

Future Scope and Strategies for Preservation of Health through Ayurveda

Charak Award Winner essay in first international essay competition on health' 2020

organized by

Charak Samhita Research, Training and Skill Development Centre (CSRTSDC)

in collaboration with

Institute of Teaching and Research in Ayurveda, Jamnagar, India

Author:

Dr. Niranjan Ram, Post Graduate Scholar, All India Institute of Ayurveda, New Delhi, India

Editors:

Dr.Gopal Basisht, Orlando, USA, Dr.Yogesh Deole, India

Concept of health in Ayurveda Classics :

Ayurveda, the most ancient medical science ever existed on earth, has its own fundamentals, theories and parameters to describe the essence of life following the Vedic culture. In “*Deerghayu sukta*” of *Atharva veda*; “*Pashyem Sharada Shatam*” “*Jivem Sharada Shatam*” *sutras* describe the quest for longevity and health from the lord Sun. ^[1] On the similar lines, *Acharya Sushruta* (approx. 1200 BC), father of surgery and a great teacher in Ayurveda, defined a unique concept of health i.e. “The equilibrium state of *Tridosha* (*Vata, Pitta and Kapha*) (fundamental physiological governing principles), *Agni* (Digestive and metabolism), *Dhatu* (*Sapta Dhatu*) (Body tissues) and well-functioning of the excretory system (*Malakriya*) from the body along with the pleasant coordination between *Atma* (Soul), *Indriya* (Sense organs) and *Mana* (Mind).” ^[2] This definition provides a holistic approach to health, combining physical health, mental health, and Spiritual health. This version of health can be formulated in the form of five laws as under. ^[3]

First law – (*Prasanna Atma-Indriya-Manah*) – Harmonious relationship between the *Atma* (soul/consciousness), *Indriya* (sense organs) and *Mana* (Psyche/mind) in co-ordination with the body and the person is in a state of bliss.

Second law – (*Sama Doshha*) – Equilibrium of three *doshas* (fundamental physiological governing principles)

Third law – (*Sama Agni*) – Equilibrium of *Agni* (proper digestion, metabolism, and transformation)

Fourth law – (*Sama Dhātu*) – Equilibrium of seven *Dhatus* (principles that regulate the formation of body tissues and their sub-types i.e. *Upadhatus*)

Fifth law – (*Samyak Mala kriya*) – Proper excretion of waste products after digestion and metabolism.

The above five laws are interrelated, and each other's harmonious operation is the basic necessity to gain perfect health.

Concept of health in other contemporary healthcare systems –

- As per definition of World Health Organisation (WHO), “Any human being is said to be healthy, only when there is absence of any disease or infirmity as well as a comprehensive state of physical, mental and social comfort.” [4]
- In Homeopathy, health is considered as mental, physical and emotional well-being. [5]
- In Siddha System of medicine, the equilibrium of humours (three humours i.e. *Vatha*, *Pitta* and *Kapha*) is considered as health. [6]
- As per *Yogic Shastra*, Health is a combined state of Physical, Mental and Spiritual well-being. [7] In *Vyasa Bhasya* (first commentaries on *Patanjali's Yoga Sutras*), “Health” is described as – “A state of harmony between support structure (*Dhatus*), fluids (*Rasa*) and senses (*Karana*).” [8]
- In Unani system, “Health” can be defined as the harmonious state of seven natural factors i.e. (1) *Arkan* (Basic constituents of body), (2) *Mizaj* (Temperament), (3) *Akhlat* (Humours), (4) *Ada* (Organs), (5) *Arwah* (Pneuma), (6) *Quva* (Powers) and (7) *Afal* (Functions). [9] In addition to these, the following six important causes (*Asbab-e-sitte-zarooriya*) are also responsible for maintenance of health - (1) *Al-Hawa al-muhit* (Atmospheric air), (2) *Al-Makul-w-almashrub* (Foods and drink), (3) *Al-Harkat-w-al-sukun-badni* (physical movement and repose), (4) *Al-Harkat-w-al-sukun-e-nafsani* (mental and psychic movement and repose), (5) *Al-Naum w-al-Yaqzah* (sleep and wakefulness) and (6) *Al-Istifragh w-al-Ihtibas* (Evacuation and retention). [10]

Components of Health and their importance –

As per definition of health by WHO, it has three components – Physical Health, Mental Health and Social Health. Besides this, a fourth component of “Spiritual Health” is amended and supplemented in the last few decades. ^[11]

Physical Health is the condition of one’s body, considering everything from the absence of disease to fitness level. It is affected by Physical Activity, Nutrition and diet, Alcohol and Drugs, Rest and Sleep and Medical self-care. ^[12]

The importance of maintaining physical health ^[13] is that it improves our mood, quality of sleep and blood circulation, boosts energy levels, helps to combat health issues and provides an opportunity to socialise.

WHO stated that – “Mental health is a state in which one is aware of own capabilities, handle and manage the routine stress of life and contribute to the society by productive work.” ^[14] Various components of mental health include ^[15] –

1. Basic cognitive and social skills
2. Emotional regulation i.e., can identify, present and regulate own emotions and at the same time sympathize with others.
3. Empathy i.e. ability to experience and understand others' feelings, enable interaction and communication in effective ways etc.
4. Can manage the unfavorable situations in life without hindering social activities.
5. To maintain a good tune between body and mind
6. Ability to function in social roles and to participate in social interactions

The definition itself conveys the importance of positive mental Health. ^[16]

The word “Social well-being” in the definition of health reflects about Social health. It can be defined as – “The ability of people to be free from want of basic necessities and to co-exist peacefully in communities with opportunities for advancement or well-being stands for the absence of adverse conditions and feelings completely or partially (i.e. presence of more positive feelings than negative ones). It is an individual’s ability to handle and act based on different social conditions.”

The importance of Social Health can be stated in five dimensions ^[17] viz. Social Integration (feeling as a part of Society), Social Contribution (feeling of an individual's value in Society), Social Coherence (State where an individual or group interact with each other), Social Actualisation (Positive comfort level with others), and Social Acceptance (Ability of a person to accept the good and tolerate the bad in Society).

Albeit Spiritual health can't be exactly defined, it can be viewed in 3 broad aspects - religious, individualistic and materialistic. ^[18]

Religious dimension - The religious approach deals with the inclination of the human being towards God i.e. one believes God's presence everywhere and in all forms. So, maintaining a very peaceful relationship with oneself, others, and nature.

Individualistic dimension – The individualistic approach particularly deals with a human being's personal belief system on almighty and develops an optimistic attitude towards life to reduce anxiety, anger, and grief.

Materialistic dimension – The materialistic approach deals with the rule of universality, a compassionate and helping attitude towards all living beings without anticipating anything in return and sympathy with the universe and nature.

The Spiritual Health is presented in an individual's behaviour, can contribute to positive health outcomes ^[19], improves physical well-being and quality of life ^[20] and positively related with mental health. ^[21]

As per Ayurveda, the components of health are ^[22]

- 1) *Dosha* component
- 2) *Agni* component
- 3) *Dhatu* component
- 4) *Mala* component
- 5) *Atma-Indriya-Mana* component

These can be formulated as 5 laws of health as described above.

Practical guidelines for implementing the concept of health in today's society –

Principally, Ayurveda and Modern medicine address the same issue regarding concept of health but at two different levels of understanding. The components of health in both the system can be correlated as –

- 1) “*Sama Dosha- Sama Agni- Sama Dhatu- Mala kriya*” component mostly deals with the Physical Health.

2) “*Prasanna – Atma- Indriya- Manah*” component deals with the Mental, Social and Spiritual Health.

Several platforms are already established for practical implementation of the concept of health in today’s society. These are –

1. The government has established 26 AYUSH (Ayurveda, Yoga, Unani, Siddha and Homeopathy) information cells in 24 countries to increase awareness about AYUSH systems of medicine abroad. [23] With the help of these information cells, the combined concept of health will be propagated and implemented worldwide.

2. AYUSH academics chairs are already set up in many countries across the globe to promote academic and collaborative research activities on AYUSH system. These play a major role in promoting the concept of health worldwide. [24]

3. Yoga is an invaluable gift of India’s ancient tradition to the world. It is the exercise, and a sense of oneness with yourself, the world, and nature. [25] Due to its immense potential and innumerable benefits, it is well accepted approximately in 180 countries through more than 500 centers globally. It also serves as a global platform for implementing the concept of health.

4. CCRAS (Central Council of Research in Ayurvedic Sciences) also formulated various health care outreach activities [such as *Swasthyarakshan* Programme, Integration with NPCDCS (National Prevention of Cancer, Diabetes, Cardio-vascular diseases and Stroke) Programme, Ayurveda mobile health care program, Tribal health care research program] and IEC materials such as Ayurvedic Advocacy for health promotion to implement the concept of health in the current era. [26]

5. Among seventeen Sustainable Development Goals (SDGs) adopted by United Nations in collaboration with WHO, the SDG-3 (Good Health and Well-being) has also targeted implementing the concept of health globally. [27]

6. The Government of India recently announced setting up 12,500 AYUSH wellness clinics across India under Ayushman Bharat Yojana (ABY) or Pradhan Mantri Jan Arogya Yojana (PM-JAY). This may prove a milestone in future regarding spreading awareness about AYUSH system of medicine and the concept of health across the country. [28]

Applied Researches on Preservation and Protection of health

Before going into details of applied research on Preservation and Protection of Health, one must know the terminologies – What is Health Preservation and Health Protection?

Health Preservation is the branch of community medicine that deals with maintenance of health, prevention from illnesses and extension of life span. It has three main components – 1) Maintenance 2) Prevention and 3) Extension (MPE). [29]

Health protection includes all human beings' safety by minimizing and managing the diseases related to infectious and various harmful factors. It can be considered under public health, which is responsible for disease prevention, restoration, and promotion of prolonged healthy life through society's systematic efforts.

Health protection is about decreasing the rate of communicable diseases, environmental and occupational hazards. Also, it includes the protection of health by various preventive measures. [30]

Anyway, both the terminologies Health Preservation and Health Protection deal with the same targets of 1) Prevention from diseases 2) Prolongation of life 3) Promotion of health (i.e. 3 P). Both of these terminologies can be considered under the umbrella of “*Swasthasya Swasthya Rakshanam*” from Ayurveda perspective. [31]

Applied researches on the factors which are responsible for preservation of Health –

1. *Vyayama* (Physical Activity) – Physical activity has beneficial effects on numerous age-related disease conditions such as Cardiovascular diseases, Cancer, Diabetes mellitus, Osteoarthritis, Osteoporosis, Obesity etc. [32] Regular physical activity is associated with greater longevity and reduced risk of physical disability and dependence. It also helps in reducing the risk of cognitive functions decline. [33][34]

2. *Ahara and Ahara vidhi* (Diet and eating habits) – A poor or defective diet (*Gramya Ahara*) along with a disharmonious lifestyle trigger the vitiation of any or three *doshas*, leading to pathological changes and reduced life span. [35] Diet habits are drastically changed in the second half of 20th century i.e. increased intake of meat, fast foods, dairy products, vegetable oils, fruit juices, alcoholic beverages etc. and decreased consumption of starchy staple foods, pulses, green vegetables etc. These observations suggest the change in food habits (i.e. improper timing of food intake, eating late at night, eating in a stressful state of mind or a noisy

environment etc.) might determine the increased rates of lifestyle diseases such as Diabetes mellitus, Cancer, Cardiovascular diseases, Endocrine diseases, Obesity etc. These studies suggest the importance of “*Nitya Prayunjita dravya*”, “*Ahara sevana vidhi*”, complications of “*Virrudha Ahara*” as described in classical texts. [36]

3. *Ritusatmya* (Seasonal Regimens) - By practicing regimen according to different *Ritu* (Season), one can surely avoid the lifestyle disorders by maintaining the harmonious state of *Tridosha* and remain healthy. In the present scenario it's a matter of concern about the non-uniformity of seasons. However, one can decide on the base of *Dosha* and *Panchamahabhuta* dominance. [37]

4. Arising in *Brahma muhurta* (Early morning) - A Randomized controlled trial on 54 healthy volunteers concluded that rising in early morning (*Brahma Muhurta*) influences the process of attention and can improve the ability to recall. The melatonin synthesis will be maximum during this time. [38]

5. *Samshodhana (Panchakarma)* (Five purificatory measures) - An observational study on the benefits of *Panchakarma* procedures suggest that – it will be immensely beneficial in improvement of psychological and behavioural aspect than on Quality of Life, henceforth combined *Panchakarma* therapies are effective in producing healthier behaviour patterns. [39] *Panchakarma* therapies improve blood circulation, ensure continuous cerebral blood flow and efflux toxic matters by increasing lymphatic drainage. Recent studies suggest cellular effects of *Panchakarma* changes several metabolites in many pathways. The significant alterations in plasma metabolites affect metabolic changes in gut microbiota and host metabolism, promoting general health and well-being. [40]

6. *Abhyanga* (Oil massage) – *Abhyanga* reduces the stress-related hormones by simultaneously increasing the circulating lymphocytes and regional cerebral blood flow. It is also beneficial in various CNS conditions such as brain-related injuries, dementia, and mental stress. [41][42] In a pilot study of 20 healthy volunteers (10 male and 10 female) receiving 1-hour *Abhyanga*, a significant reduction in subjective stress, heart rate in all subjects, and lowering BP in prehypertensive subjects were observed. [43] Regular *Abhyanga* is beneficial in maintaining good health and delay geriatric changes. [44]

7. *Nidra* (Sleep) – Research studies suggest that Circadian rhythms can be disrupted by inadequate sleep, as a result of which several negative health outcomes, cardiovascular diseases, obesity, stress and cognitive impairment may appear in later stages of life. Poor-sleep

patterns also trigger the aging process and sleeping less than six hours in the night is associated with early death. [45] [46]

8. *Rasayana* (Rejuvenators) - Regular intake of *Rasayana* improves the quality of life and increases the life span by delaying the aging process. Researches on *Amalaki Rasayana* supports the classical claims by proving that it maintains the telomere length by increasing the telomerase activity, which is responsible for aging. [47] In vivo studies also proved that *Guduchi churna* enhances the life span of *Drosophila melanogaster* in both parent and F1-generation. [48]

9. *Sadvritta* (Code of Ethics) – *Sadvritta* allows an individual to examine one’s values, interpersonal and social behavior. A longitudinal research study of duration approx. 50 years, suggests that individuals who performed selfless service have a longer life span than to those who did not render any selfless service. [49]

Prevention of disease occurrence and recurrence –

Disease occurrence refers to how often disease occurs in a population. Incidence and Prevalence are the two parameters for measuring the disease occurrence. [50]

Meanwhile, disease recurrence refers to the return/relapse of signs, symptoms or disease after a remission. [51] In Ayurveda, this may be considered as “*Punaravarta*,” as described by *Acharya Charak*. [52]

Causes of disease occurrence and disease recurrence –

Acharya Charaka has described “*Suddha Chikitsa*” as – The measures which mitigate a disease but not vitiate the *doshas* to produce another new disease as a complication.

He also described the concept of “*Vyadhisankara*” in this context, it means the emergence of a new disease as a result of faulty treatment to a previous disease.

It indicates that one of the root causes of disease occurrence (appearance of a new disease) and recurrence (reappearing of a previous disease) lies in the treatment adopted. It may be an Ayurvedic one or an allopath one. In the current scenario, the worldwide acceptance of allopath treatment saves us from many life-threatening conditions, but it has so many hazardous effects that may further provoke the appearance of a new disease as a complication or adverse drug reaction. [53]

Again, the root cause of many diseases in Ayurveda is – “*Mithya Aahara and Vihara*” (faulty diet and lifestyle habits) and “*Virrudha Ahara vihara*”. [54] [55]

These two factors (*Mithya Ahara vihara* and *Asuddha chikitsa*) encompass a broad spectrum of approaches that can help anyone that can help anyone prevent disease occurrence and recurrence. The possible approaches are –

For Physical Health -

1. Adoptions of “*Dinacharya and Ratricharya*” (Daily regimen), taking care of *Agni and Matra* (Digestive capacity and quantity of food intake) [56] [57]
2. Adoptions of “*Ritucharya*” (Seasonal regimen) and Precautions during “*Ritusandhi*” (It is a connecting period of 14 days between two continuous seasons) [58]
3. Timely release of “*Shareerika Vega*” (Physical urges) [59]
4. Inclusion of “*Nitya Prayunjita dravya*” (wholesome diet) in regular diet (Eleven food items viz. *Shashtika and Shali dhanya, Mudga, Saindhava, Amalaki, Yava, Antariksha Jala, Paya, Sarpi, Jangala mansa, madhu*) [60]
5. “*Vyayama*” (Physical activity i.e. Exercises, Yoga, breathing exercises etc.) [61]
6. “*Kale Sansodhana*” (Seasonal Purificatory measures) [62]
7. “*Rasayana sevana*” (Intaking of rejuvenators) (in the context of Prolonging life) [63]
8. “*Nidra*” (Sleep) is considered as one of the three pillars of life. Adequate amount of sleep is very much helpful in maintaining both physical and mental health. [64]
9. *Jeevaniya, Brumhaneeya, Balya, and Vayasthapaneeya dashemani* further promote research and development (R & D) which may pave new directions in the field of health preservation and check occurrence/recurrence of diseases. [65]

For Mental Health -

1. “*Achara Rasayan*” (Behavioural therapy) [66] [67]
2. Withhold the “*Manasika Vega*” (Mental/Psychological urges) [68]
3. “*Yoga*” (*Yogacha Chittavritti nirodhah*) [Yoga helps in removing the fluctuations of mind] [69]

4. “*Rasayana sevana*” (In the context of *Smriti, Medha*) [70]

5. “*Nidra*” (Adequate amount of sleep) [71]

Rasayana and *Nidra* are responsible for the maintenance of both physical and mental health respectively.

For Social health –

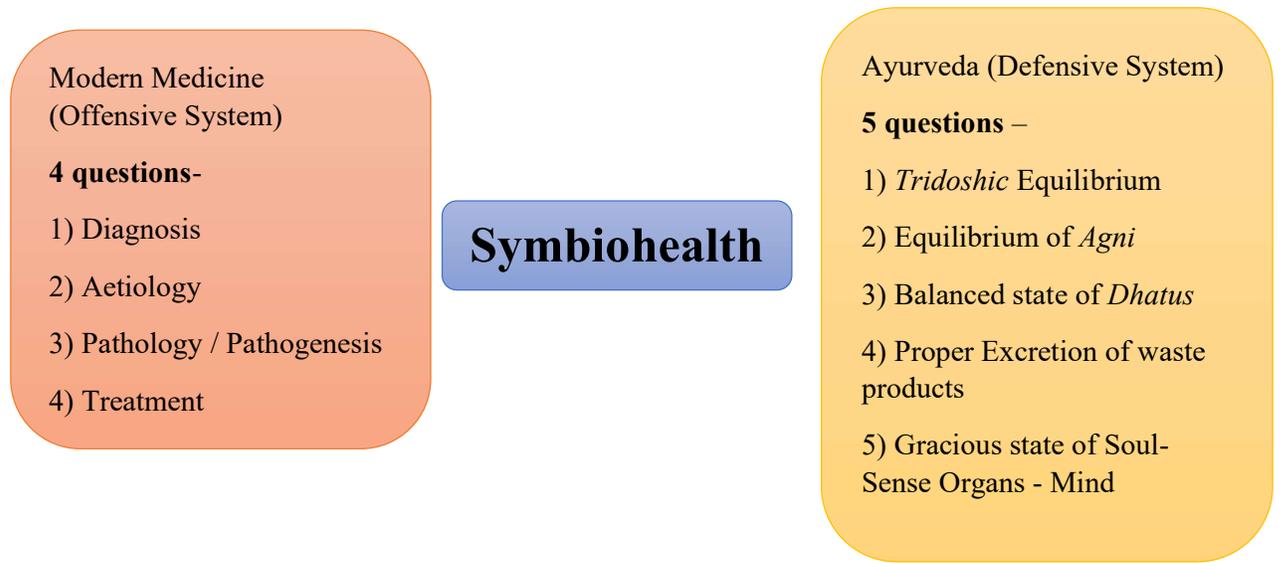
“*Sadvritta*” (Code of ethics) [72]

Model Healthcare system and its Propagation-

Duality may be a solution to the problem of proposing a revised model healthcare system. It means there must be promotion of an integrative approach i.e. an offense (treatment) and defence (preventive) approaches to health. The modern system of medicine predominantly deals with the offensive system of approach. At the same time, Ayurveda has a defensive approach to healthcare. Therefore, a model healthcare system may be proposed where offense (Modern system of medicine) and defence (Ayurveda system of medicine) systems work simultaneously as per the individual's need. The offensive strategy is for exogenous disease (by bacteria, virus, toxins, etc.). The defensive strategy is for endogenous disease (by an imbalance in components of health). The offensive strategy deals according to the “Cause–Elimination” rule, while a defensive strategy works on the preventive aspects. [73] [74]

A disease-free person does not need any interference but must be cautious about defending oneself from any disease or deformity. Even so, if a disease appears, one should be active enough to take steps to treat it and eliminate the cause of the disease. Side by side, continuing preventive steps will decrease the rate of morbidity and mortality secondary to the disease. This combination of a curative and preventive system simultaneously can approach towards an integration of Modern medical science and Ayurveda, respectively. This may also help to decrease the cost of management and may be termed as “Symbiohealth”.

In the “Symbiohealth” system of medicine, the modern system deals with four questions relating to Dagnosis, Aetiology, Pathology, and Treatment (DAPT). In comparison, Ayurveda system deals with five questions relating to *Tridoshic equilibrium (Sama dosha)*, equilibrium of *Agni (Sama Agni)*, balanced state of *Dhatus (Sama dhatu)*, proper excretion of waste products (*Mala Kriya*) and gracious state of Soul-Sense Organs and Mind (*Prasanna Atma-Indriya- Manah*). [75] [76]

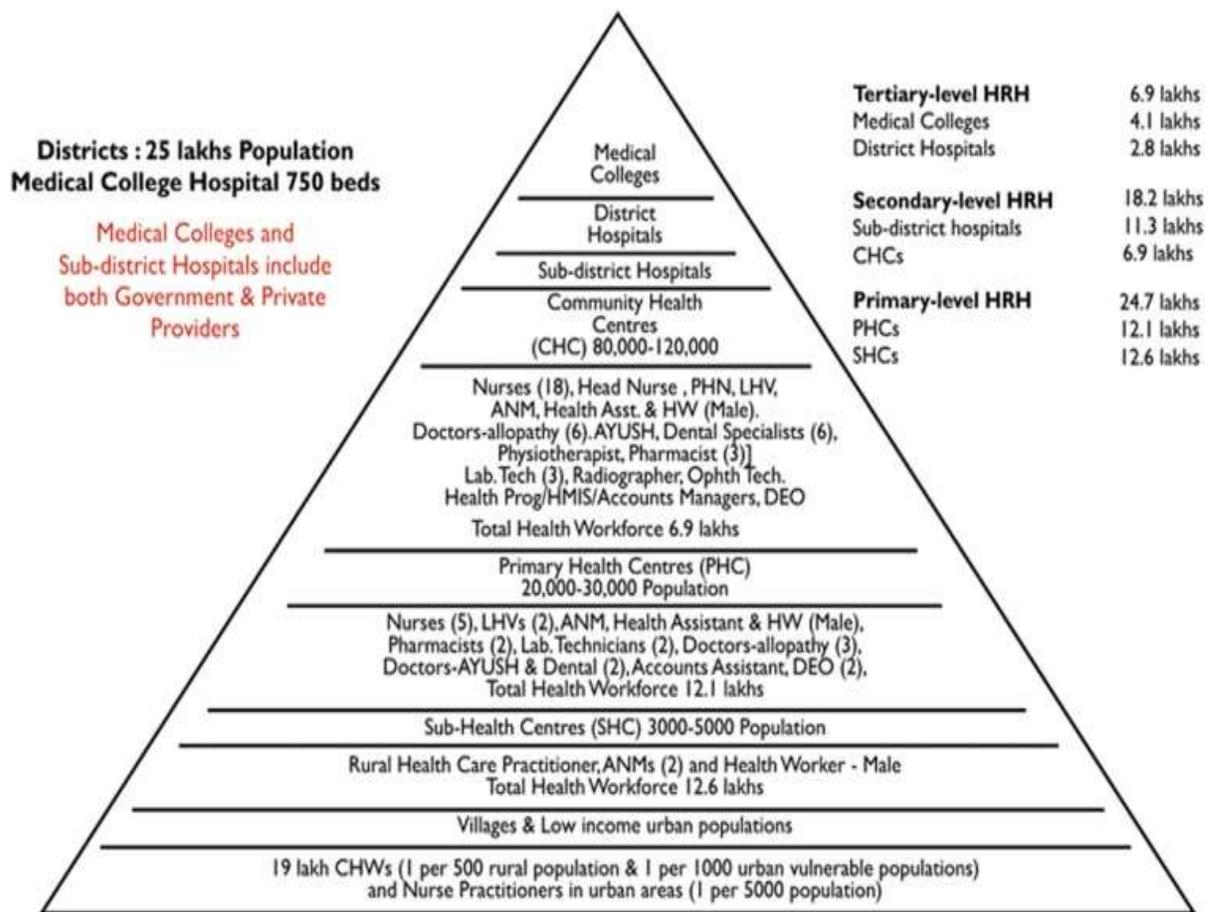


Propagation of Model Healthcare System –

The proposed “Symbiohealth” system should be propagated worldwide to provide a complete healthcare solution as per individual needs. The question arises in our mind that what are the possible ways of its propagation? To know the possible ways, one must have a minimal idea about the current healthcare system structure. After knowing the structure, there is a need to find new ways to incorporate the Ayurveda system into the modern system.

The basic structure of Indian Healthcare System –

ASHA, AWW – Sub-Centre (SC) (ANM/HW) - PHC – CHC (Block level) – SDH (Sub-divisional level) – DHH (District level) – Medical Colleges (District level/State level)- AIIMS (State/Country-level)



Indian Public Health System [77] [78]

What are the ongoing AYUSH facilities available in the current healthcare system?

At PHC and CHC level, AYUSH doctors are appointed on a contractual basis as per NHM (National Health Mission) scheme. They have two modes of operation – 1. In-house NHM doctors (providing AYUSH medications) 2. Field level NHM doctors [under *Rashtriya Bal Swasthya Karyakram* (RBSK)] (visit schools and Anganwadi for screening, providing minimal modern medicines and referral). [79]

Distinct AYUSH doctors are also appointed through various state PSC, UPSC, to provide service at rural and urban level, respectively.

Proposed way for the propagation of model healthcare system –

1. The integration should be started from the base levels i.e. ASHA, AWW and ANM/HW will be trained. For training, a module may be prepared and a minimal Course pattern should be designed. The primary curriculum may include – *Ahara, Vihara, Dinacharya, Ritucharya, Sadvritta* principles, knowledge about local medicinal plants, their cultivation techniques and mode of propagation etc. They should also train in traditional cooking methods as described in Ayurveda and promote the cultivation and/or use of locally grown vegetables, pulses, cereals etc.
2. At PHC level, an Ayurveda doctor (BAMS) should be appointed along with an MBBS one. A yoga trainer also may be posted there. Three of these staff must coordinate with each other and other staff to provide complete healthcare as per the need of the individual.
3. At CHC level, four medical specialists are posted as per current healthcare system. To promote and propagate the model healthcare system, there is need of posting a group of Ayurveda doctors in a similar fashion. A separate Ayurveda IPD may also be formed where patients may be admitted to get *Shodhana chikitsa*. Separate nurses may also be trained for the maintenance of IPD decorum.
4. At SDH/DHH level, specialized OPD/IPD sections should be specialized as per the *Ashtanga Ayurveda* division. Care should be taken for the posting of MD/MS Ayurveda doctors in this section.
5. The state Ayurveda medical colleges which are already existed may be treated as a referral centre. These colleges' facilities must be improved along with modern doctors and modern equipment required for diagnosis and treatment. An alternative proposal may also be given i.e. there should be a separate Ayurveda division in state medical colleges.
6. At centre level, there is a need for more National institutes (AIIA, IPGTR & RA and NIA like institutes) in each zone (East, West, North and South), which may be treated as tertiary referral centres. ^[80]

This proposal may increase a burden on the health department suddenly, but it is a gradual process. Every year budget must be allotted similarly as that for the modern system. A separate model plan should be developed with targeting years and focused goals. It is very rightly said – “Rome was not built in a day.”

Future strategies for preservation of health –

Preservation of health is a significant factor that everybody wants to achieve. It's because – everyone on this earth wants to be alive, and no one desires to become old and die. This is due to the basic instinct – “*Praneishana*”. [81] Again, everyone wants to become happy in his/her life. No one wants to get sick and suffer. It is very truly said by poet *Kalidas* that – “*Shareeram Aadyam Khalu Dharma Sadhanam*” [82] i.e. Body is the instrument for all (good) deeds. Therefore, it is the prime duty of all living entities existing on the earth to preserve one's health. Ayurveda also has the primary objective – “*Swasthasya Swasthya Rakshanam*” (preservation of healthy living beings' health). [83]

Unfortunately, the current medical system adopted worldwide has been focusing more on the curative aspect of health. It has very few strategies or medicaments to deal with the preventive aspect of health. In this context, our ancient classics from *Ayurveda*, *Veda*, *Upanishad*, *Yoga Shastra*, etc. may help prepare future strategies for preserving health. With time, Yoga is getting popular worldwide and accepted by many countries with scientific evidence. Similarly, it is necessary to be more focused on Ayurveda and spread its experienced principles for promoting the preventive aspects of health.

Future Strategies –

1. Spreading the awareness about arising in “*Bramha Muhurta*”. has numerous benefits in preserving health and prolonging life span. [84]
2. Inclusion of “*Nitya Prayunjita dravya*” (*Hitakara dravya*) in regular diet and aware the common public about benefits of a wholesome diet.
3. Promote the concept of “*Desha Satmya*” and “*Ritu Satmya*” *Ahara and Vihara* i.e. encourage the farmers to cultivate the traditional and seasonal varieties of cereals, pulses and vegetables respectively. Government must take initial steps to distribute local varieties of seeds, biologically produced manures to farmers (i.e. organic farming) and promote cultivation using principles of “*Vriksha Ayurveda*.” [85][86]
4. Awareness about the day regimens and seasonal regimens (*Dinacharya and Ritucharya*) to common public (healthy and diseased both populations). If modification needed, it may be on the behavioural aspect (*Vyabhahara*) by keeping intact the basic principles (*Tatwa*). One's diet and behaviour lead to promotion of strength and complexion only if he/she knows the wholesomeness according to season (*Ritusatmya*). [87]

5. Everybody should be conscious about the side effects of withholding the physical urges (*Adharaneeya Vega*), the base level workers (ASHA, AWW, ANM/HW) may help spread these golden principles to the common public after proper sensitization. [88]

6. Involvement in physical activity (*Vyayama*) must be promoted at individual and government levels. In the last few decades, the unexpected growth of NCDs (Non-communicable diseases) is primarily due to faulty lifestyles (diet and less exercise). So, there is a high need for awareness about the benefits of physical activities. Yoga and breathing exercises should be adopted to get tremendous benefits without producing any toxic side effects. [89]

7. *Abhyanga* (Oil massage) is beneficial in slowing the aging process, increasing relaxation of mind, stabilizing the mind in order to cope with stress. Therefore, initiatives must be taken at personal and government level to aware the public about benefits of *abhyanga*. [90][91]

8. Mental health should also be promoted by educating the public about the importance of holding the mental urges (*Dharaneeya Vega*), strict obeisance to moral conducts (*Sadvritta and Achara Rasayan*).

9. “*Kale Sanshodhana*” (Seasonal purificatory measures) is very useful in preserving health. It improves strength and complexion and promotes longevity. Therefore, the government should take initiatives to open several Panchakarma centres in every locality where the common public gets aware of the benefits of seasonal purification and gradually develops an adoption among the common public. [92][93]

10. The “*Naimitika Rasayana*” (*Vatatapika Rasayana*) (common rejuvenators such as milk and ghee) has numerous benefits for health preservation. Therefore, it should be quickly promoted among the public with proper sensitization by medical professionals. [94]

11. The healthy cooking methods, eating, and eating habits (on Ayurveda principles) should be included in the study curriculum at the high school or intermediate level. The common public gets aware of these ancient principles from childhood and obey as per an individual’s suitability. [95]

12. Educate the public about incompatible food combinations (*Virrudha Ahara*) according to current food habits, which may help prevent many illnesses. [96]

13. Government should take various steps (e.g. plantation, industrial waste management etc.) to check air, water, and soil pollution and to spread awareness about the benefits of “*Yajna*

vidhi”. This will prove to be a milestone in the future to promote the preservation of health by checking the spread of epidemics and pandemics. [97]

14. Educate and sensitize the public about traditional practices of *Garbha Sanskar*, *Masanumasik Garbhini paricharya*, *Swarna prashan* methods for providing an upgraded and integrated Maternal and child health (MCH) services. [98]

15. In the era of modernization, it is difficult to avoid the adoption of new technologies, the internet, mobiles, social media etc.. However, it is advisable to minimize their use. This will save ample of time as a result of which human beings get more chance to become physically and socially active. By minimal uses of the internet, mobiles one will get sufficient sleep. Sleep is considered one of the three pillars of life. Deprivation of sleep is the one of the root causes of stress. [99] By modification in these lifestyle habits, one can simultaneously promote physical, mental, and social health. [100] [101]

Combining all these factors, *Acharya Charak* has very crisply said that – “ One who is in the habit of taking wholesome diet and regimens, who enters into action after proper observation, who is unattached to sensual pleasures, who donates, impartial to everyone, truthfulness, forgiveness and who is at service of learned people (authorised personality) seldom gets afflicted with diseases.” This represents a holistic approach to health as per the “*Purusham Purusham Veekshya*” or “*Pratipurusha Siddhanth*” (i.e. individualistic approach as per one’s own *Prakriti*). [102] [103] *Bhagavad Gita* also emphasized this as he who is habituated with regulated diet and regimen, regulated activities in discharging duties, regulated sleep and wakefulness becomes relieving from all materialistic pains and always in a state of harmony. [104] Last but not least, the “*Loka-Purusha samya*” or “*Yat Pinde Tat Bramhande*” *siddhanta* i.e. as human beings become more closer to mother nature, deeply understand and apply her laws practically, it will bring true health, happiness and success in every aspect of life. [105]

References: -

1. Vedamurti Taponishta Pandit Shri Ram Sharma Acharya, Atharvaveda, Vol-2, Kanda 19, Sukta 67, Bramhavarchas Publication, Shantikunja, Haridwar (U.P.), 2002, 57.
2. Vriddha Sushruta, Sushruta, Nagarjuna, Sushruta Samhita, Sutra Sthana, Dosha-Dhatu-Mala kshaya-vriddhi vijnaneeyam Adhyaya, 15/41, edited by Vaidya Jadavji Trikamji Acharya, Chaukhamba Surbharati Prakashan, Varanasi, 2018; 75.
3. Gopal Basisht. Exploring insight towards definition and laws of health in Ayurveda: Global health perspective. AYU Int Res J Ayurveda 2014 [cited 2020 Feb.09];35(4):351-355. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4492016/>
4. Official Records of the World Health Organization; 1946. World Health Organization. (Signed on 22 July 1946 by the Representatives of 61 States). Preamble to the Constitution of the World Health Organization as adopted by the International Health Conference. New York. [cited 2020 Feb. 10]. Available from: <https://www.who.int/about/who-we-are/constitution>
5. Waheed Mumtaz Abbasi. Concept of Health and Disease in Homeopathy. Int J of Complementary and Alternative medicine 2017 [cited 2020 Feb. 10];8(2):00253. Available from:<https://medcraveonline.com/IJCAM/concept-of-health-and-disease-in-homeopathy.html>
6. William C. Shiel. Medical definition of Siddha Medicine. [cited 2020 Feb. 21] Available from: <https://www.medicinenet.com/script/main/art.asp?articlekey=20281>
7. Yogacharya Dr Ananda Balayogi Bhavanani. Yogic Concepts of Health and Disease. [cited 2020 Feb. 21] Available from: <http://www.icyer.com/documents/yogic%20concepts%20of%20health%20and%20disease.pdf>
8. Om Lata Bhagat. Yogic Concepts of Holistic Health and Wellness. J of Adv Res in Ayurveda, Yoga, Unani, Siddha and Homeopathy 2018 [cited 2020 Feb. 21]; 5(1): 15-18. Available from: https://www.researchgate.net/publication/326348605_Yogic_Concepts_of_Holistic_Health_and_Wellness
9. Masihi Abu Sahl. Kitab al-Mia (Urdu Translation by CCRUM), CCRUM, New Delhi. 2008; 30-31:55-72.
10. Sina I, Kulliyat Qanoon. Ejaz Publishing House, New Delhi, 2006, 109-110.
11. Anna Lydia Svalastog, Doncho Donev, Nina Jahren Kristoffersen, Srecko Gajovic. Concepts and definitions of health and health-related values in the knowledge landscapes of the digital society. Croat Med J 2017 [cited 2020 Feb. 21];58(6):431-435. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5778676/>
12. Study.com [<https://study.com/>] [cited 2020 Feb. 21] Available from: <https://study.com/academy/lesson/what-is-physical-health-definition-components-examples.html>
13. British International School Ho Chi Minh City [<https://www.nordangliaeducation.com/our-schools/vietnam/ho-chi-minh-city/bis>] [cited 2020 Feb. 21] Available from: <https://www.nordangliaeducation.com/our-schools/vietnam/ho-chi-minh-city/bis/article/2017/10/18/the-importance-of-physical-health--weekly-wellbeing>
14. World Health Organization. Promoting mental health: concepts, emerging evidence, practice (Summary Report) Geneva: World Health Organization; 2004 [cited 2020 Feb. 21] Available from: https://www.who.int/mental_health/evidence/en/promoting_mhh.pdf

15. Silvana Galderisi, Andreas Heinz, Marianne Kastrup, Julian Beezhold, Norman Sartorius. Toward a new definition of mental health. *World Psychiatry* 2015 [cited 2020 Feb. 27]; 14(2):231-233. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4471980/>
16. MentalHEALTH.gov [<https://www.mentalhealth.gov/>] [cited 2020 Feb. 21] Available from - <https://www.mentalhealth.gov/basics/what-is-mental-health>
17. NHP India [<https://www.nhp.gov.in/>] [cited 2020 Feb. 21] Available from - https://www.nhp.gov.in/social-health_pg
18. Ahmad Ghaderi, Seyed Mahmoud Tabatabaei, Saharnaz Nedjat, Mohsen Javadi, Bagher Larijani. Explanatory definition of the concept of spiritual health: a qualitative study in Iran. *J Med Ethics Hist Med.* 2018 [cited 2020 Feb. 22];11:3, Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6150917/>
19. Hsiao YC, Chien LY, Wu LY, Chiang CM, Huang SY. Spiritual health, clinical practice stress, depressive tendency and health-promoting behaviours among nursing students. *J Adv Nurs.* 2010 [cited 2020 Feb.22];66(7):1612–1622. Available from: <https://pubmed.ncbi.nlm.nih.gov/20492024/>
20. Heidari J, Jafari H, Janbabaei G. Life quality related to spiritual health and factors affecting it in patients afflicted by digestive system metastatic cancer. *Mater Socio-med.* 2015 [cited 2020Feb.22];27(5):310–313. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4639326/>
21. Mills PJ, Redwine L, Wilson K, et al. The role of gratitude in spiritual well-being in asymptomatic heart failure patients. *Spiritual Clin Pract (Wash D C).* 2015 [cited 2020 Feb. 22];2(1):5–17. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4507265/>
22. Gopal Basisht. Exploring insight towards definition and laws of health in Ayurveda: Global health perspective. *AYU Int Res J Ayurveda* 2014 [cited 2020 Feb.09];35(4):351-355. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4492016/>
23. e-Health [<https://ehealth.eletsonline.com/>] [cited 2020 Feb. 23] Available from - <https://ehealth.eletsonline.com/2017/04/26-ayush-information-cells-set-up-abroad-minister/>
24. National Informatics Centre (NIC) [cited 2020 Feb. 23] Available from <https://pib.gov.in/newsite/mbErel.aspx?relid=148830>
25. United Nations : International Day of Yoga 21 June [<https://www.un.org/en/events/yogaday/index.shtml>] [cited 2020 Feb. 27] Available from - <https://www.un.org/en/events/yogaday/background.shtml>
26. CCRAS [www.ccras.nic.in/content/about-ccras] [cited 2020 Feb. 27] Available from- [<http://www.ccras.nic.in/content/research-ayurveda>] [<http://www.ccras.nic.in/content/iec-material-ashaanm>]
27. Sustainable development Goals [<https://sustainabledevelopment.un.org/>] [cited 2020 Feb. 27] Available from - <https://sustainabledevelopment.un.org/sdg3>
28. National Health Authority, Govt. of India [<https://www.pmjay.gov.in/>] [cited 2020 Feb. 27] Available from: <https://www.pmjay.gov.in/>
29. Zhanwen Liu. Health Preservation. *Essentials of Chinese medicine.* 2009 [Cited 2020 Feb. 25]; Vol.1;351-358. Springer Publication. Available from - https://link.springer.com/chapter/10.1007/978-1-84882-590-1_11
30. George Rubin. Health Protection: Principles and Practice. *Int. J. of Epidemiology.* 2017 [cited 2020 Feb. 25];46(5):1722-1723 Available from: <https://academic.oup.com/ije/article/46/5/1722/3977801>

-
31. Agnivesha, Charaka, Dridhbala, Charak Samhita, Sutra Sthana, Artha Dasha Mahamuliya Adhyaya, 30/26, edited by Vaidya Jadavji Trikamji Acharya, Chaukhambha Surabharti Prakshan, 2018, 187.
 32. Van der Bij AK, Laurant MG, Wensing M. Effectiveness of physical activity interventions for older adults: a review. *Am J Prev Med.* 2002 [cited 2020 Feb. 26];22(2):120–133. Available from: <https://pubmed.ncbi.nlm.nih.gov/11818183/>
 33. Jeff Williamson, Marco Pahor. Evidence regarding the benefits of physical exercise. *Arch Intern Med.* 2010 [cited 2020 Feb. 27];170(2):124–125 Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4365421/>
 34. Neva J Kirk-Sanchez, Ellen L McGough. Physical exercise and cognitive performance in the elderly. *Clin Interv Aging.* 2014 [cited 2020 Feb. 27]; 9: 51-62. Available from: <https://jamanetwork.com/journals/jamainternalmedicine/article-abstract/415487>
 35. Rammohan V. Rao. Ayurveda and the science of aging. *J-AIM* 2018 [cited 2020 Feb. 28]; 9(3): 225-232. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6148064/>
 36. Timothy J Key, Naomi E Allen, Elizabeth A Spencer, Ruth C Travis. The effect of diet on risk of cancer. *Lancet* 2002 [cited 2020 Feb. 27]; 360(9336):861-868. Available from: <https://pubmed.ncbi.nlm.nih.gov/12243933>
 37. Jayesh Thakkar, S. Chaudhari, Prasanta K. Sarkar. Ritucharya: Answer to the lifestyle disorders. *AYU Int Res J Ayurveda* 2011 [cited 2020 Feb. 27]; 32(4):466-471. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3361919/>
 38. V Shankar Kumaran, Bhat Ramachandra Raghavendra, Nandi Krishnamurthy Manjunath. Influence of early rising on performance in tasks requiring attention and memory. *Indian J Physiol pharmacol* 2012 [cited 2020 Feb. 27];56(4):337-344. Available from: <https://pubmed.ncbi.nlm.nih.gov/23781653>
 39. L.A. Conboy, I. Edshteyn, H. Garivaltis. Ayurveda and Panchakarma: Measuring the effects of a Holistic Health Intervention. *Scientific world J* 2009 [cited 2020 Feb. 27]; 9: 272-280. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/mid/NIHMS116241/>
 40. Rammohan V. Rao. Ayurveda and the science of aging. *J-AIM* 2018 [cited 2020 Feb. 27]; 9(3): 225-232. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6148064/>
 41. Ouchi Y, Kanno T, Okada H, Yoshikawa E, Shinke T, Nagasawa S, et al. Changes in cerebral blood flow under the prone condition with and without massage. *Neurosci Lett.* 2006 [cited 2020 Feb.28]; 407:131–135. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/16973270>
 42. Keir ST. Effect of massage therapy on stress levels and quality of life in brain tumor patients—observations from a pilot study. *Support Care Cancer.* 2011 [cited 2020 Feb. 28]; 19:711–715. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/21046417>
 43. Basler AJ. Pilot study investigating the effects of Ayurvedic Abhyanga massage on subjective stress experience. *J Altern Complement Med.* 2011 [cited 2020 Feb. 28]; 17:435–440. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/21568717>
 44. Halpern M. *Healing your life: Lessons on the path of Ayurveda. The healing rhythms of daily life.* vol. 14. Lotus Press; 2011.169–188.
 45. Chang H.C., Guarente L. SIRT1 mediates central circadian control in the SCN by a mechanism that decays with aging. *Cell.* 2014 [cited 2020 Feb. 28];153 (7):1448–1460. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3748806/>
 46. Cappuccio F.P., D Elia L., Strazzullo P., Miller M.A. Sleep duration and all-cause mortality: a systematic review and meta-analysis of prospective studies. *Sleep.* 2010 [cited 2020 Feb. 28]; 33:585–592. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2864873/>
 47. Kanive P. Guruprasad, Sweta Dash, Marigowda B. Shivakumar, Pavithra R. Shetty, Kothanahalli S. Raghun, Bhanuvalli R. Shamprasad et al. Influence of *Amalaki Rasayana*

-
- on telomerase activity and telomere length in human blood mononuclear cells. J-AIM 2017 [cited 2020 Feb. 28];8(2):105–112. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5497001/>
48. Pankaj Pathak, Mahesh Vyas, Hitesh Vyas, Mukesh Naria. *Rasayana* effect of *Guduchi Churna* on the life span of *Drosophila melanogaster*. AYU Int Res J Ayurveda 2016 [cited 2020 Feb. 28];37(1):67–70. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5541470/>
 49. Konrath S., Fuhrel-Forbis A., Lou A., Brown S. Motives for volunteering are associated with mortality risk in older adults. Health Psychol. 2012 [cited 2020 Feb. 28]; 31 (1): 87–96. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/21842999>
 50. K J Jager , C Zoccali, R Kramar, F W Dekker. Measuring Disease Occurrence. Kidney Int 2007 [cited 2020 Feb. 26];72(4):412-415 Available from: <https://pubmed.ncbi.nlm.nih.gov/17579664-measuring-disease-occurrence/>
 51. MedicineNet [<https://www.medicinenet.com/script/main/hp.asp>] [cited 2020 Feb. 26] Available from - [<https://www.medicinenet.com/script/main/art.asp?articlekey=5256>]
 52. Agnivesha, Charaka, Dridhbala, Charak Samhita, Chikitsha Sthana, Jwara Chikitsha, 3/333-334, edited by Vaidya Jadavji Trikamji Acharya, Chaukhambha Surabharti Prakshan, 2018, 427.
 53. Ibidem (52), Charak Samhita, Nidan Sthana, Apasmara Nidan Adhyaya, 8/23, edited by Vaidya Jadavji Trikamji Acharya, Chaukhambha Surabharti Prakshan, 2018, 228
 54. Mandip Goyal. Lifestyle intervention: A preventive approach for non-communicable diseases. AYU Int Res J Ayurveda 2018 [cited 2020 Feb 26];39(3):119-120. Available from: <http://www.ayujournal.org/article.asp?>
 55. Agnivesha, Charaka, Dridhbala, Charak Samhita, Sutra Sthana, Atreya Bhadra Kapyiya Adhyaya, 26/102-103, edited by Vaidya Jadavji Trikamji Acharya, Chaukhambha Surabharti Prakshan, 2018, 151.
 56. Vagbhata, Asthanga Hridayam, Sutra Sthana, 2/ 48, edited by Pandit Hari Sadashiv Shastri Paradkarah, Chaukhambha Surabharti Prakshan, 2017, 34.
 57. Agnivesha, Charaka, Dridhbala, Charak Samhita, Sutra Sthana, Matra Shitiya Adhyaya, 5/3,4,7,8 edited by Vaidya Jadavji Trikamji Acharya, Chaukhambha Surabharti Prakshan, 2018, 36-38.
 58. Vagbhata, Asthanga Hridayam, Sutra Sthana, 3/ 58, edited by Pandit Hari Sadashiv Shastri Paradkarah, Chaukhambha Surabharti Prakshan, 2017, 51.
 59. Agnivesha, Charaka, Dridhbala, Charak Samhita, Sutra Sthana, Na vegan dharaneeya Adhyaya, 7/25, edited by Vaidya Jadavji Trikamji Acharya, Chaukhambha Surabharti Prakshan, 2018, 50.
 60. Ibidem (59), Charak Samhita, Sutra Sthana, Matra Shitiya Adhyaya, 5/13, edited by Vaidya Jadavji Trikamji Acharya, Chaukhambha Surabharti Prakshan, 2018, 38.
 61. Ibidem (59), Charak Samhita, Sutra Sthana, Na vegan dharaneeya Adhyaya, 7/32, edited by Vaidya Jadavji Trikamji Acharya, Chaukhambha Surabharti Prakshan, 2018, 50.
 62. Ibidem (59), Charak Samhita, Sutra Sthana, Chikitshapravrutiyam Adhyaya, 16/20, edited by Vaidya Jadavji Trikamji Acharya, Chaukhambha Surabharti Prakshan, 2018, 97.
 63. Ibidem (59), Charak Samhita, Chikitsha Sthana, Abhaya-Amalakiya Adhyaya, 1 (1)/7-8, edited by Vaidya Jadavji Trikamji Acharya, Chaukhambha Surabharti Prakshan, 2018, 376.
 64. Ibidem (59), Charak Samhita, Sutra Sthana, Ashtau Ninditeeya Adhyaya 21 /36, edited by Vaidya Jadavji Trikamji Acharya, Chaukhambha Surabharti Prakshan, 2018, 118.
 65. Ibidem (59), Charak Samhita, Sutra Sthana, Shad-virechana shatasriteeya Adhyaya, 4/ 9(1,2), 10(7), 18(50) edited by Vaidya Jadavji Trikamji Acharya, Chaukhambha Surabharti Prakshan, 2018, 32 & 34.

-
66. Ibidem (59), Charak Samhita, Sutra Sthana, Na vegan Dharaniya Adhyaya, 7/55, edited by Vaidya Jadavji Trikamji Acharya, Chaukhambha Surabharti Prakshan, 2018, 54.
67. Ibidem (59), Charak Samhita, Chikitsa Sthana, Ayurveda Sammuthaniya Rasayana Pada, 1(4)/35, edited by Vaidya Jadavji Trikamji Acharya, Chaukhambha Surabharti Prakshan, 2018, 388-389]
68. Ibidem (59), Charak Samhita, Sutra Sthana, Na vegan dharaneeya Adhyaya, 7/26-30, edited by Vaidya Jadavji Trikamji Acharya, Chaukhambha Surabharti Prakshan, 2018, 50.
69. Patanjali, Vachaspati Mishra, Patanjala yogasutrani, Samadhi pada, 1/2, Ananandashram Sanskrita Granthavali, 1904, 4.
70. Agnivesha, Charaka, Dridhbala, Charak Samhita, Chikitsa Sthana, Abhaya-Amalakiya Adhyaya, 1 (1)/7-8, edited by Vaidya Jadavji Trikamji Acharya, Chaukhambha Surabharti Prakshan, 2018, 376.
71. Ibidem (70), Charak Samhita, Sutra Sthana, Ashtau Ninditeeya Adhyaya 21 /36, edited by Vaidya Jadavji Trikamji Acharya, Chaukhambha Surabharti Prakshan, 2018, 118.
72. Ibidem (70), Charak Samhita, Sutra Sthana, Indriya Upakramaniyam Adhyaya 8/17-29, edited by Vaidya Jadavji Trikamji Acharya, Chaukhambha Surabharti Prakshan, 2018, 58-61.
73. Gopal K Basisht. Symbiohealth: Need of the hour. AYU Int Res J Ayurveda 2011 [cited 2020 Feb. 27]; 32(1): 6-11. Available from: <https://pubmed.ncbi.nlm.nih.gov/22131751/>
74. SYMBIOHEALTH [<https://symbiohealth.com/>] [cited 2020 Feb. 28] Available from: <https://symbiohealth.com/>
75. Gopal Basisht. Exploring insight towards definition and laws of health in Ayurveda: Global health perspective. AYU Int Res J Ayurveda 2014 [cited 2020 Feb.24];35(4):351-355. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4492016/>
76. Gopal K Basisht, Ram Harsh Singh, Harimohan Chandola. Management of Rheumatoid Arthritis (Aamavata) using Symbiohealth Healthcare System. AYU Int Res J Ayurveda 2012 [cited 2020 Feb. 27];33(4):466-474. Available from: <https://pubmed.ncbi.nlm.nih.gov/23723661/>
77. Human resources for health. National Rural Health Mission, Ministry of Health and Family Welfare, Government of India. Child Health Division, Ministry of Health and Family Welfare. 2011. [cited 2020 Feb. 27] Available from: http://uhc-india.org/reports/hleg_report_chapter_4.pdf
78. M Chokshi, B Patil, R Khanna, S B Neogi, J Sharma, V K Paul et al. Health Systems in India. J of Perinatology 2016 [cited 2020 Feb. 27];36(3):9-12. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5144115/>
79. National Health Mission [<https://nhm.gov.in/>] [cited 2020 Feb. 28] Available From - [<https://nhm.gov.in/index1.php?lang=1andlevel=1andsublinkid=969andlid=49>]
80. M Chokshi, B Patil, R Khanna, S B Neogi, J Sharma, V K Paul et al. Health Systems in India. J of Perinatology 2016 [cited 2020 Feb. 27];36(3):9-12. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5144115/>
81. Agnivesha, Charaka, Dridhbala, Charak Samhita, Sutra Sthan, Tisreishaniya Adhyaya, 11/3, edited by Vaidya Jadavji Trikamji Acharya, Chaukhambha Surabharti Prakshan, 2018, 67.
82. Kalidas, Kolachala Mallinatha Suri, Kumarsambham Mahakavyam, Panchama Sarga 5/33, edited by Vasudev Laxman Shastri Pansikar, Nirnay sagar Press, 1935, 81.
83. Agnivesha, Charaka, Dridhbala, Charak Samhita, Sutra Sthana, Artha Dasha Mahamuliya Adhyaya, 30/26, edited by Vaidya Jadavji Trikamji Acharya, Chaukhambha Surabharti Prakshan, 2018, 187.
84. Vagbhat, Asthanga Hridayam, Sutra Sthana, Dinacharya Adhyaya, 2/1, edited by Pandit Hari Sadashiv Shastri Paradkarh, Chaukhambha Surabharati Prakashan, 2017, 24.

-
85. S.K Yadav, Subhash Babu, M. K. Yadav, Kalyan Singh, G. S. Yadav, and Suresh Pal. A Review of Organic Farming for Sustainable Agriculture in Northern India. *Int J of Agronomy*. 2013 [cited 2020 Feb. 26] Available from: <https://www.hindawi.com/journals/ija/2013/718145/>
86. National health portal of India, Gateway to authentic health [<https://www.nhp.gov.in/>] [cited 2020 Feb. 27] Available from: https://www.nhp.gov.in/vrikshayurveda_mtl
87. Agnivesha, Charaka, Dridhbala, Charak Samhita, Sutra Sthana, Tasya Shitiya Adhyaya, 6/3, edited by Vaidya Jadavji Trikamji Acharya, Chaukhambha Surabharti Prakshan, 2018, 44.
88. Ibidem (87), Charak Samhita, Sutra Sthana, Na vegan dharaneeya Adhyaya, 7/25, edited by Vaidya Jadavji Trikamji Acharya, Chaukhambha Surabharti Prakshan, 2018, 50.
89. Ibidem (87), Charak Samhita, Sutra Sthana, Na vegan dharaneeya Adhyaya, 7/32, edited by Vaidya Jadavji Trikamji Acharya, Chaukhambha Surabharti Prakshan, 2018, 50.
90. Ibidem (87), Charaka Samhita, Sutra Sthana, Matrashitiya Adhyaya, 5/81,85,89, edited by Vaidya Jadavji Trikamji Acharya, Chaukhambha Surabharati Prakashan, 2018, 42.
91. Moraska A, Pollini RA, Boulanger K, Brooks MZ, Teitlebaum L. Physiological adjustments to stress measures following massage therapy: A review of the literature. *Evid based complement Alternat Med* 2010 [cited 2020 Feb 27];7(4):409–418. Available from: <http://downloads.hindawi.com/journals/ecam/2010/292069.pdf>
92. Agnivesha, Charaka, Dridhbala, Charak Samhita, Sutra Sthana, Chikitsa pravruttiya Adhyaya, 16/20, edited by Vaidya Jadavji Trikamji Acharya, Chaukhambha Surabharti Prakshan, 2018, 97.
93. Ibidem (92), Charaka Samhita. Sutra Sthana, Upakalpaniya Adhyaya, 15/22, edited by Vaidya Jadavji Trikamji Acharya, Chaukhambha Surabharti Prakshan, 2018, 96.
94. Ibidem (92), Sutra Sthana, Na vegan dharaneeya Adhyaya, 7/48-49, edited by Vaidya Jadavji Trikamji Acharya, Chaukhambha Surabharti Prakshan, 2018, 53.
95. Ibidem (92), Charak Samhita, Vimana Sthana, Rasa Vimana Adhyaya, 1/21-25, edited by Vaidya Jadavji Trikamji Acharya, Chaukhambha Surabharti Prakshan, 2018, 235-237.
96. Ibidem (92), Charak Samhita, Sutra Sthana, Atreya Bhadrakapyiya Adhyaya, 26/85-106, edited by Vaidya Jadavji Trikamji Acharya, Chaukhambha Surabharti Prakshan, 2018, 150-151.
97. Tord Kjellstrom, Madhumita Lodh, Tony McMichael, Geetha Ranmuthugala, Rupendra Shrestha, Sally Kingsland. Air and Water Pollution: Burden and Strategies for control. In: Jamison DT, Breman JG, Measham AR, et al editors. *Disease control priorities in developing countries*. 2nd ed. New York: Oxford University Press, 2006 [cited 2020 Feb. 27] Available from: <https://www.ncbi.nlm.nih.gov/books/NBK11769/>
98. Agnivesha, Charaka, Dridhbala, Charak Samhita, Shareera Sthana, Jatisutreeya Adhyaya, 8/3-18, 32 edited by Vaidya Jadavji Trikamji Acharya, Chaukhambha Surabharti Prakshan, 2018, 340-343 & 346.
99. Yogesh S. Deole, Anup B. Thakar, Harimohan Chandola, B. Ravishankar. Observational study on external social and lifestyle related factors and their role in pathogenesis of premature aging and stress. *AYU Int J of Research in Ayurveda* 2012 [cited 2020 Feb.27];33(3):378-386. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3665085>
100. Xavier Carbonell, Andres Chamarro, Ursula Oberst, Beatriz Rodrigo, and Mariona Prades. Problematic use of the internet and smart phones in University students: 2006-2017. *Int J Environ Res Public Health* 2018 [cited 2020 Feb. 26];15(3):475. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5877020/>

-
- ¹⁰¹. Sehar Shoukat. Cell phone addiction and psychological and physiological health in adolescents. EXCLI J. 2019 [cited 2020 Feb 26];18: 47-50 Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6449671/>
- ¹⁰². Agnivesha, Charaka, Dridhbala, Charak Samhita, Shareera Sthana, Atulya gotriyam Adhyaya, 2/46, edited by Vaidya Jadavji Trikamji Acharya, Chaukhambha Surabharti Prakshan, 2018, 307.
- ¹⁰³. Ibidem (102), Charak Samhita, Sutra Sthana, Deerghamjeeviteeyam Adhyaya, 1/123, edited by Vaidya Jadavji Trikamji Acharya, Chaukhambha Surabharti Prakshan, 2018, 22.
- ¹⁰⁴. Maharshi Vyasdev, Bhagvad Gita, Atmasanyama yoga, 6/17, edited by Jayadayal Goyandaka, Gita Press, Gorakhpur, 1993, 88.
- ¹⁰⁵. Agnivesha, Charaka, Dridhbala, Charak Samhita, Shareera Sthana, Purushavichayam shareeram Adhyaya, 5/3, edited by Vaidya Jadavji Trikamji Acharya, Chaukhambha Surabharti Prakshan, 2018, 325.