

# Bio-psycho-social model of health and illness

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**BIO-PSYCHOSOCIAL MODEL OF HEALTH AND ILLNESS INTRODUCTION** The medical model has been the predominant approach used by physicians in diagnosing and management of diseases and illness in most Western countries. The biomedical model of illness and healing focuses on purely biological factors, and excludes psychological, environmental, and social influences. According to this model, good health is the freedom from pain, disease, or defect. It focuses on physical processes that affect health, such as the biochemistry, physiology, and pathology of a condition.

It does not account for social or psychological factors that could have a role in the illness. In this model, each illness has one underlying cause, and once that cause is removed, the patient will be healthy again, (Alloy, Jaconson, & Acocella, (1999). The bio-psychosocial model of understanding disease process arose from the context of changing conceptualisations of mind and body and the emergence of new fields of enquiry, including health psychology, medical sociology, behavioural medicine and psychoneuroimmunology, Barlow, D.

H. & Durand V. M. (1999). According to Engel (1977, 1980), human beings are complex systems and illness can be caused by a multitude of factors, not just a single factor such as a virus or bacteria. This is an attempt to move away from a simple linear model of health, to assess the effects of the combination of factors involved in illness, that is; biological (for example, virus & genes), psychological (for example, stress, behaviours, & beliefs) and social/environmental (for example, employment & neighbourhood).

Engel (1977) argued that the best and most effective way of dealing with disease and illness is by the application of the three approaches that are <https://assignbuster.com/bio-psychosocial-model-of-health-and-illness/>

related to human health. According to him the three interact in a very complex way and all play a significant role in human functioning in the context of disease and illness. Health is therefore better understood and managed when the three approaches are combined rather than handling it from a purely biomedical perspective.

The biopsychosocial model of understanding diseases and illnesses is also similar to the World Health Organization's definition of health ' a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity' (WHO, 1946). BIOMEDICAL MODEL The biological model was the leading approach of understanding diseases and illnesses since the 19th century. It gained strength from researches in physiology and medicine that led in identification of infectious agents that cause diseases, (Maher & Maher, 1985). It evolved from a Greek physician Galen's germ theory concept of pathogens in 200 AD.

He declared pathogens as the sole disease causing agents. The medical model therefore aimed at doing researches to identify all pathogens that caused diseases for the purpose of providing the right diagnoses for different diseases. For the proponents of this model, every illness is a symptom of a particular disease which has also been caused by a particular pathogen. The model also later focused on normalizing genetic related abnormalities and injuries. The model therefore focused on the physical processes such as the pathology, the biochemistry and physiology of disease and illnesses (Hoeksema, 2001).

The biomedical model uses the traditional reductionist biomedical model of medicine that presumes that every disease process can be explained in <https://assignbuster.com/bio-psychosocial-model-of-health-and-illness/>

terms of an underlying deviation from the normal function such as a pathogen, genetic or developmental abnormality or injury,(Sarno: 1998). This argument presumes that illness is always due to abnormalities in the body's working systems. It is the basis of modern Western medical practice. It works on the theory that every bodily malfunction has an identifiable and diagnosable physiological cause that can also be managed or treated using the conventional medicine.

The biomedical model tends to take a curative approach to illness (Price, 1978). According to Sarason & Sarason, (2005). Biomedical approach focuses its attention on physical symptoms and therefore the normal physical state is a state of being whole and without any physical, mental disease and free from any pain, so that all the parts of the body can carry on their proper functions fully. According to Alloy, Jaconson, and Acocella (1999), the biomedical model compares abnormal behavior to any other disease and therefore has specific causes and specific set of symptoms.

Therefore the medical model also implies that the abnormal behaviour is biogenic, that is, it results from a malfunction within the body especially the brain. This suggests that psychological symptoms are due to structural abnormalities in the brain's neurotransmitter systems, or faulty genes. Biogenic theories of abnormal behavior have been in existence since ancient times. In the middle ages and the renaissance, they coexisted with supernatural theory which believed that abnormal behavior was caused by God or more often by the devil (Hoeksema, 2001).

In the eighteenth and early nineteenth centuries, religious explanations were gradually replaced by biological explanations. The newly dominant medical

approach was soon strengthened by a series of important breakthroughs which was done through biomedical researches and therefore several previously unexplained behavior patterns were found to result from brain pathologies (Hoeksema, 2001). Such discoveries strengthened greatly the biogenic theory of abnormal behavior. Medicine was therefore increasingly assumed would ultimately discover the cure for 'madness' as it was commonly called.

On this assumption, any case of mental abnormality was referred to a medical professional, (Alloy, Jaconson, Acocella, (1999). According to the proponent of this model, the abnormal behavior should best be handled by physicians in hospitals and by means of drugs and that the whole problem of deviant behavior should be conceptualized in medical terms such as symptoms, syndromes, pathology, mental illness, patient, diagnosis, treatment and cure, (Price, 1978). EVALUATION OF THE MEDICAL MODEL STRENGTHS:

The medical model introduced objectivity in the understanding and management of diseases and illnesses by applying scientific methods of research, diagnosis and treatment. The model has also given insight into the causes of some conditions, such as Alzheimer's disease, an organic condition causing confusion in the elderly, (Alloy, Jaconson, Acocella, (1999). According to Sarason, & Sarason (2005), by use of the biological model, treatment is quick and, relative to alternatives, and sometimes cheap and easy to administer.

It has proved to be effective in controlling serious mental illnesses like schizophrenia allowing patients who would otherwise have to remain in

hospital rather than to live at home. Finally the sickness label has reduced the fear of those with mental disorders. This is because historically, they were thought to be possessed by evil spirits or the devil, majority of them especially women, who were burned as witches, (Maher, & Maher: 1985).

**CRITICISMS OF BIOMEDICAL MODEL** One of the critics of biomedical model of mental illness was Thomas Szasz.

In his book “ ‘The Myth of the Mental Illness’ (Szasz, 1961), he postulated the so called most of what was commonly referred to as mental illnesses were merely ‘problems in living’. According to him the whole concept of mental illness was a myth as it could not withstand the laid down biomedical diagnostic procedures. For Szasz, psychiatrists over-relied on social criteria rather than medical standardized procedures to diagnose mental disorders. He argued that mental assessment relied on the patient’s coping skills for example, with families, friends and social responsibilities to determine a disorder ((Szasz, 1961).

Szasz argued that psychiatric diagnosis, was unlike physical diagnosis all about social judgment. According to Szasz, the ‘sick’ label also deprives people of their responsibility for their behavior and relegates them to a passive role that makes it hard for them to return to the normal behavior. After many years in the biomedical research, evidence shows there still remained many patterns of abnormal behavior for which no medical causality was identified, yet the biomedical researchers were confident that such causes were eventually to be found,(Price, 1978).

Biomedical model does not take into account the role of social factors or individual subjectivity in diagnosis and treatment of diseases and illnesses.

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The model overlooks the fact that the diagnosis (that will affect treatment of the patient) is a result of negotiation between the doctor and the patient, (Annandale, 1998). Using reductionism method of both research and diagnosis in the biomedical model, the model attempts to reduce the explanations of health and illness to the smallest possible factors.

Nevertheless human beings and ill-health are not this simple. There may be a lot of different causes from social to psychological to genetic. The biomedical model is a single-factor and therefore looks for the cause, rather than a range of contributory factors, (Alloy, Jaconson, Acocella, 1999). Using biomedical model, there lacks the mind-body distinction. The mind and body are considered separately and they do not affect one another, which research has proved is not the case. Health is traditionally equated to the absence of disease.

A lack of a fundamental pathology was thought to define one's health as good, whereas biologically driven pathogens and conditions would render an individual with poor health and the label "diseased". However, such a narrow scope on health limited our understanding of wellbeing, thwarted our treatments efforts, and perhaps more importantly, suppressed preventive measures, (Sarno, 1998). PSYCHOLOGICAL MODELS OF UNDERSTANDING TO DISEASE PROCESSES In contrast to the medical model, thoughts, feelings and behaviours affect our health and well-being.

Recognition of the importance of these influences on health and disease is consistent with evolving conceptions of the interactions between the mind and the body and represents a significant change in medicine and the life sciences, (Baum & Posluszny, 1999). There are psychological theories that  
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argues that the mind plays a pivotal role in matters related to diseases and illnesses. According to such theories, disturbed or abnormal behavior for example may be explained physiologically and also psychologically.

Conditions like Schizophrenia and depression have both physiological and psychological explanations of causality and management. Some of the psychological perspectives that deal with health and well-being of human beings are; The Psychodynamic Perspective: Psychodynamic approach to abnormal behaviour assumes that abnormal behavior arises or originates from unconscious unresolved psychological conflicts. According to Sigmund Freud (1925) behaviour is motivated by internal or psychological forces. Abnormality according to him is caused by an imbalance in the internal forces that motivate behaviour.

He believed that mental illness arises from unresolved conscious conflicts, which usually occur in early childhood. According to Freud, the unconscious forms about 90% of the human mind, and the remaining 10% is conscious. People are not able to access the contents of their own unconscious mind. Traumatic memories, inappropriate desires, and unresolved conflicts are buried in the unconscious mind by ego defense mechanisms such as repression. The contents of the unconscious mind for example, a childhood trauma, may still influence behaviour and this can lead to abnormality (Santrock, 2007).

According to psychodynamic proponents, another source of abnormality arises from extremes either from the id or from the superego; Weak ego: According to psychodynamics, the well-adjusted people have a strong ego, that is, they are able to cope with the demands of both the id and the superego

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by allowing each to express itself at appropriate times. If, however, the ego is weakened, then either the id or the superego, whichever is stronger, may dominate the personality leading to deviant behavior and neurotism.

Unchecked id impulses: Freud argued that, if id impulses are unchecked they may be expressed in self-destructive and immoral behaviour. This may lead to disorders such as conduct disorders in childhood and psychopathic behaviour in adulthood. Too powerful superego: According to Freud, a superego that is too powerful, and therefore too harsh and inflexible in its moral values, will restrict the id to such an extent that the person will be deprived of even socially acceptable pleasures. According to him this would create neurosis, which could be expressed in the symptoms of anxiety disorders, such as phobias and obsessions.

The Behaviourist Perspective This approach believes that behavior is learned based on reinforcement. Therefore it is sustained its consequences. Therefore the maladaptive behavior is learned through reward while it can also be relearned, (Slavin, 2003). The proponents of this model argues that deviant behavior can be managed through; Shaping: This involves guiding behavior toward goals by reinforcing the many steps that lead to success. Extinction: This approach involves removing reinforcers from previously learned behavior until the behavior disappears.

Extinction burst: This process involves the increase in levels of behavior in the early stages of extinction. Positive reinforcement: This a technique of sustaining a desired behavior for example, applying praise after doing something desirable. Negative reinforcement: this is a technique of escaping from an unpleasant or a way of preventing unpleasant behavior from

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occurring. Punishment - consequences that weaken behavior; punishment like reinforcement is in the eye of the receiver and the impact on behavior, (Slavin, 2003). Cognitive Theoretical Model:

The cognitive perspective maintains that peoples' way of interpreting situations determine their emotional and behavioral symptoms,(Hoeksema, 2001). Abnormal behavior is a product of negative or erroneous thinking and perception about oneself and of the environment. The proponents of this theory argue that the human being is not a passive organism, but is capable of processing information and comprehend the relationship between cause and effect. According to Beck (1921), maladaptive behavior may result from faulty or distorted interpretation of the reality.

Therefore false or negative view of the world can easily lead to illness or abnormal behavior. For example, a negative view of oneself can lead to negative interpretation and negative expectations of the future. These negative belief systems and erroneous view of the world can lead to depression, (Halligan,& Aylward,(Eds. ) 2006). Accord to Albert Ellis (1959), the goal of cognitive therapy is to help people change their irrational beliefs into rational beliefs. This is done by the therapist creating insights in a person's mind through the process of disputing the client's irrational beliefs, (Santrock, 2007).

Humanist Model of Abnormal Behaviour According to the humanistic approach and existentialists theories, symptoms of abnormal behavior arise when people are not allowed to pursue their full potential and instead they are made or try to conform to others wishes,(Hoeksema,(2001). According to Carl Rogers, " The organism has one basic tendency and striving: to <https://assignbuster.com/bio-psychosocial-model-of-health-and-illness/>

actualize, maintain, and enhance the experiencing organism” (Rogers, 1951). According to him, abnormal behavior can be managed through working to remove incongruences, defense mechanisms, and developing positive personal self-regard.

**SOCIOCULTURAL APPROACHES** Interpersonal theorists focus on the role of interpersonal relationships in shaping normal and abnormal behavior. Family system theorists suggests that abnormality among individual family members is the result of dysfunctional patterns of interaction within families that encourage and maintain psychopathology,(Hoeksema, 2001). Social structural theorists on the other hand focus on the influence of structural factors in the environment and cultures on individuals’ behavior, (Barlow & Durand, 1999). The Role of Psychological State in health matters

Current psychological researches especially in the field of Psychoneuroimmunology (PNI), indicate that psychological state can influence the body immunity through the nervous system. The studies suggest that, not only can psychological state influence health, but beliefs may also influence health directly. In particular, research has focused on the capacity of psychological factors (such as mood, thought suppression and stress) to modify immune functioning,(Ogden, 2004). According to various studies, positive mood is associated with better immune functioning, whereas negative mood is associated with poorer immune functioning (Stone et al. 1987). Humour appears to be particularly beneficial (Dillon, Minchoff & Baker, 1985). Certain coping styles (such as suppression and denial) may relate to illness onset and progression (e. g. Kune et al. , 1991), while thought expression through writing or disclosure groups may improve

immune functioning,(Pennebaker et al. , 1988; Petrie, Booth & Pennebaker, 1998). Kiecolt-Glaser and Glaser (1986) argued that stress causes a decrease in the hormones produced to fight carcinogens (factors that cause cancer) and repair DNA.

In particular, cortisol decreases the number of active T cells, which can increase the rate of tumour development. This suggests that experiencing stress while being ill could exacerbate the illness through physiological changes. So if the illness itself is appraised as being stressful, this itself may be damaging to the chances of recovery. According to Ogden (2000), chronic illnesses, such as asthma, AIDS, cancer, coronary heart disease and multiple sclerosis, are another important areas of health that research indicates that psychological factors play important role.

Coronary heart disease (CHD) for example, is caused by hardening of the arteries (atherosclerosis), which are narrowed by fatty deposits. This can result in angina (pain) or a heart attack (myocardial infarction). CHD is responsible for 33 per cent of deaths in men under 65 and 28 per cent of all deaths. It is the leading cause of death in the UK, killing 4300 men and 2721 women per million in 1992. It has been estimated that CHD cost the National Health Service in the UK about ? 390 million in 1985/86, (Ogden, 2000).

Many risk factors for chronic heart disease which are modifiable have been identified, for example, smoking, alcohol, obesity, sedentary lifestyle, perceived work stress and high blood pressure. According to Friedman and Rosenman (1959,'78) type A behaviour is characterized by excessive competitiveness, vigour, energy, alertness, confidence, loud speaking, rapid speaking, tense clipped speech, impatience, hostility, interrupting, frequent

use of the word ' never' and frequent use of the word ' absolutely', In the 1980s Karasek developed a job demand/job control model of stress.

He proposed the ' job demand control hypothesis', whose aim was to reduce job strain. According to Karasek and Theorell, (1990), there are two aspects of job strain; job demands and job autonomy (which reflects the person's control over the speed or the nature of decisions made within the job). Karasek's hypothesis suggests that high job demands and low job autonomy predict CHD. He later in his included the concept of social support, which he defined in terms of emotional support (trust and social cohesion between co-workers) and instrumental social support (the provision of extra resources and assistance).

All the above conditions involve in their therapy psychological related techniques that includes; exercises, behavior modifications and cognitive therapies. A Multi Perspective Approach to Disease and Illnesses The model recognizes four systems centered on the person; organs, the whole person, behaviour, and social role function. It also considers the four contextual factors that influence these systems, that is; personal factors, physical environment, social environment, and time.

This model also draws attention to two important components of any holistic model of health, choice (free-will) and quality of life, (McKeown, 1979), This approach advocates the importance of looking at health and human behavior from scientific, psychological and social cultural approach. According to this model abnormal behavior is therefore effectively dealt with from these three points of view. Psychologically the unobservable events of the mind, such as

attitudes, memories, and desires are unquestionably involved in most of psychopathology(Alloy, Jacobson &acocella, 1999).

According to Ndetei(2006), Cultureand religion also play an important role in the development and management of psychopathology. Over the last century, health behaviours have played an increasingly important role in health and illness. This relationship has been highlighted by McKeown's book, *The Role of Medicine* (1979), which discusses the decline of infectious diseases in the nineteenth century, which forms the focus for medical sociology. It also highlights the increasing role of behavior in illness in the twentieth century.

The commonly held view is that the decline in illnesses such as TB, measles, smallpox and whooping cough was related to the development of medical interventions such as chemotherapy and vaccinations. But McKeown showed that the decline in infectious diseases had already begun, before the development of medical interventions. He claimed that, looking back over the past three centuries, this decline is best understood in terms of social and environmental factors. McKeown also examined health and illness throughout the twentieth century.

He argued that contemporary illness is caused by an individual's own behaviours, such as whether they smoke, what they eat and how much exercise they take, and he suggested that good health was dependent on tackling these habits. It has been suggested that 50 per cent of mortality from the ten leading causes of death is due to behaviour. If this is correct, then behaviour and lifestyle have a potentially major effect on longevity. For example, Doll and Peto (1981) estimated that tobacco consumption accounts

for 30 per cent of all cancer deaths, alcohol 3 per cent, diet 35 per cent, and reproductive and sexual behaviour 7 per cent.

Approximately 75 per cent of all deaths due to cancer are related to behaviour. More specifically, lung cancer (the most common form) accounts for 36 per cent of all cancer deaths in men and 15 per cent in women in the UK. It has been calculated that 90 per cent of all lung cancer mortality is attributable to cigarette smoking, which is also linked to other illnesses such as cancers of the bladder, pancreas, mouth, larynx and oesophagus, and to coronary heart disease.

And bowel cancer, which accounts for 11 per cent of all cancer deaths in men and 14 per cent in women, appears to be linked to diets high in total fat, high in meat and low in fibre, Doll and Peto (1981). In summary The proponents of the biopsychosocial model argue that the biomedical model alone does not take into account all of the factors that have an impact on a patient's health. Biological issues, as well as psychological factors such as a patient's mood, occupation, intelligence, memory, level of education and perceptions are all considered when making a diagnosis.

The biomedical approach may not, for example, take into account the role sociological factors like family, social class, or a patient's environment may have on causing a health condition, and thus offer little insight into how illness may be prevented. A patient who complains of symptoms that have no obvious objective cause might also be dismissed as not being ill, despite the very real effect those symptoms may have on the patient's daily life.

The biopsychosocial model of understanding disease process accomplished a milestone that brought about a dramatic shift in focus from disease to health, recognizing that psychosocial factors (for example; beliefs, relationships, and stress) greatly impact recovery, the progression of and recuperation from illness and disease. While the traditional biomedical models of clinical medicine focused on pathophysiology and other biological approaches to disease, the biopsychosocial approach emphasize the importance of understanding human health and illness in their fullest contexts. CONCLUSION:

This model recognizes human beings as complex systems and illness can be caused by a multitude of factors, not just a single factor such as a virus or bacteria. Biopsychosocial model therefore attempts to move away from a simple linear model of health and looks at the combination of factors involved in illness; biological (for example, a virus), psychological (for example, behaviours, beliefs) and social (for example, employment). Since in biopsychosocial model , illness is regarded as the result of a combination of factors, the individual is no longer simply seen as a passive victim of some external force, such as a virus.

Acknowledging the role of behaviours such as smoking, diet, exercises and alcohol, for example, means that the individual may be held responsible for their health and illness. From this perspective, health and illness exist on a continuum. Rather than being either healthy or ill, individuals progress along a continuum from healthiness to illness and back again. The biopsychosocial model of understanding disease process maintains that the mind and body interact, and therefore it considers psychological factors as not only possible



consequences of illness but as contributing to all the stages of health, from being healthy to being illness.

Current Application of Biopsychosocial Model: The biopsychosocial model of illness seems to be a significant advance upon the biomedical model of illness. It has been used as the basis of a system for classification of various aspects of illnesses as found in various diagnostic tools for example, Diagnostic and Statistical Manual of Mental Disorders(DSM), and the International Statistical Classification of Diseases. The apply the biopsychosocial model of diagnosing diseases and illnesses and have therefore become the international criteria for mental illness.

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