

What can be the role of Ayurveda in Health Education: An Overview.

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ABSTRACT

In the present highly changing era, every dimension from Technology to Education, Environment to Sanitation and from Agriculture to our Food basket is getting changed. Our experiences say that the most affected ethnic group from this rapidly changing pattern of our food intake, lifestyle are our adolescent. This is also a fact that our adolescent passes their 2/3 of time of a day in their schools. In this regard our school system needs to formulate their comprehensive approach to Health for our adolescents. On other hand Ayurveda, the ancient Indian system of Medicine had expressed views on a concept of Holistic Health thousand years ago. This research article is an attempt of borrowing this valuable concept from Ayurveda and suggesting to introduce them into our comprehensive school health programme such as concept of wellness, quality of life, Holistic Health and measures related to diet and lifestyle for preservation, promotion of health and prevention of disorders etc.

This manuscript also evaluates the existing approaches of school health programmes towards current scenario. Now a day's our food habits, dietary intake and the life style are not at the level of satisfactory condition this lead to early onset of metabolic chronic disorder especially in our adolescents because on the basis of age-immunity relationship they are easily targeted. The chronic metabolic disorders results into overweight, obesity, anxiety, mental trauma, distress, over- fatigued, incapable for physical work, getting tired soon.

This article provides a space to rethink and reformulate our school health programmes in light of our ancient tradition of medicine.

Keywords: Ayurveda, Education, Holistic health, KriyaSharir

INTRODUCTION

The status of health was traditionally been observed by the rate at which people die. A decreasing rate of death has been taken as an indication of improving health conditions. But from past few decades however the concept of health has undergone significant changes. Now there is a new interest in one's total quality of life rather than merely the length of life. The concept of health education is not a subject matter of only medical science meanwhile health education is an integral part of each level of each curricula. May be this issue is not being introduced directly but health education is an integral part of our day to day life experiences. Basically preschool children and primary school children completely depends on their parents or care taker; but from the age of adolescence our society or their community begins the efforts to develop a set of good health practices aiming to a good life style. By this way the health education aims at to let them introduced about healthy life style including from health and hygienic practices to a healthy food intake and behavior. Students in the age range between 10-19 years are categorized as adolescent¹. The period of adolescence is perhaps the most crucial period of an individual's life. Adolescent characterized by creative bursts of

energy, vast curiosity, having a gradual process of physical changing, sudden change in their emotions, highly enthusiastic towards social dimensions and the most important ; being capable for habit formation especially their eating habits, dietary pattern hygienic practices and life style. If in this habit formation age adolescents are taught about the Ayurvedic concept of holistic health, a balanced dietary pattern and life style, a prescribed food intake as per their physiological need, and a healthy life style, code of conduct, this may lead them a good academic performer in their studies along with proper physical and mental growth will help in achieving holistic health and wellness. This article focusing on a connectedness of health issues with our school going children's day to day life and hence highlights the need to formulate a comprehensive approach to health and school life rather than touching a single categorical concern. Although an enough quantity of work on adolescent health is being introduced in school curricula but this is yet to be properly institutionalized. This demands our teachers and students as well to deal with each of these concerns one by one and then collectively.

METHODOLOGY

A comprehensive literature search was done on the concept of health education, wellness and quality of life, various health promotive measures described in Ayurveda from standard text books of Ayurveda and Education, research articles from different online journals of standard e-database like PubMed, PubMed Central, Google Scholar, Medline, and Science Direct

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were searched to get relevant research papers related to manuscript.

The scenario for writing this review article is partially based on literature and partially based on survey conducted by an eminent company named Hindustan Liver taken three schools (situated at Delhi, Chennai and Punjab region) affiliated to Central Board of Secondary Education. The data concerned by Hindustan Liver depicts, that our school children are not healthy, neither mentally nor physically (Srihari G.et.al 2007). The another survey data used in the presented article is conducted by National Family Health Survey NFHS round III reveals that not only our male adolescent but also female adolescent are suffering from metabolic chronic disorder (NFHS-3 2005-06)Govt. of India.

The literature based on health Surveys of school education recommended by school Health check-ups manual adopted by some state school health education Boards. A comprehensive school Health Check-ups guideline developed by CBSE has also been reviewed. Eventually these all literature provides a space to us for updating and adding the role of Ayurveda in Health education.

REVIEW AND DISCUSSION

Why Health Education should be an integral part of school curricula?

Developing countries such as India is under passing through a nutritional transition due to increased market globalization leading to a rapid change in our life style. Use of machines and electronic gadgets has reduced markedly the physical activity. This decreased physical activity along with poor dietary habits have led to an increase in obesity and overweight. A research survey conducted by an imminent Indian Company Hindustan liver2 depicts these surprising facts as depicted below in the table:

School Region	Overweight %			Obesity%		
	Total	Boys	Girls	Total	Boys	Girls
Delhi	24.7	23.1	27.7	7.4	8.3	5.5
Chennai	16.3	17.8	15.8	3.2	3.6	2.9
Punjab	10.9	9.9	12.0	5.6	5.0	6.3

Findings from the National Family Health Surveys (NFHS) adolescence are poorly informed on the issue associated with their own health. This survey also reveals a fact that on one side young people are considered healthier comparatively on another side 56% of females and 25% males in the 15-24 age group suffer from anaemia.³ This may affect adversely their physical growth, cognitive development and performance in school. So in this way adolescent are urgent needed to be empowered by acquiring reliable knowledge about their specific concerns, including rational attitude in order to manage peer pressure, depression, stress and make them capable to avoid risky behaviour⁴. Now we need a national policy on school based health promotion in this regard to make alarming awareness among our adolescent about their wrong food habits and dietary pattern with a disturbed life style. In this field it is not worth saying that no work has been done even if those

work has been done most of them are associated with only health issues.

Aim of Education

It is said that Education gives third eye to a person. It means an eye of insight; this insight is needed to remove darkness and shatters illusion. As our, classical literature defines “Tamsa-MaaJyotirgamaya”(BrihadaranyakaUpnishad Part 1, 3/28).The word education derived from a Latin word Educo, E stands for out of and the word Duco means to lead. In simple, education means to bring outside. Among many core objectives of education the main objective of education is not only to get a high earning job or business but it also helps one to understand one self's body and mind, capabilities, social values and culture to that one can remain physically and mentally, socially, spiritually healthy and can make healthy social and environmental interaction.

Health education in the form of comprehensive school health programs

Health does not mean only absence of disease it also includes complete physical, mental and social wellbeing. In the 19th century we have seen that how morbidly and mortality were closely associated with infectious diseases but from 20th century to recent the major causes of our sufferings are our bad food habits, wrong dietary pattern, malnutrition in terms of over nourishment and over eating excessively less physical activity and more mental trauma and our faulty life style due to lack of awareness and education about the concept of health and preventive and promotive measures of health. Ultimately the above mentioned factors are collectively responsible for our behaviours (Rathi 2017)

Our recent curricula of school education deals much on communicable diseases and side step the portion of non-communicable diseases. National policy on Education 1986 signifies the holistic nature of child development viz. food and nutrition health and social, mental, physical, moral and emotional development. Since the early nineteenth, School health program has been believed to include three major areas (Joint committee report on health 1961, pg. 6-8) and these are

1. School health services such as Health care complexes
2. School health education (Information making awareness among students)
3. School health environment (Location of School premises)

We know that how a school health programs plays a significant role through the route of health inspections, routine check-ups, health interventions, immunization campaign and soother related activities.¹Health and education there are two major concerns both aim at maximum welfare of mankind but run at the two different corners. So health must be a strong part of our education and in this health issue we need to have strong impact of precautionary effort incorporated with the life style of our youngsters.

The real aim of health education is not only to increase our school aged students' health knowledge but also to promote health behaviour and to create positive health attitude towards their own wellbeing. Although there are some introductory scattered information is given in curricula of prescribed text book but that information is highly associated with some certain chapters and limited to sharing only some information with some specific objectives of the module so keeping this lacuna the prime objective of the presented study is to transmit this information into some behavioural changes in their life

style and try to correlate this with the day to day experiences hoping more positive changes may occur.² In our country Indian school treat any health programs as an initiatives and in this regard in our point of view health promotion in school must be a part of our middle school curricula. Since students of this age group belongs to transition period from child to adolescence and is considered as most appropriate age for habit formation and character building.³ The increasing pandemic of emerging non –communicable diseases i.e. also known as non-infectious diseases has raised the importance of a setting approach and include the health promotion through our schools, having a framework to promote better health and hygiene.

Ayurveda

India is admirably advanced in knowledge of traditions and practices. In past decades India had a rich tradition of intellectual inquiry and a literary heritage. Ayurveda is among one of them. The word Ayurveda consist of two words 'Ayus' means life and 'Veda' means knowledge. Therefore the word Ayurveda, means knowledge of life i.e. study of life. Ayurveda has two major objectives, first is SwasthasyaSwasthyaRakshanam means preservation of health of a healthy individual, and second is AtursyaVikaraPrasmanam means management of disease of a diseased person or to remove the suffering from disease. Ayurveda has given extensive measures for each phase of lifespan to attain healthy state and longevity. Ayurveda physicians have advised that individual should adopt diet and lifestyle after proper analysis of his/her own body and mind. Everyone should know the basics of human body and its homeostasis with the environment and advised to follow the diet and code of conduct as prescribed under the concept of Dincharya, Ritucharya and Sadvritta.

Ayurveda has given comprehensive measures for health which can be summarised under three categories for purpose of health education 1. Preventive health education (Knowledge about Sadvritta (code of conduct), Dincharya(daily routine), Dharniya and Adharniyavega i.e. biological natural reflex urges, 2. Promotive health education (Knowledge about use of Rasayandravya), 3. Absolute health education (Knowledge about the measures of Moksha i.e. salvation)

KriyaSharir

KriyaSharir is the branch of Ayurveda science, which deals with the study of human body in relation to its physiological norms i.e. functioning of human body. KriyaSharir i.e. Ayurveda biology is based on Tridosha i.e. Vata, Pitta, Kapha (biological factors responsible for all bodily functions and regulations), Agni (biofire responsible for digestion and metabolism), Srotas(body channels of transport and transformation), Oja (immunity, physical and mental strength), Satva (mind) and Atma (consciousness). Ayurveda has extensively observed and enumerated all the factors that are responsible for homeostasis of Tridosha, Agni and Oja, such as Daily routine (Dincharya), Diet as per season, personal hygienic practices and code of conduct (Sadvritta), seasonal routine (Ritucharya), personality or Prakirti (Psycho-somatic constitution), tastes (Rasas) and their effects on human body, etc. The Ayurveda biology aims to explore the normal functions of the living organism, their principles, mechanism and actions. It involves understanding human physiology along with the principles of functions of human body from Ayurvedic perspective.

Aim of human life described in Ayurveda

Ayurveda the Science of life has conceived that four main pursuits of human life i.e. Dharma (virtuous acts), Artha

(acquirement of wealth), Kama (gratification of desire) and Moksha (final emancipation) could be achieved successfully only in state of Arogya (good health) (Charak Samhita Sutrasthan1/14). So it is necessary to maintain the human body physically and mentally, spiritually fit. Diseases are the destroyers of health, wellbeing and a great obstacle in the way of human life. Dharma is righteous code of conduct governed by the soul i.e. consciousness, Artha is the attainment of wealth, Kama is the fulfilment of worldly desires; Moksha is liberation or complete detachment from the worldly life. Arogya means health, represents the equilibrium state among the Dosha (biological factors regulating all the functions of the body), Dhatus (body tissues) and Mala (waste products of digestion and metabolism) in the absence of disease. Happiness is the ultimate goal of human life. For this, balance of mental, physical, spiritual and social health and wellbeing is essential. Ayurveda has extensively described the measures through which the healthy person can preserve their health and the ill can overcome their suffering in order to attain their desired happiness during this human birth.

Concept of Quality of life in Ayurveda

On the basis of quality of life the Lifespan (Ayu) may be of four kinds namely Sukhayu (disease-free state with happiness) and Dukhayu (life afflicted with disease and sorrow), Hitayu (adopting congenial diet and life style leads to happiness), Ahitayu (adopting non-congenial diet and lifestyle leads to disease and sorrow) (Charak Samhita Sutrasthan13/41). Ayurveda has defined what is good (hita) and what is bad (ahita) for life, concerning different states of life span. In the above verse the words Hita and Sukha are closely interlinked whereas the word Ahita and Dukha are also interlinked. If a person is happy in his own mental and physical level his life is considered as a Sukhayu but if the person is not following the ethical code of conducts and making harm to society and environment then his life is considered as Ahitaayu. In term of Ayurveda a person is treated completely happy when he is happy from his inner part of body with his surrounding also. Thus this description about life refers to various dimensions of health viz. physical, mental, social and spiritual.

Our traditional view of health and Wellness, an Ayurvedic approach of Holistic health

As far as the definition of wellness is concerned the eminent health expert Dunn defines "Wellness is an integrated method of functioning for maximizing an individual's potentials." According to Bruhn "Wellness is treated as a measurable process involving a person's active participation to become more healthy." Wellness is more than being free from illness; it is a dynamic process of change and growth. It is a conscious self-directed and evolving process of achieving full potential.

Ayurveda also believes that health is a dynamic state it depends on the conscious effort of an individual, right adoption of diet and code of conduct results in healthy state and faulty diet and code of conduct will lead to disease and unhealthy life. The concept of health and wellness has been well explored and comprehensive descriptions have been made by Ayurveda scholars. They have considered all dimensions of health i.e. physical, mental, social and spiritual wellbeing, while defining the ideal state of health. As Sushruta has defined that the person in considered healthy whose Dosha (biological entities responsible for regulation of all bodily functions and regulations), Agni (biofire responsible for digestion and metabolism), Dhātu (tissues), are in optimal functional state, excretion of Mala (waste products) is proper, sensory and motor organs and mental faculties are normal and having

happiness of mind and soul (Sushruta Samhita Sutras 11/10).

Ayurveda believes that Mind, soul and body are like a tripod; the life is sustained by their combination (Charak Samhita Sutras 11/42). The modern concept of health (Health does not mean only absence of disease it also includes a complete physical, mental and social wellbeing) accepted by W.H.O. has been propounded thousands year back by the rich tradition of Ayurveda (Health is a state of physiological, psychological and spiritual well-being). Even Ayurveda has added spiritual aspects also and made it three dimensional that is health is reflected by our body, mind and soul. This concept of health is known as holistic health.

Code of Conducts

In this article many points discussed for maintaining good health; now some other aspects for mental health like Sadvritta, Acara rasayana and Dharaniyavega which has significant role in achievement of social and mental dimensions of health will be discussed.

(A) Sadvritta

Sadvritta consists of two words 'Sat' meaning good and 'Vritta' means Acara means behave. By this way relating to good people leads to the path of good behaviour can be considered as Sadvritta. For fulfilling and maintaining good health of sense organs and the mind, one has to observe the following path.

1. Proper interaction of sense organ
2. Proper thoughtful analysis by his own intelligence
3. Proper acting contradistinction to the qualities of places, seasons and own's psycho somatic constitution (Chakrapani on Charak Sutra 8/17)

Sadvritta not only includes mental discipline but also rules for general hygiene, religion, food consumption, exercise and so on. Similar principles are maintained in Acara Rasayan and Dharaniya Vega. Ayurveda admits that mind, soul and body are the three pillars of life. In the continuation of this writing we will discuss some points associated with code of conduct.

- I. Rules regarding hygiene - One should cut hair, moustache, body hair and nails thrice in fifteen days, wear cleaned good cloth every day (Charak Samhita 8/18).
- II. Rules regarding social behaviours - One should follow the path of abstinence, +knowledge, donations, friendship, happiness, detachment and peace. One should not desire for others money. (Charak Samhita 8/29).
- III. Rules regarding study- One should not study during unseasonal lightning or when direction look as if being burnt, during earth quake fairs, new moon day (Charak Samhita 8/24).
- IV. Rules regarding natural body urges - One should not sneeze, eat or sleep in prone position, not do any work with holding the natural urges. One should not spit and defecate in front of fire, water, sun and flow of directional wind. (Charak Samhita 8/21).
- V. Rules regarding diet- One should not take stale food. One should not take food without taking bath, wearing torn cloth, without praying God, without offering forefather, teacher, guest and dependent. (Charak Samhita 8/20).
- VI. Rules regarding speech- One should wish to speak less, timely conducive and in sweet language. One should not speak lies, point out mistakes of others.

One should not speak badly about good persons and teachers. (Charak Samhita 8/23).

(B) Acara Rasayana (Code of conducts which produce health benefits as Rasayan drug)

One should always speak truth refrain from anger, alcohol and violence. One should be peaceful avoid exertion, speak sweetly and practice cleanliness. One should be courageous, generous, and kind to all. One should sleep and get up at proper time, take milk and ghee every day have knowledge about place, time should have proper planning with intelligence not egoistic, have good conduct, be devoid of wrong thoughts included towards philosophy have belief in God, serve elders, read religious books. (Charak Samhita 1/4/30-35).

(C) Dharniyavegas (suppressible urges)

One desirous of his well-being has to suppress certain urges like doing work which is more to his capacity which will lead to unwanted effect on the body and bad deeds mentally. Similarly one should control urges of greed, grief, anger, fear, ego, shamelessness, jealousy, excessive attachment and desire for things.

All those aspects mentioned above aims towards mental harmony. Lord Budhha considers desires as the route cause for unhappiness. These mental orientations are treated as six enemies onto the path of happiness. They are desire (Kama), anger (Krodh), greed (Lobha), attachment (Moha), ego (Mada) and jealousy (Matsara). Indian system of medicine Ayurveda depicts that one who conquers these will be treated happy and one who fails to do so be unhappy. Charak considers grief an aggravating factor of disease, worry as emaciating detachment among nourishing greed as prime factors responsible for trouble. (Charak Samhita 25/40).

Dietary considerations- A detailed guideline have been described related to food cooking, selection of food ingredients, beneficial and harmful food combinations, food intake. Similarly Daily routine and Seasonal regimens have been also mentioned to maintain the health and prevent the disorders.

By the above said expressions extracted from an eminent and well known fundamental book of Indian system of medicine (Ayurveda) Charaksamhita, Sushrutasamhita and Astanghridyam; one should act in such a way that he will be always healthy by remembering all the things mentioned in Code of Conducts.

The state of health is dynamic and it depends on diet lifestyle adopted by an individual. When a person adopts diet and lifestyle, good code of conduct congenial to his psychosomatic constitution as per age and season, level of physical activity, then it leads to a healthy state of body and mind and vice-versa.

There is a very surprising fact that Ayurveda gives emphasis on individual's wellness compare to community's wellness. Ayurveda assumes if an individual is healthy and holds the characteristics of wellbeing whole the community will have good health. Actually the recently added term "Social well-being" introduced by WHO along with the definition of health has been defined thousand years ago in Ayurveda. Ayurveda states the balance of inner environment and personalised medicine.

The core concept of Ayurveda is to maintain life skill and to deal with the daily requirement in our life such as diet as per seasonal changes. Ayurveda is not merely a branch of medicine it is a science of life so in this age wrong dietary patterns itself is needed to be corrected by some major interventions mentioned in our Ayurveda.

Ayurveda talks about the conscious effort of an individual to attain health, wellness and prevent diseases by adopting the measures advised related to diet and life style which leads to balanced physiological state of body, mind, soul. Ayurveda has described about the ideal state of health and wellness. Our students must know about the ideal state of health and wellness so that they can strive to attain that state. Students must be encouraged about the social, mental, spiritual aspects of health along with physical parameters of health. Ayurveda has considered to the body, mind and soul as three pillars of life and given equal importance for sustenance of healthy life.

If this presented work of writing make an effort to introduce some valuable part of Ayurveda into the school curricula of our schools this may lead to not only balanced routine of our young but also their healthy life style with full of conscious and a good code of conduct with a complete ethnic value in itself. Therefore it is highly recommended that we ought to enhance our students with a most practical approach of health benefits of Ayurveda i.e. science of life itself.

CONCLUSION

This newly emerging concept of health education makes possibility for health services under which people of a particular place or people belong to a particular community are explained about health and its basic properties. In our society a number of communities found, student community is one of them. When we move ahead towards global burden of diseases we see that many of disease starts with the period of adolescence and most of them are results of unawareness and lack of precautionary measures. Regarding this a health education programme is highly recommended. On another aspect of it a school health education programmes have its own limitations too. The major one is to promote preventive measure comparatively to cure it, so to conclude we can say that our school education system must have a comprehensive, collaborative, community based and effective health education curricula with a strong impact of implementable strategy. As per as the changing pattern of disease and highly influenced by non-infectious aspects we must have an anticipated full proof planning especially towards non communicable diseases, its threatening causes, their remedies and a mass awareness among our adolescent.

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CONFLICT OF INTEREST

The authors declare that they have no conflicts of interest.

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