DETERMINANTS OF LONGEVITY WITH SPECIAL REFERENCE TO SIDDHAVARMA YOGA PERSPECTIVES

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Abstract: 'Health for All' is the goal of developing nation like India, since health system is an integral part of national economics. Now a day's indigenous knowledge of healthy lifestyle are vanishing at rapid frequency. In the various traditional medical system around the world, it is documented that certain lifestyle habits are reasoned as longevity enhancers by virtue of their abundant health benefits. For the purposes of health, we focus on the longevity research from the siddhavarma philosophy that counterparts our longevity potential. Today traditional food system and lifestyle order has enter into the domain of evidence-based science for endorsing healthy longevity.

Keywords - healthy longevity, determinants of longevity, kayakarpa yoga, anti-aging.

'Health for All' is the goal of developing nation like India, since health system is an integral part of national economics. Aging is a period of human life with an ongoing physiological transformation process and healthy aging with longevity is a conscious choice. However, physical inactivity, unhealthy diet, smoking, alcohol consumption, stressful mind, disturbed sleep are clearly detrimental to health. It has been widely acknowledged by many researchers that the effects of unhealthy lifestyles and food habits are large contributor for many chronic diseases and premature death. Now a day's indigenous knowledge of healthy lifestyle are also vanishing at rapid frequency.

II. DETERMINANTS OF LONGEVITY

For the purposes of health, we focus on the longevity research from the siddha philosophy that counterparts our longevity potential. Good physical health, Good mental status to cope well with stress, healthy eating, better living standards, good habits and lifestyle order are required to achieve healthy longevity. The six aspects that many experts in the field of aging and healthy longevity consider to understand the key factors to healthy longevity are,

- 1. **Demographic Factors**
- 2. Socio-Economic Factors
- 3. **Psychological Factors**
- 4. Physiological Factors
- Lifestyle order 5.
- **Dietary Factors**

2.1 Demographic Factors

Demography is defined as significant characteristics of a population based on factors include variables such as age, race, sex, marital status, marriage age, level of education. Demographics is the collective analysis of population characteristics to understand the trend for many purposes like research, policy development, resource management, economic analysis to set future strategies. The progression of elderly population in India is due to the longevity of life achieved because of economic well-being, better medicines and medical facilities and reduction in fertility rates. Keeping in view the changing demography of the elderly people over the last decade, various concerns relating to some degree of disability as well as economically dependency, demand for novel standards of health care service that are highly relevant to improve the quality of their lives is inevitable. At the same time a better understanding of factors that may have influence on healthy aging as well as to find how some people survive in old age without much suffering while others suffer considerably. There are also places around the world where people live longer into their nineties (called nonagenarians) and hundreds (called centenarians, including semi-supercentenarians of ages 105-109 years and supercentenarians, ages 110+) are less likely to develop age-related chronic diseases remained active. They often tend to follow traditional lifestyle besides common behavioral characteristics and are relatively isolated from the broader population. People living in Sardinia in Italy, Ikaria Island in Greece, Okinawa in Japan, Loma Linda in California and Nicoya Peninsula in Costa Rica have highest life expectancies were named the "Blue Zones" . Elderly aged workers with healthy living health status are likely to be significant part of workforce and a resource in our society that increases in gross domestic product (GDP). As per Census 2011, India had 10.38 crores senior citizens (60 years and above). Of this, 3.8 crores were above the age of 80 years. The share of the elderly in the population increased from 5.6 percent in 1961 to 8.6 per cent in 2011. With the increased life expectancy, the distribution of elderly age group in overall India and Tamilnadu is presented in Table 1.1

Table 1.1
Distribution of Elderly (60+) By Age-Group, India and Tamilnadu, 2001 & 2011

Age Group	All over India		Tamilnadu	
	2001	2011	2001	2011
60-69	4.5	4.8	5.5	6.6
70-79	2.1	2.7	2.9	3.5
80+	0.3	0.8	0.7	1.2

2.2 Socio Economic Factors

Socioeconomic characteristics of a population includes gathering data relating to social factors and economic experiences like religion, community, culture, ethnicity, family type, neighborhood relationship, location, household ownership, employment, income level. The socioeconomic status is often judged by the accomplishments and earnings for living. Diverse socioeconomic classes may have varied priorities regarding the ability to afford. Socioeconomic factors about multitudes involves both social behavior and economic aspects with certain generalizations within the society are having relationship with healthy longevity. Today some elderly people are facing loneliness due to side-lined or isolated by bedridden, limiting social interactions with friends and relatives. The socioeconomic factors shapes the attitude, belief and trends in the society. The National Policy on Older Persons (NPOP) was announced in January 1999 to reaffirm the commitment of the State to ensure the well-being of the older persons.

2.3 Physiological Factors

Physiological factors contributing to characteristic of an organism's healthy or normal functioning with in the body. Though, Aging is a continuation of developmental growth reaches an evolutionary stable strategy of life span, our body is programmed for survival up to the last minute of our life. Physiological factors also includes performance of household activities, garden work, outdoor activities, extended periods of inactivity, reading as well as listening to media, changes in life activities. As age progresses, the microenvironment for cell nourishment diminishes and many changes occur at every cell level. The process of structural and functional deterioration with age have a direct relationship with healthy status of older population considerably. Healthy people will live on average longer than frail people and this contrast corresponds to the problem of aging as a disease and aging as normal part of development. HRQoL - Health-Related Quality of Life measures the health status beyond mortality and morbidity, includes physiological status, cognition and emotional wellbeing, energy and vitality, sleep and rest, health perception in addition to general life satisfaction.

2.4 Psychological Factors

Psychological factors are the components of personality and mental state of an individual that limit or enhance the action to seek satisfaction. When attitudes or behaviors of an individual have a negative effect on health, the risk of adjustment, denying or suffering may attempt to influence the perspectives of disease risk which differ among men and women. In India, there is an increasing trend in emotional problems and lifestyle diseases. It has long been recognized in mainstream medicine the connection between our thoughts, mind, emotions and body. The unresolved mental factors, emotions include grief, anger, temperament, jealousy, hatred, guilt and shame are not allowed to percolate through our being but are suppressed and ignored. These emotional blocks can go up leading to physical symptoms which ultimately manifest as illness. Attitudes and behavior can also make a disorder or symptoms worse leading to chronic ailments. Psychological agony emanates from fear of future or recalling with retained worrisome memories of the past life.

2.5 Lifestyle Order

Lifestyle order is defined as the living condition, habits and the way by which the individual or the society lives. Lifestyle is a composite of life pattern influenced by family, culture and society. The influence of an individual action and decision-making capacity to modify the unhealthy habits, in an effort to improve the overall wellness is directly proportional with healthy lifestyle. Moral education, social support, physical performance, access to healthy environment, refrain from tobacco smoking and alcohol consumption shown to be beneficial to healthy living.

2.6 Dietary Factors

Today traditional food system and lifestyle order has enter into the domain of evidence-based science for endorsing healthy longevity. Diet is a conservational factor related to food consumed by an individual which influences both health and aging. Proper nutrition is achieved by healthy food and associated with reduced mortality. Under nutrition caused by the changes of the body metabolism is the prime risk factor of health. Industrialized ingredients and additives in highly processed foods might be affecting our health. Disease related malnutrition may impair organ systems in the body with serious consequences on physiological, psychological and socioeconomical levels associated with increased morbidity and mortality.

The term 'healthy eating' means eating plenty of fruit, vegetables (fibers) and salad otherwise cutting down on junk food processed with preservative packed foods tend to be full of salt, sugar and fat. Major Indians cook most of their food at home, but significant proportion of diversified food patterns had amplified the progression of non-communicable diseases. Overcooking of food constantly affects food nutrients leading to folate destruction and deep frying and refrying with the same oil contributes to elevated blood cholesterol levels among our population. The effects of traditional day today habits like consuming fresh vegetables, healthy food, diluted buttermilk, melted ghee, fermented curd, boiled water in regular pattern makes a positive impact on health as said by siddhar Theraiyar. Even though the benefits of healthy eating have been substantiated, eating away from home concern with heavy schedules all have an effect on eating patterns and food choices.

III. LITERATURE REVIEW

Crystal L. Park, Tosca Braun, Tamar Siegel (2015) conducted a systematic review of basic demographics, healthrelated and psychosocial factors associated with yoga practice and concluded that yoga relates to wellbeing, mindfulness, better life satisfaction and may lead to better health over time.

Maggi Price et.al, (2017) studied the effectiveness of extended trauma sensitive yoga treatment for twenty weeks among women with chronic post-traumatic stress disorder. They found that there was significant reductions in PTSD and dissociative symptoms compared to other trauma focused treatments of a shorter duration. They also concluded that cost-effective dissemination of effective interventions and community practice of yoga, resolved symptoms of traumatic stress and associated conditions. The methodology section outline the plan and method that how the study is conducted. This includes Universe of the study, sample of the study, Data and Sources of Data, study's variables and analytical framework. The details are as follows;

IV. KAYAKARPA YOGA PRACTICES

The human body is not merely flesh and bone, it is imbued with vital life force called pranasakthy. All mental fluctuations have an instantaneous impact on this pranic flow, which in turn manifests as physical sensations and disease. As yoga continue to upsurge, it is essential to update the therapeutic effects that attempts of immortalizing our body is known as Kayakarpa yoga. Body awareness is crucial as age progresses and the benefits of greater responsiveness by yoga which our body propels in any given moment. Kayakarpa Yoga is technique of the Siddhars of South India for the enhancement of life energy. The ancient wonderful Science of Kayakarpa explains the method in which the human body can be hugely transformative and immortalized by better breathing. Primary objectives of kayakarpa yoga include streamlining body mechanisms, slowing the natural ageing process and extending lifespan of man. Still, Kayakarpa yoga is valuable not only because of its potential effect on physical frame but because it helps to build muscle, body awareness, and better balance.

Kayakarpa Yoga teaches to be more mindful so that we pay attention to warning signs, proposing the chance to correct it. Scientific studies supports yoga also helps the lymphatic system fight infection, extinguish cancerous cells, and dispose of the toxic waste products of cellular functioning. Detoxification of body chiefly along with the gastrointestinal tract has been shown to delay aging, among many other health benefits as per traditional medical sciences. Thus slows the aging process by gradually improving key factors in physical health of an individual. Kayakarpa Yoga also improves more oxygen supply to cells, wring out venous blood from internal organs and allow oxygenated blood to flow as a result. The main philosophical logic behind kayakarpa yoga is that our body and soul learn to coexist with nature through this. The ulterior motive of human birth is to attain this final supreme stageattainment of Mukthi, through enlightment and longevity.

V. CONCLUSION

The factors that influenced healthy lifestyles were found to be modifiable. The key aspects of health, such as right food choice, healthy diet habits, yogic practices, physical activities, smoking cessation might depict the secrets of the long livers. Acceptance, adaptive, resilience, expression of feelings and positive thoughts serve as a cradle of emotional wellbeing that too enhance personal cum social relationships. Practicing healthy habits and lifestyle accelerates harmonious compassion that results in social wellness. Harvey and Alexander reported that social support plays a key role in protective health behaviours, due to opportunities created in terms of individual choices. Furthermore, an attempt was made to gather factors influencing healthy longevity and there are great opportunities for the exploration on human longevity and maintaining healthy aging.

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