, ISBN - 13 :-978- 0805386622.
- [34] Charles W. Misner, Kips thorne, John Archibaed Wheeler, Princeton University Press, Oct 2017, ISBN - 10 :- 9780691177793, ISBN :- 13 - 978 -061177793.
- [35] David Sang, Mike Follows & Sheila Tarpey, Physics for Cambridge IGCSE Course Book, Cambridge University Press, April2021, ISBN – 10 :-1108888070, ISBN – 13 :- 978 – 1108888073.
- [36] A(zee), Einstein Gravity in a Nutshell, Princeton University Press, May 2013, ISBN – 10:- 978 – 0691145587, ISBN – 13: 9780691145587.
- [37] Scott Dodelson, Gravitational Lensing, 1st Edition, Cambridge University Press, Jun 2017, ISBN – 10:-1107129761, ISBN -13:- 978 -1107129764.

Volume 11 Issue 12, December 2022

<u>www.ijsr.net</u> Licensed Under Creative Commons Attribution CC BY