

Health Definition- An Evolutionary Approach

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Abstract: Health, as we all think is a state of feeling well and not being ill. The concept of health varies across time and place. Historically and culturally, there have been many attempts to define health. Though the World Health Organization's definition is accepted globally as the standard definition of health, it is found that the concept of health is associated with several components. The objective of this study is to define health through a holistic and integrative approach. An extensive review is done to give an integrated definition to the term health. After reviewing several definitions and theories of health, it is defined as a complete physical, mental, social and spiritual wellbeing across the life span right from the conception till the end of life filled with three gunas and covered by four ecological nested systems overflowing with energy, life and productivity without any infirmity.

Keywords: Health, World Health Organization, Gunas, Ecological, Wellbeing.

1. INTRODUCTION

Health, as we all think is a state of feeling well and not being ill. The attainment and preservation of health reaches to the very core of human existence and the development of ideas about the origins and meaning of term 'health' has resulted in number of approaches and parameters designed to study the primary details of the concept.

Literally, the word 'Health' is derived from Old High German and Anglo Saxon words meaning 'whole' and 'holy'. The concept of health varies across time and place. Historically and culturally, there are strong associations with concepts such as 'wholeness' 'goodness', 'holiness', 'hygiene', 'sanity', 'sanitariness', 'saintliness', and 'godliness'.

The early Greek philosopher Hippocrates (460-377 BC), the father of medicine and Galen (200-129 BC) who proposed '*Humoral Theory*' believed that Hygeia (health) or euxia (soundness) occur when there is balance between the hot, cold, dry, and wet components of the body. "*Humoral theory*" states that body contains four humours (fluids) that circulate in the physical system. The four fluids are blood, phlegm, yellow bile and black bile. These fluids are believed to be hot and wet, cold and wet, hot and dry, and cold and dry respectively. For example, fever and productive cough are considered as hot and dry where as cold and non-productive cough are considered as wet and cold.

In ancient China and Greece, health was seen as a state of 'harmony', 'balance', or 'equilibrium' with nature.

In Sanskrit, the health/aarogya is expressed as "Prasannah Tanmendriya Manaha", which means 'happiness in the body and soul. The Sanskrit definition of aarogya is "complete wellbeing and perfect health of mind, body and spirit". According to Taittiriya Upanishad, health is related to the activities of first three koshas (inner most layers) of the Panchama Kosha Model which is comprised of five koshas mentioned below;

- a) *Annamaya Kosha* (Physical sheath or gross material body),
- b) *Pranamaya Kosha* (vital sheath),
- c) *Manomaya Kosha* (mental sheath),
- d) *Vijnana Kosha* (intuitive sheath) and
- e) *Ananda Kosha* (pure awareness).

A diagrammatic representation of the Panchama Kosha Model is given in the List of Figures (Fig.1). This model is considered as the Holistic Model of Pancha Kosha in an Indian perspective of Health.

The western perspective of health deals with public opinion. Majority of people in western world believe that being healthy is a norm. In 1930's, Jessie Feiring Williams defined health as "that condition of the individual which makes possible the highest enjoyment of life, the greatest constructive work and that shows itself in the best service to the world".

Unknown persons defined health as 'a personal balance', someone else said 'health is satisfying bodily needs in order to prolong life. Some others defined health as physical fitness, even others defined health as taking care of the body and living life to the fullest.

In 1941, Henry Sigerist, considering health in the context of human welfare stated that "a healthy individual is a man who is well balanced bodily, mentally and well adjusted to his physical and social environment. He is in full control of his physical and mental facilities, can adapt to environmental changes, so long as they do not exceed normal limits and contributes to the welfare of society according to his ability. Health therefore is not simply the absence of disease: it is something positive, a joyful attitude towards life and cheerful acceptance of the responsibilities that life puts on the individual." This notion of health was endorsed by *Dr. Andrija Stampfer*, the president of first World Health Assembly of World Health Organization (WHO). Being a distinguished scholar from the School of Public Health in Zagreb, he played a crucial role in drafting the definition of health in the preamble to the Constitution of World Health Organization. In this document, founders of WHO famously defined health in 1947, as "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity". This definition was preceded by a statement that "health of all people is fundamental to the attainment of peace and security".

Since the concept of health was embedded in different terms by different people, the constitution of WHO developed an ideal, single and universal account. It established a 'lingua franca' and also provided a building block for an operational definition of health by stating that the continuing efforts to develop more precise conceptualizations of health may be lived to operational measures.

The WHO definition presents a broad multidimensional view of health. In later amendments, it has included 'spiritual well-being' in the original definition. However, the health professionals and academicians are continuous in their efforts to develop new innovations. For example, Psychologists namely Marks, D. F., Murray, M., Erans, B., Willig, C., Woodall, C., and Sykes, C. M amended the WHO definition stating that a state of complete physical, social, mental and spiritual well-being can never be achieved and redefined it by adding some missing elements as follows: Health is a state of well-being with physical, cultural, psychosocial, economic and spiritual attributes, not simply the absence of illness."

This definition was intended to have the implications for theory, practice, policy and health promotion. The term *Health Promotion* was first coined by the Canadian Minister of National Health and Welfare, Marc Lamde in 1974. Health promotion is an approach that provides a unifying concept for those who emphasize the need to make changes in ways and conditions of living in order to improve health to facilitate the empowerment of individuals to improve and increase control over the health care provisions.

This did not put an end to the quest of explorations on the concept of health. Many researchers and medical sociologists continued to explore the lay conceptions of health. Hezlich (1973), a French medical sociologist interviewed French subjects and categorized their models of health into 3 dimensions:

'health is a vacuum',

'health implies absence of illness',

'health is a reserve'.

Hezlich related these dimensions to equilibrium between external and internal environments, physical strength, resistance to illness respectively and indicating a full realization of an individual's concept of health.

Blaxter (1990) conducted a quantitative analysis on a sample of 9000 individuals and found that for some health was simply meant not being ill. For many, health was seen in terms of a reserve having energy and vitality, social relationship with others, condition of being able to function effectively, an expression of psychosocial well-being.

Calnan (1987) explored health beliefs of women in England and argued that the people's models of health can be conceptualized into two sets of definitions: positive definitions including feeling energetic, plenty of exercise, feeling fit, eating the right things, being the correct weight, having a positive outlook, and having a good life/marriage; and negative definitions including not getting cough, cold, only in bed once, rarely go the doctor, and have cheek-ups, nothing wrong.

As such are the health beliefs of different individuals, the health beliefs more specifically of children are tough to obtain. The concept of health is needed to be more precisely constructed to obtain the children's concepts of health, their attitude, knowledge and health behaviours or practices to maintain good health. In order to develop an instrument to study children's health, one has to consider various dimensions of health and the factors influencing their health.

2. DIMENSIONS OF HEALTH

Dimensions of health are the constituent elements or aspects of the concept health which measure the extent to which and individual is healthy.

Various researchers have explored into the people's concepts of health and gave different dimensions of health. For example, Herzlich's(1973) categorization of the models of health into three dimensions: 'health is a vacuum', 'health is absence of illness', 'the reserve of health' which are mentioned earlier implying the physical strength, resistance to illness and equilibrium indicates an individual's full realization of health.

Lau (1995) described the beliefs of Young, healthy adults within these following dimensions:

- *Physiological/physical*: for example, good condition, having energy.
- *Psychological*: for example, happy, energetic, feel good psychologically.
- *Behavioural*: for example, eat well, sleep properly.
- *Further consequences*: for example, live longer.
- *The absence of illness*: for example, no disease, no symptoms.

The dimensions mentioned above are partly complete. They are based on culture specific beliefs and concepts of people belonging to one particular area. The following definition given by Rene Dubos puts forth six dimensions of health: "Health is a quality of life, involving social, emotional, mental, spiritual, and biological fitness on the environment".

The dimensions in which health and wellness are measured are:

- *Physical health*: It includes body functioning, physical fitness and activities of daily living.
- *Mental health*: It is the ability to think clearly, reason objectively and make decisions properly
- *Emotional health*: It is the ability to express emotions a maintain a level of self-confidence, self-esteem and self-efficiency.
- *Environmental and planetary health*: It is one's role for appreciating and casing the external environment.
- *Social Health*: It is the ability to have satisfying relationships, interpersonal network and successful interaction with others.
- *Spiritual health*: It is the feeling as if past of greater spectrum of existence and having a sense of meaning and purpose in one's life.

These dimensions were added into the concept of health by comprehensive ecological or public Health model in 1960s and 1970s. Basically, these dimensions originated from the multidimensional view of the concept health proposed by world health organization. These six dimensions of health can further be integrated into five dimensions by considering the mental health and emotional health under the dimension of psychological health.

While measuring children's health, we see whether a child is physically fit or not, whether the child has normal physiological growth and development or not under the physical dimension of health. For example, we determine that a child is physically weak if he/she cannot perform simple physical exercise and gets tired so quickly after few bodily rotations or movements. Similarly under the psychological dimension, we can determine the child's mental health by

considering the intelligence, attention, memory, thinking, reasoning, problem-solving and language development aspects and comparing with the average of the respective of capabilities of normal children falling under same chronological age. For example, if a child is unable to learn how to do simple mathematical operations such as subtraction and addition of single digit numbers or double digit numbers even in the seventh or eighth standard when all his classmates are able to do so, we can identify the child manifesting his weakness in the form of anxiety or fear or behaviour disorder. The emotional wellness is also studied under psychological dimension. Especially the emotional health of the children staying away from their parents in the residential hostels can be studied under Psychological dimension. Under social dimension, we consider whether a child is interacting in a friendly manner with his playmates, peer-group members or is isolated. If the child is isolated, it may lead to depression and school failure. The spiritual health of a child is enhanced by moral and classical children's stories which expose them to spiritual qualities in simple manner. Spiritual health is the core component of health that nurtures children's heart and soul. It enables them to have love, joy, faith, forgiveness, optimism, resilience, personal peace and fulfilment. For example, a child's attitude to get delighted in giving his book or pen to others reflects his/her spiritual health. Environmental health of a child is the extent to which he/she succeeds to keep his surroundings clean. Children who play in the children's parks may develop eco-friendly attitude and have a concern for keeping their environment in a pleasant manner. The environmental health promotes aesthetic sense among such children. A child who is completely healthy shows positive characteristics in all these physical, psychological, social, spiritual and environmental dimensions.

In health psychology, three domains/dimensions of health are instead considered as psychological resources. The processes that fall into these five categories are immune competence, beliefs, social support, resilience, aesthetic sense respectively. Each of these dimensions influences the thought processes of an individual and they influence each other as well. Similarly, the thought processes occurring in the heads of individuals influences the social, psychological, spiritual and environmental processes. There is interconnectedness of these dimensions of health. So called flow chart models in theories of Health psychology explains the interconnection between the dimensions of health. For example, the Hypertension model by Spicer and chamberlain (1996) is a complex network which shows the distinct dimensions in connection to health and other dimensions.

In this model,

1. Hypertension is a physiological construct
2. Anger suppression is a psychological construct
3. Avoidance is a behavioural construct
4. Social support is a social construct
5. Socio-economic status is a sociological construct.

Emotion is said to operate simultaneously on at least three different levels of sociological, psychological and physical dimensions of health. (Clazoraus et al., 1980).

3. DETERMINANTS OF HEALTH

Health is determined by behaviours. Traditionally, health trends are determined by vital statistics which was the measure of health status of a population. The prevalence or predominance of a disease in a population, the incidence or occurrence of a particular disease in a specific period of time and morbidity (the number of people suffering from illness in a given population) and mortality (the number of deaths in a given population) the benchmark determinants of health status of the population.

The study by Global Burden of Disease (GBD) suggested that the ageing, spread of communicable diseases, psychiatric and neurological conditions, maternal, prenatal and nutritional disorders are the key determinants of health trends. The disability adjusted life year (DALY)* that reflects total amount of healthy life lost, to all causes whether from premature mortality or from degree of disability during a period of time the quantitative indicator of burden of disease. The burden of disease is attributed to several factors.

*DALY= the sum of years of life lost premature mortality plus years of life with disability. (Murray and Lopez, 1997)

General determinants of health can be considered under an example of a frame work as given by Dahlgren and Whitehead in 1991. This framework is useful in conceptualizing the main determinants of health.(Fig.2).

This framework has multilayered, onion like structure that places and individual, endowed with fixed factors of age, sex and genetic make-up at the core (over which we have little or no control) but surrounded by four layers of influence. From this, factors influencing health can be structured as follows:

Core	Factors influencing health
Level-I	Age, sex, heredity factors
Level-II	Individual life style factors
Level-III	Social and community influence
Level-IV	Living and working conditions
Level-V	General socio-economic, cultural and environmental factors

This framework is concerned with all the determinants of health. But Level-V repeats the socio-economic factor which was already considered under level-III. Similarly, the environmental factor mentioned in Level-V is same as living and working conditions. Hence the socioeconomic and cultural factors can be integrated to be under level-III under environmental factors as level-IV. These determinants of health are specifically defined as factors affecting health by health psychologists under bio/psycho/social model of health.

The role of Health Psychology in context of determining what health is, emerged as follows:

The idea of that medicine and psychology are connected dates back to ancient Greece according to Western authors. Sigmund Freud(1856), a trained physician noticed that some patients show symptoms to physical illness without any organic disorder. He believed that these symptoms emerged from unconscious emotional conflicts and called them 'conversion hysteria' (Alexander 1950; Davidson and Neal 1990). The symptoms of conversion hysteria included paralysis, deafness, loss of sensation in parts of the body such as hand (glove anaesthesia). These were studied under the field of psychosomatic medicine which emerged in 1930s. This field focused on interrelationships among psychological, biological and physiological factors, and development and course of illness in 1960s.

In 1970s, to study role of psychology in illness, the field of behaviour medicine emerged. With its classical and operant conditioning methods, it has shown a deal of success in modifying health risk behaviours such as over acting and emotions such as fear, anxiety (Rim & Master, 1979).

Prior to the field of Psychosomatic Medicine , the bio-medical model considered that the mind and the body are two separate entities they function independently and illness may have psychological consequences but not psychological causes.

A contemporary and most influential model that challenges bio-medical model and provides theories and research to support the notion of a mind and body that are one is bio-psycho-social model (Ogden, 2000). It is an integrated model under which researchers not only tried to understand health and illness but also distinguished between health and illness and sick role behaviours. Health behaviour was a behaviour aimed to prevent disease (e.g., eating healthy diet). Illness behaviour was a behaviour aimed to seek remedy (e.g., going to the doctor). Sick role behaviour was an activity aimed to get well (e.g., taking prescribed medication, resting).

According to Ogden, this model is like "Dividing up the soup". First it identifies variables and then develops models and theories to examine how these variables interrelate. For example, it asks "what beliefs predict smoking?" and "What emotions relate to screening?" Therefore it separates into the soup into discrete entities and then puts them back together. The bio-psycho-social model to health can be represented as shown in Fig.3. The biological, psychological and social factors are seen as three interrelated wheels and the treatment is to fix them.

This bio-psycho-social perspective considers that the biological, psychological and social factors interact as dynamic processes in determining the onset, progression and the recovery from illness. (Engel, 1977, 1980, Anagnostopoulou, 2005)..

The role of biological factors in children's health:

The term biological factor includes the genetic materials and processes by which child inherits characteristics from the parents. It includes aspects of children's physiological functioning for example, whether the body 1.contains structural defects such as malformed heart, some damage in the brain etc., 2. is immune to defend by fighting infections caused by viruses, bacteria; 3. over reacts to harmless substances in protective function, such as pollen or dust.

The efficient, effective and healthful functioning of the complex physical system such as organs, bones, nerves, and their constituent tissues, cells, molecules and atoms depends on their operation and interaction with each other.

The role of psychological factors:

Psychological factors include the behavioural patterns or life style and personality of the child. According to Matarazzo(1984) behavioural patterns include two distinguished habits: health impairing habits and health protective behaviours. Health impairing habits can also be called as "behaviour pathogens" or "health risk factors"(e.g., eating high fat diet, smoking). Health risk factors are associated with a health problem but does not necessarily cause problem. For example, being poor is the risk factor for cancer. (Levy, 1985).

These are associated with the development of a disease or injury. Children who are fed up with high saturated fat containing food and children who swallow the food without chewing properly are more prone to develop obesity and overweight. Children do not usually smoke. However, because of their passive smoking due to ignorance, they are likely to contract cancer. Similarly unhealthy sleeping habits imbalanced diet consumption are the health impairing habits which lead to illness.

Health protective behaviours are also called as "behavioural immunogens" (e.g. attending a health check) are the psychological factors which make an individual to prevent disease, seek remedy and get well soon.

Psychological factors include beliefs such as risk perceptions, outcome expectancies, costs and benefits, intentions, implementation intentions. For example, a child's risk perception about occurrence of an accident while going to school alone is a psychological belief which predicts the adverse outcome pertaining to health.

The personality and individual characteristics of a child also affects the health. For example, children with high anxiety, depression, anger/hostility are 'disease prone' (Friedman& Booth-kewley,1987). The optimistic and hopeful outlook and trying to reduce pain by lots of laughter through diversion therapies (e.g., watching comic films, listening to music) are the ways to get well soon.

Emotions which are the subjective feelings relate to health and illness in many ways. Children whose emotions are relatively positive are less disease prone and are more likely to take good care of their health by doing activities such as washing their hands before meals, enjoying the playtime with friends, not being frightened by doctors and dentists, keeping checks to their food items, etc.

Motivation- the term which describes why people behave as they do is also a psychological factor which drives the child to do exercise to eat balanced diet, to stick to healthy norms to avoid doing unpleasant things and thus contributing to health and wellness.

The role of social factors:

We the humans live in social world. We belong to certain families, communities and we are brought up in particular type of living conditions and cultural backgrounds. Children's minds are described by ancient philosophers as "Tabula Rasa" (blank slates). They are affected by the families, communities, friends, neighbours, classmates, work mates and a wide variety of other people during the process of socialization. As children grow, the family has a strong and a special influence on them from their early childhood. They learn health related behaviours, attitudes and beliefs from parents, brothers, and sisters. They learn things when their parents set good examples for healthful habits. For example serving and eating nutritious meals, exercising daily, not smoking, using seat belts while driving etc. The influence of the community and the society on health continually increases as the Child's world expands rapidly during the school years and later.

Social factors also include Socio-Economic status, political participation and risk factors such as poverty which are linked to better health. The greater the gap between the richest and poorest people, the greater the difference in health. Low socio-economic status and poverty are the reasons behind a child's low education levels, poor health, high stress and lower self confidence. As socioeconomic status changes from high to low, there is continually increase in poor health gradient. SES is normally defined by occupation of the parent, education or income. Data from many quantitative studies shows that there is a strong correlation between SES and illness, SES and mortality. The deprived social conditions children experience in their early years have a long term impact on their health and social wellbeing.

The class, ethnicity, gender and age also have strong correlation with health. Children have less immunity when compared to adults and are prone to rapid multiplication of the deadly virus-Human Immuno Virus (HIV).

Political participation, leadership activities are also the social factors that influence health. According to Social Concept theory, political participations an important social determinant of health. In case of Children, the leadership qualities determine their strong self-confidence and self esteem which subsequently contribute to their social health.

The role of Environmental factors:

Safe water, clean air, healthy work places, safe houses, communities and roads all contribute to good health. Culture customs and traditions and beliefs of the family and community all affect the health. According to European Science Foundation (2000), there is increasing evidence on the importance of early childhood environment on subsequent health status.

Bronfenbrenner(1979) conceptualized developmental influences on health in his Ecological approach in terms of four nested systems; see fig.-4.

- 1)*Micro System*: families, schools, neighbourhood
- 2)*Meso System*:peer groups
- 3)*ExoSystyem*: parental support systems, parental workplaces
- 4)*Macro System*: political, philosophical, social policy.

Taylor(1997) described healthy and unhealthy environments are those that threaten safety, that undermine the creation of social ties, and that are conflictual, abusive or violent. A healthy environment in contrast, provides safety, opportunities for social integration, and ability to predict and control aspects of that environment. Unhealthy environments are associated with chronic stress and, 'the lower one is on SES continuum, the greater the amount of hassle, and time to address basic tasks of living'. (Taylor et al., 1997).

In addition to the environmental factors , the access and use of services that prevent and treat diseases influence health. For example, a child who is born in a remote village may not get access to health care services on time leading to further illness and subsequent death.

Considering all these dimensions, determinants and factors influencing the Health, and taking into account the monist perspective of health, we can say that health and illness are not entirely separate concepts-they overlap. There are degrees of wellness and illness. Aaron Antonovsky (1987) suggested that these concepts are considered as the ends of a continuum, noting that "we are all terminal cases. And we all are, so long as there is a breath of life in us, in some measure healthy".

In this continuum model (Fig.-5), at the wellness end, health is the dominant state. It means a positive state of physical and spiritual wellbeing-not simply the absence of disease or infirmity. At the other end of continuum, is disease or illness which involves destructive processes that lead to characteristic signs, symptoms and disabilities.

4. ILLNESS

Illness is not being feeling normal, not being healthy and showing specific symptoms and consequences of illness. There are chiefly two types of illness; dietary and infectious (Grob, 1983)

Dietary diseases result from malnutrition, for example lack of vitamins and causes beriberi and is characterized by anaemia, paralysis and wasting away. Infectious diseases are acute illnesses caused by harmful matter or microorganisms, such as bacteria or viruses in the body.

From early colonial days, there was a periodic epidemic of many infectious diseases especially small pox, diphtheria, yellow fever, measles, and influenza. Children were particularly hard hit. Diseases like Malaria, dysentery, tuberculosis, consumed the lives of many children. Though medical advances have introduced vaccines and medications, it appears that the medical interventions do not completely reach each and every child and the decline chiefly resulted from preventive measures. Today leading causes of mortality among children are incurable and dreadful diseases like AIDS/HIV, Chronic Obstructive Pulmonary Diseases, respiratory infections, tuberculosis, road traffic injuries, violence child abuse and isolation, lack of health care providers and health care services, and the ignorance of children. At this point, it is quintessential to take up a project to study the Health status and health awareness among children in order to develop new interventions to improve and procure sound health to children.

In this context, it would be relevant to consider Indian perspective of health rather than relying completely on foreign opinions. The holistic Indian perspective of health says that "Health is an integration of three gunas:

1) *Satvaguna* which means pure and uncontaminated. Any thing which has satvaguna should not spread evil or disease in the world. On the contrary its presence must purify the surroundings. For example, if an individual consumes such a food, he must feel that he is eating pure food. The food should be healthy, nutritious and clean. It should also not weaken the power or equilibrium of mind.

2) *Rajas* or *rajoguna* is second of the three gunas. It is responsible for motion, energy and preservation and thereby upholds and maintains the activity of the other two gunas, known as *sattva* and *tamas*.

3) *Tamas*: *Tamas* is the template for inertia or resistance to action. It has also been translated from Sanskrit as "indifference". *Tamas* is a force which promotes darkness, death, destruction, and ignorance, sloth, and resistance. The result of a *tamas*-dominated life is demerit by karma: demotion to a lower life-form. A *tamasic* life would be marked by laziness, irresponsibility, cheating, maliciousness, insensitivity, criticizing and finding fault, frustration, aimless living, lack of logical thinking or planning, and making excuses. *Tamasic* activities include overeating, oversleeping and/or the consumption of drugs and alcohol leading to deterioration of physical, social and psychological health.

5. CONCLUSION

On the basis of all these perspectives health can be briefly defined as;

"Health is a complete physical, mental, social and spiritual wellbeing across the life span right from the conception till the end of life filled with three gunas and covered by four ecological nested systems overflowing with energy, life and productivity without any infirmity".

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