

UNIT I

Best Complimentary
Not For Sale

Introduction to Health and Illness

This Chapter Deals with

- 1.1 Concept of Health – Definitions (WHO), Dimensions
- 1.2 Maslow's hierarchy of needs
- 1.3 Health – Illness continuum
- 1.4 Factors influencing health
- 1.5 Causes and risk factors for developing illnesses
- 1.6 Illness – Types, illness behavior
- 1.7 Impact of illness on patient and family

1.1. Concept of Health – Definitions (WHO), Dimensions

Concept of Health

Health

There is no consensus (agreement) about any definition of health. There is knowledge of how to attain (reach) a certain level of health, but health itself cannot be measured. Traditionally health has been defined in terms of the presence or absence of disease. Nightingale defined health as a state of being well and using every power the individual possesses to the fullest extent

Health Definition

- State of being well and using every power the individual possesses
- "Health is a state of complete physical, mental, and social well-being and not merely the absence of disease" (WHO, 1974)
- "Health is not a condition, it is an adjustment. It is not a state, but a process. The process adapts the individual not only to our physical, but also our social, environments" (President's Commission)
- H.S. Hayman defines "health as a state of feeling should in body, mind and spirit, with a sense of reserve power"
- Health is a function of adjustment as adaptation (R. Dubois)
- The American Nurses Association Defined Health is a dynamic state of being in which the developmental and behavioral potential (possible) of an individual is realized to the fullest extent possible

Most individuals define health as the following:

- Being free of symptoms of disease and pain as much as possible
- Being able to be active and able to do what they want or must do
- Being in good spirits most of the time

Health is a dynamic state that continually change as a person adapts to changes in the internal and external environment. Illness is an abnormal process in which functioning of a person is diminished or impaired in one or more dimensions.

Some Philosophy regarding Health

- Health is a fundamental human right
- Health is the essence of productive life, and not the result of ever increasing expenditure of medical care

- Health is inter-sectoral
- Health is an integral part of development
- Health is in central to the concept of quality of life
- Health involves international responsibility and individual state
- Health and its maintenance is a major social investment
- Health is worldwide social goal

View's on Health

Biomedical scientists:

This concept is based on the germ theory of disease, proposed by Robert Koch.

The postulates of germ theory of disease states that- Microorganisms are responsible for the disease.

These microorganisms can be isolated from the diseased host and can be purely cultured in laboratory

The isolated organisms in pure culture when injected to healthy susceptible host can produce same disease

The microorganisms can be isolated from experimental host, both in smear and culture.

Ecologists: They view health as a harmonious equilibrium between man and his environment. Disease is said to be the individual's maladjustment to his environment. This concept states about equilibrium between host (Human), infectious agents and the environment they share. So, health is dynamic equilibrium between human and their environment.

Sociologists:

They believe health is not only biomedical phenomenon but is also influenced by social, psychological, cultural, economical and political factors

Holistic View: this view is synthesis of views of all experts. This views health as a multidimensional process involving well-being of the whole person in the context of his environment. This concept includes all biomedical, ecological and psychosocial concept in defining health and disease.

1.2. Maslow's hierarchy of needs

Maslow's hierarchy of needs is a theory of motivation which states that five categories of human needs dictate an individual's behavior. Those needs are physiological needs, safety needs, love and belonging needs, esteem needs, and self-actualization needs.

5 Levels of Maslow's Hierarchy of Needs

Maslow's theory presents his hierarchy of needs in a pyramid shape, with basic needs at the bottom of the pyramid and more high-level, intangible needs at the top. A person can only move on to addressing the higher-level needs when their basic needs are adequately fulfilled.

- 1. Physiological needs:** The first of the id-driven lower needs on Maslow's hierarchy are physiological needs. These most basic human survival needs include food and water, sufficient rest, clothing and shelter, overall health, and reproduction. Maslow states that these basic physiological needs must be addressed before humans move on to the next level of fulfillment.
- 2. Safety needs:** Next among the lower-level needs is safety. Safety needs include protection from violence and theft, emotional stability and well-being, health security, and financial security.
- 3. Love and belonging needs:** The social needs on the third level of Maslow's hierarchy relate to human interaction and are the last of the so-called lower needs. Among these needs are friendships and family bonds—both with biological family (parents, siblings, children) and chosen family (spouses and partners). Physical and emotional intimacy ranging from sexual relationships to intimate emotional bonds are important to achieving a feeling of elevated kinship. Additionally, membership in social groups contributes to meeting this need, from belonging to a team of coworkers to forging an identity in a union, club or group of hobbyists.

- 4. Esteem needs:** The higher needs, beginning with esteem, are ego-driven needs. The primary elements of esteem are self-respect (the belief that you are valuable and deserving of dignity) and self-esteem (confidence in your potential for personal growth and accomplishments). Maslow specifically notes that self-esteem can be broken into two types: esteem which is based on respect and acknowledgment from others, and esteem which is based on your own self-assessment. Self-confidence and independence stem from this latter type of self-esteem.
- 5. Self-actualization needs:** Self-actualization describes the fulfillment of your full potential as a person. Sometimes called self-fulfillment needs, self-actualization needs occupy the highest spot on Maslow's pyramid. Self-actualization needs include education, skill development—the refining of talents in areas such as music, athletics, design, cooking, and gardening—caring for others, and broader goals like learning a new language, traveling to new places, and winning awards.

Deficiency Needs vs. Growth Needs on Maslow's Hierarchy

Maslow referred to self-actualization as a "growth need," and he separated it from the lower four levels on his hierarchy, which he called "deficiency needs." According to his theory, if you fail to meet your deficiency needs, you'll experience harmful or unpleasant results. Conditions ranging from illness and starvation up through loneliness and self-doubt are the byproducts of unmet deficiency needs. (Fig. 1.1)

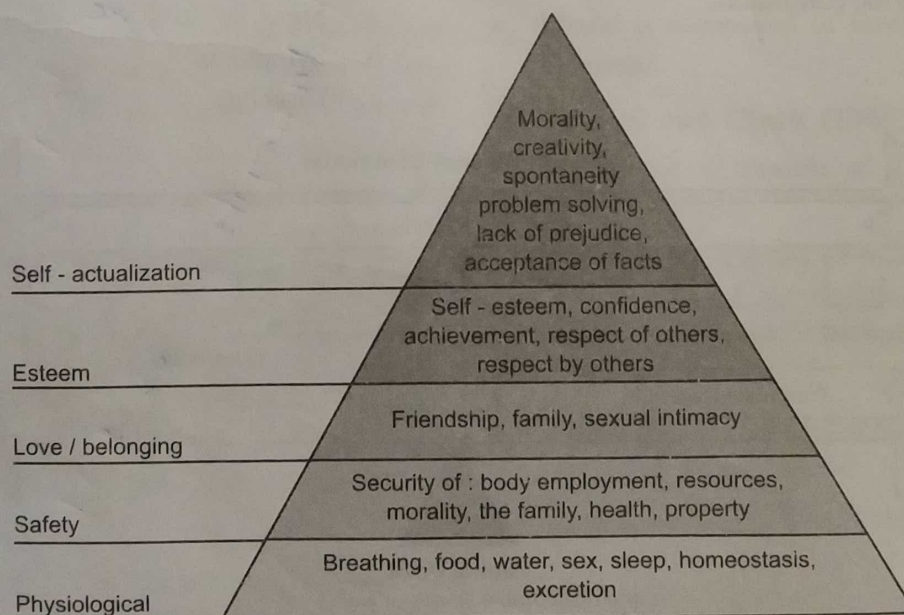


Fig. 1.1 : Maslow's Hierarchial basic needs

1.3 Health – Illness continuum

Various Model of Health

Health and illness are complex that is dynamic. A model is theoretical way of understanding a complex phenomenon. Health models help to understand client's health behaviors and belief so that effective health care can be provided. Health models helps nurses to understand the relationship between health of the client and various variables affecting it such as nutrition, life style, health practice etc. Model represents various ways of approaching complex wishes.

Models of health and illness contain a combination of biological characteristics behavioural factors and social conditions.

- 1) Health – illness continuum model
- 2) High level wellness model
- 3) Agent – host environment model
- 4) Health belief model
- 5) Holistic health model
- 6) Health promotion model

Health – Illness Continuum Model

- Health and illness can be viewed as the opposite ends of a health continuum
- From high level of health a person's condition can move through good health — normal health — poor health — extremely poor health — to death.
- How people perceive themselves and how others see them in terms of health and illness will also affect their placement on the continuum.

Characteristics of Health-Illness Continuum Model

- At any time any person's health status holds a place on certain point between two ends of health-illness continuum
- Any point on the health-illness continuum is a synthetically representation of various aspects of individual in physiology, psychology and society.

Nurses Responsibilities

- To help the client to identify their place on the health-continuum.
- To assist the clients to adopt some measures in order to reach a well state of health (**Fig. 1.2**).

The illness wellness continuum, illustrate the process of change, in which the individual experiences various states of health and illness (ranging from extremely good health to death that fluctuate throughout life. People move back and forth with in this continuum day by day) the illness wellness continuum composed of two arrows pointing in opposite direction and joined at neutral point.

1. Movement to the right on the arrows (towards high level wellness) equals and increasing level of health and wellbeing.

Achieved in three stages.

- a. Awarness
- b. Education
- c. Growth

2. Movement to the left on the arrows (towards pre matured death) equals a progressively decreasing state of health.

Achieved in three stages.

- a. Signs
- b. Symptoms
- c. Disability

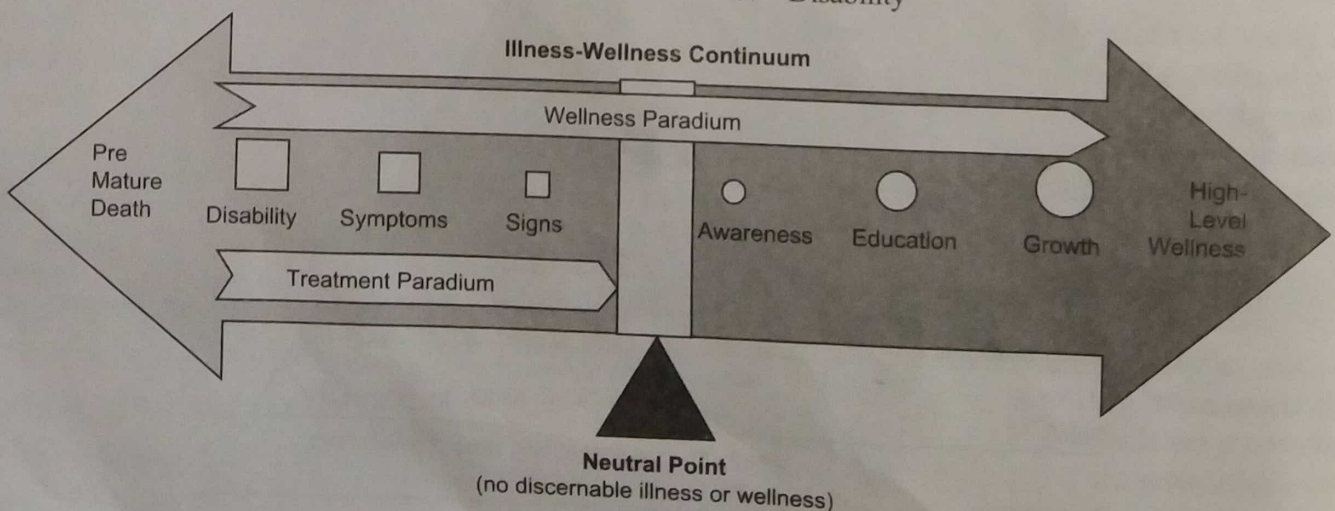


Fig. 1.2

3. Most important is the direction the individual is facing on the pathway.
 - a. If towards high level health, a person has a positive outlook despite is/her health status.
 - b. If towards premature death, a person has negative outlook about is/her health status.
4. Compares treatment model with wellness model
 - a. If treatment model is used and individual can move right only to the neutral point. (eg.) client with hypertension takes only medication without making any other life style changes.
 - b. If a wellness model is used, and individual can move right past the neutral point. (eg) client with hypertension not only takes his medication but stops smoking, loose weight etc.

High Level of Wellness Model

It shows a method of functioning oriented towards maximizing the potential of an individual while maintaining balance and purposeful direction with environment. This is holistic in nature. It allows nurse to care for individual with regard to all dimensional factors. It emphasizes health promotion and illness prevention rather than only treatment. It defines process that help individual to know who and what he/she is

- Being- recognizing self as separate and individual
- Belonging- being part of a whole
- Becoming- growing and developing
- Befitting- making personal changes to belief the self for the future
- Dun (1961), recognizes health as an ongoing process toward a person's highest potential of functioning. This process involves the person, family and the community.
- It describe high level wellness as the experience of a person alive with the glow of good health, alive to the tips of their fingers with energy to burn, tingling with vitality at times like this the world is a glorious place

- Two axes – X- axis is health: It extends from peak wellness to death – Y- axis is environment: it extends from very favorable environment to very unfavorable environment
- Quadrant 1 – High-level wellness in favorable environment e.g., a person who implements healthy life- style behaviors and has the biopsychosocial spiritual resources to support this life-style
- Quadrant 2 – Protected poor health in favorable environment e.g., an ill person whose needs are met by the health care system and who has access to appropriate medications, diet, and health care instruction
- Quadrant 3 – Poor health in unfavorable environment e.g., a young child who is starving in a drought ridden country
- Quadrant 4 – Emergent high level wellness in unfavorable environment e.g., a woman who has the knowledge to implement healthy life-style practices but does not implement adequate self-care practices because of family responsibilities, job demands, or other factors

Agent-Host-Environment Model

- Each factor constantly interacts with the others
- When in balance, health is maintained
- When not in balance, disease occurs
- Used primarily in predicting illness rather than promoting wellness
- Model is composed of three dynamic, interactive elements

By Leavell and Clark (1965)

- A number of models of disease causation have been proposed.
- Among the simplest of these is the epidemiologic triad or triangle, the traditional model for infectious disease.
- The triad consists of an external agent, a susceptible host, and an environment that brings the host and agent together.
- In this model, the disease results from the interaction between the agent and the susceptible host in an environment that supports the transmission of the agent from a source to that host.

DUNN'S HIGH-LEVEL WELLNESS AND GRID MODEL

Quadrant 1 High Level Wellness in a favorable environment	Quadrant 2 Protected poor Health in a favorable environment
Quadrant 3 Poor health in an unfavorable environment	Quadrant 4 Emergent High Level Wellness in an unfavorable environment

- While the epidemiologic triad serves as a useful model for many diseases, it has proven inadequate for cardiovascular disease, cancer, and other diseases that appear to have multiple contributing causes without a single necessary one.

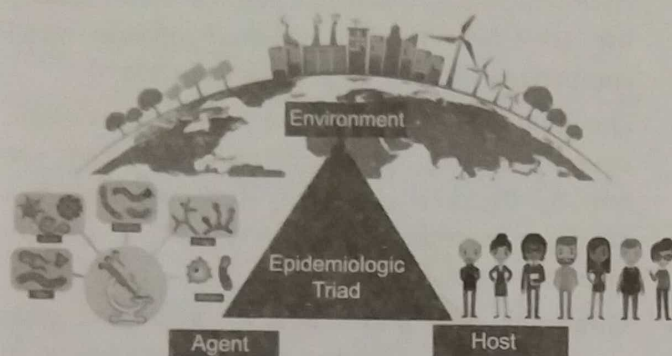


Fig. 1.3

- An agent is an environmental factor or stressor that must be present or absent for an illness to occur
- A host is a living organism capable of being infected or affected by an agent
- The host reaction is influenced by family history, age, and health habits
- The environment is the situation of circumstances where host live

Agent

HIV is a viral infection that targets a person's immune system opens in a new window, making it more vulnerable to other forms of infection. Because the virus targets the immune system itself, the body cannot effectively fight HIV on its own. HIV is communicated through direct contact with an infected person's bodily fluids, and it primarily spreads through sexual contact or shared needles.

Host

Scientists theorize that HIV was originally carried by chimpanzees and that humans who hunted these chimpanzees for meat became infected with a mutated form of the virus upon contact with the chimpanzees' blood. HIV can be transmitted when a body fluid such as blood comes into contact with a mucous membrane or damaged tissue (such as an open wound or the mucous membranes found inside the mouth).

Environment

There are a number of socio-economic factors that can impact the spread of HIV opens in a new window within

a community. Communities with higher concentrations of sexually transmitted diseases and lower incidences of reporting due to social pressure or otherwise allow HIV to flourish. Poverty limits access to care and treatment, and discrimination can discourage individuals from being tested or seeking care.

Health Belief Model

Health Belief Model by Rosentock (Flow Chart - 1.1)

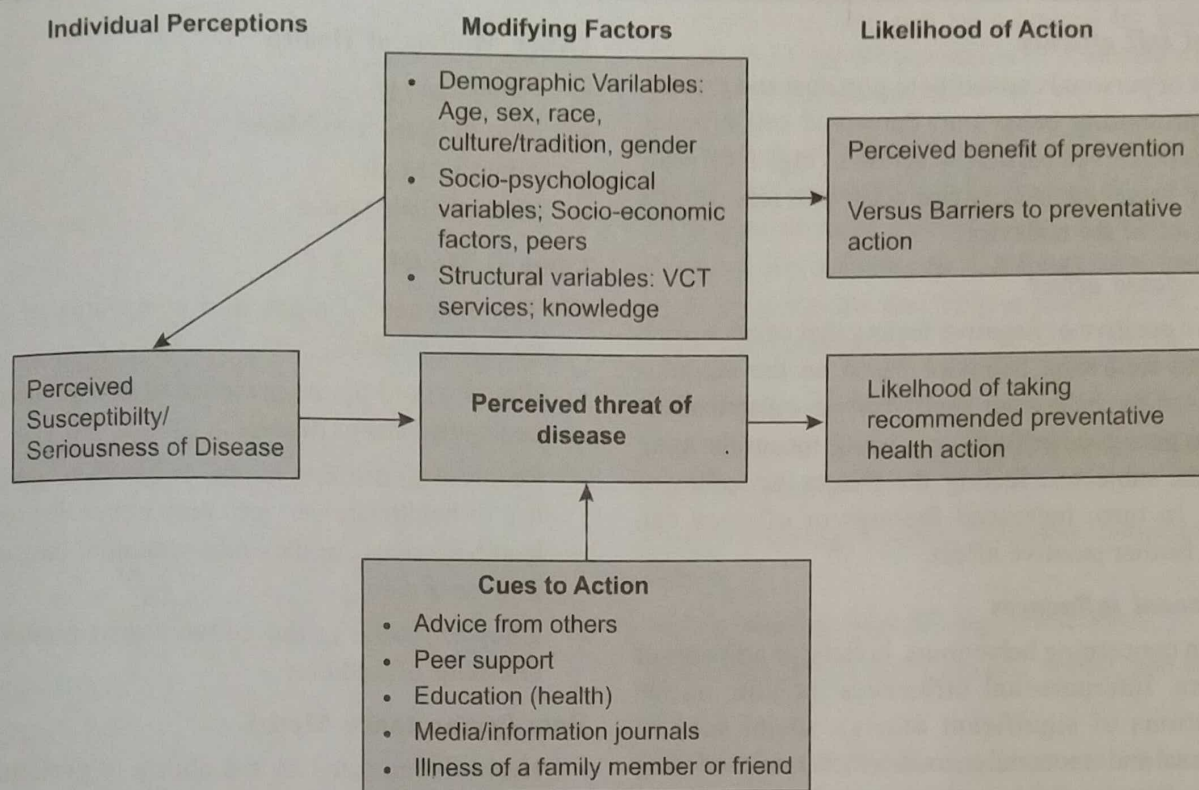
- Based on motivational theory
- Concerned with what people perceive about themselves in relation to their health
- Consider perceptions (influences individuals motivation towards results) – Perceived susceptibility – Perceived seriousness – Perceived benefit out of the action
- Modifying factors (factors that modify an individual's perceptions), e.g.:
 1. Demographic variables e.g., age, gender, race, ethnicity, etc.
 2. Sociopsychologic variables e.g., personality, social class, peer and reference group pressure, etc.
 3. Structural variables e.g., knowledge about the disease, prior contact with the disease, etc.
 4. Cues to action e.g., mass media campaigns, advice from others, reminder postcard from a physician or dentist, illness of family member or friend, newspaper or magazine article
- Likelihood of action
 1. Perceived benefits of the action MINUS
 2. Perceived barriers to action EQUALS

Holistic Health Model

Holistic Health Model (by Edelman and Mandle, 2002).

A comprehensive view of the person as a bio psychosocial and spiritual being and sometime holistic health model is said to be alternative medicine

- Holism represents the interaction of a person's mind, body and spirit within the environment.
- Holism is based on the belief that people (or their parts) cannot be fully understood if examined solely in pieces apart from their environment.
- Holism sees people as ever charging systems of energy.
- In this model, nurses consider clients the ultimate experts regarding their own health and respect client's subjective experience as relevant in maintaining health or assisting in healing.



Flow Chart - 1.1

- In holistic model of health, clients are involved in their healing process, thereby assuming some responsibility for health maintenance.
- The holistic health care model comes from a variety of scientific philosophical, social bases that describe similar phenomenon
- The model empower the patients to engage in their own healing power which comprises of concepts of energy, holism, the mind body connection, and balance in order to expand the definition of health
- Some of widely used holistic interventions include aromatherapy, meditation, music therapy, and relation therapy, therapeutic touch, applied in health care setting such as meditation, breathing exercise

Health promotion model

Model is proposed by pender (1996)

- It define health as a positive, dynamic state, not merely the absence of disease
- The model was proposed as a framework for integrating the perspectives of nursing and behavioural science and the factors that influence health behaviour
- The model emphasize on the three function of patient's cognitive perceptual – individual characteristics experiences – behaviour specific cognitions and affect – behavioural outcome

Personal factors

Personal factors categorized as biological, psychological and socio-cultural. These factors are predictive of a given behavior and shaped by the nature of the target behaviour being considered.

Personal biological factors

Include variable such as age gender body mass index pubertal status, aerobic capacity, strength, agility, or balance.

Personal psychological factors

Include variables such as self esteem self motivation personal competence perceived health status and definition of health.

Personal socio-cultural factors

Include variables such as race ethnicity, acculturation, education and socioeconomic status.

- Behavioural specific cognition and affect

Perceived benefits of action

Anticipated positive out comes that will occur from health behaviour.

Perceived barriers to action

Anticipated, imagined or real blocks and personal costs of understanding a given behaviour

Perceived self efficacy

Judgment of personal capability to organise and execute a health-promoting behaviour. Perceived self efficacy influences perceived barriers to action so higher efficacy result in lowered perceptions of barriers to the performance of the behavior.

Activity related affect

Subjective positive or negative feeling that occur before, during and following behavior based on the stimulus properties of the behaviour itself. Activity-related affect influences perceived self-efficacy, which means the more positive the subjective feeling, the greater the feeling of efficacy. In turn, increased feelings of efficacy can generate further positive affect.

Interpersonal influences

Cognition concerning behaviours, beliefs, or attitudes of the others. Interpersonal influences include: norms (expectations of significant others), social support (instrumental and emotional encouragement) and modelling (vicarious learning through observing others engaged in a particular behaviour). Primary sources of interpersonal influences are families, peers, and healthcare providers.

Situational influences

Personal perceptions and cognitions of any given situation or context that can facilitate or impede behaviour. Include perceptions of options available, demand characteristics and aesthetic features of the environment in which given health promoting is proposed to take place. Situational influences may have direct or indirect influences on health behaviour.

Behavioural outcome**Commitment to plan of action**

The concept of intention and identification of a planned strategy leads to implementation of health behaviour.

Immediate competing demands and preferences

Competing demands are those alternative behaviour over which individuals have low control because there are environmental contingencies such as work or family care responsibilities. Competing preferences are alternative behaviour over which individuals exert relatively high control, such as choice of ice cream or apple for a snack

Health promoting behaviour

Endpoint or action outcome directed toward attaining positive health outcome such as optimal well-being, personal fulfillment, and productive living.

Other Models of Health

- Clinical Model
- Role Performance Model
- Adaptive Model
- Eudemonistic Model

Clinical Model

- The absence of signs and symptoms of disease indicates health.
- Illness would be the presence of conspicuous signs and symptoms of disease.
- People who use this model of health to guide their use of healthcare services may not seek preventive health services, or they may wait until they are very ill to seek care.
- Clinical model is the conventional model of the discipline of medicine.

Role Performance Model

- Health is indicated by the ability to perform social roles.
- Role performance includes work, family and social roles, with performance based on societal expectations.
- Illness would be the failure to perform a person's roles at the level of others in society.
- This model is basis for work and school physical examination and physician-excused absences.
- The sick role, in which people can be excused from performing their social roles while they are ill, is a vital component of the role performance model.

Adaptive Model

- The ability to adapt positively to social, mental, and physiological change is indicative of health.
- Illness occurs when the person fails to adapt or becomes inadaptive toward these changes.
- As the concept of adaptation has entered other aspects of culture, this model has become widely accepted.

Eudemonistic Model

- Comprehensive view of health
- Condition of actualization (make real) or realization of a person's potential
- Illness is a condition that prevents self-actualization
- Actualization is the apex of the fully developed personality Dictionary:

- Eudemonism: morality evaluated according to happiness

1.4. Factors influencing health

- Internal factors
- External factors

Internal factors

1. Biologic dimension genetic makeup, sex, age, and developmental level all significantly influence a person's health.
2. Psychological dimension emotional factors influencing health include mind-body interactions and self-concept.
3. Cognitive dimension include lifestyle choices (patterns of eating and exercise, use of tobacco, abuse of drugs and alcohol) and spiritual and religious beliefs.

External factors

1. Environment.
2. Socioeconomic status
3. Standards of living. Reflecting occupation, income, and education.
4. Family and cultural beliefs. Patterns of daily living and lifestyle to offspring(children).
5. Social support networks. Family, friends, or confidant (best friend) and job satisfaction helps people avoid illness.

Health Care Adherence

- Adherence (obedience) : Is the extent to which an individual's behavior for example, taking medications, following diets or making lifestyle changes. Degree of adherence may range from disregarding (ignoring) every aspect of the recommendations to following the total therapeutic plan.

Wellness is a process, never a static state.

Most of us think of wellness in terms of illness; we assume that the absence of illness indicates wellness. There are actually many degrees of wellness, just as there are many degrees of illness.

1.5. Causes and risk factors for developing illnesses

Causes and risk factor for developing diseases

Definition of Risk Factor

An attribute or exposure that is significantly associated with the development of disease

A determinant that can be modified by intervention, thereby reducing the possibility of occurrence of disease or other specified outcome

Risk factors are often suggestive, ie, presence of a risk factor does not imply that the disease will occur, and in its absence diseases will not occur. -Risk factors may be causative (eg, smoking for CA lung), contributory (lack of physical exercise for CHD) or predictive (eg, illiteracy for prenatal mortality).

Prominent risk factors

Heart disease- smoking, high BP, high cholesterol , diabetes, obesity

Cancer-smoking, alcohol, radiation, pollution, dietary factors

Stroke- smoking, high BP, high cholesterol

Motor vehicle accidents-alcohol, speed, non use of seat belt

Cirrhosis of liver-alcohol

Risk group / target group

1. Biological situation

Age group eg. Toddler more prone to accidents

Sex eg. Male more prone to Ca lung

Physiological state eg. Anemia is common in pregnant mother

Genetic factors eg. Family history of genetic disorder like mental retardation, down syndrome, diabetes

Other health conditions eg. high blood pressure lead to stroke

2. Physical situations

Rural (malnutrition), urban (CAD)

Living conditions, over crowding (asthma, nutritional deficiency)

Environment (cholera due to impure water)

3. Socio cultural factors

Social class (high class more prone to CAD)

Ethnic and cultural group -family disruption (stress), education (infant mortality rate), housing (asthma)

Customs, habit, behaviour (smoking, lack of exercise, over eating, drug addiction) -access to health service (rural people)

Lifestyle and attitude(lack of exercise)

Most of the conditions that cause a high proportion of the early death or ill health are related to modifiable factors that affect health.