INTRODUCTION

The world has seen tremendous medical, scientific, social and psychological shifts in the last hundred years. The last century has witnessed a dramatic change in the patterns of morbidity and mortality in the industrial world. Industrial revolution sparked off numerous problems like creation of slums, overcrowding with all its ill-effects, accumulation of filth in cities and towns, high sickness and death rates especially among women and children, infectious diseases like tuberculosis, industrial and social problems. All this led to deterioration of health of people to the lowest ebb. In contrast, in the past decade, the leading causes of death are lifestyle illnesses like Coronary heart disease, Hypertension, Cancer, diabetes and asthma etc. came into prominence and became the leading causes of death. The realization began to dawn that there are others factors in the etiology of diseases. Social, economic, genetic, environmental and psychological factors are equally important in the etiology of illness. Perhaps the most significant change in understanding of etiological processes over the last half century has been the acknowledgement of lifestyle and health behavior as factors in disease risk (Sarafino, 1994).

There seems to be overlap between health and human behavior. All ancient and modern schools of medicine did have some guidelines to tackle human behavior to promote health. The discoveries in preventive medicine were done with the dichotomy of medicine into two major branches namely curative medicine, and public health/ preventive medicine (Clark et al., 1981). Eventually, the concept of “health promotion” began to take its shape. It was realized that the State had a direct responsibility for the health of the individual. So, along with the disease control activities, health promotion of individuals was also added as a goal. The programs towards health promotion were expanding. Mother and child health services, school health services, industrial
services, mental health and rehabilitation services were initiated as personal health services. Since the State had assumed the direct responsibility for the health of all the individuals so the movement of providing basic health services to all had started (WHO, 1984).

The WHO's (1994) latest model of Health considered health to be determined by biopsychosocial factors. One often thinks of health and medical care as closely associated. When illness strikes, the care of a doctor is sought. Yet health is influenced by many factors, of which medical care is only a small contributor. Beyond medical care, factors of lifestyle, stress, coping, inner resources contribute about 70% to health and disease. All these are modifiable risk factors. The diseases and problems could not be tackled by the traditional approaches as isolation, immunization and disinfection, thus a new concept of "risk factors" as determinant of these diseases came into existence (WHO, 1995).

DEFINITIONS OF HEALTH

Health in its basic form is known as absence of disease. Health is often taken for granted, however, during the past few decades; there has been a reawakening that health is a fundamental human right essential to the satisfaction of basic human needs and to an improved quality of life to be attained by all people. Thus, over the centuries the concept of Health has evolved from an individual concern to worldwide social goal including the improved quality of life.

**Health is a complete state of physical, mental and social well-being.** Health Psychology is an aggregate of the specific educational, scientific, and professional contributions of the discipline of psychology to the promotion and maintenance of health, the prevention and treatment of illness, and the identification of the etiologic and diagnostic correlates of health, illness and related dysfunctions (Matarazzo, 1980).

The ecological concept viewed health as a dynamic equilibrium between individual and his environment, and disease a maladjustment of
human organisms to environment. Health implies the relative absence of pain and discomfort and continuous adaptation and adjustment to the environment to ensure optimal functioning (Dubos, 1965). Improvement in human adaptation to natural environments can lead to longer life expectancies and a better quality of life.

Contemporary developments revealed that health is not just a biomedical phenomenon. Social, psychological, cultural, economic and political factors must be taken into consideration for defining health. Thus, health is a biological, social and phenomenon.

The holistic approach to health is integration of all these perspectives. Holistic approach emphasis on the promotion and protection of health.

Regional and National Health promotion objectives increasingly target health behavior. In the United States, Healthy People 2000 listed increased physical activity, changes in nutrition, reductions in tobacco, alcohol and drug use and more effective family planning as major priorities for health promotion and disease prevention. The WHO target for Health For All by 2000 (1985) included enhancement of social systems and programs to improve knowledge and motivation for lifestyle changes along with other objectives. In all these formulation of the issues confronting health promotion, the concept of personal health behavior emerged prominent.

According to Antonovsky (1979), health and sickness are not entirely separate concepts – they overlap. There are degrees of wellness and illness. Figure A below shows that at the wellness end of the continuum, health is the dominant state. At the other end of the continuum is disease or illness.

The role of behavior in health has received increasing attention since the turn of the century, as the cause of death have shifted from infectious and dietary diseases to chronic diseases. Since last few
decades, changes resulted partly from the modifications people made in their behavioral risk factors for major chronic diseases (Sarafino, 1994).

![Illness/Wellness Continuum](image)

**Illness/Wellness Continuum**

*Figure-A: A Model of an Illness / Wellness Continuum Antonovsky, A. 1979)*

A typical person’s lifestyle includes many behaviors that are risk factors for illness and injury like cigarette smoking, excessive drinking, drugs use, eat high-fat and cholesterol diets, overweight, too little exercise, too much stress not using seat belts in automobiles etc. Now, many people realize the danger these and other risk factors present and adjust their behavior to protect their health (Sarafino, 1994).

**Health behavior has a preventive function** — engaging in it helps to maintain or improve current good health and avoid illness. But when people are well, they may not feel inclined to devote the effort and sacrifices that entail engaging in health behavior. Thus, engaging in health behavior may greatly depend on motivational factors, particularly with regards to the individual’s perception of a threat of disease.

Various researches done reveal that firstly, although people’s health habits are fairly stable, they often change over time. Secondly, particular health-protective behaviors are not strongly tied to each other that is, if we know a person practices one specific health habit; we cannot accurately
predict that he or she practices another specific habit. Thirdly, health protective behaviors do not seem to be governed in each person by a single set of attitudes or response tendencies.

Many individuals lead very healthful lifestyles, and the number of health-protective behaviors people practice remains fairly constant over many years. But many other people show little consistency in their health habits (Langlie, 1977; Harris and Guten, 1979; and Mechanic, 1979). Various researches done conclude that, firstly, although people’s health habits are fairly stable, they often change over time. Secondly, particularly health-protective behaviors are not strongly tied to each other—that is, if we know a person practices another habit, such as using seat belts, we cannot accurately predict that he or she practices another specific habit, such as exercising. Thirdly, health-protective behaviors do not seem to be governed in each person by a single set of attitudes or response tendencies.

Family plays an important role in cultivating health behavior. People acquire healthful and unhealthful behavior through learning behaviors through learning processes, which occur by way of direct experience and through observing the behavior of others. If the behavior becomes well established, it tends to become habitual, that is, the person often performs it automatically and without awareness. Since habitual behaviors are hard to change, people need to develop health behaviors as early as possible and eliminate unhealthful activities as soon as they appear. The family system plays a major role in children’s learning of health-related behaviors (Baranowski and Nader, 1985). Children observe the dietary, exercise, and smoking habits of other family members and often receives encouragement to behave in similar ways. Children who observe and receive encouragement for healthful behavior at home are more likely to develop good health habits than children who do not.
It is generally observed that some individuals are highly health conscious and others seem to have little concern about their health. Some people practice healthful behaviors and continue to perform these behaviors over time.

**DEFINITIONS OF HEALTH PROTECTIVE BEHAVIOR**

In 1994, the World Health Organization (WHO) defined health as, “A state of complete physical, mental and social well-being and not merely the absence of disease or infirmity.”

According to Sarafino (1994), there are two broad classes of health-related behavior: Health Risk behaviors and Positive Health behaviors.

Health risk behavior is perhaps easier to define, and can be regarded as any activity undertaken by people with a frequency or intensity that increases risk of disease or injury, whether or not the person is aware of the link between the activity and risk of behavior or injury. Common health risk behaviors include smoking, excessive alcohol consumption, drinking and driving, drugs usage, and certain sexual practices.

The state of Positive health implies “perfect functioning” of the body and mind. It conceptualizes health biologically, as a state in which every cell and every organ is functioning at optimum capacity and in perfect harmony with the rest of the body; psychologically, as a state in which the individual feels a sense of perfect well-being and of mastery over his environment, and socially, as a state in which the individual’s capacity for participation in the social system are optimal. (Twaddle and Hassler, 1977).

Dubos (1965) said, “The concept of perfect health cannot become a reality because man will never be so perfectly adapted to his environment that his life will not involve struggles, failures and sufferings”. Thus, positive health will always remain a mirage because everything in our life is subject to change (Dubos, 1969). Health according to this context has
been described as a potentiality – the ability of an individual or a social group to modify him or itself continually, in the face of changing conditions of life.

Berg (1976) stressed that most people are aware of what preventive behaviors should be engaged in and often indicate that they would engage in such behaviors as exercise and sound nutrition. However, even then individuals continue their harmful habits. Perception of illness and appropriate action may be different for different individuals and may represent important factors in understanding health behavior.

Bloom (1988) defines “Health encompassing both health and illness, physical and mental health, specific types or forms of illness as well as the general feeling of well-being or of “not feeling well.”

According to Sartorius (1989) Health is “A state of balance between the individual, his inner self and the world around him.”

Five factors of Health Protective Behavior identified by Harris and Guten are:

1. Engaging in health practices – sleeping enough, relaxing, eating sensibly, exercising in moderation, avoiding overwork, avoiding chills, limiting certain foods, watching one’s weight.

2. Engaging in safety measures – repairing things at home and office, checking the condition of things which are dangerous like electronics, having a first aid kit, and keeping emergency phone numbers near the phone etc.

3. Preventive health care – physical and dental check-ups, sticking to immunization schedules, etc.

4. Avoidance of environmental hazards – avoiding areas of crime and pollution.

5. Avoidance of substance abuse – no smoking, or drinking etc.
DIMENSIONS OF HEALTH

Health is a multidimensional concept. WHO defines three specific dimensions – the physical, the mental and social. Other dimensions are spiritual, emotional, vocational and political. As the knowledge grows, the dimensions expand (Eberst, 1984). Dimensions functions and interacts with one another and each has its own nature.

1. Physical Dimension: The state of physical health implies the notion of “perfect functioning” of the body. It conceptualizes health biologically as a state in which every cell and every organ is functioning at optimum capacity and in perfect harmony with the rest of the body (Crew, 1965).

The signs of physical health in an individual are: a good complexion, a clear skin, bright eyes, lustrous hair with a body well clothed with firm flesh, not too fat, a sweet breath, a good appetite, sound sleep, regular activity of bowels and bladder and smooth, easy, coordinated bodily movements. All the organs of the body are of unexceptional size and function normally; all the special senses are intact; the resting pulse rate, blood pressure and exercise tolerance are all within the range of “normality” for the individual’s age and sex (Crew, 1965).

Modern medicine has evolved indices of good physical health which are: Self assessment of overall health; inquiry into symptoms of ill health and risk factors; inquiry into medications; inquiry into levels of activity (e.g., degree of fitness); inquiry into use of medical services (e.g., the number of visits of physician) in the recent past; standardized questionnaires for cardiovascular diseases; standardized questionnaires for respiratory diseases; clinical examination; nutrition and dietary assessment; and biochemical and laboratory investigations.
2. **Mental Dimension:** Mental health is not merely absence of mental illness. Good mental health is the ability to respond to the many varied experiences of life with flexibility and a sense of purpose. Mental health is defined as “a state of balance between the individual and the surrounding world, a state of harmony between oneself and others, a coexistence between the realities of the self and that of other people and that of the environment” (Sartorius, 1989).

According to WHO (1964), a few decades ago, the mind and body were considered independent entities. Recently, however, researchers have discovered that psychological factors play a role in all kinds of illness, not simply mental ones. They include conditions such as essential hypertension, peptic ulcer and bronchial asthma (WHO, 1964). Some major illnesses such as depression and schizophrenia have a biological component. The underlying inference is that there is a behavioral, psychological or biological dysfunction and that the disturbance in the mental equilibrium is not merely in the relationship between the individual and society (Fillenbaum, 1984).

According to Fillenbaum (1984), the following are the characteristics of a healthy person: A mentally healthy person is free from internal conflicts, is not at ‘war’ with himself; is well adjusted, i.e., able to get along well with others. Accepts criticism and is not easily upset; searches for identity of himself; has a strong sense of self-esteem; knows himself i.e. his needs, problems and goals; has a good self-control – balances rationality and emotionality; faces problems and tries to solve them intelligently, i.e., coping with stress and anxiety (Fillenbaum, 1984).

3. **Social Dimension:** Social well-being implies harmony and integration within the individual, between each individuals and the world in which they live (Cmich, 1984). It has been defined as the “quantity and
quality of an individual’s interpersonal ties and the extent of involvement with the community” (Donald, 1978).

The social dimension of health includes the levels of social skills one possesses, social functioning and the ability to see oneself as a member of a larger society. In general, social health takes into account that every individual is a part of a family and of wider community and focuses on social and economic conditions and well-being of the “whole person” in the context of his social network. Social health is rooted in “positive material environment” (focusing on financial and residential matters), and “positive human environment” which is concerned with the social network of the individual (Fillenbaum, 1984).

4. **Spiritual Dimension:** Spiritual health refers to that part of the individual, which reaches out and strives for meaning and purpose in life. It is the intangible “something” that transcends physiology and psychology. As a relatively new concept, it seems to defy concrete definition. It includes integrity, principles and ethics, the purpose in life, commitment to some higher being and belief in concepts that are not subject to “state of art” explanation (Eberst, 1984).

5. **Emotional Dimension:** Historically the mental and emotional dimensions have been seen as one element or as two closely related elements. However, as more research becomes available a definite difference is emerging. Mental health can be seen as “knowing” or “cognition” while emotional health relates to “feeling”. Experts in psychobiology have been relatively successful in isolating these two separate dimensions. With this new data, the mental and emotional aspects of humanness may have to be viewed as two separate dimensions of human health (Eberst, 1984).

6. **Vocational Dimension:** The vocational aspect of health is a new dimension. It is part of human existence. When work is fully adapted to
human goals, capacities and limitations, work often plays a role in promoting both physical and mental health. Physical work is usually associated with an improvement in physical and mental health. Physical work is usually associated with an improvement in physical capacity, while goal achievement and self-realization in work are a source of satisfaction and enhanced self-esteem (WHO, 1985).

The importance of this dimension is realized when individuals suddenly lose their jobs or are faced with mandatory retirement. For many individuals, the vocational dimension may be merely a source of income. To others, this dimension represents the culmination of the efforts of other dimensions as they function together to produce what the individual considers life “success” (Eberst, 1984).

FACTORS INFLUENCING HEALTH PROTECTIVE BEHAVIOR

The principal advances in health have come about through health promotion and disease prevention rather than through diagnosis and therapy (Breslow, 1983). Prevention operates at three levels viz., primary prevention, secondary prevention and tertiary prevention.

Primary Prevention

According to Harper (1981) and Emery and Pullen (1986), primary prevention consists of action taken to avoid disease or injury. Like avoiding automobile injuries by using seat belts, or wearing helmets, a friend reminding us to use them, and public health reminders on TV. Primary prevention for an individual can begin before he or she is born, or even conceived. Today it is possible to estimate the risk of a child’s inheriting a genetic disorder and in some cases, to diagnose genetic abnormalities in the unborn fetus through genetic counseling. The use of genetic counseling and biological tests on fetus can play an important role
in primary prevention, allowing prospective and expectant parents to make informed decisions regarding future pregnancies (Kopp, 1983).

Another way, parents can exercise primary prevention for children is by immunization. Although many prevalent illnesses such as pneumonia and common cold cannot yet be controlled through immunization but several other diseases like diphtheria, tetanus, whooping cough, measles, rubella, mumps and polio can be controlled through immunization (USBC, 1995; USDHHS, 1995 and Pear, 1996).

Two promising approaches to primary prevention exists, one involves medical professional giving health-promotion advice to patients (Levine et al., 1992). The second approach helps people recognize the need for improvements in their health behaviors (Weiss, 1984). The questionnaires typically ask about the person’s past and current health; family history of illness; personal characteristics, such as age, height and weight, sex and race; and lifestyle such as personal hygiene, eating habits, use of tobacco and alcohol, physical activity etc. These help us to know and estimate the person’s risk and sometimes, how much risk could be eliminated if an individual made certain lifestyle changes.

Secondary Prevention

In secondary prevention, actions are taken to identify and treat an illness or injury at the earliest with the aim of stopping or reversing the problem. If a person develops an ulcer, secondary prevention activities include the person’s illness behavior seeking medical care for abdominal pain; the physician’s prescribing medication and dietary changes. Other health problems like examination of the mouth and jaw regions for early cancer detection during dental visits, free blood pressure measurements at shopping malls, and assessments of children’s vision and hearing at school, are a few secondary prevention behaviors. Having regular
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complete physical check-up, according to the age. Required medical examinations and tests should be done as it helps in detecting the disease earlier and save lives.

Tertiary Prevention

When a serious injury occurs or a disease progresses beyond the early stages, the condition often leads to lasting or irreversible damage. Tertiary prevention involves actions to contain or retard this damage, prevent disability, and rehabilitate the patient. Like for patients with severe arthritis, doing exercises for physical therapy and taking medication to control inflammation and pain, includes in tertiary prevention.

Prevention is usually much less expensive than trying to undo damage already done, and often we do not have means of undoing the damage in any case. Unfortunately, prevention is often difficult to implement. There are many social and psychological barriers to carrying out preventive actions even. A person cannot be healthy in the absence of ideal social, political or economic conditions.

MODELS OF HEALTH AND ILLNESS

Models predict the health status of a person or an environment. Health is both a subjective and an objective state comprising physiological, psychological, social and ecological factors. In an extreme definition, Stone (1979) describes health as an “unmeasurable state of a complex, continuously adapting organism”. Antonovsky (1979) “Salutogenesis” which proposes criteria for locating a person on the “health ease/dis-ease” continuum. A person’s “health profile”, which portrays how healthy he or she is, depends upon his or her “sense of coherence” (SOC), which in turn is positively influenced by “general resistance resources” (GRRs). Health promoting experiences are those which are consistent and balanced and which permit participation in the
decision-making process – factors that account in planning health promotion programs.

**Subjective or lay model of health** finds out what people think about health and how it is maintained or enhanced in order to be able to restructure distorted images or misconceptions about health related behaviors, and to tailor health-promotion efforts and increase their efficiency.

Individuals in general consider health as ‘given’, consisting of biological or medical, personal, social and cultural aspects; while disease on the other hand, is believed to be caused by the environment, developing in interaction with the person and as a result of moving away from the nature *(Herzlich, 1973)*

Diaz-Guerrero *(1984)* compared the subjective meaning of health across cultures and found some important differences in folklore attitudes towards health that need to be considered when planning effective health promotion programs.

Kosa and Robertson, *(1969)* and Voigt, *(1978)* combined ecological and sociological perspective based on “ecology of body” and named it social-ecological health models. Wenzel *(1986)*, described health as dynamic processes that is part of the personal and social development. A person cannot be healthy unless he or she is socially integrated, maintains constructive social relationships, and is able to adapt to stressful life circumstances, to express personal needs and to find meaning of life. This holistic view of health regards health as physiological, psychological and social, with special emphasis on societal and environmental structures and the individual’s subjective adaptation to them.
Traditionally, in biomedical perspective, health has been viewed as “absence of disease”, and if one was free from disease, then person was considered as healthy. The medical profession viewed the human body as a machine; disease as a consequence of the breakdown of the machine and the doctor’s task is repair of the machine (Ahmed and Coelho, 1979). But biomedical concept minimized the role of environment, social, psychological and cultural determinants of health.

**Biomedical Model**

The biomedical model has its roots in traditional Ayurveda and Greek medicine which is ultimately associated with philosophy. The biomedical model is a disease model and reductionist in character. The model considers man in mechanical terms and disease is reduced to being a sort of manner in the works. Such a view based on assumption that disease is a biological or mechanical dysfunction within the individual. The task of the doctor is to control pathology and repair the body (Evan, 1976).

In this model, disease is something affecting man from without through bacteria. It is the task of the doctor to restore health and health is defined by this model negatively as absence of disease. This model excludes psychological, social and ecological factors as these are considered to be caused by circumstances outside the biomedical model’s control. This is the limitation of this model (Evan, 1976).

By the mid-1970’s, the importance of behavior in health problems was widely acknowledged and the need for a biopsychosocial model of health was visualized. Behavioral medicine is the field concerned with the development of the knowledge and techniques in behavioral science, relevant to the understanding of physical health, illnesses and their prevention, diagnosis, treatment and rehabilitation.
Psychosomatic model

According to the psychosomatic model, a collective term for different psychosomatic theories, there are no diseases without emotional and/or social antecedents. On the other hand, no psychological disease lacks somatic symptoms. According to Rene Dubos, “whatever, it’s precipitation cause and its manifestations, the very disease involves both the body and the mind and these two aspects are so interrelated that they cannot be separated from each other” (Dubos, 1965). According to this approach, diseases are developed through a continual interplay between physical and mental factors which strengthen each other by means of complex network of feedback loops. Positive attitudes in combination with stress-reducing technique are considered to have a strong influence on the body/mind system and help the individual regain the balance which is defined in health (Capra, 1982). The psychosomatic model has a total view of man. It is not unequivocally holistic nor reductionist since it builds on series of different theories, certain structural and general system theories are related e.g. the psychosomatic structural theory formulated by (Totman, 1979). Engel suggests that the term should be used to describe reciprocal connections between psychological, social and biological factors in health and disease. Jenkins et al., (1979) created a rational framework for psychosomatic medicine known as the bio-psycho-social model.

According to psychosomatic model, health care is not something that can be administered to individuals but something which has to be practiced by everyone. In other words, man has to take responsibility for his own health and must aspire to minimize the consequences of emotion or other stressful situations. This has been demonstrated by the fact that many people who complain of stress, worry and pain seldom receive routine medical treatment. The psychosomatic model has been confronted
with difficulties in research because of the fact that the model is so all-embracing and there are too many factors to take into account.

**Humanistic Model**

The Humanistic psychology unfolded in the 1950’s as a protest against two developments namely, the psychopathological orientation within psychoanalysis on one and scientific-mechanistically based behaviorism on the other hand. It was initially associated with humanistic psychology of Abraham Maslow and the movement later became known as “the third force” (Maslow, 1973). Today humanistic thought and theories include many approaches and rests upon writings of Allport (1955), Laing (1965), Maslow (1966) and Glorgiu (1970). The humanistic model of health is holistic in the sense that man is seen as a whole i.e. psychological and biological organism in interaction with it’s social environment in contrast to the holistic religious model where the ultimate values and power are ascribed to God or the gods and man is seen as the starting point in everything.

According to humanistic model, man has a congenital nature which is basically neutral i.e. neither good nor bad (Maslow, 1962). This model views health not as a condition but as a process which is ultimately synonymous with a wish, desire or a force towards self-actualization. In Maslow’s and Mahrer’s view, a healthy person is a person who is striving actualizes and lives in an authentic life. By analogy, a sick person is an individual whose internal relationships are disintegrative and whose inside is negative and twisted (Maslow, 1962 and Mahrer, 1978).

**Existential Model**

The existential model has had a series of distinguished adherents in the history of western world. One of these was Socrates, who in his writings brought man’s existential clarity. Another was Augustine who explored the depths of the human life with his deep psychological analysis.
Pascal and Kirkegaard can also be considered as adherents of existentialism. However, this model emerged in psychology in 1940's with the writings of Frankel (1964) and May (1983). About the same time, existentialism was developed by Sartre and Camus (1956) in philosophy and literature and Tillich (1952) in theology.

In the existential model like the humanistic model, the emphasis is placed on reactivity. The central belief is that human being must work out himself on how he wishes to conduct his life. If he wishes to be fit, he can to some extent choose his wish, he can also to some extent consciously or unconsciously choose illness (May, 1983). This model is holistic which implies that the individual can be understood in all his existential dimensions. Philosophers and researchers working from the premises of this model are deeply involved in such aspects of human existence as guilt, despair, depression, anguish, etc. Health is considered as authentic existence, something which is achieved when the individual works himself through the givens of existence i.e. his ultimate concerns and the conscious or unconscious fears and motives (Hall et al., 1983).

**Transpersonal Model**

The transpersonal model is a further development of humanistic and existential models and an integration of these models with theories of consciousness and religion. This model has its foundations in transpersonal psychology as developed in the USA in the mid 1960's and is known as the “fourth force”. Those adopting the premises of the transpersonal model work and research in a number of disciplines, i.e. medicine, psychology, philosophy, anthropology, theology etc. are united by their common interest in transcendental experiences transcending the individual plane, dualism, time and space. Some leading personalities in transpersonal psychology are Wilber (1991), Maslow (1966), Watts (1961) and Ornstein (1973). This is primarily a health model. In this model, an individual is considered to have health in the sense of well-
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being, when he is used to perceiving in existence and reached a stage of consciousness. It is the consciousness and experience of dualism which according to this model, is assumed to create human suffering and disease. According to Wilber (1991) every man and woman who cares to evolve and form his/her consciousness can arrive at higher and superconscious levels. Thought and mindful are the primary mental factors. The unhealthy mental factors are agitating, worry and anxiety (Wilber, 1991) the method to reach altered stages of consciousness is meditation. Successful and complete meditation moves according to Wilber (1991) first into the psychic realm of intuition, then into the subtle realms of oneness, light and bliss and through several other stages finally into the ultimate realm of absolute dissolution of the separate self sense in any form.

HEALTH BEHAVIOR MODELS

Some of the common health behavior models are:

Health Belief Model

According to the Health Belief Model, given by Becker and Rosenstock (1984), the likelihood that individuals will take preventive action – like illness behavior, or sick-role behavior, or health behavior directly depends on the two assessments they make. First, is the threat of the problem, and the other weighs the pros and cons of taking the action.

Figure B shows several factors that influence a person’s perceived threat of illness or injury. These factors include:

- Perceived seriousness of the health problem. People consider how severe the organic and social consequences are likely to be if they develop the problem or leave it untreated. The more serious they believe its effects will be, the more likely they are to perceive it as a threat and take preventive action.
• **Perceived susceptibility** to the health problem. People evaluate the likelihood of their developing the problem. The more vulnerable they perceive themselves to be, the more likely they are to perceive it as a threat and take action.

• **Cues to action** Being reminded or alerted about a potential health problem increases the likelihood of perceiving a threat and taking action. Cues to action can take forms, such as a public service announcement of a dangerous storm approaching or a reminder phone call for a dental appointment.

In addition, three other factors are also involved in the individual's perceived threat of illness or injury. **Demographic variables** which include age, sex, race and ethnic background. **Sociopsychological variables** including personality traits, social class, and social pressure and **Structural variables**, such as knowledge about or prior contact with the health problem.

In **weighing the pros and cons of taking preventive action**, individual decides as to whether the perceived benefits – such as being healthier or reducing health risk – of the action exceed its perceived barriers or costs. For example, the barriers involved in the health behavior of getting regular physical checkup might include financial, physical or psychosocial considerations.

The outcome of weighing the benefits against the barriers is an assessed sum: the extent to which taking the action is more beneficial for them than not taking the action.

The perceived threat of illness or injury combines with the assessed sum of benefits and barriers to determine the likelihood of preventive action. Like the people who believe in the regular health checkups would overcome the barriers and take primary prevention. While
the people who do not feel the threat and assess the barriers too strong are unlikely to have checkups.

According to Health Belief Model, health behavior also determines people’s illness behavior in secondary prevention, like going to the doctor when sick, or taking medication, and sick-role behavior in tertiary prevention like sticking with rehabilitation center to overcome alcohol problem.

One of the shortcomings of Health Belief Model is that it does not account for health related behaviors people perform habitually, like tooth brushing, a behavior which is carried out without person considering its health threats, benefits and costs. Another is that there is no standard way of measuring its components like perceived susceptibility and seriousness. Changes over the years in conceptualization and measurement methods have transformed this rather simple model in to a more complex one which takes into consideration the influence of social and environmental factors, cues for action and perceived benefits of or impediments to a certain behavior. It is currently being used to predict a multitude of health actions (Kirsch, 1988) but, in order to be able determines whether and where its applications will result in reliable predictions, it needs to be specified in terms of the dimensions of the predicted behavior (habitual versus non-habitual; repetitive versus one-time only; initiating versus discontinuing), the development and temporal course of particular types of belief, the effect of modifying beliefs and the relationship between perceived benefits and costs to the health behavior outcome (Kirsch, 1988).

The Conflict Theory Model

The conflict theory model given by Janis and Mann (1977) attempts to explain health behavior and/or compliance. It may be seen as an alternative to the Health Belief Model although several similarities exist between the two models. A dramatic change has occurred in recent years
Figure B: The Health Belief Model. (Adapted from Becker and Rosenstock, 1984)
in the perception of the patient's role as that of a passive recipient of health care, humbly following the doctor's orders. The patient is now seen as becoming an ever-increasingly active decision maker, influencing the type and course of treatment through a process of crucial decision making. The conflict theory model of personal decision making, attempts to specify the conditions under which individuals "will give priority to avoiding subjective discomfort at the cost of endangering their lives and under what conditions they will make a more rational decision by seeking out and taking into account the available medical information about the real consequences of alternative courses of action so as to maximize their chances of survival" (Janis, 1984). Janis and Mann (1977) have delineated five stages that individuals go through in order to arrive at a stable decision. Stage 1 represents the beginning of decision making process. The individual's current course of action is challenged. A challenge may take the form of an event or communication that conveys a threat or an opportunity. The individual has to make an active decision about either to ignore or reject the challenge, which would result in the continuation of the status quo, or to accept the challenge, and progress to the next stage of active decision making.

Once the course of action is challenged, an effective decision maker will initiate Stage 2 wherein the individual will carefully consider the goals relevant to the decision and look for available alternatives that are viable in accomplishing these goals. Throughout Stage 3, the person will evaluate the pros and cons of each alternative and may seek out information regarding all the possible consequences of the alternatives under consideration. Based on all the information gathered, the individual will then reach a tentative decision as to which course of action to follow. Stage 4 sees the decision maker becoming increasingly committed to the new course of action as in the individual informs interested parties of their decision. At this stage, the individual re-examines all the
information gathered, works out the best way to implement the decision, and makes contingency plans in case the individual incurs any losses. Finally, at **Stage 5, the decision maker discounts any potential new challenge**, such as threat or opportunities, remains only temporarily shaken, and continues with the task of implementing the decision.

According to the assumptions of the **conflict theory model**, the determinants of effective decision making can be seen as those that influence the type of coping style adopted by the decision maker to deal with decisional conflict. The coping style used by the decision maker is determined by either the presence or absence of the following conditions:

1) Arousal of conflict as the result of an awareness of serious risks for whichever alternative is chosen.
2) Hope of finding a better alternative, and
3) A belief that there is time to seek out alternatives and to evaluate them before a decision is required.

**Janis and Mann (1977)** postulate that only when the individual's coping pattern is vigilance will the individual be able to make a rational choice based on weighing the benefits of a recommended course of action against the perceived costs or barriers of taking the action.

**Reasoned Action Model**

According to the theory of Reasoned Action given by **Ajzen and Fishbein (1980)**, people decide their intention in advance of most voluntary behaviors, and intentions are the best predictors of what people do (Ajzen and Fishbein, 1980; Fishbein, 1980, 1982). What determines a person's intentions to perform a behavior? This theory indicates that a person's intention is determined by two attitudes.

- **Attitude regarding the behavior.** This is simply a judgment of whether or not the behavior is a good thing to do. Like if a person decides to do exercise, his judgment is based on belief that whether
exercise will make him/her more healthier or attractive and whether being healthy and good looking would be satisfying and pleasant.

- **Attitude about a subjective norm.** This opinion reflects the impact of social pressure or influence regarding the behavior's acceptability or appropriateness. Like in exercising attitude one thinks that whether exercise is an appropriate thing to do, which is based on the belief that what is others' opinion about the behavior and the motivation to comply to do what others want to do.

These two attitudes combine to produce an intention, which lead to the performance of the behavior. Subjective norms – influenced by normative beliefs and individual motivation – and attitudes – determined by belief and values concerning a specific outcome – result in behavioral intentions which in turn lead to health – related behaviors.

**Locus of Control Model**

This model specifically applies to the area of health state that the degree to which a person perceives himself or herself as being in control over events in his or her life (internal locus of control) and not subject to control by external agencies or others (external locus of control) has a great influence on the probability that he or she will engage in health-related behaviors *(Wallston and Wallston, 1978; Seeman and Seeman, 1983)*. People whose health locus of control is strongly internal – as measured by a locus of control scale - would tend to practice behaviors that prevent illness and promote their health. Because these individuals believe they can influence health, they should practice more healthful behavior than those who score high on external control. This seems to be so. Compared to people who score high on external control beliefs, those who score high on internal control tend to perform more health-protective behavior, such as getting physical examinations and dieting for health reasons *(Seeman and Seeman, 1983)*. They also tend to be more successful in reducing cigarette smoking and seek out more information.
on some health issues, such as high blood pressure (Strickland, 1978; Wallston and Wallston, 1982).

Self-Efficacy Model

In some cases, performing a healthful behavior is hard to do; for instance, it may be strenuous or complicated. Therefore, people's belief that they can succeed at something they want to do – or self-efficacy – may be an important determinant of whether they choose to practice specific behaviors (Bandura, 1986). Individuals acquire a sense of efficacy through their own successes and failures, observations of others’ experiences, and assessments of their abilities that other people communicate. When deciding to practice a health-protective behavior, people appraise their efficacy on the basis of the effort required, complexity of the task, and other aspects of the situation, such as whether they are likely to receive help from other people (Schunk and Carbonari, 1984).

Research has found that self-efficacy does influence people's health, illness, and sick-role behavior. Cigarette smokers who believe they are incapable of kicking the habit typically don’t try, but smokers who believe they can succeed in quitting often break the habit (DiClemente et al., 1985). Similarly, individuals who believe they can succeed in losing weight are more likely to try and to succeed than those who do not (Schifter and Ajzen, 1985). Moreover, patients with chronic respiratory illnesses who believe they can perform a prescribed program of physical exercise, such as walking various distances, are more likely to adhere to the program than those who have less-efficacy (Kaplan et al., 1984).

The present investigation aims to investigate psychosocial factors that affect Health Protective Behavior among college students. Health Protective Behavior among college students was studied in relation to Personality, Positive and Negative Mental States, Stress and Coping,
Introduction