

# An Observational Study on *Dinacharya* Modalities w.s.r to *Brahmimuhurte Utthishteth* (Waking Up in Early Morning) in Improving Longevity

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**Abstract:** *Purpose of the study:* The long and healthy life of hundred years is the cherished wish of primitive man and long life is necessary to fulfil one's own mission of life. Ayurveda –the way of life appeals to promote life, to live the full span of life. Long and healthy life is possible only if we adhere to the rules of hygiene in our daily life with necessary adaptations to seasonal and other changes. With this back ground study conducted to assess the longevity effect of *Brahmimuhurte utthishteth* **Materials & Methods:** Source of data – 500 Geriatric population aged 65 and above are selected for the Retrospective study from in and around the Mysore city. 100 young healthy volunteers aged between 17 and 25 are selected from JSS Ayurveda Ladies hostel for the prospective study. After getting informed consent from group A the data collected by pre-designed and pre-tested questionnaire. For group B the data collected after physical examination and laboratory investigations. **Prospective study –** After selecting young healthy volunteers as per inclusion criteria, they are instructed to get up in early morning between 4.30am-5am for six months, subjective and objective parameters are taken before and after study. **Results:** The results of prospective study shows that significant improvement seen in physio social parameters, the retrospective study reveals that there is positive correlation in *Brahmimurte utthishteth* and longevity with quality of life. **Conclusion:** The present study reveals that Ayurvedic way of life especially *Brahmimurthe utthishteth* (waking up in early morning) will improve quality of life and also protects the body from unusual occurrence of diseases.

**Keywords:** Ayurveda, *Brahmimuhurte utthishteth*, longevity

## 1. Introduction

The present average life span of person is 65 years with multiple health problems right from 1st decade of life. Our ancestors lived up to 100 years and even beyond 100 years without any diseases, as they were following preventive principles of Ayurveda. Due to faulty life style, the people suffering from many diseases, which is burden to family & society. Ayurveda advises many health principles to keep one healthy & living longer. One such principle is *Brahmimuhurte utthishteth* i.e. waking up in early morning in between 4.30am-5am. It is important to find out the association between *Brahmimuhurte utthishteth* and longevity with evidence base study and gives scientific background to it and to educate the people to follow this simple modality to achieve long healthy life.

## 2. Review of Literature

Ayurveda recommended Regimens like *Dinacharya*, *Nishacharya* and *Ratricharya* to promote health of a healthy individual and to prevent the diseases<sup>1</sup>. *Dinacharya*, the daily regimen starts with *Brahmimurte utthishteth*, *Brahmi muhurte utthishteth swastho rakshartamayushaha*<sup>2</sup>, a healthy person who is interested in preserving the health and longevity should get up early in the morning in *Brahmimuhurta*. *Brahmimuhurta* is the second last *muhurta* (48minutes) before sun rise. *Brahma* means knowledge. The time opts for obtaining knowledge is known as *Brahmi muhurta*. Difference of opinion exists regarding *Brahmi muhurta*. There are 8 *yamas* per day, each *yama* consisting of 3 hours. Both day and night are constituted by 3 *yamas* each. Each of the rest 2 *yamas* constitutes two *sandhyas* i.e.

dusk and dawn. According to classical texts when day and night are equal time, each of it consists of fifteen *muhurtas*. Since a *muhurta* is of *dvenaadika* which is of equal to 48 minutes<sup>3</sup>, *Brahmi muhurta* begins at dawn; it is penultimate *muhurta* of night. Thus the healthy individual may get up two *muhurtas* (i.e 96 minutes 1.5 hours) before sunrise. According to *Atharvaveda* a person who gets up early in the morning will be free from diseases<sup>4</sup>. Acharya Charaka has been explained that it is important for a scholar to get up early in the morning. Charaka says that one should get up during *upavyushsa*<sup>5</sup> i.e when still there is a part of *raatri* left which is nothing but *Brahmi muhurta*.

## 3. Materials & Methods

**Design:** An Observational study- Retrospective and Prospective. The study included two groups, group A consist of Geriatric population and group B consist of young healthy volunteers. In order to evaluate retrospectively the effect of waking up in early in the morning in Geriatric population and to evaluate prospectively the effect of waking up in early in the morning in healthy volunteers, the present study has taken up.

**Source of data:** 500 Geriatric people aged 65 years and above were selected from in and around Mysore city for group A. Group B includes 100 young healthy volunteers aged between 17 & 24 were selected from JSS Ayurveda Medical College Women's hostel, Mysore.

**Collection of data:** After getting informed consent for group A, the data was collected by pre-designed and pre-tested

questionnaire and for group B the data was collected by physical examination and laboratory investigations.

**Inclusion criteria:** Group A: Geriatric population of either sex aged 65 & above years. Group B: Young healthy Female volunteers aged between 17 & 25 years

**Exclusion criteria** Group A: Geriatric population below 65 & Group B: Young healthy volunteers below the age 17 & above 25

### 3.1 Methodology

**Retrospective study (Group A):** After selecting Geriatric population as per inclusion criteria, the individuals were interviewed about their habit of time of getting up in the morning from their 2<sup>nd</sup> decade of life and their health status by pre-designed & pre-tested questionnaire and analysis of data was done by using suitable statistical method.

**Prospective study (Group B):** After selecting young volunteers as per inclusion criteria, they were instructed to get up at *Brahmimuhurta* (in between 4:30am – 5am) every day for six months under strict supervision. Subjective and objective parameters were compared before and after by using suitable statistical methods.

**Subjective parameters:** The following symptoms were assessed before and after six months of study by grading - Appetite, Bowel movements, Bladder habits, Sleep pattern, Menstrual cycle pattern, Body pains, Headache, Pain abdomen, Frequent fever and Cough/cold, General weakness, Difficult to get up in early morning, Feeling lightness in the body /Heaviness in the body, Feeling freshness, Feeling freshness in the stomach and Feeling of not sufficient sleep

**Objective parameters:** Assessment was done based on changes observed in Hb%, TC, DC, ESR & Red blood cell count

## 4. Observations

In the present study in group A 500 Geriatric people were interviewed in the age group of 65-95. The socio demographic data of the participants shows that 64% (320) were males and the rest of 36 % (180) were females. The age group of 65-75, 76-85 & 86-95 years consists of 51% (255), 40% (200) & 9% (45) participants respectively. Vegetarian diet were 68 % (340) and non-vegetarians were 32 % (160), Alcohol consumption were 42 % (210) and Tobacco chewing as a habit were 48 % (240). Out of 320 males 20.3 % (65) were having higher education, 37.5 % (120) were primary education and rest 42.1 % (135) were having non-formal education. Retired employees were 56.5 % (180) and rest 43.75 % (140) were farmers and daily wage workers. Out of 180 females 33.5 % (60) were primary school retired teachers and rest 67 % (120) were house wives. Out of 500 subjects 67 % (335) were immunized against vaccine preventable diseases. Regarding appetite 65% (325) subjects are having moderate, 25% (125) are good and 10 % (50) are having poor appetite. 67% (335) are having normal bowel movement and rest 33% (165) are

having constipation. Regarding bladder emptying habits 90% (450) subjects are having regular bladder emptying habits and 5% (50) are having increased frequency of urination. Maximum 83% subjects are having good sleep and rest 17 % (85) are having disturbed sleep. 56.2 (281) are having good memory, 42.8 (219) are having moderate and only 1 % (5) are having poor memory. Regarding Ayurvedic lifestyle habits the observations are as follows - The maximum number of subjects were getting up around 5am in their middle age 86 % (430). 90% (450) were using traditional powders for teeth cleaning but presently all are using tooth brush and paste for teeth cleaning, 77% (385) are having habit of Usha jala pana (morning drinking water), 88% (440) are having the habit of kavala (gargling of mouth by using cold water), no one was found having Ayurvedic described application of Anjana (collyrium) to the eyes and also Ayurveda described dhoomapana (Medicated smoking), 72% (360) subjects were having the habit of doing Vyayama (physical exercise) since starting of their young age. All subjects are having habit of taking bath daily, only 20% (100) subjects are having the habit of Taboola sevana (betel nut chewing) after food regularly. Only 30% (150) are having the habit of taking Abhyanga (oil massage) as regularly, regarding Rasayana sevana – regular intake of milk found in 70% (350) of subjects and only 15% (75) are found taking Chyavana prash regularly. Common health problems – Osteoarthritis found in 75% (375) subjects, Operation for cataract in 42% (210), Bronchial asthma found in 25% (125), 30% (150) are having Diabetes mellitus, 25% (150) are having Hypertension, 15% (75) are having cardiac problems, 20% (125) are having Gastrointestinal problems and only 5% (25) are found having urinary problems. The average age of onset of diseases is 50 years.

### Group B

In the present study the age group of subjects were 17-25 years, out of 100, 17-20, 21-25 years were 56% (56) and 44% (44) respectively. Vegetarian diet were 68% (68) & non-vegetarian were 32% (32), Good appetite 82% (82), Moderate 17% (17) and Poor 1% (1), All subjects were having regular bowel movements & regular bladder evacuation and normal menstrual history were noted in 65% (65) and rest 35% (35) were had irregular menstrual history, Good sleep noted in 68% (68) subjects and rest 32% (32) subjects noted disturbed sleep, related to frequent illnesses Body pain noted in 80%, Headache in 45%, Cough/cold in 55%, Pain abdomen 50%, Fever 50%, and General weakness in 58%. Data on related to physical condition at the time of getting up in early morning Difficult to get up in 90% subjects, Lightness in the body in 10%, Heaviness in the body in 90%, Feeling freshness in the body in 12%, Headache 45%, Body ache 85%, Feeling of heaviness in stomach in 78%, Feeling of not sufficient sleep in 82% noted.

## 5. Results

Group A: Analysis of observation based on grading of age wise assessment of appetite, bowel movements, bladder evacuation, sleep pattern, memory status and onset of health problems, health status was assessed very good was observed in those who are getting up in between 4am-5am, Good in those who are getting up in between 5am- 6am. The

average age of onset the diseases found in the age group in between 50-59 years (Table no.5), the most common diseases found were Osteoarthritis, Cataract, Bronchial asthma, Diabetes mellitus, Hypertension and Cardiac disorders. Age advances their getting up of time also changed.

Group B: The average age of getting up of time was 6.30am. After six months of getting up in between 4.30am- 5am there was significant improvement seen in subjective parameters. Improvement of 16% in Appetite, Sleep in 30%, Menstrual regulation in 30% (Table no.1), Body ache 79.4%, Headache 44%, Cough/cold 54.9%, Pain abdomen 29.9%, Fever 44.85 and General weakness 57.9%. Physical condition at the time of getting up –Difficulty to get up 90%, Lightness in the body 79.9%, Heaviness in the body 80%, Feeling of freshness 88%, Headache 44.4%, Body ache 84.9%, Feeling heaviness in stomach 77.8% and Feeling of not sufficient sleep 81.8% was seen (Table no.3). In objective parameters before and after the study the test is statistically insignificant with P>0.05.

**Table 1:** Data related Subjective Symptoms

	Parameter	Before	Percentage	After	Percentage	Improvement
1	Appetite	G 82	82	98	98	16 %
		M 17	17	02	02	
		P 01	01	00	00	
2	Bowel	R 100	100	100	100	No Change
3	Urine	R 100	100	100	100	No Change
4	Sleep	R 68	68	98	98	30 %
		D 32	32	02	02	
5	Menstruation	R 65	65	95	95	30 %
		IR 35	35	05	05	

**Table 2:** Data related to frequent illness

S. No	Physical Condition	Before		After		Improvement in %
		No.	%	No.	%	
1	Body pains	80	80	20	20	79.8
2	Headache	45	45	10	10	44.9
3	Cold/cough	55	55	10	10	54.9
4	Pain abdomen	30	30	10	10	29.9
5	Fever	45	45	15	15	44.85
6	General Weakness	58	58	28	28	57.9

**Table 3:** Data related to Physical condition at the time of awakening

S. No	Physical Condition	Before		After		Improvement in %
		No.	%	No.	%	
5	Headache	45	45	15	15	44.85
6	Bodyache	85	85	10	10	84.9
7	Feeling heaviness in Stomach	78	78	12	12	77.88
8	Feling of not sufficient sleep	82	82	18	18	81.8

**Table 4:** Objective parameters before and after the study

S. No	Parameter	Mean		Mean difference	S.D	Z-value	P-value
		Before	After				
1	Hb%	12.86	12.06	0.26	0.84	1.22	P>0.05
2	TC	10100	9800	400	2424.57	1.37	P>0.05
3	Nutrophils	53.66	54.8	1.13	11.75	1.37	P>0.05
4	Lymphocytes	40.66	39.73	0.93	1.30	1.37	P>0.05
5	Monocytes	4.8	4.33	0.46	1.23	1.37	P>0.05
6	Eisionphils	4.5	4.38	0.48	1.23	1.37	P>0.05
7	ESR	20.08	38.43	1.04	0.84	1.37	P>0.05
8	RBC	4.95	4.85	0.10	11.75	1.37	P>0.05

**Table 5:** Data related to onset of Health Problem

Age in years	No. of subjects	Percentage
20-29	0	0
30-39	12	2.4
40-49	35	7
50-59	210	42
60-69	163	32
70-79	48	9.6
80-89	32	6.4
90-99	0	0
Total	500	100

**6. Discussion**

All people complain being unable to accomplish everything, yet some people accomplish way more than others and it is not only because of talents, connections or money they have. Very often what makes the difference is how they manage their time. People who get up early are those virtuous ones who privilege of spending time liberally as they do possess more time in hand. We as Indians are well aware of merits of early awakening. Ayurveda preaches us about this virtue in its own unique way. The regimen *Brahmimuhurte Uttishtet* is wonderful concept gifted by Ayurveda to the whole world under the concept of *Dinacharya*. The *Dinacharya* starts with getting up from sleep in *Brahmimhurta*. A man wishing to be healthy throughout his life, he has to be healthy everyday as well. Health depends on how one spends each day. Controlled and guided activities of body and mind are essential for maintaining sound health. If one should adopt the regimen of *Brahmimuhurte Uttishtet* he can maintain his healthiness throughout the life and prevent the unhealthy. Liberation of nascent oxygen in early morning which easily mixes with haemoglobin forming oxyhaemoglobin and reaching to remote tissues in the early morning. Benefits of Nascent oxygen are singlet oxygen is exactly what body needs in order to neutralize toxic acids (gastrointestinal, respiratory and metabolic acids).It helps to maintain balance of blood pH, Increases energy levels by providing critical nascent oxygen, Disorganizes bacteria, and yeast by providing an oxygen rich environment thus supports immune system. Heightens concentration by providing nascent oxygen and ionic selenium to the brain, heart and kidneys. Relives pain, soreness and cramps, Accelerates fatigue recovery by providing acid chelators such as ionic chlorite Enhances the absorption of vitamins, minerals, proteins and other important nutrients by keeping the intestinal villi clean and alkaline , Improves circulation, Improves concentration and memory by removing acidity, Restores elasticity and permeability to cell membranes in all body tissues. Allows oxygen and nutrients into the cell because of its electrical charge. Ozone necessary for the body which is adequately present in atmosphere during *Brahmi Muhurta* period, *Brahmi Muhurta* an intermittent duration between respiration and photosynthesis of all plants. The activities of entire world and especially of living beings are yet to be started, so the pollution is at its minimum. In the present study, the retrospective study reveals that those who are getting up in *Brahmimuhurta* are having the good health status may be because of above said characteristic features of *Brahmimuhurta*, even in prospective study also it is observed that there is an improvement in physic social

parameters but in objective parameters there is no significant improvement seen this may be because of all female subjects in the study as there physiological menstrual variations, the results could be vary if conducts study involving both sexes and long duration.

## 7. Conclusion

The retrospective study reveals that those who were having the habit of getting at *Brahmemuhurtha* (waking up at early morning) especially in their young age maintained their health in good status and the onset of diseases also found around the age of 50 years. Among the 500 population, 80% of subjects were having the habit of getting up at *Brahmemuhurta* (waking up at morning). The prospective study reveals that physical condition of the subject improved by getting up at *Brahmemuhurta* (awakening in early morning). However the prospective study can be conducted involving both sexes with large sample size and long duration and also with control group to validate the effect of *Bramhemurte utthisteth* (waking up at early morning).

## 8. Acknowledgement

Authors acknowledge the financial support received from Rajiv Gandhi University of Health Sciences, Bengaluru -41, and Karnataka

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