

## HYPERTENSION AND MENTAL HEALTH: A STUDY BASED ON LIFE STYLE

**Dr. Shiv Kumar**

Assistant Professor,

Dept. of Physical Education & Sports,

Gurukula Kangri (Deemed to be) University, Haridwar

### **Abstract**

The present work is an empirical study reflecting the status of mental health of the patient suffering from hypertension. Hypertension is one of the psycho somatic problems generated from faulty life style or unwanted coordination of life adjustment. Life would be simple indeed if one's biological and physiological needs were automatically gratified. But as we know, there are many obstacles, both environmental and personal, that may interfere. Such obstacles place adjusted demands or stress on the individual. His life style is not in harmony with the world around him, and this causes suffering. Diet and sleep are not scheduled to harmonize with the light and dark cycles of the day. People are willing to do a lot within short span of time. All these predispose ill health and hypertension (HBp).

The finding helps the people how to make balance in their habit and work culture to neutralize the effect of psychosomatic problem or illness of HBp.

**Key word: Mental health, HBp, Psychosomatic problem, Physiological need, Stress**

### **Introduction**

Man is a social animal and lives in a fast, competitive and progressive society. He is a special being in as much as he has been favoured with a brain, which he can use to comprehend the various objects that constitute his environment to discover the general laws that underline his existence and to apply those to the betterment of his own lot. Life would be simple indeed if one's biological and physiological needs were automatically gratified. But as we know, there are many obstacles, both environmental and personal, that may interfere. Such obstacles place adjusted demands or stress on the individual. His life style is not in harmony with the world around him, and this causes suffering. Diet and sleep are not scheduled to harmonize with the light and dark cycles of the day. This is because men try in vain to do a lot of things in a short span of time. So, the average modern diet and sleep pattern are unhealthy in quality and quantity. All these predispose us to ill health and hypertension (high blood pressure) over a period of time.

Heart may be the most important organ in the body for the preservation of life in general, but the arteries are of equal importance for the preservation of life in individual organs and tissues. Just as the heart can never rest, so the arteries are under the continual strain of the pressure of blood. It is small wonder, then that degenerative changes are more common in the arteries than anywhere else in the body, and that these degenerations are amongst the most important of all causes of disease and death. Blood pressure is the force with which the heart pumps blood through the arteries and so allows the blood to reach the various parts of the body, without this pressure the blood would not be able to supply the body with necessary oxygen and food. When the elasticity of the arteries degenerates owing to disease, aging or continuous stress the arteries may become dilated. Loss of elastic fibers will interfere

with the ability of the vessels to expand during systole, the effect of which may be a gradual rise in the blood pressure.

The blood pressure varies with each heart beat, being at its highest when the heart is pumping out the blood and at its lowest when it is filling up again. When we measure blood pressure we therefore record two pressure readings the highest or systolic and the lowest or diastolic. The blood pressure is measured by 'Sphygmomanometer'. In

this a stethoscope is placed over the brachial artery, while a blood pressure cuff is inflated around the upper arm with so little pressure that when the artery remains distended with blood, no sound whatsoever is heard by the stethoscope, despite the fact that the blood within the artery is pulsating. When the cuff pressure is greater enough to close the artery, a sound is then heard with each pulsation. These sounds are called Korotkoff sounds. These sounds are believed to be caused by blood jetting through the partly occluded vessel. The pressure in the cuff is then elevated until the blood flow is restricted and a pulse can no longer be felt in the arm. It is then inflated slightly more. Therefore no Korotkoff sounds are heard in the artery. Then the cuff pressure is gradually reduced. As soon as the pressure in the cuff falls below systolic pressure, blood slips through the artery beneath the cuff and one begins to hear tapping sound. As soon as these sounds are heard they indicate systolic pressure. As the pressure in the cuff is lowered still more, the korotkoff sounds change in quality, first gradually and later suddenly. The point at which the loud clear sound changes abruptly to the dull muffled sound should be taken as the diastolic pressure.

The World Health Organisation (WHO) defines Hypertension as a "Systolic pressure equal to or greater than 160 mm Hg and a diastolic pressure equal to or greater than 95 mm Hg" The reading between these two i.e. normal and hypertensive is considered as bordering hypertension. From the etiologically point of view hypertension may be classified into following types:

1. Renal Hypertension 2. Endocrine Hypertension 3. Primary or essential Hypertension

- 1- **Renal Hypertension:** Here the kidney is directly and primarily responsible for some cases of raised arterial pressure. Among the many renal diseases known to be associated with curable Hypertension, Pyelonephritis (inflammation of that part of kidney known as Pelvis which is connected with urater.) Tuberculosis and perhaps most important obstruction in the main renal artery by atheroma (it is a degenerative change in the inner and middle coats of arteries) need to be mentioned. The link seems to be interference with blood supply to the kidney. Recent work has made much clear the way in which the kidney raised the hypertension and this includes experimental hypertension produced by a clip on the renal artery, first successfully accomplished by **Goldblatt and his colleagues (1937)**. According to **Goldblatt (1937)** the anoxaemic kidney secretes rennin which reacts with the pre-existing component of the blood (hypertensinogen) to form a presser substance hypertension. This is the most potent direct smooth muscle vasoconstrictor known. It also raises the arterial pressure by a direct action on vasomotor centers in the brain, especially the hind brain.
- 2- **Endocrine Hypertension:** Endocrine are ductless glands that produce various types of hormones. Over reactivity of these hormones produces various types of syndromes that may lead to hypertension, such as Cushing's syndrome (due to over production of hydrocortisones), conn's syndrome (due to over production of aldosterons), pheochromocytoma (due to over production of epinephrine and non-epinephrine from adrenal glands). Thus endocrine hypertension can be explained by excessive secretion of a normal presser substance; this

could act either by causing general vasoconstriction or by producing local renal ischemia (blood less ness of renal artery due to contraction or blocking).

- 3- **Primary or Essential Hypertension:** It is the most common form of hypertension. About 90% of cases of hypertension are of this type. In spite of its being such a common condition, the origin of essential hypertension is still unknown. It may develop at any age from puberty to senility but has its maximum incidence between the ages of 45 and 55 years. **Platt (1947)** has pointed out that a family history of high blood pressure or one of its complications can be obtained in a high percentage of primary cases.

**Possible Consequences:** The main danger of having hypertension is not the fact that the blood pressure itself is raised, but the harmful consequences of raised blood pressure. There are many things which can go wrong as the blood vessels feed every organ of the body. When they are constricted, preventing the inflow of blood and thus the distribution of oxygen and removal of wastes, tissue damage occurs. This prevents the organs from functioning. In the case of the brain, heart, kidney, etc., this is lethal. Some manifestations are:

**Heart disease:** The heart, as it becomes more and more strained, increases in size, damaging its internal components such as the valves, and thus impairing total function. The heart also becomes more prone to heart attack (death of part of a muscle) as high blood pressure (hypertension) is associated with hardening of the arteries.

**The eyes:** Blurring of the vision, and sudden, progressive loss of vision may result. There can also be doubling of the vision (diplopia) or other defects.

**Kidneys:** Dysfunction occurs which may result in the inability to produce urine. This allows the toxins of the body to build up and death can result.

**Malignant hypertension:** A serious form of the disease. The blood pressure may rise to astronomical heights and death approaches rapidly.

**The brain:** Oxygen supply to the brain is reduced so that it cannot function at optimum level. At first this may result in headaches, dizziness and a feeling of the world spinning (vertigo). Later, emotional imbalance and deterioration of concentration and memory occur followed by more serious complications of organic brain deterioration (encephalopathy), rupture of arteries (stroke) leading to paralysis and death.

**MENTAL HEALTH :** Health is, undoubtedly, an indispensable quality in human\_being. It has been described as soil from which the finest flowers grow. Therefore, neglecting one's health for other virtues in life is\_said to be the greatest of follies. Person's concern for health has\_not always been so attractive as it seems to be in the present era. Indeed, with growth of science, technology, and materialistic predominance, hazards, especially 'mental health', has become\_the essence of time. Most of the medical scientists and\_psychologists have been dealing with disease or illness rather\_then health, therefore, the phenomenon of 'health' was being\_forgotten, but during the last two decades medical as well as\_behavioural scientists mainly (Psychologist and psychiatrist)\_realized the importance of 'mental health'.

Mental Health covers an elusive and diffuse field and the term itself encompasses a multiplicity of meaning. The concept of mental health has been defined and determined by psychologists and psychiatrists. **According to Maninger (1945)**, "The definition of Mental Health is such a quality by

which we, with pleasure and maximum effectivity in between the world as well as with the human being, could do the adjustment. Also that is a co-natured, a brilliant intellectual, socially having the balanced behavior and capability

of maintaining a pleasant way of life.” **Hadfield’s (1950)** view, “Three complements; the full expression, the harmonization and the capabilities to the aimed direction for goal achievement”, is the definition of Mental Health. Banrad (1952) attempted to differentiate the positive health from non-health and negative health. To her “Positive health consists in ways of living that are beyond the frontiers of more social existence implied by negative health, and this category (positive health) applies when there is evidence that the individual fully utilizes a capacity or is working in that direction.” Further **Maslow (1954)** indicates that a study of people who have fulfilled their potentialities to the greatest degree will lead us to the formulation of a “positive psychology” and will rid us of

negative approaches. He was very critical of Freud and other personality theorists who tried to understand the nature of personality by studying only neurotics and severely disturbed individuals.

**Maslow (1954)** suggested to study the best, the healthiest, and the most mature side of human nature.

**Allport (1955)** developed a theory which concerned entirely with the healthy personality. Indeed, he was the first personality theorist who stressed to study mature and normal adults instead of neurotics. He indicated that healthy person were not controlled by unconscious conflicts while neurotic adults possessed these conflicts. **Fromm (1955)** characterized mental health by the ability to love and to create, by the emergence from incestuous ties to clay and soil, by a sense of identify based on one’s experience of self as the subject and agent of one’s powers, by the grasp of reality inside and outside of ourselves; that is, by the development of objectivity and reason. **Rumke (1955)** is of the opinion that “The understanding of the disturbances of the sick man hardly contributes to the understanding of the normal man.” Thus, a proper definition of mental health may not be given as more absence of mental disease. Positive connotation of mental health must be kept in mind to understand the human personality. Due to emphasis on the healthy aspect of human personality ‘growth psychology’ or ‘health psychology’ developed which attempts to expand, enlarge, and enrich the human personality. Several psychiatrists and behavioural scientists have presented their views about the nature of psychological health in various ways.

From the foregoing description of underlying factors in mental health, it may be seen that mental health involves continuous process of adjustment through optimum use of one’s potentials rather than a static condition. For those who are ill, it is a matter of getting well, for those who are “getting along”, it is a matter of improvement and for those who are robust, it is a matter of maintaining and continuing achievement. **Buhler (1959)** indicated four basic biological tendencies of life, such as, need of satisfaction, upholding of the internal order, adaptation, and productivity. For an individual to achieve healthy functioning, these four basic tendencies have to be balanced and integrated. She believes that an analogy between biological frame of reference and the psychological conceptualization is not only valid but also preferable, since only through correlation of biology and psychology will be achieved a fuller understanding of the constitution of health and normality. **Smith (1959)** has criticized the criteria for mental health suggested by **Maslow (1954)** and **Jahoda (1958)**. He writes “Neither the strategy of direct assault (Maslow) nor that of multiple criteria (Jahoda) turns out to give us much assistance on the problem, although the empirical relationship brought to light by research that follows either strategy may aid us in the volitional decision as to where to draw boundaries” **As Ionesco (1960)** says “you seem very sure of yourself. Who can say where the normal

stops and the abnormal begins?" However, attempts have been made to define mental health, and to some extent satisfactory conclusions are also drawn from the researches.

Before the second half of the twentieth century, mental health was considered as the absence of mental disease. But it is interesting to note that the concept of mental disease has not its adequate definition. In such a situation, definition on one vague concept in terms of the absence of another ambiguous concept may not provide a precise and satisfactory meaning of the concept. Therefore, since the second half of the twentieth century mental illness and mental health have been characterized as sharply disparate and it was suggested that the absence of ill-health may constitute a necessary but not satisfactory definition of mental health. As a consequence, mental health has been considered in its more positive connotation, not as the absence of mental illness. **Frankl (1965)** presented the self-transcendent person model of healthy personality. His system entitled "Logotherapy" means the meaning of human existence and the human need for meaning, as well as with specific therapeutic techniques for finding meaning in life. He suggests that three factors, namely, spirituality, freedom, and responsibility are indispensable for healthy human existence.

There are several definitions of the term mental health and mental illness. In earlier days, absence of illness is considered as health. However psychiatrists and psychologists have been dissatisfied with this way of looking at health-physical or mental. It is now recognized by World Health Organization (WHO) that health is a positive concept. This has been brought out clearly by **Preliminary Reports of White House Conference** as early as 1930 and it has been discussed by **Bernaed (1970)**. In the Preliminary Reports of White House (U. S. Government) mental health is defined "as the adjustment of individuals to themselves and the world at large with a maximum of effectiveness, satisfactions, cheerfulness and socially considerate behaviour and the ability of facing and accepting the realities of life. The highest degree of mental health might therefore be described as that which permits an individual to realize the greatest success which his capabilities will permit, with a maximum of satisfaction to himself and the social order with a minimum friction and tension. This implies a stage of such well being that the individual is not conscious of unsatisfactory or objectionable behaviour and maintains himself intellectually and emotionally in any environment and under any circumstances" quote;

#### **REFERENCES:**

- 1- Allport, G. (1955): *Becoming: Basic considerations for a Psychology of Personality*. New Haven: Yale University.
- 2- Bernard, H. W. (1965): ***Psychology of learning and teaching***. New York: McGraw Hill Book Company, 292-295.
- 3- Buhler, C. B. (1959): Theoretical observation about life's basic tendencies. ***American Journal of Psychology***, 13(3), 561-581.
- 4- Frankl, V. (1965): ***The Doctor and the Sound from Psychotherapy to Logotherapy***. New York: Knopf.
- 5- Goldblatt, R. Y. (1937): Effect of personality, life style and physiological variables on blood pressure variation in hypertensives and normotensives. ***Dissertation abstract International***, 50(12), 117.

- 6- Goods, W. and Hatt, P. (1952): **Methods of Social Research**. New York: McGraw Hill Publishing Company.
  - 7- Hadfield J. A. (1950): **Psychology and Mental Health**. London: George Allen and Unwin Ltd., 570.
  - 8- Jahoda, M. (1958): **Current Concepts of Positive Mental Health**. New York: Basic books, Inc., Publishers
  - 9- Kerlinger, F. N. (1964): **Foundations of Behavioural Research**. New York: Holt Rinehart and Winston.
  - 10-Kumar, A., Pathak, N. and Thakur, G. P.(1985). Mental health of individual, team and non-athletes. Paper presented at the **VI World Congress of Sport Psychology**, Copenhagen, Denmark.
  - 11-Kumar, A and Thakur, G. P. (1986). **Manual for Mithila Mental Health Status Inventory (MMHSI)**. Varansi: Ganga Saran & Grand Sons.
  - 12-Linden, W. (2000): Defensiveness status predicts 3-yr incidence of hypertension. **Journal of Hypertension**, 18(2), 153-159.
  - 13- Liu, X. and Hu, S. (1998): Study on the characteristics of personality, emotion and the plasma arginine vasopressin levels in patients with Gen Yang Shang Kang Zheng. **Human I Ko Ta Hsueh Hsueh Pao**, 23(1), 31-34.
  - 14- Maslow, A. H. (1954): **Motivation and Personality**. New York: Harper and Bros.
  - 15-Mayou, R. A.; Peveler, R.; Davies, B.; Mann, J. (1991): Psychiatric morbidity in young adults with insulin-dependent diabetes mellitus. **Psychological Medicine**, 21(3), 639-645.
  - 16-Menniger, K. A. (1945): **Human mind**, New York.
  - 17-Platt, D. C. (1947): Family history and hypertension. **American Journal of Psychology**, 7, 127-131.
  - 18-Rumke, H. C. (1955): Solved and unsolved problems in mental health. **Mental Hygiene**.
- Smith, M. B. (1959): Research strategies towards a conception of positive mental health. **American Psychologist**, 14, 673-681.