



A SURVEY STUDY ON ROLE OF DAILY EXERCISE IN LONGEVITY

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ABSTRACT Ayurveda has given a vivid description related to preventive and therapeutic significance of vyayama. Ayurveda has also considered various factors in prescribing the physical activity and its doses like age, sex, physiological state of female, diet, season, nutritional status, disease state, therapeutic procedures etc. Different examination confirmations has been observed which are reliable with the portrayals in regards to impacts of Vyayama on body and psyche. Research studies have revealed that ordinary act of proactive tasks produce neuro-immuno endocrinological regulations prompting change in digestion of different tissues which might be related with the adjusting impact of activity on Tridosha Vata,Pitta and Kapha. Excitement of Agni (Biofire) both at the degree of Jatharagni(digestive fire) and Dhatvagni (part of biofire dwelling in tissues) could be connected with mitochondrial biogenesis since mitochondria is power place of cell and assume an incredible part in unique energy homeostasis, cell work and its maturing.

KEYWORDS : Nityavyayam, Longevity, Dincharya, Ritucharya, Physical activity,

INTRODUCTION:

Ayurveda is an ancient medical science which not only tells about treatment of any disease but also provides specific information about how to stay healthy. The two objectives of *Ayurveda* are (1) to protect the health of a healthy person and (2) to cure the disorders of the sick person¹. In reference to stay healthy *Dincharya* (daily routine), *Ritucharya* (seasonal regimen) *Sadvritta* (physical and mental code of conducts) etc are described.

Vyayama is said to produce a feeling of lightness in the body, firmness, promote physical fitness, lustre, and compactness of the body parts, confer the ability to withstand exertion, fatigue, thirst, heat and cold, enhance immunity, cause impurities to diminish, reduce the ageing process, and stimulate Agni (digestion & metabolism)². Recent evidence indicate that regular physical activity contributes to the primary and secondary prevention of several chronic diseases and is associated with a reduced risk of premature death. There appears to be a graded linear relation between the volume of physical activity and health status, such that the most physically active people are at the lowest risk. However, the greatest improvements in health status are seen when people who are least fit become physically active. The current activity guidelines promoted by Health Canada appear to be sufficient to reduce health risk.³

MATERIALAND METHOD:

Inclusion criteria-

Above 60 years old people, physically and mentally fit, working.

Exclusion criteria-

Below 60 years, chronic disease, bed ridden disease, physically and mentally unfit.

Place of survey-

Madan Mohan Malviya Government Ayurved College, Udaipur, Rajasthan.

Method-

This Survey was conducted by Madan Mohan Malviya Government Ayurved College, Udaipur, Rajasthan under *Nirogi Rajasthan* Program. We found out all things related to longevity in our *Samhita* especially in *brihatrayi* (CharakSamhita, SushrutSamhita and Vagbhata rachit Asthanghrdhyam). We found many things helping in longevity like- early rise, daily exercise, *Abhyangam* (oil body massage), eating habits, *Sadvritta*, *Ritucharya*, *Dincharya*, mental health, living with family etc. Keep these all things in mind; we search *Dirgjeevanya* (longevity) word in *Brihatrayee* (CharakSamhita, SusrutSamhita and Vagbhata). We found many things which helps in longevity. Behalf of all things we prepared a questionnaire for survey.

This questionnaire contains *NityaVyayam* (daily physical activity) also. *Ayurveda* describes *Vyayama* under different contexts such as: *Dincharya* (daily routine), *Balavridhikarabhava* (factors enhancing immunity), *Anagatabadhapratisedha* (prevention of future diseases) and also in relation to *Dashavidhaaturapariksa* (ten-fold examination of a patient) in the form of *Vyayamashakti* (evaluation of the body strength).

Collection of data-

We contacted 1500 people who are above 60 years of age and living a healthy life with no chronic diseases. With the help of our questionnaire, we got to know about their daily routine, night routine, ritual, food habits, lifestyle and daily physical activity. We found out their health status with the help of questions. In this way, people who are suffering from chronic diseases, are not in working, they are not included in this survey. On the contrary, people who are not suffering from any type of chronic disease and are leading a healthy life, including them in this survey, data was collected on the basis of questions.

DISCUSSION

The work that produces exhaustion in the body is called exercise⁴. The effort of the body to increase stability (firmness) and strength while being dear to the mind, its name is physical exercise.⁵ After exercising; the whole body should be rubbed slowly. By doing exercise, proper confirmation of the body, radiance, growth of beautiful organs formation, absence of laziness, stability, smallness, purification of the body, thirst, heat and cold etc. There is no other thing like exercise to reduce fatness. Enemies also do not cause pain to the person doing the exercise because of fear. Old age does not usually attack an exerciser. The muscles of the person who exercise are strong.⁶

Sweated by sweat particles released from gymnastic labor (exercising regularly till sweating) and massaging the feet thoroughly, diseases do not reach near the person in the same way as small antelope do not reach in front of the lion. Exercise also makes a person inferior to age, form, and quality beautiful. Acidic or unpasteurized and acidic food (*AhitaAhar*) is also digested completely flawlessly against a person who exercises regularly. Exercise is always beneficial for a person having a strong and aliphatic diet and its consumption in winter and spring is said to be very beneficial for him. Or human beings who want goodness should do exercise in all seasons at half power every day, otherwise it has a fatal effect. While doing exercise, when the *Vayu* in the heart of a person starts coming into the mouth, then it should be considered as strong. Considering age, strength, body, country, time and diet, exercise should be done, otherwise there is a possibility of disease.⁷ Exercises done according to the strength increase the body's *Laghava* (lightness), power to perform tasks, stability, power to bear various kinds of afflictions

(sufferings) arising out of doing tasks, reduction of *KaphadiDoshas* and increase of *Jatharagni*.⁸Symptoms of *Suvyayama* (Good exercise) - increased sweating, increased breathing, lightness in the limbs and feeling of obstruction in the lungs etc. - these are the symptoms of exercise. That is, one should not exercise more than this.⁹

Harm due to over-exercise: Exertion causes exhaustion, *Clam* (spontaneous exhaustion), *Kshaya* (*Uraکشاتا* etc.), *Trishna* (frequent dryness of the mouth), *Raktapitta*, *Pratamaka*, cough, fever and vomiting.¹⁰

Exercise is the best among the factors that create stability in the body.¹¹ Prohibition of exercise etc.- exercise, awakening, commuting, sex, laughing, speaking (loud-shouting) and excessive consumption of adventurous activities destroys a man with power in the same way as a lion kills an elephant. If he dares to take it away by irrigation, then he himself dies.¹²Consumption of exercise etc. is pleasant, but do not consume them more, this is the meaning of the author. That is why even if Powerful lion wants to take away the elephant killed by him, he will also die. This is an example of a misadventure. *Jagran* (wake up more in the night), walk more routes, walk a little for the one who never walks is too much, think like this. There are other similar examples as well.¹³

Both mental development and physical exercise are very much essential for healthy and happy life. Exercise is necessary for having a sound mind in a sound body. It increases energy level and delivers oxygen and nutrients to whole body helping it to work more efficiently and boost one's endurance. Limbs grow stronger by constant physical work. But, excessive exercise is detrimental to health. So, taking out some time to rest is as important as exercise and one should do exercise as per his *Prakriti* (constitution), *Vaya* (age), *Ritu* (season), *Desha* (habitat), *Kala* (time) and diet, otherwise, it will cause many hazards. Both mental and physical developments are necessary for success in life. Therefore, exercises are really essential for the overall development in one's life.

Modern Reference-

In a review article 13 studies done on relationship of aging and physical activity done on life expectancy its result shows that life expectancy increases by 0.4 to 4.2 years with regular activity¹⁴. The mechanism under physical activity includes increased endurance of cells and tissues to oxidative stress, vascularization, and energy metabolism¹⁵.

Modern researchers have proved that exercise increases significantly the plasma GH concentration and their combined effect induces a highly synergistic rise in GH (Foued Ftaiti, 2008). Increases in core temperature were found to have exponential connections with plasma growth hormone, prolactin, and catecholamines during exercise, implying the presence of a thermal threshold for hormonal release stimulation during exercise¹⁶. Physical exercise activates hypothalamus-pituitary-adrenal axis and increase number, function and movement of lymphoid cells (Alexander J. Koch, 2010) Mild to moderate exercise accelerates stomach emptying and increases gastric juice secretions, resulting in quick and good digestion (Campbell J.M.H, 1928). (William Beaumont, 1838). Daily physical activity is declining as a result of the increased use of technology. Gastric emptying is delayed due to a lack of exercise or a sedentary lifestyle.¹⁷ Exercise has role in treatment of diseases. It has been proved that exercise has role in the treatment of Diabetes mellitus and Obesity (Zinker BA et al., 1993; Epstein LH et al., 1996).

RESULT

By this survey in physical activity, we accessed exercise, daily physical activity which includes household work and walking.

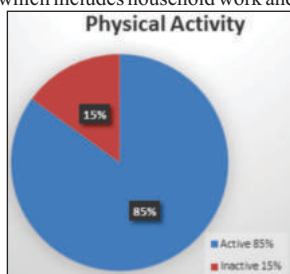


Figure 1: Percentage graph of physically active people and not doing physical activity

A survey done on 1500 people of age above 60 years, shows 1275 (85%) person are good in physical activity. This shows that persons who do physical activity have better life expectancy.

CONCLUSION

Exercise increases strength and Agni of the body. Exercise improves body immunity. Due to above all factor age increases and survey results prove it. People living a hard working life were found to have a longer life than those who lived a leisurely life. Not only daily exercise, but people who do physical labor in their daily activities were also seen to be healthier and live longer. Morning walk also plays an important role in a person becoming healthy and longevity. A person should do physical labor regularly according to his ability, due to this his strength will remain, he will be healthy and there will be long life.

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