KARNATAKA STATE OPEN UNIVERSITY

MUKTHAGANGOTHRI, MYSURU

DEPARTMENT OF STUDIES AND RESEARCH IN PSYCHOLOGY

M.Sc PSYCHOLOGY

THIRD SEMESTER

COURSE – 12 HEALTH PSYCHOLOGY

BLOCK - III : CHRONIC ILLNESS AND MANAGEMENT

BLOCK - IV : HEALTH PROMOTION AND DISEASE PREVENTION

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Publisher
Registrar
Karnataka State Open University, Mukthagangothri, Mysore-6

Developed by Academic Section, KSOU, Mysore-6, 2020

Further information may be obtained from the Univerity's office at Mukthagangothri, Mysore-6
Printed and Published on behalf of Karnataka State Open University, Mukthagangothri, Mysore -6.

COURSE-12 HEALTH PSYCHOLOGY

INTRODUCTION

The course Health Psychology is also called as behavioural medicine has gained a very important prominence in the present day. Health Psychology focuses on the prevention of health problems and illnesses and it also focuses on treatment and the behavioural aspects of the individual. It focuses on the biological, social and the psychological factors influencing health and illness to improve the health care systems. It explores the avenues which motivates the individual to give priority and importance to one's physical and mental health. It focuses on the prevention of both physical and psychological health problems by giving the knowledge about the importance of choices and the lifestyle an individual adopts and its influence in the maintenance of one's health.

The first block deals with an introduction towards Health Psychology, its perspectives, the role of an health psychologist, the models of understanding the health like biomedical model, biopsychosocial model and other perspectives. The health beliefs, its impact, the doctor patient communication, their relationship in dealing with health problems are being discussed. There are a number of wide variety of myths about the physical health and fitness, about psychological disorders and its treatment, these myths and the actual facts are being discussed which would help to gain a new perspective about the overall health.

The second block deals with stress and health, stress being the part of human life not only affects the individual at that moment but leaves its mark on the minds of the individual affecting physical as well as psychological health. Stress, its theories, models, sources of stress, types of stress, stress responses, stress moderators, the psychological effects, physiological effects of stress on the individual, the importance of social support in dealing with stress, optimism, its benefits in fighting with stress are being discussed here.

The third block deals with chronic illness and its management. The relationship between stress and illness, its effects upon physical illness, the brain body pathways of stress, the psychophysiological disorders, pain, its management, stress may lead to lifestyle disorders like hypertension caused due to stress, cardiovascular diseases, diabetes. The relationship with stress and these lifestyle disorders are dealt here. Stress not only upsets day

to day life but it may lead to serious chronic diseases like cancer, the psychosocial factors for cancer, the personality type, stress and cancer are discussed. Stress not only gives rise to these illnesses but also lowers the functioning of the immune system there by making the individual susceptible to HIV/AIDS. The psychosocial factors affecting for these are being discussed in detail.

The fourth block deals with health promotion and disease prevention, the health compromising behaviours, substance dependence, smoking, alcoholism, its effect upon physical and psychological health of the individual, the sedentary life styles its consequences, the various coping strategies adopted by individuals in different settings, the importance of selecting the right method of coping strategy according to the situation , its effects and the benefits upon one's mental health and adjustment are dealt. The various health enhancing behaviours, its impact upon the individual's physical as well as mental health and also how it affects the individual's performance level including the food habits is being discussed here. It is important to modify one's behaviour for the improvement of one's own health, the importance of health behaviour modification, its theories, are being discussed here.

By understanding this course you will get a new perspective in looking towards health in totality and also understand the various psychological aspects which affects our physical and psychological health. You will also gain an understanding about adopting new ways of choices in your life for a healthy physical and psychological wellness.

Wishing you All the Best

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BLOCK – 1: INTRODUCTION TO HEALTH PSYCHOLOGY

UNIT 1 - : INTRODUCTION TO HEALTH PSYCHOLOGY

STRUCTURE

1.1 OBJECTIVES

After going through this unit, you will be able to

- Understand the concept of Health Psychology and define it.
- Explain mind body relationship.
- Understand the different factors that contributed to rise of health psychology as a field.
- Emphasize on the role of health psychologists.
- Learn and apply different research methods in health Psychology.

1.2 INTRODUCTION

Health psychology is an exciting and relatively new field devoted to understanding psychological influences on how people stay healthy, why they become ill, and how they respond when they do get ill. Health psychologists both study such issues and promote interventions to help people stay well or get over illness. For example, a health psychology researcher might be interested in why people continue to smoke even though they know that smoking increases their risk of cancer and heart disease. Information about why people smoke helps the researcher both understand this poor health habit and design interventions to help people stop smoking.

1.3 MEANING AND DEFINITION OF HEALTH PSYCHOLOGY

Fundamental to research and practice in health psychology is the dentition of health. In 1948, the World Health Organization denied health as "a complete state of physical, mental, and social well-being and not merely the absence of disease or congruity" (World Health Organization, 1948). This dentition, which was very forward looking for its time, is at the core of health psychologists' conception of health. Rather than defining health as the absence of illness, health is recognized to be an achievement involving social emotional and psychological well-being. Many use the term wellness to refer to this optimum state of health. Health psychology is concerned with all aspects of health and illness across the life span. Health psychologists focus on health promotion and maintenance, which includes such issues as how to get children to develop good health habits, how to promote regular exercise, and how to design a media campaign to get people to improve their diets.

Health psychologists also study the psychological aspects of the prevention and treatment of illness. A health psychologist might teach people in a high-stress occupation how to manage stress effectively so that it will not adversely affect their health. A health psychologist might work with people who are already ill to help them adjust more successfully to their illness or to learn to follow their treatment regimen. Health psychologists also focus on the etiology and correlates of health, illness, and dysfunction. Etiology refers to the origins or causes of illness, and health psychologists are especially interested in the behavioural and social factors that contribute to health or to illness and dysfunction. Such factors can include health habits such as alcohol consumption, smoking, exercise, the wearing of seat belts, and ways of coping with stress. Finally, health psychologists analyze and attempt to improve the health care system and the formulation of health policy. They study the impact of health institutions and health professionals on people's behaviour and develop recommendations for improving health care. In summary, health psychology examines the psychological and social factors that lead to the enhancement of health, the prevention and treatment of illness, and the evaluation and modification of health policies that influence health care.

1.4 ROLE OF A HEALTH PSYCHOLOGIST

Although chronic diseases have many causes, no one seriously disputes the evidence that individual behaviour and lifestyle are strongly implicated in their development. Because most chronic diseases stem at least partly from individual behaviour, psychology—the science of behaviour - has become involved in health care.

A large part of psychology's involvement in health care is a commitment to keep people healthy rather than waiting to treat them after they become ill. Psychology shares this role with medicine and other health care disciplines, but unlike medicine (which tends to study specific diseases), psychology contributes certain broad principles of behaviour that cut across specific diseases and specific issues of health. Among psychology's contributions to health care are techniques for changing behaviours that have been implicated in chronic diseases. In addition to changing unhealthy behaviours, psychologists have also used their skills to relieve pain and reduce stress, improve compliance with medical advice, and help patients and family members live with chronic illnesses.

Psychologists as behavioural health providers play a major role in understanding how biological, behavioural, and social factors influence health, and illness. They are equipped with training, skills, and knowledge to understand how basic behavioural and cognitive processes (e.g. cognition. emotion, motivation, development, personality, social and cultural interaction) prepare the body to develop dysfunctions. They are trained, on the other hand, to perceive how these behavioural and cognitive functions are altered, the factors that contribute to their alteration, and how these dysfunctions are diagnosed and treated. In dealing with such problems, they are also trained and skilled to use several psychological, psycho diagnostic and psychotherapeutic techniques which help and affect the abilities of individuals to function in diverse settings and roles. In addition, they help people to modify their behaviour and lifestyle so as to prevent and recover from health problems.

Consequently, demands for psychologists in hospitals and medical settings have dramatically increased and clinical health psychology has become one of the most important disciplines in health care.

Health Psychologists apply psychological research and methods to the prevention and management of disease, the promotion and maintenance of health, the identification of psychological factors that contribute to physical illness, the improvement of the health care system, and the formulation of health policy.

The American Psychological Associations' Division of Health Psychology outlined the objectives of health psychology as understanding the etiology, promotion and maintenance of health, prevention, diagnosis, treatment and rehabilitation of physical and mental illness; the study of psychological, social, emotional and behavioral factors in physical and mental illness; and the improvement of the health care system and formulation of health policy.

Thus, health psychologists are interested in how biological, psychological, and social factors affect health and illness. Therefore, they are engaged in the promotion and maintenance of health-related behaviour, the prevention and treatment of illness and analysis and improvement of the health care system.

In summary, the role of psychologists in medical settings has expanded beyond traditional mental health problems to include procedures and programs to help people stop

smoking, eat a healthy diet, exercise, adhere to medical advice, reduce stress, control pain, live with chronic disease, and avoid unintentional injuries.

1.5 MIND BODY RELATIONSHIP

Health psychology provides an integrated model of an individual by establishing a holistic approach to health. It provides theories and research findings to establish and support the idea of mind and body are one. The factors which affect our mind in turn affects our body and the factors which affect our body influences our mind. There is an interconnection in the functioning of mind and body. For ex: the beliefs which influence our behaviour influences our health, the stress can cause illness, pain is a perception rather than a sensation.

Health psychology argues that illness cognitions relate to the recovery from illness and coping relates to longevity. The various research conducted in health psychology indicate that mind and body interact, and also that they are still separate. The mind reflects the individual's psychological states (i.e., their beliefs, cognitions, perceptions) which influences but are separate to their bodies (i.e., the illness, the body, the body's system).

The mind – body relationship means our thoughts, feelings- beliefs and attitudes can positively or negatively affect our biological functioning or our mind can affect how healthy our bodies are. What we do with our physical body (what we can't, how much we exercise, even our body posture) can have a great impact on our mental state in a positive or negative manner.

Recent findings in Health psychology shows that the brain and peripheral nervous system, the endocrine and immune systems and all the organs of our body and all the emotional responses we have, do share a common chemical language and are constantly communicating with one another.

The twentieth century has seen a challenge to the traditional separation of mind and body suggested by the dualistic model of health and illness, with an increasing focus on an interaction between the mind and the body. This shift in perspective is reflected in the development of a holistic or a whole-person approach to health. Health psychology therefore maintains that the mind and body interact.

The two entities are seen as influencing each other, they are still categorized as separate - the existence of two different terms (the mind and the body) suggests a degree of separation and "interaction" can only occur between distinct structures.

The Biopsychosocial Perspective

The idea that the mind and the body together determine health and illness logically implies a model for studying these issues. This model is called the biopsychosocial model. As its name implies, its fundamental assumption is that health and illness are consequences of the interplay of biological, psychological, and social factors (Suls& Rothman, 2004).

The Role of Biological Factors This term includes the genetic materials and processes by which we inherit characteristics from our parents. It also includes aspects of the person's physiological functioning—for example, whether the body (1) contains structural detects, such as a malformed heart valve or some damage in the brain, that impair the operation of these organs; (2) responds effectively in protecting itself, such as by fighting infection; and (3) overreacts sometimes in the protective function, as happens in many allergic reactions to harmless substances, such as pollen or dust.

The body is made up of enormously complex physical systems. For instance, it has organs, bones, and nerves, and these are composed of tissues, which in turn consist of cells, molecules, and atoms. The efficient, effective, and healthful functioning of these systems depends on the way these components operate and interact with each other.

The Role of Psychological Factors

Behaviour and mental processes are the focus of psychology, and they involve cognition, emotion, and motivation.

Cognition is a mental activity that encompasses perceiving, learning, remembering, thinking, interpreting, believing, and problem solving. How do these cognitive Factors affect health and illness? Suppose, for instance, you strongly believe, life is not worth living without the things I enjoy." If you enjoy smoking cigarettes, would you quit reducing your risk of getting cancer or heart disease? Probably not. Or suppose you develop a pain in your abdomen and you remember having had a similar symptom in the past that disappeared in a couple of days. Would

you seek treatment? Again, probably not. These examples are just two of the countless ways' cognition plays a role in health and illness.

Emotion is a subjective feeling that affects and is affected by our thoughts, behaviour, and physiology. Some emotions are positive or pleasant, such as joy and affection, and others are negative, such as anger, fear, and sadness. Emotions relate to health and illness in many ways. For Instance, people whose emotions are relatively positive are less disease-prone and more likely to take good care of their health and to recover quickly from an illness than are people whose emotions are relatively negative. We considered these relationships when we discussed the role of personality in illness. Emotions can also be important in people's decisions about seeking treatment. People who are frightened of doctors and dentists may avoid getting the health care they need.

Motivation is a term applied to explanations of why people behave the way they do--- why they start some activity, choose its direction, and persist in it. A person who is motivated to feel and look better might begin an exercise program, choose the goals to be reached, and stick with it. Many people are motivated to do what important people in their lives want them to do. Parents who quit smoking because their children plead with them to protect their health are an example.

The Role of Social Factors

People live in a social world. We have relationships with individual people—an acquaintance, a friend, or a family member—and with groups. As we interact with people, we affect them and they affect us. But our social world is larger than just the people we know or meet, and it contains levels of social spheres, such as our community and our family, and each level affects the others.

On a fairly broad level, our society affects the health of individuals by promoting certain values of our culture. One of these values is that being fit and healthy is good. Often the mass media—television, newspapers, and so on—reflect these values by setting good examples and urging us to eat well, not to use drugs, and not to drink and drive. The mass media can do much to promote health. But sometimes these media encourage unhealthybehaviour, such as when we observe celebrities on television smoking cigarettes or drinking excessively. Can individuals

affect society's values? Yes. As part of the society, we can affect its values by writing our opinions to the mass media, selecting which television shows and movies to watch, and buying healthful products, for example.

Our community consists of individuals who live fairly near one another, such as in the same town or country. These people influence and are influenced by each other. This influence can be seen in the research finding that communities differ in the extent to which their members practice certain health-related behaviours, such as smoking cigarettes or consuming fatty diets. These differences may develop in many ways. For instance, adolescents often start smoking cigarettes and drinking alcohol as a result of peer pressure. Sometimes simply observing other teenagers engaged in these behaviors can encourage adolescents to smoke and drink. They want very much to be popular and to look cool or tough to others in their community. These examples involve clear and powerful motivational elements that are social in nature.

The closest and most continuous social relationships for most people occur within the family, which can include non-relatives who live together and share a strong emotional bond. As individuals grow and develop in early childhood, the family has an especially strong influence. Children learn many health-related behaviors, attitudes, and beliefs from their parents, brothers, and sisters. For instance, parents can set good examples for healthful behavior by using seat belts, serving and eating nutritious meals, exercising, not smoking, and so on. Families can also encourage children to perform healthful behaviors and praise them when they do. Moreover, as we have said, an individual can influence the larger social unit. A family may stop eating certain nutritious foods, such as sprouts or fish, because one of the children has a tantrum when these foods are served.

The role of biological, psychological, and social factors in health and illness is not hard to see. What is more difficult to understand is how health is affected by the interplay of these components, as the Biopsychosocial model proposes.

1.6 CHANGING PATTERNS OF ILLNESS

The most important factor giving rise to health psychology has been the change in illness patterns that has occurred.

Until the 20th century, the major causes of illness and death were acute disorders—especially tuberculosis, pneumonia, and other infectious diseases. Acute disorders are short-term medical illnesses, often the result of a viral or bacterial invader and usually amenable to cure. Now, however, chronic illnesses— especially heart disease, cancer, and diabetes—are the main contributors to disability and death. Chronic illnesses are slowly developing diseases with which people live for a long time. Often, chronic illnesses cannot be cured but rather only managed by the patient and provider working together.

Why have chronic illnesses helped spawn the field of health psychology? First, these are diseases in which psychological and social factors are implicated as causes. For example, personal health habits such as diet and smoking are implicated in the development of heart disease and cancer, and sexual activity is critically important in the likelihood of developing AIDS (acquired immune deficiency syndrome). Consequently, health psychology has evolved, in part, to explore these causes and develop ways to modify them.

Second, because people may live with chronic diseases for many years, psychological issues arise in connection with them. Health psychologists help the chronically ill adjust psychologically and socially to their changing health state.

They help those with chronic illness develop treatment regimens, many of which involve self-care. Chronic illnesses affect family functioning, including relationships with a partner and / or children, and health psychologists both explore these changes and help ease the problems in family functioning that may result.

Many people with chronic illnesses use unconventional therapies outside formal medicine. Understanding what leads people to seek unconventional treatments and evaluating their effectiveness are also issues on which health psychologists can shed light.

The field of health psychology is changing almost daily because new issues arise that require the input of psychologists. For example, new technologies now make it possible to identify the genes that contribute to many disorders. Just in the past five years, genes contributing to many diseases, have been uncovered.

How can we help a college student whose mother has just been diagnosed with cancer? Now that we have a better understanding of the genetic causes of cancer, we can evaluate the

student's own risk factor of contacting the same disease. We can have different tests that may tell us about the student's risk of cancer. And if the results tell us that she is indeed vulnerable to the same disease, we can design early prevention plans for her to reduce the risk. We can also enhance her psychological coping abilities so that her risk is further reduced to a minimum.

Health psychologists also conduct research that identifies the risk factors for a disease, such as a high-fat diet, and also help people learn to change their diet and stick to their resolution. Helping people make informed, appropriate decisions is fundamentally a psychological task. Advances in genetic research have made it possible to identify carriers of illness and to test the foetus for the presence of particular life-threatening or severely debilitating illnesses. This place some parents in the position of having to decide whether to abort a pregnancy, a wrenching, difficult decision to make.

Certain treatments that may prolong life have the effect of severely compromising quality of life. Increasingly, patients are asked their preferences regarding life-sustaining measures, and they may require counselling in these matters. These are just a few examples of the increasing role that patients play in fundamental decisions regarding their health and illness and its management and of the help health psychologists can provide in this process.

Changing patterns of illness have been charted and followed by the field of epidemiology, a discipline closely related to health psychology in its goals and interests.

1.7 HEALTH CARE AND SERVICES

Another set of factors that has contributed to the rise of health psychology relates to the expansion of health care services. In recent years, the health care industry has come under increasing scrutiny as we have realized that massive increases in health care costs have not brought with them improvement in basic indicators of quality of health.

Health psychology represents an important perspective on a number of issues for several reasons. First, because cost containment is so important, health psychology’s main emphasis on prevention—namely, modifying people risky health behaviours before they ever become ill—has the potential to reduce the amount devoted to the management of illness. Second, health psychologists have done substantial research on what makes people satisfied or dissatisfied with their health care. Thus, they can help in the design of user-friendly health care systems.

Finally, the health care industry employs many millions of individuals in a variety of jobs. Nearly every individual in the country has direct contact with the health care system as a recipient of services. Thus, its impact on people is enormous. For all these reasons, then, health has a substantial social and psychological impact on people, an impact that is addressed by health psychologists.

1.8 RESEARCH METHODS

Health psychologists make important methodological contributions to issues of health and illness. Many of the issues that arise in medical settings demand rigorous research investigation. Although physicians and nurses receive some methodological and statistical education, their training may be inadequate to conduct research on the issues they wish to address. The health psychologist can be a valuable member of the research team by providing the methodological and statistical expertise that is the hallmark of good training in psychology.

1.8.1 ANECDOTAL (ABC) RECORDING METHOD

One exception to the suggestion that behavioural observation methods produce objective and quantifiable information about behaviours is anecdotal recording. Anecdotal recording involves recording and interpreting a narrative of behaviour during an observation period using an antecedent-behaviour-consequence (ABC) format for interpreting behaviour. To conduct an anecdotal observation, an observer records all behaviours observed, along with what was observed to occur before and after the behaviours. For this type of observation, it is important that only observable behaviours are recorded. No inferences about behaviours should be made. For example, if a student is observed to slam her book closed, the observer should record "slammed book closed," rather than "student frustrated." Either during or after the observation period, it is helpful to arrange observations into a chart that specifies behaviours, antecedents (what happened prior to the behaviour), or consequences (what happened as a result of the behaviour). It is also helpful to keep track of the time at which behaviours were observed to occur.

Anecdotal recording is a method of choice when behaviours of concern are unclear. In other words, if one is unsure about the exact nature of a behavioural concern, anecdotal recording allows the observer to include observations of all behaviours. This is often a necessary first step

in targeting particular behaviours for more focused or structured observation. Once behaviours of concern are pinpointed, however, the subjective and effuse nature of anecdotal recording makes it unsuited for continued use. At that point, the methods of choice are those that provide more quantitative and objective data. Few methods are mentioned below;

- Interval Recording Methods
- Partial-Interval Recording
- Whole-Interval Recording
- Momentary Time Sampling
- Event or Frequency Recording
- Duration Recording
- Latency Recording
- Technology and Behavioural Observation

Issues in Behavioural Observations

Assessment Reactivity

As observers are in the physical presence of the client while collecting behavioural observation data, there is the potential for the procedure itself to change the client's behaviour. This is referred to as assessment reactivity. Assessment reactivity can significantly affect the validity of observation data, so steps need to be taken to minimize its effects.

Reliability

Reliability refers to the consistency of results obtained from an assessment procedure, and it is important for the purposes of behavioural observation. There are several types of reliability, including internal consistency, test-retest, and inter-rater reliability. With regard to test-retest reliability, for example, behaviours are not expected to remain stable over time, so low retest reliability is less a function of the instrumentation being used than the characteristics being assessed. Inter-rater reliability is an important concept in behavioural assessment, however. It is important that two observers agree on whether targeted behaviours are occurring. Strong inter-rater reliability depends heavily upon solid behavioural definitions and comprehensive training for behavioural observers.

Defining Behaviours

Behavioural definitions should have several characteristics. They should be objective, clear, and complete. Objective means the definition should include only observable aspects of the behaviour. No inferences or judgments should be necessary when using the definition. The definition should be clear, meaning that it is understandable to any person who would want to conduct observations using the definition. Finally, the definition should be complete. It should delineate the bounds of the behaviour, so that decisions can be made about whether a particular behaviour represents an instance of the target behaviour being observed.

Using Behavioural Observation Results

Results of behavioural observations are typically used for three purposes related to intervention planning. First, they are used as a baseline of current levels of behaviour. A baseline tells the professionals involved what to expect in the future if no intervention is to occur with an individual. Baseline data are also used for the second purpose—namely, the formulation of goals. Goals should be based on current levels of behaviour. To not use baseline data in formulating goals is to risk setting goals that are unrealistic or too lenient. The third purpose for which results of behavioural observation are used is to measure outcomes. If initial observation data are used to determine baseline levels of behaviour and for goal setting, later data can be used as a measure of whether interventions are successful. If data are being collected on a problem behaviour, the behaviour should decrease in frequency, magnitude, or duration if an intervention is successful. Conversely, if data are collected on an appropriate behaviour, occurrences of the behaviour should increase.

Behavioural observations are also conducted for research purposes. The data may be used to describe the behaviour of an individual or group, or they may be used to measure change in behaviour contingent upon some environmental manipulation or individual treatment. Sometimes in research, sophisticated coding schemes are used to categorize or describe the behavior observed, but they typically involve the use of one or more of the methods described above.

1.8.2 CASE STUDY

Case studies are in-depth investigations of a single person, group, event or community. Typically, data are gathered from a variety of sources and by using several different methods

(e.g. observations & interviews). The research may also continue for an extended period of time, so processes and developments can be studied as they happen.

The case study method often involves simply observing what happens to, or reconstructing 'the case history' of a single participant or group of individuals (such as a school class or a specific social group), i.e. the idiographic approach.

A case study are observations of a person's daily routine, unstructured interviews with the participant herself (and with people who know her), diaries, personal notes (e.g. letters, photographs, notes) or official document (e.g. case notes, clinical notes, appraisal reports). Most of this information is likely to be qualitative (i.e. verbal description rather than measurement) but the psychologist might collect numerical data as well. The interview is also an extremely effective procedure for obtaining information about an individual, and it may be used to collect comments from the person's friends, parents, employer, work mates and others who have a good knowledge of the person, as well as to obtain facts from the person him or herself.

Case studies are widely used in psychology and amongst the best known were the ones carried out by Sigmund Freud. He conducted very detailed investigations into the private lives of his patients in an attempt to both understand and help them overcome their illnesses.

Freud's most famous case studies include Little Hans (1909a) and The Rat Man (1909b). Even today case histories are one of the main methods of investigation in abnormal psychology and psychiatry. For students of these disciplines they can give a vivid insight into what those who suffer from mental illness often have to endure.

The case study research method originated in clinical medicine (the case history, i.e. the patient's personal history). In psychology, case studies are often confined to the study of a particular individual. The information is mainly biographical and relates to events in the individual's past (i.e. retrospective), as well as to significant events which are currently occurring in his or her everyday life.

This makes it clear that the case study is a method that should only be used by a psychologist, therapist or psychiatrist, i.e. someone with a professional qualification. There is an ethical issue of competence. Only someone qualified to diagnose and treat a person can conduct a formal case study relating to atypical (i.e. abnormal) behaviour or atypical development.

The procedure used in a case study means that the researcher provides a description of the behaviour. This comes from interviews and other sources, such as observation. The client also reports detail of events from his or her point of view. The researcher then writes up the information from both sources above as the case study, and interprets the information.

Interpreting the information means the researcher decides what to include or leave out. A good case study should always make clear which information is factual description and which is an inference or the opinion of the researcher.

Strengths of Case Studies

- Provides detailed (rich qualitative) information.
- Provides insight for further research.
- Permitting investigation of otherwise impractical (or unethical) situations.

Because of their in-depth, multi-sided approach case studies often shed light on aspects of human thinking and behaviour that would be unethical or impractical to study in other ways. Research which only looks into the measurable aspects of human behaviour is not likely to give us insights into the subjective dimension to experience which is so important to psychoanalytic and humanistic psychologists.

Case studies are often used in exploratory research. They can help us generate new ideas (that might be tested by other methods). They are an important way of illustrating theories and can help show how different aspects of a person's life are related to each other. The method is therefore important for psychologists who adopt a holistic point of view (i.e. humanistic psychologists).

Limitations of Case Studies

- Cannot generalize the results to the wider population.
- Researchers' own subjective feeling may influence the case study (researcher bias).
- Difficult to replicate.
- Time consuming.

A case study deals with only one person/event/group we can never be sure whether the conclusions drawn from this particular case apply elsewhere. The results of the study are not

generalizable because we can never know whether the case, we have investigated is representative of the wider body of "similar" instances because they are based on the analysis of qualitative (i.e. descriptive) data a lot depends on the interpretation the psychologist places on the information she has acquired. This means that there is a lot of scope for observer bias and it could be that the subjective opinions of the psychologist intrude in the assessment of what the data means.

For example, Freud has been criticized for producing case studies in which the information was sometimes distorted to fit the particular theories about behaviour (e.g. Little Hans).

1.8.3 CORRELATIONAL RESEARCH

Correlational research is a type of non-experimental research in which the researcher measures two variables and assesses the statistical relationship (i.e., the correlation) between them with little or no effort to control extraneous variables. There are many reasons that researchers interested in statistical relationships between variables would choose to conduct a correlational study rather than an experiment. The first is that they do not believe that the statistical relationship is a causal one or are not interested in causal relationships. Two goals of science are to describe and to predict and the correlational research strategy allows researchers to achieve both of these goals. Specifically, this strategy can be used to describe the strength and direction of the relationship between two variables and if there is a relationship between the variables then the researchers can use scores on one variable to predict scores on the other (using a statistical technique called regression).

Another reason that researchers would choose to use a correlational study rather than an experiment is that the statistical relationship of interest is thought to be causal, but the researcher cannot manipulate the independent variable because it is impossible, impractical, or unethical. For example, while I might be interested in the relationship between the frequency people use cannabis and their memory abilities, I cannot ethically manipulate the frequency that people use cannabis. As such, I must rely on the correlational research strategy; I must simply measure the frequency that people use cannabis and measure their memory abilities using a standardized test of memory and then determine whether the frequency people use cannabis use is statistically related to memory test performance.

Correlation is also used to establish the reliability and validity of measurements. For example, a researcher might evaluate the validity of a brief extraversion test by administering it to a large group of participants along with a longer extraversion test that has already been shown to be valid. This researcher might then check to see whether participants' scores on the brief test are strongly correlated with their scores on the longer one. Neither test score is thought to cause the other, so there is no independent variable to manipulate. In fact, the terms independent variable and dependent variable do not apply to this kind of research.

Strength of correlational research is that it is often higher in external validity than experimental research. Recall there is typically a trade-off between internal validity and external validity. As greater controls are added to experiments, internal validity is increased but often at the expense of external validity. In contrast, correlational studies typically have low internal validity because nothing is manipulated or control but they often have high external validity. Since nothing is manipulated or controlled by the experimenter the results are more likely to reflect relationships that exist in the real world.

Finally, extending upon this trade-off between internal and external validity, correlational research can help to provide converging evidence for a theory. If a theory is supported by a true experiment that is high in internal validity as well as by a correlational study that is high in external validity then the researchers can have more confidence in the validity of their theory. As a concrete example, correlational studies establishing that there is a relationship between watching violent television and aggressive behaviour have been complemented by experimental studies confirming that the relationship is a causal one (Bushman & Huesmann, 2001). These converging results provide strong evidence that there is a real relationship (indeed a causal relationship) between watching violent television and aggressive behaviour.

Data collection in Correlational research

Again, the defining feature of correlational research is that neither variable is manipulated. It does not matter how or where the variables are measured. A researcher could have participants come to a laboratory to complete a computerized backward digit span task and a computerized risky decision-making task and then assess the relationship between participants' scores on the two tasks. Or a researcher could go to a shopping mall to ask people about their attitudes toward the environment and their shopping habits and then assess the relationship

between these two variables. Both of these studies would be correlational because no independent variable is manipulated.

1.8.4 EXPERIMENTAL RESEARCH

How exactly do researchers investigate the human mind and behaviour? While there are a number of different research techniques, the experimental method allows researchers to look at cause-and-effect relationships.

In the experimental method, researchers identify and define key variables, formulate a hypothesis, manipulate the variables and collect data on the results. Extraneous variables are carefully controlled to minimize a potential impact on the outcome of the experiment.

The experimental method involves manipulating one variable to determine if changes in one variable cause changes in another variable. This method relies on controlled methods, random assignment and the manipulation of variables to test a hypothesis.

Types of Experiments

There are a few different types of experiments that researchers might choose to use. The type of experiment chosen might depend on a variety of factors including the participants, the hypothesis and the resources available to the researchers.

a. Lab Experiments

Lab experiments are very common in psychology because they allow experimenters more control over the variables. These experiments can also be easier for other researchers to replicate. The problem, of course, is that what takes place in a lab is not always identical to what takes place in the real world.

b. Field Experiments

Sometimes researchers might opt to conduct their experiments in the field. For example, let's imagine that a social psychologist is interested in researching. The experimenter might have a person pretend to faint and observe to see how long it takes onlookers to respond. This type of experiment can be a great way to see behaviour in action in realistic settings. However, it makes

it more difficult for the researchers to control the variables and can introduce confounding variables that might influence the results.

c. Quasi-Experiments

While lab experiments represent what are known as true experiments, researchers can also utilize a type known as a quasi-experiment. Field experiments can be either quasi-experiments or true experiments. Quasi-experiments are often referred to as natural experiments because the researchers do not have true control over the independent variable. Instead, the treatment level is determined by the natural conditions of the situation. A researcher looking at personality differences and birth order, for example, is not able to manipulate the independent variable in the situation. Treatment levels cannot be randomly assigned because the participants naturally fall into pre-existing groups based on their birth order in their families.

So why would a researcher choose to use a quasi-experiment? This is a good choice in situations where scientists and interested in studying phenomena in natural, real-world settings. It is also a good choice in situations where researchers cannot ethically manipulate the independent variable in question.

Key Terms to Know

In order to understand how the experimental method works, there are some key terms you should first understand.

The independent variable is the treatment that the experimenter manipulates. This variable is assumed to cause some type of effect on another variable. If a researcher was investigating how sleep influences test scores, the amount of sleep an individual gets would be the independent variable.

The dependent variable is the effect that the experimenter is measuring. In our previous example, the test scores would be the dependent variable.

Operational definitions are necessary in order to perform an experiment. When we say something is an independent variable or dependent variable, we need to have a very clear and specific definition of the meaning and scope of that variable.

A hypothesis is a tentative statement or guesses about the possible relationship between two or more variables. In our earlier example, the researcher might hypothesize that people who get more sleep will perform better on a math test the next day. The purpose of the experiment is then to either support or fail to support this hypothesis.

The Experimental Process

Psychologists, like other scientists, utilize the scientific method when conducting an experiment. The scientific method is a set of procedures and principles that guide how scientists develop research questions, collect data and come to conclusions.

The four basic steps of the process are:

- Forming a Hypothesis
- Designing a Study and Collecting Data
- Analyzing the Data and Reaching Conclusions
- Sharing the Findings

1.9 SUMMARY

This unit focuses on using psychology for understanding health and health related behaviours. The chapter attempts to define psychology and further attempts to elaborate on understanding health psychology as an emerging field. Health psychologists are people who basically work on relating health and psychology, understanding patterns of healthy and unhealthy behaviours and further working on use of principles of psychology on enhancing health and general well-being of people. Furthermore, the chapter understands the mind body relationship and explains how a holistic approach including biological perspective, psychological perspective and social perspective becomes very important in understanding illness, wellbeing as well as therapeutic management in human beings. The chapter also attempts to understand the changing patterns of illness in terms of including psychological factors in health and well-being and the increasing role of psychologists in health care sector. It also speaks of the importance of research in the field of health psychology and discusses a few research methods that can be used in the field.

1.10 KEY WORDS

Health Psychology: Health psychology is the study of psychological and behavioural processes in health, illness, and healthcare. It is concerned with understanding how psychological, behavioural, and cultural factors contribute to physical health and illness.

Biopsychological Perspective: The biopsychosocial model is an interdisciplinary model that looks at the interconnection between biology, psychology, and socio-environmental factors. The model specifically examines how these aspects play a role in topics ranging from health and disease models to human development.

Mind Body Relationship: Our thoughts, feelings, beliefs, and attitudes can positively or negatively affect our biological functioning. In other words, our minds can affect how healthy our bodies are and vice versa!

Case study: Case studies are in-depth investigations of a single person, group, event or community. Typically, data are gathered from a variety of sources and by using several different methods (e.g. observations & interviews).

Anecdotal method: An investigational technique in which informal verbal reports of incidents casually observed are accepted as useful information.

Correlational Research: Correlation research is a type of non-experimental research method, in which a researcher measures two variables, understands and assess the statistical relationship between them with no influence from any extraneous variable.

Experimental research: Experimental research is a study that strictly adheres to a scientific research design. It includes a hypothesis, a variable that can be manipulated by the researcher, and variables that can be measured, calculated and compared.

1.11 CHECK YOUR PROGRESS

1. Define health psychology and explain the concept of health psychology.
2. Discuss the role of health psychologist in the current scenario.
3. Explain the bio psychosocial perspective in relation to health Psychology.
4. Elaborate on the changing patterns of illness and its relationship to health psychology.
5. Discuss how experimental method can be used in health psychology.
6. What is case study method?

1.12 ANSWERS TO CHECK YOUR PROGRESS

1. 12.3 2. 12.4 3. 12.5.1 4.12.6 5. 12.8.4
6. 12.8.2

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UNIT - 2: MODELS OF HEALTH

STRUCTURE

2.1 OBJECTIVES

After studying this unit, you will be able to

- Understand the biomedical model of health and illness.
- Explain the bio psychosocial approach of understanding health and illness.
- Have an understanding of eastern approaches of health and well- being.
- Understand the concept of Swasthya.
- Explain the concept of Anasakthi.
- Understand the concepts of Zen Bhuddism

2.2 INTRODUCTION

When we think of healthcare, some of the first images that spring to mind are of doctors and nurses dashing around high-tech hospitals pushing trolleys loaded up with machines that go 'ping!'. Health is usually associated with doing something physical to the patient, such as cutting something out of the body, or administering some chemicals. This is at the heart of the biomedical model of health. This model has been the cornerstone of Western medicine for 300 years and it is based on the idea that illness can be explained by looking at the workings of the body, such as biochemical imbalances or abnormalities in the activity of the nervous system.

2.3 BIOMEDICAL MODEL

The biomedical model asks us to look at people as if they are biological machines. If something is going wrong then we need to fix the machine in the same way we might fix a car. We make observations and diagnose the faulty bit, then we can repair it if possible, or replace it if necessary. Sometimes we might benefit from a general overhaul and sometimes from some minor adjustments. This biomedical model has some appeal because we are clearly made up of biological bits, and also because some biomedical treatments produce dramatic improvements in health.

The biomedical model has a number of key features:

1. Reductionism: The model tries to reduce explanations of illness to the simplest possible process. For example, it will look for explanations in disordered cells rather than psychological or social processes.

2. Single-factor causes: The biomedical model looks for the cause of a disorder rather than looking for a range of contributory factors. For example, there are numerous attempts to explain complex disorders in terms of a simple genetic effect. Also, there is a tendency to describe smoking as the cause of coronary heart disease, yet many smokers do not develop the disease and many non-smokers do. The process would seem to have more than one cause and more than one contributory factor.

3. Mind–body distinction: Dating back to the French philosopher Rene Descartes, Western science has made a distinction between the mind and the body. In some ways this is a religious distinction and encourages us to see people as split into two parts – a ghost and a biological machine. (This is often referred to as the 'Cartesian dualism' – Cartesian after Descartes, and dualism because it proposes a split into two). In many ways this is a comforting idea, especially when someone we love changes their personality and behaviour due to their poor health. For example, when someone develops Alzheimer's disease, they become unrecognisable from the person they were throughout much of their life. It is comforting to think that the original person is still there but trapped in a decaying body.

4. Illness not health: 'If it ain't broke don't fix it' might well be the motto of the biomedical model. It deals with illness and the development of illness rather than the promotion of good health.

There are three main changes that have led to dissatisfaction with the biomedical model. First, throughout the twentieth century there was a decline in the incidence of infectious, single cause diseases. The beginning of the twentieth century, the three most common causes of death were:

1. Influenza and pneumonia 2. Tuberculosis 3. Gastro-enteritis

These are all caused by micro-organisms and respond to better living conditions and relatively simple medical interventions such as antibiotics.

1. The illnesses like: Heart disease 2. Cancer

Neither of these has a known simple cause, and the medical interventions are often drastic and costly, and have only limited success. The general picture is that large-scale infections (caused by simple micro-organisms such as bacteria) which were common in the early part of the twentieth century have been replaced by chronic diseases (such as cancer) which have multiple causes. Secondly, there has been a dramatic increase in specialist technology and an equally dramatic increase in the cost of healthcare. The costs of treating someone who is ill are now prohibitively high so there is a major incentive to prevent people getting ill in the first place. The third change is a growing emphasis on quality of life. People are developing an expectation that they should have a healthy, enjoyable and active life. These three factors have changed the general view of health from one where we deal with illness to one where we promote good health. It is important to add that this description of the changing priorities of health only applies to the technologically advanced countries. In other parts of the world, infectious diseases still cause many deaths despite there being relatively easy and cheap medication for them.

2.4 BIOPSYCHOSOCIAL MODEL

An alternative approach to the biomedical model is look at all the biological, psychological and social factors that are associated with health and illness. This is referred to as the biopsychosocial model. In contrast to the biomedical model, the biopsychosocial model is not reductionist. Instead it looks at all levels of explanation from the micro-level (for example, changes in body chemicals) to the macro-level (for example, the culture that someone lives within). The biopsychosocial model does not look for single causes but starts from the assumption that health and illness have many causes, and also produce many effects. The model does not make the distinction between mind and body but instead looks at the connections between mental events and biological changes. Finally, the biopsychosocial model is concerned as much with health as it is with illness. The biopsychosocial model is a systems theory. This means that it recognises there are a number of different systems at all levels of organisation and these systems are linked. This has been explained in great detail in the introduction chapter,

The biopsychosocial model looks at three systems which are all separate from each other yet are also connected to each other – systems within systems. We live within a social system that includes our country our culture and our family. We also experience a psychological system of cognitions, emotions and behaviour and we are affected by a biological system of organs, tissues and cells. One biological system that has received a lot of attention from psychologists and physicians is the immune system which is a collection of responses that allow the body to neutralise, eliminate or control the factors that produce disease. It seems possible that there are connections between the immune system and the experience of stress, which would fit into our psychological systems. The experience of stress is also affected by the social systems we live in, for example our family. When we look at it this way, we can see there is no single cause for ill health that brings out a simple response, but instead there are a mass of connections that create a complex series of changes within us. The development of this biopsychosocial view of health and illness moves the emphasis away from traditional Western medicine and towards psychology. However, before we get to the Psychology, we will look at how changes in social policy have also brought psychology into focus.

2.5 EASTERN APPROACHES

Humans have been looking after their health for thousands of years in countless ways. Western medicine, which forms the basis of many of the world's modern health systems, can be traced back to ancient times. While health and ill health was initially thought to be

dictated by the Gods, the ancient Greeks were the first to look at the body through the lens of human biology. They studied health by looking at four bodily fluids or 'humors' — blood, black bile, yellow bile and phlegm.

Today western medicine remains largely founded on the principles established by the ancient Greeks. And as western medicine has evolved over the past 3,000 years, the key foundations of medical practice remain the same. Some of these include:

- Inquiry and examination of the physical body and its symptoms
- A scientific, evidence-based diagnosis of health, using clinically-proven treatments
- Health as a human right that should promoted and protected.

Eastern medicine: Eastern medicine refers to a range of medical practices that originated throughout Asia. And although these practices have evolved over thousands of years, they still retain many of their original approaches to healing today. The philosophy which underpins most eastern medicine is the practice of treating the whole person, and not just the symptom. A few important eastern approaches are discussed below.

2.5.1 CONCEPT OF SWASTHYA

Health and illness both depend on the well- being of the body, mind and soul. They are seen on the body, but the real source is deep within. We cannot create health or fight disease by just treating the physical symptoms. To create real health or to completely remove a disease we have to start working from deep within ourselves. – Ayurveda

The Swasthya is a unique health and well- being concept based on ancient wisdom like Ayurveda, Yoga, etc and the teachings of healing masters and Yogi's, passed on from Guru to disciple for many centuries. Designed and developed by Vishwa, Swasthya is a holistic and integrated approach to well -being.

Swasthya is a Sanskrit word which when literally translated, means, Swa- self and Sthya- to be present, situated, located.

The definition of being well or healthy is when one is in contact with ones true self and feels harmonious at the Body, Mind and Spirit levels.

Philosophy

All the healers and masters on whose teachings this healing technique is based had a deep understanding and reverence for nature. They all had kept the nature around as a centre point in their work and had created healing concepts based on a balance with the nature within us and around us. They had put forward healing techniques that could harness the healing power of nature and use it to create a unique curative and rejuvenating experience. They say that we are an integral part of nature and if we learn to live in a balance with the rhythms of nature, we can attain great heights of health and happiness.

The nature around us is resplendent and glorious. It is filled with tremendous amounts of pure energy, wisdom and potential. And we are nature's finest creation. The five elements that the universe is made of; Earth, Water, Fire, Air, and Space, are a source of tremendous energy and infinite potential. We're all made from the same elements and possess a similar reservoir of energy within us waiting to be explored. Our true Radiant Self is not the body that we see, but the pure radiant consciousness that has limitless possibilities.

If our life is in tune with the rhythms of nature we can unleash this immense energy within and create a life that we dream of.

Once we realize it and exert to explore our true radiant self, we can lead a life that'll enable us to handle stress better, become healthier and fitter, fight disease effectively, keep negative emotions at bay, find emotional solace, achieve excellence, overcome trauma and become happier beings, spreading good vibration amongst people we come in contact with. And most importantly, when we are happy, we make the choices that drive and lead us to achieve greater success.

2.5.2 ANASAKTHI

According to almost every system of Indian philosophy, whether orthodox or heterodox, realistic or idealistic, the purpose of human life is to achieve liberation from sufferings and realise the identity of self with the Ultimate Reality. To be able to achieve the goal of self-realisation, disengagement of consciousness from desires is necessary. Desires, which are directives of the senses, spring from the identification of self with the ego and its concerns of ambition, pride, attachment (asakti) and insistence on mineness (mamatva). In the Gita, the ideal

of anasakti embodies the principles of spiritualism as well as exhortations to pragmatism and action orientation.

Anasakti (the end state) has been explained in terms of anasakt action or 'ni~kamakarma' (which implies to achieve that end state). Anisakt action does not refer to physical abstention from activity. It is an intense, though disinterested action, performed with a spirit of dispassion, without nurturing concerns about success or failure, loss or gain, likes or dislikes. This results in a complete unification of the actor with the act and a consequent task excellence. According to the BhagvadGita, task excellence comes about only when the actor has understood that his concerns lie only in actions and not in their results, that actions should not serve any personal motives and that these cognitions should not imply inaction. Being wedded to the piece of work at hand only implies that while an individual is at work, he is not allowing his abilities to run to waste in mental preoccupations and fears pertaining to the results and consequences. Such an attitude towards work significantly affects the emotional response to success and failure. Following the relinquishment of desires, mental serenity is acquired and the individual maintains greater emotional equipoise in the face of consequence, be it good or bad, desirable or undesirable. In other words, by way of recommending commitment and total absorption in the task, the doctrine of anasakt action offers an excellent way by which our worldly endeavours can become more effective. Although anasakti is extolled as an ideal by the Indian philosophical and mystical literature, yet it is manifested through common cultural expressions such as popular songs, idioms, phrase and folklores. Depending upon the variety and breadth of their exposure to this ideal, people manifest anasakti in their day-to-day lives without perhaps being aware of its underlying metaphysical meaning. Since personality dispositions are partly conditioned by the dominant inputs contained in a given culture, anasakti is conceptualised as a multifaceted personality construct consisting of a set of beliefs, attitudes and cognitions consistent with the essence of the ideal. The causal linkage between anasakti and health can now be explicated. It can be argued that the doctrine of anasakt action conveys, a message which is central to coping with life stressors. This argument is based on the psychological literature which demonstrates the significance of cognitive and attitudinal systems in determining the manner in which stress inducing situations are confronted (Pearlin, Liberman, Menaghan, &Mullan, 1981).

The distinctive characteristics of anasakti are effort orientation, emotional equipoise in the face of success and failure, a relatively weak concern for obtaining extrinsic rewards, and an

intense effort to achieve excellence. Therefore, those high on anasakti are expected to experience lesser distress and exhibit fewer symptoms of strain. These arguments will be extended on the basis of conjectures and empirical evidence. It is also seen that commitment to some higher goal in life enables people to meaningfully reconstruct even those experiences which can be described as damaging. In the light of these facts, anasakt action seems to offer an important coping resource. It may be reaffirmed here that anasakt action is not without a goal, rather it has a very definite goal-the goal of self-realisation. In performing actions in an anasakt manner, the more familiar and common goals are subordinated to the less familiar and less common ones. This results in recognising the spiritual value of action in addition to its material significance. If the goal is fixed inwards, the emotional impacts of external success and failure are minimised. Once this happens, the consequences-good or bad-will be cognised as miles toiles in the path to self-realisation rather than as reflections of personal capabilities. One who has been able to relieve himself of the anxieties pertaining to success or failure can apply himself to any task more effectively as compared to others. An anasakt person would perhaps be more effective in pursuing material goals also. For example, a student high on anasakti, will not let the anxieties about success or failure distract him when he is preparing for the examination. The energy thus conserved, would be directed to the task at hand and, therefore, he would be able to perform his task with reasonable excellence. Since outcome concerns do not govern his actions, he would be able to maintain greater emotional equipoise in the face of success or failure and evaluate the causes of his failure more dispassionately.

Zaffy and Bruning (1966) have suggested that anxiety causes individuals to attend to fewer cues in solving a problem. Easterbrook (1959) has stated that the number of cues utilised in any situation tends to become smaller with increase in emotion. This emotional arousal gets exaggerated when the individual starts ruminating about those ideas which may be totally irrelevant to the task, such as, his psychological state. As a consequence, the individual starts attending to the autonomic activity which is thus generated only to show poorer task performance (Mandler, 1982). Thoits (1984) has pointed out that emotions have a major role in the stress process and that the techniques adopted for emotion management can alter the perception of stressors as well as coping. strategies. Since these intrusive cognitions and emotional excitations are crucial in the reaction to stressors, it can be argued that greater concentration and absorption in the task at hand will eliminate task-irrelevant thoughts such as

anticipations about the nature of outcomes. This will perhaps result in task excellence. On the other hand, emotional stability acquired through mentally dissociating oneself from the outcome will protect the individual from emotionally succumbing to the experience of failure. Therefore, it seems that anasakti will help the individual in such a way that he does not perceive life events as stressors. It may also serve as a significant & (Antonovsky, 1980) and increase his physical and psychological resistance to distress.

Yoga also gives a description of asakthi and anasakthi . According to Yoga, the concept of asakti-anasakti provides a good theoretical framework to develop a comprehensive model of mental health. Asakti leads to anxiety, depression, fear and insecurities which come in the broad category that yoga calls klesha. With gradual reduction in the strength of asakti, one gets rid of these negative emotions and psychological problems and acquires mental peace and sound mental health. Asakti manifests in the three important psychological aspects of raga, dwesha and ahamkara. Attraction towards selected persons and objects with expectations and ego involvement is raga. Similarly, a feeling of hatred and a tendency to cause harm is dwesha.

Raga and dwesha are very similar to the love and hate instincts postulated by Freud, with one difference, that they are not supposed to be instinctive and inborn. Dwesha may be against obstacles to raga objects or against the raga objects themselves (if they go contrary to expectation). Attachment necessarily includes the perception and feeling of possessiveness. This gives rise to the third psychological dimension, i.e. ahamkara, or pride of ownership or being the doer (or controller of the fate of others).

In the classical literature of yoga Psychology, we find descriptions of the psychological and behavioural manifestations of raga, dwesha and ahamkara. Possessiveness, fear of loss, perception of raga objects as unique, frequent expectations of reward, ego involvement and identification with the raga objects are some of the important characteristics of a person high in asakti. Important manifestations of dwesha include withdrawal, negative perception and attitude towards dwesha objects, display of power/authority, aggressive behaviour and violence etc. Ahamkara results in a high need for recognition, egoism, arrogance, and narrowing of the area of oneness. Fear, anxiety and insecurity seem to be at the root of asakti and all the three aspects of raga, dwesha and ahamkara. On the contrary, important psychological manifestations of anasakti include task involvement, widening the area of consciousness, samabhava, and egolessness of

mind. A person high in anasakti is dedicated to his duty and enjoys doing work without caring for any additional incentive. He is self-confident, but does not carry pride in his performance.

2.5.3 ZEN BHUDDISM

Zen Buddhism is a mixture of Indian Mahayana Buddhism and Taoism. It began in China, spread to Korea and Japan, and became very popular in the West from the mid 20th century. The essence of Zen is attempting to understand the meaning of life directly, without being misled by logical thought or language.

These sects of Buddhist philosophy guide the practitioner towards a spiritual life, aim to decrease and eliminate suffering, to increase clarity of mind, and to provide a way of understanding spiritual processes. In the past 2600 years of Buddhism's history, various Buddhist schools have been developed and have provided important new perspectives on how Western psychological functions may interact with the psychology of religion. Buddhism spread to the West as a psychology, rather than as a religion or philosophy. Buddhism also contains aspects of psychotherapy that can improve health and peace of mind. Nirvana (nibbāna) has been described as the highest state of mental health, and Buddha is also referred to as the peerless psychiatrist (bhisakkosallakatt' titathāgatassaadhivannanaṃ, M. N. 2. p. 260). Since the development of Buddhist philosophical thought, it has influenced different Buddhist schools in different countries. Buddhist theories and methods in different Buddhist schools have created different therapies, such as Zen therapy in Japan. They all represent one aspect of the Buddhist tradition, which originated from early Buddhism.

Buddhism regards health as being of the highest importance (arogyāparamālābhā, Dhp, v, p. 204), and central to freeing oneself from suffering. The concept of suffering (dukkha) in Buddhist psychology has a profound meaning. The concept of suffering is described as a psychological symptom according to the DSM system of psychopathology, which also includes types of suffering such as depression, suicide, panic attacks, anxiety, perversions, addictions, violence, and psychosis. Early Buddhist philosophy tried to help humans to better themselves, not by being born in a better world but by changing themselves (Jayatunga 2008). This theme is central throughout the Pāli texts. Buddha emphasizes freedom from suffering and understanding the Four Noble Truths through the Middle Path as the way to enlightenment or supreme mental

health. With regard to mental illness and its causes, two kinds of illness are mentioned in Buddhist psychology: 1. Kāyaroga – bodily illness 2. Mano roga – mental illness.

Buddha's explanation about the cause of mental illness is that it emerges from mental defilements (Kleshās), which are essentially based upon the unwholesome roots (or three poisons) of greed, hatred and ignorance (or not knowing). These unwholesome roots of the mind are considered as the causes of mental illness. The fundamental teachings of the Buddha are present in the philosophy of the Four Noble Truths. The Buddhist perspective of mental illness is focused on defilements, and everyone who is un-awakened or is a worldly being (puthujjana) is, in some sense, mentally ill. The treatment method is divided to into three parts: virtue (sīla), concentration (samādhi), and cognition (paññā).These three parts can be understood as behavioral treatment, mental treatment and cognitive treatment. In the last century, the interaction of Buddhism with Western psychology occurred gradually and in different stages. It has evolved through the work of various psychologists, namely Carl Gustav Jung, Erich Seligmann Fromm, Alan Wilson Watts, Jack Kornfield, Tara Brach and Joseph Goldstein. They each tried to find a relationship between Western psychology and Buddhism as a way of providing explanations for mental problems, enlightenment, and universal treatment for pain. The relationship with between Western psychology and Buddhism is complex and subtle.

2.6 SUMMARY

The current chapter focuses on different models of health and different perspectives of health and well- being. The chapter initially focuses on biomedical model which entrusts the idea that all health concerns have a strong medical or physical base. Furthermore, the chapter throws light on biopsychosocial model. This is a holistic approach which attempts to explain that illness has no single contributory factor but all 3 components i.e., biological factors, psychological factors and social factors have a role to play in both etiology and management of illness of any kind. The chapter also attempts to understand how the eastern approach of health and well being differs from the western ideology and explains a few eastern concepts of well - beingi.e.,swasthya, zenbhuddism and Anasakthi.

2.7 KEY WORDS

1. **Biomedical Model**: The biomedical model of health focuses on purely biological factors and excludes psychological, environmental, and social influences

2. **Biopsychosocial Model**: The biopsychosocial model of health and illness states that interactions between biological, psychological, and social factors determine the cause, manifestation, and outcome of wellness and disease

3. **Zen**: A Japanese sect of Mahayana Buddhism that aims at enlightenment by direct intuition through meditation.

4. **Buddhism**: Buddhism is a path of practice and spiritual development leading to Insight into the true nature of reality. Buddhist practices like meditation are means of changing yourself in order to develop the qualities of awareness, kindness, and wisdom.

2.8 CHECK YOUR PROGRESS

1. Explain the biomedical model.
2. Discuss the importance of biopsychosocial Model.
3. Elaborate on the concept of Swasthya.
4. Briefly discuss Buddhist concept of healing.
5. What is the difference between Asakthi and Anasakthi.

2.9 ANSWERS TO CHECK YOUR PROGRESS

1. 2.3 2. 2.4 3. 2.5.1 4. 2.5.3 5. 2.5.2

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UNIT- 3 : HEALTH BELIEFS AND BEHAVIOUR

STRUCTURE

3.1 OBJECTIVES

After reading this unit you should be able to

- Understand the meaning of health belief.
- Able to identify the relation between health and health belief.
- Explain the theory of planned behaviour.
- Understand the importance of doctor patient relationship
- Explain the role of verbal and non- verbal communication in doctor patient relationship.
- Understand the role of professionals in enhancing health and well- being.

3.2 INTRODUCTION

'Belief,' along with 'believe, beliefs' and 'belief systems,' has served as a kind of 'odd job' word for anthropologists: a word commonly used for the analysis of a society's culture, religion, or ideas about the world, but seldom defined or explicitly theorized. Belief is often included in omnibus definitions of culture, such as Tylor's classic 'Culture, or civilization, … is that complex whole, which includes knowledge, belief, art, law, morals, custom, and any other capabilities and habits acquired by man as a member of society'. Health beliefs are basically feelings of self-efficacy, relate to an individual's perceived ability to perform a certain behaviour. These perceptions of self-efficacy may influence whether individuals will attempt certain behaviours and how the behaviours will be carried out. Health beliefs was a key element of early forms of medical anthropology, particularly those devoted to applied work in the public health field. However, analyses of beliefs about illness etiologies, the risks of particular behaviours, or the benefits of particular treatments are still ubiquitous in public health work and health psychology. Popular or folk health beliefs are explicitly juxtaposed to medical knowledge, and educational campaigns are devoted to correcting mistaken ideas with the hope this will produce more rational behaviour.

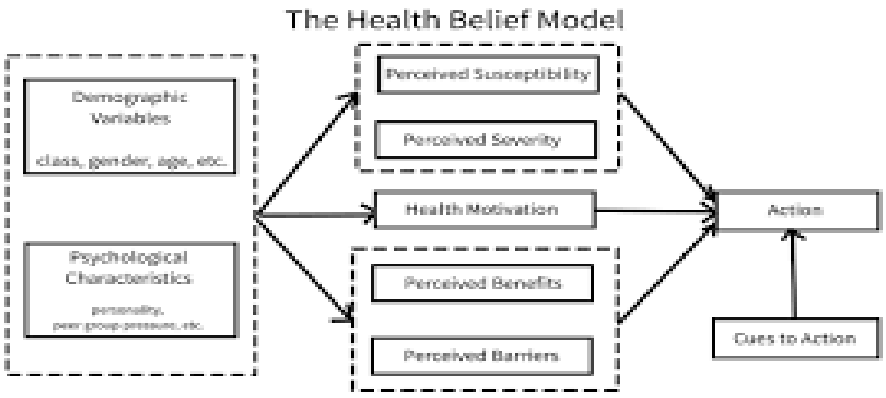
3.3 THE HEALTH BELIEF MODEL

Health psychologists are interested in what factors are important for understanding how people adopt and change adaptive or maladaptive health behaviours. Some of these factors are cognitively based (such as beliefs and attitudes) and relate to the thinking processes involved in a

person making a decision to act in a particular way.The health belief model (HBM) is one such model that specifies how individuals cognitively represent health behaviours and which components are important for predicting self-protective health behaviour.

ORIGINS OF HEALTH BELIEF MODEL

In the mid-twentieth century health researchers in the USA began to address how health education interventions could be made most effective. These researchers were interested in identifying factors that both predicted the decision to adopt health behaviours and were also amenable to intervention, namely psychological factors that could be manipulated through health-related education and persuasive communication. It was not enough to show that individuals who differed on various demographic factors (e.g. age, gender and socio-economic status) made different decisions in adopting, or not adopting, health behaviours, since these factors cannot be changed. Work had to be undertaken to establish differences grounded in psychological factors important in the decision since these are more amenable to intervention. Originally conceptualized by Rosenstock (1974), and consolidated by Becker et al.(1974),the HBM was developed to account for the role of a number of belief-based psychological factors in health-related decision making and health behaviour. Like other models (e.g. the theory of planned behaviour, the theory of reasoned action), the HBM is an expectancy-value model. The individual represents undertaking a behaviour in terms of core and predictable sets of beliefs, framed as expected outcomes associated with doing a behaviour as well as the value ascribed to the outcome of the behaviour. These core belief sets (or health-related cognitive representations) mediate the relationship between socio-demographic factors and actual health behaviour (see Abraham and Sheeran, 2005).It is to these six core sets of beliefs that we now turn (see Figure).



The HBM focuses specifically on threat perception and health-related behavioural evaluation as the primary aspects for understanding how a person represents health action (Strecher and Rosenstock, 1997). Threat perception is comprised of two primary belief types. Perceived susceptibility to health problems reflects that people believe that they are more or less likely to suffer a negative (or positive) health outcome – for example, 'My chances of getting breast cancer are great' (Champion, 1984). **Perceived severity** reflects cognitions about the consequences of such an illness – for example, 'If I had breast cancer my whole life would change', or 'The thought of breast cancer scares me' (Champion, 1984). **Behavioural evaluation** also comprises two sets of beliefs – **perceived benefits** (of change), or the perceived utility (efficacy) of undertaking a health-related behaviour, and the **perceived barriers**, or costs, in undertaking that behaviour. According to Becker et al. (1977) to encapsulate the idea of **perceived threat**, **perceived susceptibility** and **perceived severity** are weighed-up against each other by the person 'thinking' about the health-related behaviour. Believing that one is likely to experience a negative health outcome and that the outcome will be severe should predict an increased likelihood of performing the health protective behaviour. Similarly, it is argued that the perceived benefits of undertaking a behaviour are weighed up against the perceived barriers while formulating a decision to take protective behaviour. The model also proposes a fifth factor called 'cues to action', or 'triggers', that are likely to stimulate the activation of health behaviour when certain belief sets are held. These cues to action can be either internal (e.g. mood, symptom perception) or external to the individual (e.g. health promotion literature, media advertisements, social influence processes). For instance, health-related advice as a cue to action has been shown to be predictive of adherence behaviour (e.g.in vaccination programmes) (see Norman and Conner, 1993).The final key factor specified by the HBM refers to a person's readiness to be

concerned with health-related matters for themselves. This is labelled 'health motivation' (Becker et al., 1977;Umeh and Rogan-Gibson,2001).

CURRENT USAGE

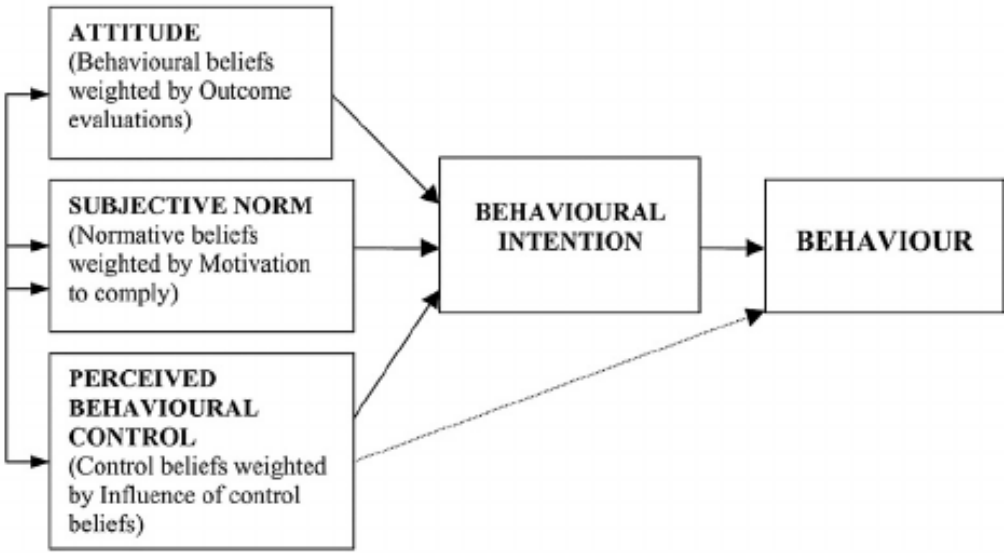
The HBM has been utilized in the prediction of a large number of preventative and adherence health behaviours including screening (e.g. Rawl et al., 2001), risk-taking behaviours (e.g. Abraham et al., 1996) and adherence programmes (e.g. Wdowik et al.,2001) (see also Abraham and Sheeran,2005 for a review).In general, perceived susceptibility, perceived severity, perceived benefits and perceived barriers have all been found to be significant predictors of a diverse range of health behaviours (Janz and Becker,1984).Although significant, however, the effects of each factor on behaviour are relatively small (see Harrison et al., 1992). Other work has extended the HBM to include factors such as perceived control and self-efficacy as additional constructs in successfully predicting health protective behaviour alongside other HBM specific constructs (e.g. Norman and Brain, 2005).While this evidence is important, HBM theorists have not consistently specified the relationships between self-efficacy, perceived control and behavioural intention with the other HMB constructs. However, more recent work has shown the HBM constructs to have a greater distal impact on behavioural enactment via more proximal determinants such as perceived control, self-efficacy and behavioural intention (Abraham et al.,1999). Like other social cognition models of health behaviour the HBM has potential utility because it has identified a number of key factors that are important in predicting whether a person will or will not undertake health protective behaviour. Because HBM constructs are predictive of health behaviour, changing these beliefs may lead to a change in behaviour. This is important because the HBM model was originally set up to guide health behaviour promotion initiatives in the USA and it is of little surprise that HBM constructs have been used in the design and evaluation of interventions in a number of health behaviours such as breast self-examination (Ludwick and Garczkowski, 2001), smoking cessation (Stretcher et al., 1994) and eating a healthy diet (Abood et al.,2003).These studies have shown some success in changing individuals' perceptions of susceptibility, severity, benefits and barriers and these changes being reflected in actual health behaviour (Yabroff and Mandelblatt,1999).

The HBM is important in health psychology because it provides a description of a number of cognitively based factors thought significant in understanding decision making processes in health behaviours and sick role behaviours. It recognized that in forming a decision to undertake health protective behaviour, people incorporate a form of rational thinking in weighing up a number of cognitively based factors simultaneously. This form of rational decision making includes a cost-benefit analysis of perceptions related to the threat of illness and also an analysis of how beneficial or disadvantageous a particular course of action could be for the individual. With such conceptual knowledge it should be possible hypothetically to change these types of thought processes in order to change behaviour through targeted interventions or health promotions activities.

COGNITIVE MODEL

3.4 THE THEORY OF PLANNED BEHAVIOUR

Many studies have looked at the so-called 'attitude-behaviour relationship'. One approach was Ajzen's (1991) theory of planned behaviour (TPB). He was interested in studying how the beliefs held by an individual are important for understanding how they decide to behave toward an attitude object and also how their beliefs predict how they subsequently behave. Ajzen's TPB model was derived from the earlier theory of reasoned action (TRA) (Fishbein and Ajzen, 1975) and differs only in that the TPB is aimed at understanding types of behaviour that are not necessarily under a person's volitional control.



ORIGINS OF THEORY OF PLANNED BEHAVIOUR

Figure shows the structure of the TPB. Basically, beliefs are structured according to an expectancy-value framework. In other words, people hold expectancies about what outcomes they should get if they behave in a particular way. At the same time, they also hold beliefs about the value of that outcome for themselves. So, for example, think about taking regular physical exercise. You may think that taking regular physical exercise will result in the outcome of making you feel healthier (outcome expectancy) and that feeling healthier is a good thing (value association). The TPB argues that the immediate antecedent of actual behaviour is behavioural intention and that if we intend to take regular physical exercise there is an increased likelihood that we will do so. This intention to behave is predicted by three belief-based factors: attitude, subjective norm and perceived behavioural control. Attitude is made up of core beliefs about the outcomes of a behaviour and the value we hold about these outcomes (we've already come across an example of this earlier – taking regular physical exercise).Subjective norm encompasses those beliefs we have about how other people we perceive as being important to us would like us to behave (normative beliefs) and the value we hold about behaving in line with other's wishes (motivation to comply). So, in taking regular physical exercise it may be that you perceive that health experts and/or friends want you to take exercise. This is a normative belief. The motivation to comply reflects the beliefs that you want to do what these important others wish you to do. If you believe that, for example, health experts want you to take regular physical exercise and that you like doing what health experts expect of you, you are likely to form the intention to take regular physical exercise and hence behave in this way. The primary difference between the TPB and the TRA lies in the assumption made by the TRA that all behaviour is under volitional control. For many behaviours this may not be the case, such as addictions or other behaviours that have become more habitual over time. The TPB uses the concept of perceived behavioural control (PBC), which are beliefs that relate to how much control a person thinks they have over a certain behaviour, to explain the attitude-behaviour relationship in non-volitional behaviours.

For instance, you are likely to form an intention to take regular physical exercise if you believe that it is under your own control, namely that you have the ability to do the behaviour. We hold many different attitudes, normative beliefs and control beliefs about single behaviours

and it is the sum of these expectancy-value relations that predicts a person's intention to behave in a particular way, which subsequently predicts actual behaviour.

The TRA/TPB has been used in the prediction of a number of health behaviours including, among others, drug use (e.g. McMillan and Conner, 2003), physical activity (e.g. Hagger et al., 2002), sexually risky behaviours (Godin and Kok, 1996), adherence processes and screening (e.g. Steadman et al.,2002;Hunter et al.,2003), and dietary behaviours (e.g. Armitage and Conner, 1999). While some have argued that the model as it is conceptualized provides a 'sufficient' account of factors predicting intention and/or behaviour, there has been some speculation about other factors that may be important as extensions to the TPB/TRA (Ajzen, 2002a). These include more affective factors, moral norms, and self-identity (see Conner and Armitage, 1998; Sheeran, 2002). For instance, rather than being predicted by subjective norms, intentions and behaviours may be predicted by more morally based normative values and beliefs. These are beliefs related to the moral legitimacy or illegitimacy of performing a behaviour (Evans and Norman, 2002). In addition, people's perception of the likelihood of regretting undertaking a behaviour in the future – anticipated regret – has been shown to contribute significant variance to the prediction of an intention to act (Richard et al., 1996).Another factor that has been the focus of some considerable research interest is the role of habit or past behaviour on future behaviour. It is hypothesized that the effect of past behaviour on future behaviour is direct and that this relationship is not necessarily dependent upon the working of other TPB components, namely subjective norms, attitude or perceived behavioural control It has been argued that past behaviour affects future behaviour because well-learned behaviours may occur repeatedly in the same context (e.g. wearing a seat-belt) such that cognitive control over this behaviour eventually becomes automatic and unconsciously activated (Ouellette and Wood, 1998;Verplanken, 2005). Behaviours that are not so well-learned, or those that occur in more unstable contexts, remain under conscious control. The effects of past behaviour are challenged if the predicted behaviour is realistic and precise implemental plans for translating intentions into behaviour have been developed (Ajzen, 2002b) (see implementation intentions). Relatedly, Fazio's (1990) MODE model (MODE stands for 'Motivation and Opportunities as Determinants') studied the conditions under which attitudes towards an object predicts behaviour automatically. Fazio proposes that when motivation and the opportunity to think consciously about a potential behaviour are low, attitudes towards the target will activate behaviour

immediately and automatically, as long as these attitudes are accessible and easily retrievable from memory. When people can consciously deliberate about a behaviour and motivation is high, the automatic attitude-behaviour relationship will be overridden. In other words, the more we think about it, the more our behaviour will be characterized by deliberative processing. To date, little work has been undertaken in health psychology to assess implicit cognition – as opposed to explicit cognition as used in the operationalization of TRA/TPB constructs – involved in the generation and guidance of health behaviours (although see Stacy et al., 2000; Sheeran, Aarts et al., 2005).These processes emphasize the operation of automatic memory associations rather than the rational and explicit processing of behavioural beliefs for the prediction of health behaviours.

The TPB has identified a number of key factors that may be important for understanding how and why an individual makes a health-related decision. This model emphasized the role of expectancy-value judgments in the formation of a behavioural intention (or goal) for both general beliefs related to outcomes associated with adaptive or maladaptive behaviour, beliefs related to how social influence from important others is important for behavioural conformity, and how perceptions of control may be significant in forming an intention or decision to act.

3.5 DOCTOR PATIENT COMMUNICATION

If we want treatment, we have to talk to someone about our symptoms. The interaction between us and the health worker will have an effect on the kind of treatment we receive. This chapter looks at how we interact with health workers, how they make diagnoses, and some of the factors that affect the way we use health services. These events are not as well understood as you might imagine and there are a number of questions that psychologists need to consider.

3.5.1 COMMUNICATION

Communicating is one of the basic features of being alive. We communicate all the time, often without meaning to and sometimes without knowing it. We can no more stop communicating than we can stop breathing. Even just standing still and saying nothing communicates something about our attitude and mood. If we look at the communication between two people then we can see three elements: the message sender, the message itself, and the

message receiver. The interesting thing for psychologists is the different understanding that the sender and the receiver may have of the same message.

3.5.2 NON-VERBAL COMMUNICATION

One area of communication that has attracted the attention of psychologists is non-verbal behaviour. This is very important in any social interaction and some psychologists (for example Argyle, 1975) suggest that it is four times as powerful and effective as verbal communication. This suggests that if we are with someone who is saying one thing, but their words do not match their facial expression or body posture, then we are more likely to believe our intuitions about their posture than we are to believe their words. The power of non-verbal communication (NVC) has been recognised for years, and skilled users such as advertisers, politicians and con-artists have been able to make their words appear more convincing through their gestures and mannerisms. Non-verbal communication is a general term used to describe communication without the use of words. Argyle (1975) suggests that nonverbal behaviours have four major uses:

1. To assist speech – they help to regulate conversation by showing when you want to say something, and they emphasise meaning 2. as replacements for speech – for example a gesture, such as a raised eyebrow, might make a verbal question unnecessary 3. to signal attitudes – for example we might try to look cool and unworried by taking up a relaxed standing position 4. to signal emotional states – we can usually tell when someone is happy, sad or tense by the way they are sitting or standing.

Non-verbal communication is an important part of the interaction between health workers and patients, but it would be untrue to suggest that we can define what all the different gestures mean. Magazine articles and books that attempt to say what gestures mean can be very misleading because there are variations in non-verbal behaviour in different cultural groups, different age groups, and between men and women.

a) NON VERBAL COMMUNICATION IN THE CONSULTATION

It is important in a medical consultation that there should be a good rapport between the health worker and the patient. One of the first things that we notice and make judgements about in any social situation is what people look like, so it is probably important to take account of

these first impressions. McKinstry and Wang (1991) showed pictures of doctors to patients attending surgeries. The pictures were of the same male or female doctor, dressed either very formally (traditional white coat over suit or skirt), or very informally (jeans and open-necked, short-sleeved shirt, or pink trousers, jumper and gold earrings). The patients were asked to rate how happy they would be to see the doctor in each picture, and how much confidence they would have in the doctor's ability. The traditionally dressed doctors received higher preference ratings than the casually attired ones, particularly on the part of older and professional-class patients. Appearance, though, isn't the only source of non-verbal communication. Argyle (1975) emphasised that all the various types of non-verbal communication interact with each other, so dress alone will not be enough to create a good communication between doctor and patient. A formally dressed doctor who avoids eye contact and doesn't use appropriate facial expressions is likely to come across as aloof or distant, and this in itself is likely to be a barrier to effective patient–doctor interaction for most people.

3.5.3 IMPROVING COMMUNICATION

It is possible that psychology can encourage health workers to communicate more effectively and to be attentive to the needs of their patients. Taylor (1999) suggests that this has not been dealt with in the training of doctors for three main reasons. Firstly, there is no general agreement on what are the main features of a good consultation. The same doctor can appear remote and distant to one patient, yet another patient will describe her as 'someone I can talk to'. Secondly, there is a belief within the medical profession that good communication may make the doctor too sensitive and therefore not tough enough to deal with the difficult daily decisions of being a doctor. Thirdly, there is the argument that it is difficult enough for doctors to stay on top of all the medical information they need without complicating their lives with having to be nice to patients. However, as DiMatteo and DiNicola (1982) point out, many of the failures in medical communications stem from a lack of basic courtesy. Simple things like addressing people by their name, saying hello and goodbye only add a few moments to a consultation but will appear warm and supportive to the patient.

3.5.4 IMPROVING UNDERSTANDING

A major problem in the communication between patient and doctor is the different understandings and expectations they have about health and illness. In a review of this area, Ley

(1989) found that a substantial proportion of patients are dissatisfied with the information they are given by health workers. Studies on the understandings of patients often show a discrepancy between patient understandings and the current view of the medical profession. For example, people with peptic ulcers knew that acid caused ulcers, but only 10 per cent were able to correctly identify that this acid is secreted by the stomach. Also, many patients with hypertension believed, incorrectly, that they could be cured by short-term treatment (for a review see Ley, 1989). Other studies have investigated patients' knowledge about the organs of the body. This means that over half the population are unsure where their major organs are. If people do not know where things are or what they do, it is easy to see how they can be baffled by medical explanations. (See also Chapter 2 on improving adherence rates). not all doctors are the same Health workers can adopt a range of styles when they interview a patient. One way of describing the differences is to characterise the style in terms of whether it is doctor-centred or patient-centred. If it is doctor-centred then it emphasises the imbalanced power relationship between doctor and patient, with the doctor leading the discussion by asking for medical 'facts' and giving advice. The patient on the other hand just provides the information about their complaint in response to the questions. If the relationship is patient-centred, however, there is more emphasis placed on the patient and their unique individual needs. In this kind of discussion, the doctor tries to discover the patient's concerns and needs, and adjust their responses to match.

Although it might appear that all patients would prefer the patient-centred approach, this is not necessarily the case. For example, elderly patients or patients who are very sick may benefit from the confident, paternalistic approach of the doctor-centred style. Also, although patients want information about diagnosis, treatment and prognosis, they often do not want to be involved in treatment decisions (Benbassat et al., 1998). This appears to be especially the case for people with life threatening disorders. Blanchard et al. (1988) found that although most of the cancer patients they studied wanted to receive information about their condition, only two-thirds actually wanted to participate in treatment decisions. influences on doctor–patient discussions So many things affect the interaction between two people that it is difficult to know where to start when we consider doctor–patient discussions. Some of the factors that have been shown to affect medical consultations include:

- Characteristics of the health worker: For example, gender. In a study of taped consultations with over 500 chronic disease patients and their 127 doctors (101 male, 26

female), Roter et al. (1991) found that female doctors talked more during the consultations than their patients. They also showed more positive talk, more partnership building, more question asking and more information giving.

- Characteristics of the patient: For example, class, gender and age. Reviews of the various studies on this issue (for example Roter and Hall, 1992) conclude that people from the professional classes and people with more education have longer consultations and receive more information.
- Situational factors: For example, the number of patients on the doctor's list and the level of acquaintance between the doctor and the patient

3.6 DOCTOR PATIENT RELATIONSHIP

The doctor–patient relationship has been and remains a keystone of care: the medium in which data are gathered, diagnoses and plans are made, compliance is accomplished, and healing, patient activation, and support are provided.

An effective doctor–patient relationship involves both parties in co-creating a working relationship that is reliable, effective, and durable. The doctor–patient relationship in the general hospital has several unique features, including limited privacy, the interplay of medical and psychiatric illness, and the interplay of relationships among the psychiatrist, the patient, and the medical or surgical team. The relationship promotes good outcomes by creating an empowered, engaged, and active partnership with patients who feel heard and accurately understood by their physicians. Successful relationships require physicians to practice a welcoming stance, participatory decision-making, and mindfulness about both the patient's and the physician's inner lives. Especially in psychiatry, the physician must understand and relate to the patient as a whole person, which requires both accurate diagnosis and formulation, blending biological, social, psychological, and spiritual perspectives. Conflict is an inevitable aspect of all important relationships and, properly managed, can deepen and strengthen them. In the doctor–patient relationship, conflict can arise from many sources and can either derail the relationship or provide an opportunity to improve communication, alliance, and commitment. The physician–patient relationship creates an obligation on the part of the physician to protect certain confidential patient information. Cultural assumptions about the relationship between the physician and the patient create a duty on the part of the physician to keep information private.

Improper disclosure of that information, or breach of that duty, should necessitate some punishment of the physician and some compensation to the patient. The concept seems self-evident.

Until not very long ago, it was common for people to regard doctors as members of their families and the trust reposed in them extended to matters even beyond the medical needs of the family. Anecdotal information, however, suggests that the relationship between doctors and patients is becoming strained. There could be several reasons for this. Certainly, one of the most important factors is the commercialization and specialization of the practice of medicine that places a heavy reliance on technology at the cost of a meaningful interaction between health-care seekers and providers at a human level. The pressing demands on the doctor's time and the heavy dependence on technology for diagnostic and therapeutic practices has perhaps diluted the personal touch that is so necessary for a conducive doctor-patient relationship. In addition, the doctor-patient relationship is affected by a multitude of sociocultural, economic, political and health systems-related determinants.

3.7 THE ROLE OF HEALTH PROFESSIONALS

Health psychology emphasizes the role of psychological factors in the cause, progression and consequences of health and illness. The role of health professionals can be divided into (1) understanding, explaining, developing and testing theory; and (2) putting this theory into practice.

1. Health psychology aims to understand, explain, develop and test theory by:

(a) Evaluating the role of behaviour in the etiologic of illness.

For example: Coronary heart disease is related to behaviours such as smoking, cholesterol level, lack of exercise, high blood pressure and stress. Many cancers are related to behaviours such as diet, smoking, alcohol and failure to attend for screening or health check-ups. A stroke is related to smoking, cholesterol and high blood pressure. An often overlooked cause of death is accidents. These may be related to alcohol consumption, drugs and careless driving.

(b) Predicting unhealthy behaviours.

For example: Smoking, alcohol consumption and high fat diets are related to beliefs. Beliefs about health and illness can be used to predict behaviour.

(c) Understanding the role of psychological consequences of illness could help to alleviate physical symptoms such as pain, nausea and vomiting. Understanding the psychological consequences of illness could help to alleviate psychological symptoms such as anxiety and depression.

(d) Evaluating the role of psychology in the treatment of illness. For example: If psychological factors are important in the cause of illness, they may have a role in its treatment. Treatment of the psychological consequences of illness may have an impact on longevity.

2. Health psychology also aims to put theory into practice. This can be implemented by:

(a) Promoting healthy behaviour.

For example: Understanding the role of behaviour in illness can allow unhealthy behaviours to be targeted. Understanding the beliefs that predict behaviours can allow these beliefs to be targeted. Understanding the beliefs can help these beliefs to be changed.

(b) Preventing illness.

For example: Changing beliefs and behaviour could prevent illness onset. Behavioural interventions during illness (e.g., stopping smoking after a heart attack) may prevent future illness. Training health professionals to improve their communication skills and to carry out interventions may help to prevent illness.

3.8 SUMMARY

The above chapter is an attempt to understand different models of health beliefs and its impact or effect on of health by an individual. The chapter basically speaks in detail about 2 health models. The health belief model was based on an assumption that people fear diseases, and that health actions are motivated in relation to the degree of fear (perceived threat) and expected fear-reduction potential of actions, as long as that potential outweighs practical and

psychological obstacles to taking action (net benefits). The chapter further explains the theory of planned behavior. The theory of planned behavior is a theory used to understand and predict behaviors, which posits that behaviors are immediately determined by behavioral intentions and under certain circumstances, perceived behavioral control. Behavioral intentions are determined by a combination of three factors: attitudes toward the behavior, subjective norms, and perceived behavioral control. The chapter also explains about the need and importance of doctor patient relationship and the need of both verbal and non verbal communication in this relationship. Emphasis also laid on the role of health professionals in enhancing health and well being of individuals.

3.9 KEY WORDS

1. **Health Belief Model-**The Health Belief Model (HBM) hypothesizes that health-related behavior depends on the combination of several factors, namely, perceived susceptibility, perceived severity, perceived benefits, perceived barriers, cues to action, and self-efficacy.
2. **Theory of planned behavior-**The theory of planned behavior is a theory used to understand and predict behaviors, which posits that behaviors are immediately determined by behavioral intentions and under certain circumstances, perceived behavioral control. Behavioral intentions are determined by a combination of three factors: attitudes toward the behavior, subjective norms, and perceived behavioral control.
3. **Perceived Behaviour Control -**Perceived behavioral control refers to people's perceptions of their ability to perform a given behavior. Perceived behavioral control is determined by the total set of accessible control beliefs, i.e., beliefs about the presence of factors that may facilitate or impede performance of the behavior.
4. **Communication-**communication is the act of sharing information from one person to another person or group of people.
5. **Non Verbal Communication-**Nonverbal communication is the transfer of information through the use of body language including eye contact, facial expressions, gestures and more.

3.10 CHECK YOUR PROGRESS

1. Explain the theory of planned behavior.
2. What is the health belief model?
3. Discuss the role of communication in a doctor patient relationship.
4. Elucidate on the role of health professionals

3.11 ANSWERS TO CHECK YOUR PROGRESS

1. 3.4 **2.**3.3 **3.**3.5 **4.**3.7

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4. MYTHS ABOUT HEALTH AND ILLNESS

STRUCTURE

4.1. OBJECTIVES

After going through this unit you will be able to

- Understand the concept of myth and related terms
- Explain myths related to health and fitness
- Delineate myths related to origin and incidence of psychological disorders
- Describe Myths related to psychological disorders and causes of psychological disorders
- Explain the myths regarding treatment of psychological disorders

4.2. INTRODUCTION

“Myth” usually refers to a story of forgotten or vague origin, basically religious or supernatural in nature, which seeks to explain or rationalize one or more aspects of the world or a society. The study of myth must not and cannot be separated from the study of religion, religious beliefs, or religious rituals. Belief is usually defined as a conviction of the truth of a proposition without its verification; therefore, a belief is a subjective mental interpretation derived from perception, contemplation (reasoning), or communication. Belief is always associated with a denial of reality. The renunciation of belief is then an educational task and a psychological struggle, both liable to encounter much resistance. Psychoanalytic treatment cannot itself dispense with belief, for the transference, which reactivates infantile processes, demands that the patient lend credence to the analyst's words even though these do not belong to the realm of demonstrable truth. Therefore, in most of the cases, psychoanalysis is temporarily replacing one belief by another. Some proposed an idea that many (if not most) faith-based religious beliefs are actually delusional beliefs. Myths and beliefs are also responsible for practices which could be harmful to health. The objective of scientific study on myths and belief should be to identify and replace them with truth to ensure better health based on scientific knowledge.

Presumably that an enormous piece of populace lives and has confidence in fantasies. It isn't restricted to any nation and country however it's predominant everywhere on the world. A portion of these fantasies do hold a few realities, yet the manner in which they are seen and sent, generally change the importance out and out. It's conceivable that numerous things that were

instructed to us are really legends. Not upheld by any logical evidence and legitimate explanation, these legends have caused hopeless harms. Let us comprehend the wellbeing fantasies and realities rotating around them.

Truly; there is an enormous clinical deception available for use nowadays. This it could be said has spread like a constant illness which if not broken can turn into a major concern. The stigma and misconception associated with mental illness is referred to as "sanism." Just like racial or gender discrimination, it is a form of oppression and prejudice. And there is a lot of sanism and misinformation surrounding psychological illness which is still prevalent within our society. Psychological and behavioral disorders are observed in about 10% of the total adult population in the whole world. The burden and consequences of psychological disorders is found to be high in young adults, which is the most productive population group in a society. It was found that neuropsychiatry conditions together account for 10.96% of the global burden of disorders as measured by disability-adjusted life years (DALYs). Projections estimate that by the year 2020, neuropsychiatric disorders and comorbidities will account for 15% of disabilities worldwide, with unipolar depression alone accounting for 5.7% of DALYs and will stand second in top 10 leading causes of disability. The total financial costs of mental disorders are considerable in terms of gross national product (GNP) loss. In most countries, families bear a significant proportion of these financial costs because of the absence of public funded comprehensive mental health service offered by the government. Families also incur social costs, such as the emotional burden of looking after disabled family members, diminished quality of life, social exclusion, lower job satisfaction, stigmatization, and loss of future opportunities for self-improvement. This burden emphasizes the immediate need of scientific studies and research in multiple aspects of psychological disorders.

In India, the prevalence of psychological disorders ranges from 10 to 370 per 1000 population in different parts of the country. The median conservative estimate of 65 per 1000 population has been given by Gururaj *et al*. The rates are higher in females by approximately 20-25%. As far as causation of psychological morbidity is concerned, there are many factors similar to any other world community, but delayed health-seeking behavior, illiteracy, cultural and geographic distribution of people are special for India.

Access to adequate mental health care always falls short of both implicit and explicit needs. This can be explained in part by the fact that mental illness is still not well understood, often ignored, and considered a taboo. The individual, who is suffering from psychological disorders, their families and relatives, as well as professionals providing specialized care, are still the object of marked stigmatization. These attitudes are deeply rooted in society. The concept of mental illness is often associated with fear of potential threat of patients with such illnesses. Fear, adverse attitude, and ignorance of mental illness can result in an insufficient focus on a patient's physiological health needs. The belief that mental illness is incurable or self-inflicted can also be damaging, leading to patients not being referred for appropriate mental health care. It is found that current treatment coverage ranges from 15-45% only and there is, therefore, gross underutilization of services. Many factors contribute to such underutilization of services. The attitude of individual patient toward his or her mental disorders is important as far as health seeking is concerned. Adverse attitude toward psychiatry and psychiatrists has been observed among medical professionals, which could be another hindrance in providing adequate mental health services. It is pertinent to study the perceptions, myths, beliefs, and health-seeking behavior for mental health of population.

Myths and misconceptions about mental illness contribute to the stigma, which leads many people to be ashamed and prevents them from seeking help. Stigma is something about a person that causes her or him to have a deeply compromised social standing, a mark of shame or discredit. Generally, people who have mental disorders are considered lazy, unintelligent, worthless, stupid, unsafe to be with, violent, always in need of supervision, possessed by demons, recipients of divine punishment, unpredictable, unreliable, irresponsible, without conscious, incompetent to marry and raise children, unable to work, affects rich people, increasingly unwell throughout life, and in need of hospitalization. Unfortunately, such misconceptions remain predominant in people who are supposed to deliver the health care services. It is found that medical professionals share high proportion of misconceptions and have discriminatory attitude toward psychiatry and patients of mental disorders. This should not happen because effective treatment exists for almost all mental illnesses. Worse, the stigma experienced by people with a mental illness can be more destructive than the illness itself. Widespread social stigma, myths, and adverse belief systems of mental illness cannot be

removed by just increasing the public awareness, but rather requires a comprehensive community-based program based on psychosocial understanding of the disease.

Following are the common myths regarding mental health;

- Myths regarding physical health and fitness
- Myths related to origin and incidence of psychological disorders
- Myths related to causes of psychological disorders
- Myths related to psychological disorders
- Myths related to treatment of psychological disorders

4.3 MYTHS REGARDING PHYSICAL HEALTH AND FITNESS

1. Egg Yolks are bad for the health

The delicious yellow center of eggs get a bad review from health reports, says Mashfika Alam, a doctor with online health consultancy iCliniq, who urges that we reconsider the belief that egg yolk can cause heart disease or atherosclerosis due to its "bad cholesterol."

"Maybe because people only got to know the health benefits of egg yolk only recently, but egg yolk is recommended for everyone unless allergic, even people with heart disease as it is loaded with HDL which is a good cholesterol and actually counteracts the effects of bad cholesterol," says Alam. "Hence one egg a day for everyone, unless allergic, at least five days a week is a good thing."

2. Cholesterol is bad for the fitness of the body

Cholesterol in general has multiple misconceptions and beliefs.

"While cholesterol is a molecule, what it is bound to while it's floating through your blood is what's more important than just how much of it there is overall," clarifies Lynne Wadsworth, a holistic health coach and founder of Holistic Health & Wellness, LLC. "The overall amount of cholesterol in your blood (AKA 'total cholesterol') isn't nearly as important as how much of each kind you have in your blood. While way too much LDL cholesterol as

compared with HDL may be associated with an increased risk of heart disease, it is absolutely not the only thing to consider for heart health."

3. "Starving onself" Can Be Effective for Weight Loss

The "starvation diet"-significantly cutting down the number of calories one consumes in a day-may seem like an effective strategy for losing lots of kilograms quickly. But in fact, a radical shift in the consumption of food can lead to the opposite result.

"Eating too little or starving oneself is a very bad idea and it actually leads to rebound weight gain," says Alam. "This has been a common notion among young teenage girls for a long time. Eating a balanced out low calorie diet, that will help one to lose weight."

4. Addiction Affects Everyone in the Same Way

While we often hear how certain substances are "more addictive" than others, it might actually be more useful to think of the user as "more addictable" than other users. Certain people can be more predisposed to addiction than others, according to Raichbach.

"Many people who use a drug will not become addicted along the way while others will," he says. "The difference is a person's predisposition to the condition; their family history, mental health issues, medical issues, and heredity, and other factors all pay a role in determining someone's tendency towards addiction."

5. Bottled water is better than tap water

Bottled water companies may promote the health benefits of their product and conspiracy theorists will warn you of the fluoride the government adds to tap water. But the fact is that tap water in most municipalities is totally healthy.

"Most municipal water is quite safe, and if palatable, can be taken directly from the tap. It often contains the useful minerals, magnesium and calcium," explains Morton Tavel, clinical professor emeritus of medicine at Indiana University School of Medicine and author of Health Tips, Myths and Tricks: A Physician's Advice.

He adds that, bottled water is actually far less healthy for the world than tap water.

"Plastic bottles are made from petroleum. Energy is required to manufacture the bottles and run the bottling and refrigeration machines," says Tavel. "It also requires fuel, typically petro-diesel, to transport the bottles to the place where you buy them. These combined energy costs are the oil equivalent of about one quarter the volume of each bottle and 1000 times greater than the energy costs to pump, treat, and deliver tap water. This explains why bottled water is far more expensive and wasteful than tap water."

6. Chocolate Causes Acne and it is An Aphrodisiac

Another unfairly maligned food, chocolate has often been blamed for many of the zits suffered by high school kids everywhere. Scientists put this to the test in a study, providing 65 subjects with candy bars-some containing 10 times the typical amount of chocolate, others containing no chocolate-over a period of one month. At the end of the study, they could find no discernable increase in the amount of acne in one group or another.

A box of chocolates is rarely a bad idea on Valentine's Day, but any stimulating effects it may have does not relate to the chocolate itself. According to the Mayo Clinic, "research has shown them to be largely ineffective at producing a sexual response in men. Preliminary evidence is slightly more encouraging for improved libido in women, but more research is needed."

7. Should Eliminate Sugar Entirely From the Diet

Becky Kerkenbush, a clinical dietician at Wisconsin's Watertown Regional Medical Center says she often has patients tell her that they avoid sugar because it is bad for them, but "They don't realize that there are different types of sugar; that natural sugar can be found in fruit, vegetables, dairy products and grains."

She advises them that it's not the "use of sugar that is the problem, but the misuse" of it. Misuse examples: the stuff found in soda, sweets, sugary cereals, flavored yogurts, and sports drinks.

“I remind people that sugar is not addictive and does not cause hyperactivity in children,” says Kerkenbush. “A teaspoon of sugar is 4 grams of sugar. If a cereal has 12 grams of sugar, that is equal to 3 teaspoons. Now imagine a 300ml can of soda with 40 grams of sugar-that’s 10 teaspoons of sugar!”

8. Canned Foods Have no Nutritional Value

Kerkenbush also urges that we reassess the value of canned foods. While fresh vegetables and fruit are one of the best things you can eat, she says that overlooking the stuff that comes in a can is a mistake.

“Canned foods are actually an affordable, convenient way to include fruits, vegetables, and protein in your diet,” she says.

Specifically, she points out that canned tomatoes provide more lycopene compared to fresh or cooked tomatoes, commercial canning enhances the bioavailability of carotene in spinach and carrots and concentrates beta carotene in canned pumpkin, and that the absorption of the antioxidant lutein in corn is actually enhanced by the canning process. So pick up a can.

9. If one stops Weight Training, Muscles Turn to Fat

“Muscle and fat are two totally different types of tissue,” says Kennihan. “What happens many times is that when people decide to go off their weight-training programs, they start losing muscle due to inactivity (use it or lose it) and they also usually stop their healthy diet as well.”

So the bad eating habits combined with their lower metabolism (due to inactivity) and lower levels of muscle mass, give the impression that a person’s muscle is being turned into fat while in reality “what is happening is that muscle is being lost and fat is being accumulated.”

10. Sticking to Diet/Exercise Plans Requires Willpower

“I hear it from clients and friends all the time: ‘I just wish I had more willpower,’” says Karen Shopoff Rooff, a certified health coach and author of Top 7 Women’s Wellness Myths (And How to Break Through What’s Holding You Back).

She adds that it doesn't matter whether people are referring to building a new healthy habit (like regular exercise or eating more fruits and veggies) or eliminating a not-so-healthy behavior (like smoking or eating sugar), but people assume that if they just tried harder, they could be successful.

"The problem with the willpower myth is that the people are setting ourselves up for failure," she says "If they believe that if they just try harder they'll achieve what they want but then they fail, they've entered into a cycle of negative self-talk that is completely unproductive."

4.4 MYTHS RELATED TO ORIGIN AND INCIDENCE OF PSYCHOLOGICAL DISORDERS

1. Mental health disorders are very rare and uncommon

Even before the COVID-19 pandemic, the statement above was false. Today, the statement is further from the truth than it has, perhaps, ever been. In the year 2001, the World Health Organization (WHO) estimated that "1 in 4 people in the world will be affected by mental or neurological disorders at some point in their lives." **Currently, 450 million people are experiencing such conditions. As WHO defines mental disorders are "among the leading causes of ill health and disability worldwide."**

One of the most common mental health disorders is depression, affecting more than 264 million people globally as per a survey done in the year 2017. A more recent study, which concentrates on the United States, concludes that the number of adults experiencing depression has tripled during the pandemic. Generalized anxiety disorder (GAD), another common mental disorder, affects an estimated 6.8 million adults in the U.S., resulting to more than 3 in every 100 people.

2. Mental health problems are permanent

A mental health diagnosis is not necessarily a "life sentence." Each individual's experience with mental illness is different. Some people might experience episodes, between which they return to their version of "normal." Others may find treatments, medication or talking

therapies - that restore balance to their lives. Some people may not feel as though they have fully recovered from a mental illness, and some may experience progressively worse symptoms.

However, the take-home message is that many people *will* recover to a greater or lesser degree.

It is also important to consider that "recovery" means different things to different people. Some might view recovery as a return to exactly how they felt before symptoms began. For others, recovery might be relief from symptoms and a return to a satisfying life, however different it may be. Mental Health America, a community-based nonprofit, explain: "Recovering from mental illness includes not only getting better but achieving a full and satisfying life. Many people affirm that their journey to recovery has not been a straight, steady road. Rather, there are ups and downs, new discoveries, and setbacks." They continue: "The journey to full recovery takes time, but positive changes can happen all along the way."

Studies show that people with mental health problems get better and many recover completely. Recovery refers to the process in which people are able to live, work, learn, and participate fully in their communities. There are more treatments, services, and community support systems than ever before, and they work.

3. People with mental health conditions cannot work

An old but persistent myth is that people with mental health issues cannot hold down a job or be useful members of the workforce. This is entirely false. It is true that someone living with a particularly severe mental health condition might be unable to carry out regular work. However, the majority of people with mental health issues can be as productive as individuals without mental health disorders. A U.S. study published in 2014 investigated employment status according to mental illness severity. The authors found that, as expected, "Employment rates decreased with increasing mental illness severity." **However, 54.5% of individuals with severe conditions were employed, compared with 75.9% of people without a mental illness, 68.8% of people with mild mental illness, and 62.7% of people with moderate mental illness.** When the researchers looked at the effect of age, they found that the employment gap between people with a mental health condition and those without widened with advancing age. In people aged

18–25 years, the difference in employment rates between those with and without a serious mental illness was just 1%, but in the 50–64 age group, the gap was found to be 21%.

4. Mental health problems are a sign of weakness

This is no more true than saying that a broken leg is a sign of weakness. Mental health disorders are illnesses, not signs of poor character. Similarly, people with, for instance, depression, cannot "snap out of it" any more than someone with diabetes or psoriasis can immediately recover from their condition.

If anything, the opposite is true: Fighting a mental health condition takes a great deal of strength.

5. All people with a mental illness are violent and need to be hospitalized or locked up in an asylum.

This, of course, is a myth. Thankfully, as the world becomes more aware of mental health conditions, this misconception is slowly dying away. Even individuals who are experiencing the most serious conditions, such as schizophrenia, are mostly nonviolent.

It is true that some people with certain mental illnesses can become violent and unpredictable, but they are in the minority. Experts are of the opinion that **violence attracts attention in the news media Violence in the context of mental illness can be especially sensationalized, which only deepens the stigma that already permeates our patients' lives. I**ndividuals with mental illness, when appropriately treated, do not pose any increased risk of violence over the general population. The overall impact of mental illness as a factor in the violence that occurs in the society appears to be exaggerated. Although there certainly is a relationship between violence and mental illness, members of the public exaggerate both the strength of the association between mental illness and violence and their own personal risk. People with some types of mental disorder are more likely to be violent than others in the general population - a fact that is uncomfortable for many in the mental health sector." "While there is little evidence to suggest that people with mental illness in general (usually those with diagnosis of depression or anxiety disorders) have an increased risk of perpetrating violence compared with the general population, higher rates of violence perpetration have been identified among

people with particular types of severe mental illness, namely schizophrenia and bipolar disorder."

6. People with mental health issues can overcome what they're experiencing by controlling their minds. There's nothing that can be done to help them.

How a person recovers from a mental illness, or is able to cope depends on their willingness to access treatment and get better. While that's the case, a mental health issue can't be handled by a person controlling their own mind. Many mental health issues cause negative thought and behavior patterns which are not in control of the person suffering from them. These thought patterns need to be unlearnt and replaced with positive ones through scientifically-researched psychotherapy; and in certain cases-medication, to control chemical imbalances in the brain.

This does not mean that there is nothing the psychologists can do-in the capacity of a caregiver or guardian-to help. The psychologists can play a crucial role in the recovery of the individuals' who suffer from mental health issues. One of the most important needs of a person with a mental health issue is having a supportive and understanding environment. Assuring a loved one that they are not alone and the family and friends are there for them and accepting them as they are can make them feel secure, and aid in their recovery.

Another way in which help can be given to individuals with mental health issues is, to create a society free of stigma. To do this there must the family members must empower themselves with the right knowledge about mental health, practice empathy, and create spaces where people can open up about their mental health issues, and not be judged for seeking help or wanting to.

4.5 MYTHS RELATED TO CAUSES OF PSYCHOLOGICAL DISORDERS

1. Mental health issues occur when the devil or a departed soul enters the body.

This is perhaps the oldest myth about mental illness. Mental health issues are caused due to a combination of genetic and environmental factors. Endorsing such myths leads to people seeking treatment through faith healers-this can lead to their symptoms and difficulties being prolonged, it also contributes to the stigma around mental health issues.

2. Bad parenting causes mental illnesses.

No one factor can cause mental illnesses. Mental illnesses are complicated conditions that arise from a combination of genetics, biology, environment, and life experiences. Family members and loved ones do have a big role in support and recovery. While a child's home environment and relationships with his parents can exacerbate a psychiatric disorder, these things don't cause the disorder. Things like anxiety, depression, autism and learning disorders are thought to have biological causes. Parenting isn't to blame. But parents play a central role by providing support and care that is crucial to their child's recovery.

4.6 MYTHS RELATED TO PSYCHOLOGICAL DISORDERS

1. Panic attacks can be fatal

Panic attacks are incredibly unpleasant, involving a racing heartbeat and an overriding sense of fear. However, they cannot directly be fatal. It is worth noting, though, that someone who is having a panic attack might be more liable to have an accident. If someone is experiencing a panic attack or can feel one coming on, finding a safe space can help mitigate this risk.

2. Addiction is a lack of willpower

This statement is not true. Experts consider drug use disorders to be chronic diseases. A paper in *Addictive Behaviors Reports* outlines a qualitative longitudinal study investigating the relationship between willpower and recovery from addiction. The researchers found that a lack of willpower was not the deciding factor when it came to beating addiction. They write, **"People with addiction seem not to be short on willpower; rather, recovery is dependent on developing strategies to preserve willpower by controlling the environment."**

3. People with schizophrenia have a split personality

This is a myth. Schizophrenia means "splitting of the mind," which might explain the misconception. However, when Eugen Bleuler coined the term in 1908, he was trying to "capture the fragmentation and disintegration of the mind and behavior as the essence of the disorder."

According to the WHO, schizophrenia “is characterized by distortions in thinking, perception, emotions, language, sense of self, and behavior.” These distortions can include hallucinations and delusions. Schizophrenia is not the same as dissociative identity disorder, which used to be called multiple personality disorder.

4. Eating disorders only affect females

There is a stereotype that eating disorders are the domain of young, white, wealthy females. However, they can affect anyone. For instance, a study that investigated the demographics of eating disorders over a 10-year period found that they are shifting. The most significant increases in prevalence occurred among males, individuals from lower income homes, and people aged 45 years or older. According to other research, males currently account for 10–25% of all cases of anorexia and bulimia nervosa, as well as 25% of cases of binge eating disorders.

5. Eating disorders are a lifestyle choice

This is a harmful myth. Eating disorders are serious mental health conditions, and, in extreme cases, they can be fatal.

6. Children don't experience mental health problems.

Even very young children may show early warning signs of mental health concerns. These mental health problems are often clinically diagnosable, and can be a product of the interaction of biological, psychological, and social factors. Half of all mental health disorders show first signs before a person turns 14 years old, and three quarters of mental health disorders begin before age 24. Unfortunately, less than 20% of children and adolescents with diagnosable mental health problems receive the treatment they need. Early mental health support can help a child before problems interfere with other developmental needs.

7. Personality weakness or character flaws cause mental health problems. People with mental health problems can snap out of it if they try hard enough.

Mental health problems have nothing to do with being lazy or weak and many people need help to get better. Many factors contribute to mental health problems, including:

- Biological factors, such as genes, physical illness, injury, or brain chemistry
- Life experiences, such as trauma or a history of abuse
- Family history of mental health problems

People with mental health problems can get better and many recover completely.

8. Post-Traumatic Stress Disorder (PTSD) is only a military man's disease.

PTSD is *not* just a military man's disease. **Anyone can have PTSD**. A rape or sexual assault victim, a domestic abuse victim, a survivor of a natural disaster, someone who's suffered a loss or even a person who did not face any violence or physical threats themselves directly, but happened to witness someone else who did (i.e. vicarious trauma). The symptoms include having flashbacks of that event or events, nightmares/night terrors, anxiety/panic attacks, taking precautions to avoid reminders or "triggers" of the event, reacting in a way as if the event is re-occurring, etc.

4.7 MYTHS RELATED TO TREATMENT OF PSYCHOLOGICAL DISORDERS

1. Psychiatric medications are bad.

People tend to believe that psychiatric medicine is harmful. That or they believe that psych meds are simply "happy pills" and "an easy way out" for those with mental illness to avoid dealing with their problems. Again, this is simply not true. Just like any other detrimental medical condition, mental illness is still an illness. For many with mental illness, medication is necessary, just like it would be for a diabetic affected individual taking insulin. For some individuals with mental illness, medication is needed for survival. For others, like those who have mild to moderate depression, anxiety, or ADHD, medication can help ease symptoms, so they can function normally. And having regular therapy combined with medication can greatly improve one's quality of life.

2. Only people without friends need therapists

There is a large difference between structured talking therapies and speaking with friends. Both can help people with mental illness in different ways, but a trained therapist can address issues constructively and in ways that even the best of friends cannot match. Also, not everyone can open up entirely in front of their nearest and dearest. Therapy is confidential, objective, and entirely focused on the individual, which is not generally possible in more informal chats with untrained friends. **Plus, some people do not have close friends. There are many possible causes of this, and it is no reason to look down on someone.**

3. Prevention doesn't work. It is impossible to prevent mental illnesses.

Prevention of mental, emotional, and behavioral disorders focuses on addressing known risk factors such as exposure to trauma that can affect the chances that children, youth, and young adults will develop mental health problems. Promoting the social-emotional well-being of children and youth leads to:

- Higher overall productivity
- Better educational outcomes
- Lower crime rates
- Stronger economies
- Lower health care costs
- Improved quality of life
- Increased lifespan
- Improved family life

4. You need to consult a psychiatrist for all your mental health problems. Therapy and counseling don’t really work.

Psychiatrists are mental health experts who can be consulted for mental health issues. They are doctors trained in psychiatry and can diagnose mental illnesses, prescribe medication for it, as well as what is the best course of treatment for the client. That said, one can consult

other professionals such as clinical psychologists, counselors and therapists for mental health issues. Each type of mental health professional offers a different kind of service. Therapy and counseling are an integral part of the recovery process of most mental health issues; not all mental illnesses require medication. Most mental illnesses are treated using therapy and counseling because medication tends to treat the symptoms rather than the underlying issue. Therapy and counseling techniques are arrived at with the same amount of scientific research as prescription drugs and they have been proven to help in the recovery of a person with mental illness.

4.8 SUMMARY

In summary, mental health conditions are common, but treatment is available. We must all work together to remove the myths and stigma attached to mental disorders. Although society's understanding of mental health issues has come on leaps and bounds compared with just a decade ago, we still have mountains to climb.

4.9 CHECK YOUR PROGRESS

1. Discuss the myths related to health and fitness.

2. Describe he myths related to origin and incidence of psychological disorders.

3. Evaluate the myths related to origin and incidence of psychological disorders.

4. Explain the myths related to treatment of psychological disorders.

4.10 ANSWERS TO CHECK YOUR PROGRESS

1. 4.3 2. 4.4 3. 4.5 & 4.6 4.4.7

4.11 KEY WORDS

Myths: A story of forgotten or vague origin, basically religious or supernatural in nature, which seeks to explain or rationalize one or more aspects of the world or a society

Health and fitness: Health is defined as a state of complete mental, physical and social well-being; not merely the absence of illness or infirmity. Fitness is the ability to meet the demands of the environment.

Psychological disorders: A psychological disorder is a designation often used interchangeably with the terms mental disorder, psychiatric disorder, or mental illness. The "official" term is mental disorder, defined in the latest edition of the American Psychiatric Association's diagnostic manual, the DSM-5. It defines a mental disorder as: " a syndrome characterized by a clinically significant disturbance in an individual's cognitive, emotion regulation, or behavior that reflects a dysfunction in the psychological, biological, or developmental process underlying mental functioning. Mental disorders are usually associated with significant distress in social, occupational, or other important activities."

4.12 REFERENCES

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BLOCK: 2- STRESS AND HEALTH

UNIT: 5 - MODELS OF STRESS

STRUCTURE

5.1 OBJECTIVES

After going through this unit you will be able to explain

- Meaning and definition of stress
- Fight and Flight reaction
- Hans Selye's general adaptation model
- Transactional model of stress

5.2 INTRODUCTION

Every individual faces a number of different kinds of situations every day, certain familiar one's which are easy to handle, certain expected one's, anxious one's creates stress in the individual. An individual may face stress when meeting new situations, deadlines, managing one's time, relationship and various other situations.

A small amount of stress is good for an effective work, but when it exceeds a limit after which it creates a negative feeling in the individual to handle the situation it becomes the problem. Stress affects the individual both psychologically and physically. In these kinds of situation individual will be not able to perform effectively. This unit deals with stress, its meaning, definition and various models of stress.

5.3 MEANING AND DEFINITION OF STRESS

Stress is a negative emotional experience accompanied by predictable biochemical, physiological, cognitive and behavioral changes that are directed either towards altering the stressful event or accommodating to its effects. A. Baum (1990).

The term "stress" means many things to different people. Stress is defined as pressure, tension, unpleasant external forces or an emotional response.

Lazarus and Launcier (1978) defines stress as a transaction between people and environment.

The term "stress" was coined by Hans Selye in 1936, he defines it as "the non specific response of the body to any demand for change".

The term ‘stress’ comes from the Latin word stringer, to draw tight (strain, to tax, strait, affording little space stress means-it taxes, it strains and it restricts. The stimuli that threaten an organism produce physiological arousal. This non-specific bodily reactions is what is called as stress.

Hans Selye considered stress to be a general response to demand and even though there can be many different stressors, they produce practically the same biological stress response by the organism.

There are a number of researches conducted upon stress. The modern researchers says that stress is neither a stimulus nor a responses but a special stimulus- response transaction in which the individual feels threatened.

Lazarus and Folkman (1984) defines stress as “psychological stress is a particular relationship between the person and the environment that is appraised by the person as taxing or exceeding his or her resources and endangering his or her wellbeing”.

Taylor (2003) defines stress as “stress is the process of appraising events (as harmful, threatening or challenging) of assessing potential responses and of responding to those events, responses may include physiological, cognitive, emotional and behaviour changes”.

The word stress is sometimes used to describe a threatening situation or stimulus and at other times to describe a response to a situation. Stress as a stimulus is a property of the events and situations we face. Ex: noise, crowding, natural disasters etc. Stress as a response to a threatening event or situation, the response includes both psychological and physiological components. The psychological component includes emotions such as anxiety or fear behaviours such as nervous laughter or smoking and thoughts such as pessimistic self-talk. The physiological component includes the various symptoms of bodily arousal: dry mouth, butterflies in the stomach and perspiration.

Is stress a stimulus or response? It is both say the health psychologists and also something more. Health Psychologists distinguish the stimulus properties of stress from its response properties. Strain refers to the physical and emotional responses that accompanied a person's

perception of stressors. Stress is defined as a process by which a person both perceives and response to events that are judged to be challenging or threatening.

5.4 MODELS OF STRESS

The researches conducted in this field by the psychologists provides a vast information about stress. Psychologists have tried to find the occurrence, its manifestation and the reaction to stress. Different psychologists have come up with their own way of explanation regarding stress. A number of models have been proposed to explain stress. The major models of stress given by psychologists are being discussed here.

5.5 FIGHT OR FLIGHT

One of the earliest contributions to stress research was Walter Cannon's (1932) description of the fight- or- flight response. Cannon proposed that when an organism perceives a threat, the body is rapidly aroused and motivated via the sympathetic nervous system and the endocrine system. This concentrated physiological response mobilizes the organism to attack the threat or to flee hence, it is called the fight- or- flight response. Fight refers to aggressive responses to stress, whereas flight may be the social withdrawal or withdrawal through substance use.

5.6 HANS SELYE' GENERAL ADAPTATION SYNDROME

Hans Selye (1907-1982) was a pioneering Australian Canadian Endocrinologist. He conducted a number of researches on hypothetical non specific response of an organism to stressors. Selye puts forward the general adaptation syndrome. He was conducting endocrinological experiment in which he discovered that every irritating substance produced the same symptoms in an organism. This paired with his observations that people with different diseases exhibit similar symptoms, led to the description of the effects of "noxious agents" as he at first called it. He later coined the term "stress". Selye conceptualized the physiology of stress as having two components a set of responses which is called the "general adaptation syndrome".

Hans Selye was conducting research on injected laboratory rats. Selye initially intended to explore the effects of sex hormones on physiological functioning, he became interested in the stressful impact his interventions seemed to have. Accordingly he exposed rats to a variety of

stressors-such as extreme cold and fatigue and observed their physiological responses. All the stressors regardless of its type produced essentially the same patterns of physiological responses. They all led to an enlarged adrenal cortex, shrinking of the thymus and lymph glands and ulceration of stomach and duodenum. These changes show that in order to cope with the situation, defenses of the body are mobilized through activation of the sympathetic nervous system. The body temperature and blood pressure drop, muscles slacken and the pituitary gland releases adrenocorticotropic (ACTH) hormone. This in turn causes a heightened release of adrenaline, noradrenalin and cortical into the blood stream, increasing resistance and preparing the body to meet the emergency situation.

They soon discovered that all toxic substances produced this alarm response. Similar organ responses were evoked by cold, fear, heat, infection, trauma, hemorrhage, nervous irritation and many other stimuli. These changes became accepted as the objective manifestations of stress and became the basis for developing the entire stress concept. Later this became known as a General adaptation syndrome in 1936.

Selye devised concept of stress as a “non specific response of the body to any demand”. The body’s reaction to stress was so predictable that Selye called it general adaptation syndrome (GAS).

General adaptation syndrome consists of three stages

Stage1:

The alarm reaction is essentially the same as flight-or –fight response. The alarm reaction stage is the first sign of general adaptation syndrome. During the stage, the sympathetic branch of the ANS is activated–the adrenal gland secretes the stress hormone cortisol, along with adrenaline and the body undergo physical changes, including a reduction in bodily fat and the shrinking of numerous organs, body temperature also lowers, conserving energy. The alarm reaction stage prepares animals for a fight or flight response. The body adopts to be able to react quickly in either fleeing or confronting the threat posed to them. In this stage the adrenal activity and cardiovascular, respiratory functions increases rapidly. This fast acting arousal is the result of hormones secreted by the endocrine system. The pituitary gland releases ACTH which

stimulates the adrenal medulla to release epinephrine and norepinephrine and the adrenal cortex to secrete cortisol into the bloodstream. The strength of the alarm reaction depends on the degree to which the event is perceived as a threat. These hormones enable the individual to perform activities that the individual usually don't do.

Stage 2: Resistance stage:

When a stressful situation persists, the body's reaction progresses to stage 2, the resistance stage. In this stage, physiological arousal remains high, as the body tries to adopt to the emergency by replenishing adrenal hormones. At the same time there is a decrease in the individual's ability to cope with everyday events and hassles. The individual often becomes irritable, impatient and increasingly vulnerable to health problems.

After the initial shock of a stressful event and fight or flight response, the body begins to repair itself.

It releases a lower amount of cortisol, and the heart rate and blood pressure begin to normalize. Although the body enter this recovery phase, it remains on high alert for a while. If the individual overcomes stress and the situation is no longer an issue, the body continues to repair itself until the hormone levels, heart rate and blood pressure reach a pre-stress state.

Some stressful situations continue for extended periods of time. If the individual does not resolve the stress and the body remains on high alert, it eventually adopts and learns how to live with the higher stress level. In this level the body goes through changes. The body continues to secrete the stress hormone and the blood pressure remains elevated. If the resistance stage continues for too long of a period it can lead to exhaustion level. The signs of resistance stage include irritability, frustration and poor concentration.

Stage3: Stage of exhaustion

If the stressful situation persists and resistance is no longer possible, the body enters the final stage of the general adaptation syndrome- the stage of exhaustion. At this point the body's

energy reserves are depleted. If the stress persists, disease and physical deterioration or even death may occur. This stage is the result of prolonged or chronic stage. Struggling with stress for long periods can drain the physical, emotional and mental resources to the point where the body no longer has strength to fight stress. The individual may give up or feel that the situation is hopeless. Signs of exhaustion include fatigue, burnout, depression, anxiety and decreased stress tolerance. The physical effects of this stage also weaken the immune system of the individual and puts the individual at risk for stress related illnesses.

5.7 LAZARUS AND FOLKMAN TRANSACTIONAL MODEL OF STRESS

Transactional model of stress is the process of coping with stressful events. Stressful experiences are construed as person environment transactions. These transactions depend on the impact of the external stressor. This is mediated first, by the person's appraisal of the stressor and second, on the social and cultural resources at his or her disposal. Dr Richard Lazarus in 1966 first wrote about his transaction theory of stress and coping. He continued his research into this field, publishing numerous books and research papers in collaboration with other scientists, especially with doctor Susan Folkman. The model evaluates how major life events and daily hassles impact on emotions with the emphasis on cognitive appraisal and coping with stress. Cognitive appraisal consists of primary appraisal (to assess the harm or threat the situation may pose) and secondary appraisal (which evaluates what can be done and the individual's ability to manage and cope with it).

The transactional model of stress and coping theory is a framework which emphasizes appraisal to evaluate harm, threat and challenges which results in the process of coping with stressful events (Lazarus 1966, Lazarus and Folkman 1984). The level of stress experience in the form of thoughts, feelings, emotions and behavior, as a result of external stresses, depends on appraisal of the situation which involves judgment about whether internal or external demands exceed resources and ability to cope when demands exceed resources (Lazarus and Folkman 1984).

This theory stresses upon the interaction between the person and the environment which creates the experience of stress for the individual. Basically, a transaction between the person

and his or her environment is stressful only when the person evaluates it as a harm, threat or challenge to his or her well-being. The individual's view of the situation determines whether the event is experienced as stressful or not. Thus, stress is created by any event in which an environmental or internal demand (or both) tax or exceed adaptive resources of an individual.

Cognitive appraisal: Cognitive appraisal is the personal evaluative process which categorizes a situation and focuses on the implications, meaning or significance of the changing relationship between the person and environment, which can elicit an emotional response. Individuals differ in the degree and kind of reaction, as well as their sensitivity, vulnerability and interpretation of demanding pressures. For a given situation one person may respond with anger, aggression and guilt, whereas another may ignore it. The significance of the response is influenced by personal beliefs, commitments and goals. The meaning of an event may not always be the same when experienced at different situations.

Primary appraisal

Lazarus states that when individuals confront a new or changing environment, they engage in a process of primary appraisal to determine the meaning of the event. Events may be perceived as positive, neutral or negative in their consequences. Negative or potentially negative events are further appraised for their possible harm, threat or challenge. "Harm" is the assessment of the damage that has already been done by an event. For example, losing a job a man may feel the loss of self-esteem. "Threat" is the assessment of possible future damage that may be brought about by the event. Example, a man who has lost his job may anticipate the loss of income and the problems of it to him and his family.

Primary appraisal of events as threats has important effects on physiological responses to stress. For example, blood pressure is higher when threat is higher or when threat is high and challenge is low. Events may be appraised in terms of their challenge, the potential to overcome and even profit from the event. For example, a man who has lost his job may perceive some amount of harm and threat, but he may also perceive it as a better opportunity to search for a better job and try something new. Challenge appraisal are associated with more confident expectations of the ability to cope with the stressful situation, more favorable emotional

reactions to the event and lower blood pressure. People, who believe in their ability to control events, or believe in a benevolent world, will be more likely to view potentially threatening occurrences as challenges rather than stressful and less likely to be overly affected by unexpected events.

Secondary appraisal

Secondary appraisal is the assessment of one's coping abilities and resources and whether they will be sufficient to meet the harm, threat and challenge of the event. The subjective experience of stress is a balance between primary and secondary appraisal. When harm or threat is high and coping abilities are low, substantial stress is felt. When coping ability is high, stress may be minimal. Secondary appraisal depends on how much control a person feels they have, actions likely to improve the situation, and the stakes involved and shapes the degree of stress and emotional reaction. Potential responses to stress are many and include physiological, cognitive, emotional and behavioral consequences.

Primary and secondary appraisal cannot be considered as separate processes, but are interdependent and influence each other.

5.8 SUMMARY

To sum up with, in this unit you have understood about the meaning, definition of stress. The different models of stress are explained in detail. The general adaptation syndrome and its stages, the reactions of an individual in these stages are also discussed. There are various factors which affects the stress level and the reactions of an individual towards stress. The cognitive, physiological and behavioral responses are explained.

5.9 KEYWORDS

General adaptation syndrome

Fight or Flight

Cognitive appraisal

Primary appraisal

Secondary appraisal

Transactional model

5.10 CHECK YOUR PROGRESS

1. Define stress.
2. Explain the models of stress.
3. Describe General adaptation syndrome.
4. Discuss transactional model.

5.11 ANSWERS TO CHECK YOUR PROGRESS

1. 5.3 2. 5.4 3.5.6 4. 5.7

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UNIT: 6 - SOURCES AND TYPES OF STRESS

STRUCTURE

6.1 OBJECTIVES

After going through this unit you will be able to explain

- Stress
- Types of stress
- Sources of stress
- Dimensions of stress

6.2 INTRODUCTION

In this unit you will be learning about the stress, its types, and different dimensions of stress. Stress is a part of life. Each individual experiences stress in various ways in various kinds of situation. Stress can be very harmful when it exceeds a certain amount which an individual feels. Stress can be useful when it can motivate an individual to do something meaningful and achieve a goal. There are various effects and consequences of facing stress. Sometimes it may be positive, sometimes it may lead to negative consequences.

6.3 STRESS

In our day to day life we come across a wide variety of stressful events. Minimum amount of stress is required for a good functioning of an individual. The individual's performance will always be better when there is some expectation from others, are from within himself. This kind of minimum pressure is always good for a better performance. Stress which can be useful is called eustress. The stress which is harmful is called distress.

Eustress

The term eustress was coined by Hans Selye. Eustress means, the prefix means good and stress literally means "good stress". Eustress means beneficial stress either psychological, physical or biochemical. It is a positive response to stress that is healthy, or gives one a feeling of fulfillment or other positive feelings. Eustress occurs when the goal is not too far out of reach,

but is still slightly more than one can handle. This fosters challenge and motivation. If the stress enhances one's functioning it may be considered eustress.

Distress

Distress is a negative stress. According to Selye the persistent stress that is not resolved through coping or adaptation is called as distress. It may lead to anxiety, withdrawal and depressive behavior.

6.4 TYPES OF STRESS

There are different types of stress. The major ones are discussed here

Acute stress

Acute stress is the most common form of stress. It comes from demands and pressures of the recent past and anticipated demands and pressures of the near future. Acute stress is sometimes thrilling and exciting when it is in a small dose, but too much is exhausting. Over doing on short term stress can lead to psychological distress, tension headaches, upset stomach and various other symptoms. It is usually short term, hence it does not do extensive damage associated with long term stress. The common symptoms of acute stress are

Emotional distress: A combination of anger or irritability, anxiety and depression. **Muscular Problems**: Muscular problems like tension headache, back pain, jaw pain, muscular tensions leading to pulled muscle and tendon etc. Stomach, gut and bowel problems such as heartburn, acid stomach, flatulence, diarrhea, constipation and irritable bowel syndrome. Increase in blood pressure, rapid heartbeat, sweaty palms, heart palpitations, dizziness, migraine headaches, cold hands or feet, shortness of breath and chest pain. Acute stress if not handled properly and it troubles the individual. It is highly treatable and manageable.

Episodic acute stress

Some individuals suffer from acute stress frequently, their lives are disordered, they are always in a rush, but always late. They take on too much, they can't organise oneself they have self inflicted demands and pressures. These individuals are always in stress. The individuals with acute stress reactions are over aroused, short tempered, irritable, anxious and tense.

They are always in hurry, they tend abrupt to be irritable. The individuals who are having free floating, but well rationalized form of hostility and almost always a deep seated insecurity, such personality characteristics will create frequent episodes of acute stress.

Another form of episodic acute stress comes from ceaseless worry. These individuals worry for everything and forecast catastrophe in every situation. These individuals see the world as dangerous, unrewarding, punitive place where something awful is always about to happen. These individuals are over aroused and tense, more anxious and depressed than angry and hostile. The symptoms of episodic acute stress are the symptoms of extended over arousal, persistent tension headaches, migraines, hypertension, chest pain and heart disease.

Chronic stress

Chronic stress is a grinding stress that wear people away day after day, year after year. Chronic stress destroys an individual completely; it destroys the body, mind and lives. Chronic stress comes when a person never sees a way out of a miserable situation. It's the stress of a continuous demands and pressures for over a long period. With no hope the individuals give up searching for solutions

Some of the chronic stress comes from traumatic early childhood experiences that become internalized and remain forever painful and present. The individual develops a view of the world, or a belief system which creates unending stress for example, the world is a threatening place. The chronic stress's worst aspect is the people get used to it. People are immediately aware of acute stress because it is new, they ignore chronic stress because it is old, familiar and sometimes almost comfortable. The individual wear down to a final, fatal breakdown into suicide, violence, heart attack, stroke and perhaps even cancer. The physical and mental resources are depleted through long term.

6.5 SOURCES OF STRESS

Stress comes from different situations and reasons for different individuals. The sources can be external or internal. To understand the sources of stress better, it is important to understand the dimensions of stressful events.

6.5.1 DIMENSIONS OF STRESSFUL EVENTS

Situations and events are not stressful in themselves. It is the perception and cognitive appraisal of the individual which makes the situations to be felt stressful. The characteristics of the potential stressor that makes it more stressful are as follows.

- Negative events are more stressful than the positive events. For example, searching for a job, getting divorce etc.
- Uncontrollable or unpredictable events are more stressful than controllable or predictable ones. If an individual feels that they can predict, change or stop a negative event, they experience it as less stressful, even if they do not do anything about it.
- Events that are vague are felt more stressful compared to the clear ones .If the events are ambiguous, vague, the individual does not have an opportunity to take action. Instead, the energy must be expanded in trying to understand the situation. A clear-cut problem lets the individual to try new solutions for a given situation.
- Overloaded people are more stressed than people with fewer tasks to perform. The individuals having more tasks to perform have higher levels of stress than those who have fewer tasks.

Stress mainly comes from two sources, external and internal. From the external world it comes in the form of unexpected life events, the tensions, and unsatisfactory circumstances and from the daily hassles. From the internal world in the form of unintentionally self-imposed thoughts, faulty thinking etc.

EXTERNAL SOURCES OF STRESS

There are various external sources which creates stress in an individual. The major ones are being discussed here:

6.5.2 LIFE EVENTS

Life events are precursors and determinants of many physical and psychological problems. Any kind of life events requires people to adapt and adjust to the new and changed

environments. In 1950'sPsychiatrists Thomas Holmes and Richard Rahe conducted research to understand the effects of life events in creating stress. They found that, the life-changing units had a correlation with increase in illness rates. When life brings many changes at once, the stress that results may make us more vulnerable to health problems. Different individuals react in different manner for the same kind of events. Stress and health consequences arise not from events per se but rather from how we appraise them. Common examples of major life events include marriage, death of loved one's, birth of a child, moving houses, etc. These events can be positive or negative.

6.5.3 DAILY HASSLES

Stress comes from daily hassles that is the little problems of daily living that are not significant in themselves but can pile up to become a major source of stress. Everyday hassles happen all the time and thus are the most significant sources of stress. Examples for daily hassles: are getting stuck in traffic, losing money or keys, rising prices etc.

According to Richard Lazarus the impact on health of such hassles depends on their frequency, duration and intensity. The reaction to minor hassles is influenced by the personality of the individual, his coping style. Everyday hassles or irritants and stresses negatively affect physical and mental health to a degree that exceeds the adverse consequences of major life events.

Researchers show that individuals who are high in anxiety will find daily hassles more stressful. Paul Kohn and his collegeues found that having an anxious personality triggers stress as often as daily hassles. An overly anxious person may overreact to daily hassles in a way that magnifies their impact.

Daily hassles interact with long term background stresses such as job dissatisfaction, commuting and crowded living conditions.

Chronic strain

Chronic strain is a stressful experience that is usual but continually stressful aspect of life. For example, a long-term but basically unsatisfying relationship, stressful work situation, longstanding financial concerns, etc. Chronic strain is an important physical and psychological distress. Chronic exposure to hazardous or stressful work situations has an adverse effect on health.

Internal sources of stress

Internal sources of stress can come from an ill maintained, sensitive or sick body, from faulty learning which results in problem behaviours and habits, it may come from maladaptive patterns of thinking and mistaken beliefs about oneself or one's world.

6.5.4 THE BODY

Body and mind are interrelated. The positive effects upon the body are going to influence the mind in a positive manner and the negative effects of the body are going to affect the mind in a negative manner. When the body gets affected it affects the mind. For example: people sometimes get depressed after flu. Some of the bodily sources of stress are related to endocrinal and nutritional disorders, reactions to drugs, toxins, pollutants and allergic reactions.

6.5.5 BEHAVIOUR AND FAULTY LEARNING

Individuals when growing develop a range of skills or patterns of behaviour that allows them to get on everyday living. Behaviour such as driving, cooking, expressing feelings, showing affection, dealing with other people and having fun are learnt by association, by consequences and observation. Problem arise when individuals either fail to acquire the necessary skills or when learning takes place but is in some way excessive or inappropriate.

When individuals does not learn the necessary skills to handle the daily life then problem arises. When individual does not learn social skills (including self assertion), problem solving,

decision making skills, study and work habits, effective management of time and financial resources these create stress.

Faulty Learning

The way in which an individual interprets events play a major role in determining the behaviour and affects how they feel. If thinking is faulty then the result will also be negative. Faulty thinking can act as a stressor.

6.5.6 ERRONEOUS AND MALADAPTIVE BELIEFS

Many individuals develop a set of ideas that are irrational. These beliefs results in perfectionist attitude and excessively critical thinking. This leads to unrealistic expectations of oneself and others in turn, to emotional experiences such as, frustration, anger, disappointment and guilt. According to Albert Ellis the founder of Rational Emotive behaviour therapy some of the common and irrational beliefs are the idea that it is necessary for an adult to be loved or approved by almost every significant person in his /her community, the idea that one should be competent and achieving in all areas if one is to be considered worthwhile, it is easier to avoid than face the challenges of life difficulties or responsibilities etc. These kinds of erroneous and maladaptive thinking and beliefs causes stress in an individual.

6.5.7 ENVIRONMENTAL STRESS

In our everyday life we come across lots of stressors in our surrounding. Environmental stress like crowded buses, noisy street pollution is the daily facts of life for many individuals.

Noise

The researches conducted by health psychologists have shown that there can be a number of negative health consequences of long-term living in noisy environment. Noisy environment increases the blood pressure levels and elevates levels of cortisol and other stress hormones. Chronic exposure to high intensity noise may increase the risk of cardiovascular problems. Noise

can affect the cognitive activities it disrupt our ability to even simple cognitive tasks, as well as short-term memory.

Crowding

Crowding is a psychological state in which people believe they do not have enough space to function as they wish. Crowding has been linked to increased aggression, withdrawal from interpersonal relations and increased the crime rates. Crowding also increases unwanted social interactions, a condition that often triggers social withdrawal as a means of coping.

Natural disaster

There may be a number of situations where natural disasters occurs like, flood, volcano, Tsunami, radiations, etc. Researchers have found that a number of similar responses in situations involving both human error and natural phenomena. The symptoms like hypertension, heart disease and other stress related problems do increase. Rates of Psychological disorders, especially depression and anxiety to increase.

6.5.8 JOB RELATED STRESS

A number of researches have been conducted to study the causes and consequences of job related stress. Usually, all individuals at some time experience stress related to their work. Work related stress maybe one of the most preventable health hazards.

For some individuals job stress may be brief in duration and does not pose a serious threat to their health. For some individuals job stress maybe chronic, continuing for years.

Work Overload

The very important source of occupational stress is work overload. The individuals who feel they have to work too long and too hard at too many tasks feel more stressed. They also have poorer health habits, experience more accidents, suffer more health problems than do other workers.

The total number of hours a person works is not a reliable indicator of stress. Work load as a subjective as well as an objective component.

Role overload

Work stress sometimes occurs when the individual attempt to balance several different jobs at the same time and experience rule overload. Usually, women are always had juggling with multiple roles and experience problems related to it. Research has shown that roll overload associated with juggling heavy work and home responsibilities reduced the enjoyment of all tasks and worsened the mood.

Burnout

Burnout has been defined as a job related state of physical and psychological exhaustion that can occur among individuals who work with other people in some capacity. Burnout is multidimensional syndrome characterized by emotional exhaustion, depersonalization and reduced personal accomplishment. Emotional exhaustion refers to feelings of being drained of emotional resources, with the corresponding loss of energy and feelings of fatigue.

Depersonalization refers to a loss of idealism in the workplace, triggering negative attitudes towards others. Reduced personal accomplishment refers to a loss of feelings of work related competence and accomplishment. Burnout is most common among employees whose long- term involvement in work environments that are highly frustrating and emotionally demanding gradually leads to a loss of purpose and ambition.

Jobs that involve responsibility for other people, rather than responsibility for products, appear to cause high levels of burnout. Burnout levels in Healthcare workers, doctors, dentists, paramedics, air traffic controllers, firefighters are usually high. Burnout is equally common among workaholics and others facing overwhelming workloads who become so consumed by their work that they neglect social relationships and leisure activities.

Burnout develops over a period of years, its warning signs may appear early. These signs include Feelings of Mental and physical exhaustion.

- Loss of meaning in one's work and life in general.
- Difficulty concentrating
- An increase in stress related ailments, such as headaches, backaches and depression.
- Shortness of temper

Lack of control over work

Workers feel more stress when they have little or no control over the procedures, pace and other aspects of their jobs. Lack of control over work leads to higher levels of stress hormone, higher blood pressure, more headaches, more gastrointestinal disorders, including ulcers.

6.5.9 OTHER SOURCES OF JOB RELATED STRESS

Several aspects of jobs increase stress among workers

- **Role ambiguity or conflict**: Role ambiguity occurs when the individual is unsure of their jobs or the standards used to evaluate their performance. Role conflict occurs when the individual receives mixed messages from higher authority.
- **Shift work**: Shift workers face disruption in their families and domestic lives and it also affects their biological rhythms.
- **Job loss**: Loss of job leads to physical illness, anxiety, depression and even suicide.
- **Gender harassment**: Gender discrimination and giving unwanted comments to the female workers, threatening them physically and psychologically shows the harassment faced by female workers due to male coworkers.
- **Inadequate career advancement**: The individuals who feel that they have been promoted too slowly or that they are not getting the recognition they deserve on the job experience more stress and have higher rates of illness.

Retirement: Retirement may be welcomed by some individuals. Some individuals may not be able to accept the retirement in a positive manner. Insufficient economic support, uncertain time structure of the day, irregular or lack of contacts with other people, a loss of sense of status and identity and a lowered inactive lifestyle all leads to the stressful situation of retirement.

6.6 SUMMARY

To summarize with, this unit has dealt with stress, its types, the positive and negative stress and its effects. Stress may be intense like in acute stress, or it may be occurring in different periods of time repeatedly like episodic acute stress or sometimes it may be long lasting like chronic stress. The reason why an individual suffers from stress differs from individual to individual. Some individuals are even bothered by the day to day daily hassles and experience stress. There are lots of other sources of stress which may be external or internal. Environmental factors also contribute to the development of stress. All these have been discussed in detail in this unit.

6.7 KEYWORDS

Stress

Eustress

Distress

Acute stress

Emotional distress

Episodic acute stress

Chronic stress

Daily hassles

Chronic strain

Job related stress

Work overload

Role overload

Burnout

6.8 CHECK YOUR PROGRESS

1. Define stress.
2. What are the different types of stress?
3. Explain the sources of stress.
4. Discuss job related stress.

6.9 ANSWERS TO CHECK YOUR PROGRESS

1. 6.3
2. 6.4
3. 6.5
4. 6 .8

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UNIT : 7 STRESS RESPONSES

STRUCTURE

7.1 OBJECTIVES

After going through this unit you will be able to explain

- Stress
- Stress responses
- Psychoneuroimmunology
- Psychoneuroimmunological effects
- Physiological consequences
- Psychological Responses
- Emotional and behavioral responses

7.2 INTRODUCTION

Individuals react to stress in different ways. The human response to stress is complex and multidimensional. Some of the effects of stress are voluntary and some effects or involuntary. Stress affects an individual in four different areas physiology, behaviour, emotional experiences and cognitive functions. As soon as an individual faces a stressful situation usually all these four areas do get affected. For example, a stressful situation may create negative emotions (emotional experience) the heartbeat may increase (physiological) the individual may start shouting (cognitive and behavioral response). Therefore, the appraisal of a situation as stressful triggers emotional, physiological, cognitive and behavioral reactions.

7.3 STRESS RESPONSES

Stress affects an individual in four different areas physiology, behaviour, emotional experiences and cognitive functions. As soon as an individual faces a stressful situation usually all these four areas do get affected. In usual situations stress response, these reactions can make people function temporarily, even more effectively than they would normally do. The first response to stress would be fight or flight response. In stress or emergency situation this response automatically comes into effect. When the individual is in excessive or chronic strain the normal adaptive response can become a problem. Hence, it can be seen that stress to a certain point, improves one's performance on all levels. The behavior becomes speedy and coordinated, the Mind becomes quick and alert, the body works in synchrony. This mechanism has helped the people to survive and evolve in as comfortable and dignified fashion as possible. When people

are under too much stress for too long, be it in a particular isolated situation or on an ongoing basis- this healthy, adaptive, short term survival response is just not enough. At this point it can work as one's disadvantage. It can become problematic and self- defeating. The individual shows different responses. The responses to stress are being discussed here.

7.4 PSYCHONEUROIMMUNOLOGY

Robert Ader and Cohen's research gave rise to a new model of stress and illness known as Psychoneuroimmunology (PNI). Psycho means psychological processes, neuro means neuroendocrine system (the nervous and hormonal systems), and immunology for the immune system. Psychoneuroimmunology is also referred to as psychoendoneuroimmunology (PENI) or psychoneuroendocrinoimmunology (PNEI). It is the study of the interaction between psychological processes and the nervous and immune systems of the human body. Psychoneuroimmunology identifies three areas of functioning. It is an interdisciplinary approach. The main interests of psychoneuroimmunology are the interactions between the nervous and immune systems and the relationships between mental processes and health. Psychoneuroimmunology studies the physiological functioning of the neuro immune system in health and disease, disorders of neuro immune system (autoimmune diseases, hypersensitiveness, immune deficiency) and the physical, chemical and physiological characteristics of the components of the neuro immune system.

In 1975 Robert Aderand Nicholas Cohen, at the University of Rochester, gave rise to this psychoneuroimmunology with their demonstration of classical conditioning of immune function and they coined the term "Psychoneuroimmunology".

Ader was conducting research upon using Pavlovian classical conditioning experiment. He was attempting to condition laboratory rats to avoid saccharin-flavoured drinking water. The rats were given a drink of the artificially sweetened water (a neutral stimulus) they received an injection of the drug cyclophosphamide (unconditioned stimulus), which made them sick (unconditioned response) sick enough so that a single pairing of the two stimuli should be sufficient to establish a conditioned aversion to the water. But Ader soon discovered a problem. Over the course of several weeks of training and testing, a number of the rats became sick and

died. Ader was puzzled by this. He discovered that the number of virus and infection fighting T-Lymphocytes was significantly reduced in the bodies of the unfortunate experimental animals. The nausea inducing drugs apparently had a more serious impact on the rats it suppressed immune responses. In the Ader's experiment during the study in the same rats had later been given saccharin flavored water alone, without the cyclophosphamide, the animals immune system responded as if the drug was actually circulating in the bloodstream. Classical conditioning had created a learned association between the taste of the water as a conditioned stimulus and the suppression of T cells as a conditioned response. Overtime, conditioned responding made the animals increasingly susceptible to disease as their immune reserves were weekend with each drink of sweetened water.

Before this Ader's experiment, most biomedical researchers believed that the mind and body were, for the most part, independent systems that had no influence on one another. So Ader teamed up with immunologist Nicholas Cohen to see if his initial findings were a fluke. They were not. In a series of experiment Ader and Cohen demonstrated that the immune system could be conditioned.

7.5 PSYCHONEUROIMMUNOLOGICAL EFFECTS

The researches have shown that the immune modulation by psychosocial stressors and/or interventions can lead to actual health changes. For ex: stressors can produce profound health consequences. Theorists propose that stressful events trigger cognitive and affective responses which in turn, induce sympathetic nervous system and endocrine changes, and these ultimately impair our immune functioning.

Stress affects immune function through emotional and behavioral manifestation such as anxiety, fear, tension, anger and sadness and physiological changes such as heart rate, blood pressure and sweating. Research has suggested that these changes are beneficial if they are of limited duration, but when stress is chronic, the system is unable to maintain equilibrium.

7.6 PHYSIOLOGICAL CONSEQUENCES

Stress is a process that begins in the brain and spreads through the autonomic nervous system, it causes the release of hormones and ultimately exerting an effect on the immune system. Stress response starts in two major systems the nervous system which reacts immediately and the endocrine system, which takes longer to react but persist longer. Stress affects the body systems and a whole range of hormone

The brain is the first organ to recognize the stressor. Brain continues to stimulate the "stress reaction" for as long as 72 hours after a distressing event. The brain reacts in the same way for all the stressors. The reaction basically involves the release of certain hormones and brain chemicals that travel throughout the bloodstream, causing other hormones, such as the pituitary, the thyroid and the adrenals, to release their respective hormones.

The primary bodily response in active coping is through the SAM system. This system plays a pre-eminent role by increasing metabolic activity in response to situations perceived as stressful. When a stressor comes, a pattern of arousal that involves sympathetic nervous system activity is initiated. The blood pressure and heart rate, skin conductivity and respiration all increase. The sympathetic nervous system has an impact on endocrine system. It stimulates the central part of the adrenal glands release large amounts of catecholamines into the bloodstream. These hormones produce many important physiological changes that mobilize the body for action (digestive processes are inhibited to conserve energy: pupils dilate increasing visual sensitivity and more blood is pumped into the heart and muscles).

Stress exerts an effect on the body through pituitary gland of endocrine system. The hypothalamus sends signals to the pituitary gland, which secretes ACTH (adrenocorticotropic hormone). ACTH stimulates the outer parts of the adrenal glands to release corticosteroids(example cortisol).When cortisol is secreted, it causes a breakdown of muscle protein, it leads to the release of amino acids (the building blocks of protein) into the bloodstream. The liver uses these amino acids to synthesize glucose for energy. This process raises the blood sugar level so the brain will have more glucose for energy. At the same time the other tissues of the body decrease their use of glucose. Cortisol also leads to the release of fatty

acids for use by the muscles. The energy directing processes prepares the individual to deal with stressors and ensure that the brain receives adequate energy sources.

7.7 PSYCHOLOGICAL RESPONSES (COGNITIVE RESPONSES)

Cognitive responses to stress include the effects of appraisal processes such as the specific beliefs about the threat of an event and its causes or controllability. There is an increase in speed and efficiency. In normal situation individuals do stay calm and their cognitive activities work in a proper manner. Extreme stress makes an individual find it difficult to perform in a calm manner and perform in their best cognitive capacity. Researches have shown that the stress can have detrimental effect on certain aspects of memory functioning and on attentive processes. Pressure to perform often makes individual self-conscious and the increased self-consciousness may disrupt attention. Stress affects the individual's attention, concentration, perception and all other cognitive activities. Severe stress may also lead the individual in a dazed, confused and shocked state. When the individuals are in this state, they respond in a flat listless fashion to events around them. The cognitive signs of stress include:

- Lack of attention
- Loss of concentration
- Inability to understand things clearly
- Mental slowness
- Confusion
- General negative attitudes of thoughts
- Constant worry
- Mind racing
- Forgetfulness
- Difficulty in logical thinking

7.8 EMOTIONAL AND BEHAVIORAL RESPONSES

Emotional responses: When stress affects an individual it affects individual's emotions very much. Research has shown that the individuals feel more negative when stressed, negative emotional tone is more frequent and the general mood suffers. Anxiety and depression are

common forms of affective experience in stressful situations. According to Lazarus (1999) has identified anger, envy, jealousy, anxiety, fright, guilt, shame and sadness as stress emotions. Emotional responses serve as a warning sign of stress. Strong emotional arousal can interfere in the efforts to deal with stress.

Emotional stress are thoughts and feeling experienced during stressful situations. Emotional response to stress include the following symptoms:

- Anxiety and depression symptoms
- Anger, outburst of rage
- Burnout and the inability to focus
- Social withdrawal
- Increased irritability and restlessness
- Moodiness
- Loneliness and isolation

7.9 BEHAVIOURAL RESPONSES

Stress not only affects physically, psychologically and emotionally to an individual. It affects the behaviour of an individual itself. Stress when exceeds its limits which an individual can handle does affect his overall behaviour. There are a number of symptoms which can be seen in the behaviour of an individual when he is stressed out. They include trembling, twitching, grinding of teeth, complaining, criticizing, lack of concentration, etc. The symptoms depend on a number of factors such as the nature of the stressor, the chosen response whether it is fight or flight, the individual's habits, attitude, mindset, etc. Stress can affect the behaviour in many different ways. The major ones are: sleeping difficulties, an individual suffering from stress find it difficult to find peace of mind, suffers from lack of sleep, the negative thinking, anxieties worries in the mind does not let the individual to sleep. Fear of forgetting something or the negative expectations of the events limits the ability of the individual to relax sufficiently to fall asleep. Sleep shortage and insomnia are very common in the individuals who are suffering from stress.

The individuals suffering from stress are unable to decide what tasks need to be done. The hovering anxiety and worry makes them forgetful, they find it difficult to complete the given tasks, they find it difficult to manage time, being punctual, etc. Individuals suffering from stress for a longer duration starts losing their self -esteem and self- confidence, they feel that they cannot handle social situations and start withdrawing from social situations.

Stress makes individual feel exhausted, they feel they do lack energy to do their work. The mind and body suffers from lack of rest in turn makes the individual feel exhausted. They experience lack of energy, fatigue etc. An inability to manage stress may also give rise to various problems like alcoholism, smoking or drug addiction which they may feel is giving them relief in the beginning but later it may become an addiction.

Food habits are affected, they do develop an unhealthy eating habits. Lack of energy, lack of concentration, makes them prone to accidents. Stress when exceeding the limit and leading to all the consequences, the individual finding oneself in this trapped may also go to any extent of thinking about suicide. All these are the negative behavioral consequences of stress.

7.10 SUMMARY

To summarize with, this unit has dealt with the stress responses shown by different individuals in different situations and the factors which affect the individual to express his/her stress in those ways. Stress not only affects the psychological health, physical health, it also affects the immune system of an individual there by making the individual more prone to illnesses. This unit has dealt with psychoneuroimmunology, its effects, and the psychological responses to it the emotional and behavioural responses to stress.

7.11 KEYWORDS

Stress responses

Psychoneuroimmunology

Immune system

Psychological responses

Physiological responses

7.12 CHECK YOUR PROGRESS

1. What are the different stress responses?
2. Define Psychoneuroimmunology.
3. Explain the Psychoneuroimmunological effects.
4. Explain the psychological responses to stress.
5. Describe the emotional and behavioural responses to stress.

7.13 ANSWERS TO CHECK YOUR PROGRESS

1. 7.3
2. 7.4
3. 7.5
4. 7.7
5. 7.8

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UNIT: 8 - STRESS MODERATORS

STRUCTURE

8.1 OBJECTIVES

After going through this unit you will be able to explain

- Stress Moderators
- Coping with stress
- Coping style
- Social support
- Effects of social support on psychological distress
- Effects of social support on physiological and neuroendocrine responses to stress
- Moderation of stress by social support
- Optimism
- Sense control

8.2 INTRODUCTION

In the previous units the stress, its causes, its effects, the consequences of stress upon the physical and psychological health are being discussed in detail. In this unit the moderators of stress, the different types of coping mechanisms used by the individuals are dealt. This unit also deals with the social support, its importance in handling stress, effects of social support on psychological health, physiological health and immune systems are well explained. The importance of positive thinking, the sense of control, personal control and psychological control, Hardy personality are discussed in detail.

8.3 STRESS MODERATORS

Stress moderators are things that help reduce stress and its harmful effects. Stress moderators are resources, skills, behaviours and traits that can reduce the negative impacts of stress. For example: social support, optimism, upbeat personality, and meditation, extra. Stress moderators, can help protect an individual from the negative effects of a stressful life event. Stress moderators modify the way stress is experienced and the effects of it. Stress moderators may have an impact on stress itself, on the relation between stress and psychological responses,

on the relation between stress and illness, or on the degree to which a stressful experience intrudes into other aspects of life.

Different individuals react in a different manner to stress. Some individuals seem to withstand the stress experience better than others. The relationship between stress and illness is not direct and there are several factors that mediate or moderate this link. Stress moderators include both external and internal resources. Internal or personal resources include coping style and personality factors.

8.4 COPING WITH STRESS

Coping is the process of managing demands (external or internal) that are appraised as taxing or exceeding the resources of the person. "Coping consists of efforts, both action oriented and intrapsychic to manage (that is, master, tolerate, reduce, minimize) environmental and internal demands and conflicts among them".(R. S Lazarus and Launier).

Coping is a series of transactions between a person who has a set of resources, values and commitments and a particular environment with its own resources, demands and constraints (R.S Lazarus and Launier)

8.5 COPING STYLE

Coping style is a general tendency to deal with stressful experiences in a consistent way. For example: some individuals share their problem with others and some do not. There are many ways of dealing with stress. The different types are briefly discussed here:

Avoidance versus confrontation

Some individuals cope with a threatening event by using an avoidant (minimizing) coping style, whereas others use a confrontative (vigilant) coping style by gathering information for taking direct action. Both styles are more effective in managing stress, each seems to have its advantages and liabilities. Confrontive strategies maybe more successful than avoidance for coping with stressful events if one can focus on the information present in the situation rather than on one's emotions. Focusing on the negative emotions one is experiencing in responding to stressful events may make the stressful event worse. Individuals who cope using avoidance may

not make enough cognitive and emotional efforts to anticipate and manage long-term problems. Individuals who cope with threatening events through confrontation or vigilance may well engage in the cognitive and emotional efforts needed to deal with long term threats.

Problem Focused versus Emotion Focused coping.

Problem-solving coping involves attempts to do something constructive about the stressful conditions that are harming, threatening or challenging an individual. Emotion focused coping involves efforts to regulate emotions experienced because of the stressful event. Sometimes problem solving and emotional regulation work together. Problem focused coping appears to emerge during childhood. Emotion focused coping skills develop somewhat later in childhood or early adolescence. Problem focused and emotion focused coping both coping are useful for most of the stressful events. In different situations different one's work better. For example: work related problems lead people most commonly to attempt problem focused coping efforts, such as taking direct action for seeking help from others. Emotion focused coping includes coping of two kinds. One involves emotional distress like in rumination. Ruminating is the negative recurrent thoughts, is determinantal to health. The other type of emotion focused coping involves emotional approach coping, which involves clarifying, focusing on and marketing through the emotions experienced in conjugation with a stressor.

Individual differences

There are individual differences in how an individual reacts to stress and the coping styles they do use to deal with stress. Genetic factors, environmental factors, life experiences, family environment, parental child rearing style, social style and exposure to childhood stresses all do influence the coping styles of an individual.

8.6 SOCIAL SUPPORT

Social support is the information from others that one is loved and cared for, esteemed and valued and part of a network of communication and mutual obligation from parents, a spouse or lover, other relatives, friends, social and community contacts or even a devoted pet. Social support refers to the mechanism by which interpersonal relationship apparently buffer one against a stressful environment. Social support takes several forms.

Tangible assistance

Tangible assistance involves the provision of material support, such as services, financial assistance or goods. For example: assistance of food, materials or other things at the time of distress.

Informational support

Family and friends can provide informational support about stressful events. Information may help an individual understand a stressful event better and determine what resources and coping strategies may be mustered to deal with it.

Emotional support

During the time of stress, individuals often suffer emotionally and may experience bouts of depression, sadness, anxiety and loss of self-esteem. Supportive friends and family can provide emotional support by reassuring the person that he or she is valuable individual who is cared for. The warmth and nurturance provided by other people can enable a person under stress to approach it with greater assurance. There are many other social support which may actually come from the perception that social support is available.

Invisible support

When individual gets help from another but is unaware of it, that help is most likely to benefit the self. This is called invisible support. Social support includes social networks, perceived social support and supportive behaviour. Social networks are the structure of social relationships involving the existence, quantity and type of relationships. Social support can come from a spouse, other relatives, friends, social and community contacts. The individuals who have high levels of social support may experience less stress when they face up to a stressful experience and they may also be able to cope with it more successfully. The buffering hypothesis states that the psychosocial stress will have deleterious effects on the health and wellbeing of those with little or no social support, while these effects will be lessened or eliminated for those with stronger support systems. The larger the social network, the most likely that individual will have all different forms of social support from multiple sources.

Research shows that the social support appears to lower the likelihood of illness, to speed

recovery from illness when it does occur and to reduce the risk of mortality due to serious disease. The effectiveness of the social support depends on how the individual uses it. Some individuals may be ineffective in extracting social support they need.

8.7 EFFECTS OF SOCIAL SUPPORT ON PSYCHOLOGICAL DISTRESS

Social support effectively reduces psychological distress, such as: depression or anxiety during time of stress. Studies have shown that social support elevates psychological distress. It is found that lack of social support during the time of stress itself can be very stressful, especially for people with high need for social support but insufficient opportunities to obtain it. Loneliness clearly leads to health risks, because lonely people appear to have more trouble sleeping and show more cardiovascular activation. The individuals who have difficulty with social relationships such as those who are chronically shy or who anticipate rejection by others are at risk for isolating themselves socially with the result that they experience more psychological distress and or at a greater risk for health problems.

8.8 EFFECTS OF SOCIAL SUPPORT ON PHYSIOLOGICAL AND NEUROENDOCRINE RESPONSES TO STRESS

Social support can reduce physiological and neuroendocrine responses to stress and different conditions. From the researches conducted in this area it has been proven that the biologic responses to stress are more subdued when a supportive companion is present than when no companion is present. Even just believing that support is available or contemplating the sources of support can yield beneficial effects. Social support lessens cardiovascular and cortisol responses to short-term stressful events. Reoccurring positive social experiences affect a range of biological systems resulting in cumulative differences in risks for a broad array of chronic diseases.

8.9 EFFECT OF SOCIAL SUPPORT ON ILLNESS AND HEALTH HABITS

Social support can lower the likelihood of illness, speed recovery from illness, reduce the risk of mortality due to serious disease. Individuals with high quantity at a high quality of social relationships have lower mortality rates. Social isolation is a major risk factor for death for both humans and animals. Social support appears to help people hold off or minimize complications

from more serious medical conditions and disorders. The individuals with high levels of social support have lower rates of myocardial infraction, are less susceptible to the development of new brain lessions if they have multiple sclerosis, are less likely to show age-related cognitive decline, are more likely to show better adjustment to coronary artery disease, diabetes, lung disease, cardiac disease, arthritis and cancer. Social support enhances the prospects for recovery among people who are already ill. Social support has been associated with better adjustment to and faster recovery from coronary artery surgery, kidney disease and childhood leukemia, stroke, as well as better diabetes control and less pain among arthritis patients.

Social support affects health habits directly. Individuals with high levels of social support are typically more adherent to their medical regiments, they are more likely to use health services. Social support has beneficial effects on the cardiovascular, endocrine and immune systems. Social support is beneficial in blood pressure. Social support leads to reduced cardiovascular reactivity in response to stress. It also affects endocrine response to stress. It is associated with reduced cortisol responses to stress, which can have beneficial effects on a broad array of diseases, including heart disease and cancer. Social support is associated with better immune functioning.

8.10 MODERATION OF STRESS BY SOCIAL SUPPORT

Direct effect hypothesis says that social support is generally beneficial during non stressful times as well as during highly stressful times. Buffering hypothesis says that health and mental health benefits of social support are chiefly evident during periods of high stress, when there is little stress, social support may have few physical or mental health benefits. According to this hypothesis, social support acts as a reserve or resource that blunts the effects of stress or enables the individual to cope with stress more effectively when it is at high levels.

Extracting social support

Social support effectiveness depends upon how best the individual uses social network. Some individuals use social support to the best possible. Researches has shown that the individuals with greater social competence, lower social anxiety and better self-discipline skills do develop more effective social support and are more likely to form friendships, lend credence

to the idea that the use of social support as a coping technique reflects the difference in personality, social skills or competence rather than external resources.

Only certain aspects of social support are protective against stress. For example: having a confident, such a spouse or partner will be most effective social support for men.

Matching hypothesis

Different kinds of stressful events create a different needs and social support should be most effective when it meets those needs. The match between one's needs and what one receives from others in one's social network is called the matching hypothesis. Empathetic understanding helps support providers sense what kinds of support will be most helpful to a person going through a particular stressful event. If the individual who is in need of the help can communicate that they need support and what kind of support they can be helped better.

8.11 OPTIMISM

Optimism is a mental attitude-a happy belief that the outcome of some specific endeavour, or outcomes in general will be good. Being optimistic means expecting the best possible outcome from any given situation. It reflects a belief that future conditions will work out for the best. An optimist sees opportunity in every difficulty. An optimistic nature can lead an individual to cope more effectively with stress and thereby reduce the risk for illness.

Dispositional optimism is a stable tendency to believe that one will generally experience good outcomes in life. Individuals having a favorable outlook in life are considered, to cope better with stress and illness, to invest more effort to prevent harm and to enjoy better health than those with negative generalized outcome expectation.

Research in this area has shown that optimism is associated with less stress and depression and with an increase in social support. Optimists seek out more social support and positively interpret the stressful circumstances they encounter which helps in coping.

Optimist have more positive mood, which itself may lead to a state of physiological

resilience. For example: the tendency to experience positive emotional state has itself been tied to greater resistance to the common cold. Optimism promotes more active and persistent coping efforts, which may improve long-term prospects for psychological adjustments and health. Optimism is associated with more use of problem focused coping, seeking of social support and emphasizing the positive aspects of a stressful situation. Optimism helps the individual deal with stressful events by getting them to use their resources more effectively. Optimism appear to size up a stressful situations more positively and seem prone to making favorable secondary appraisals, namely that their resources will be sufficient to overcome the threat.

Optimism has health benefits. Optimist and pessimists differ in their physiological functioning. Optimist do not have high blood pressure in everyday life. An optimist appears to be protective against the risk of coronary heart disease. Optimism predicts better physical functioning in older patients suffering from knee pain. Optimism is an important predictor of coping efforts in recovery from surgery. Optimists use problem focused coping and make less use of denial. They have faster recovery rate.

8.12 SENSE OF CONTROL

Sense of control means how much control an individual feels he has over his life. Individuals may feel that they have a lot of control, or may feel that they have very little. Having the right amount of control helps an individual to be balanced. Sense of control is a subjective awareness of initiating, executing and controlling one's own volitional actions in the world. It is the prereflective awareness or implicit sense that one is executing one’s bodily movements of thinking thoughts. Sense of control is a deepest need of an individual.

A sense of control means having a feeling of autonomy of choosing how to spend one’s time, of doing one's own work in one's own way.

Lack of sense of control can lead to anxiety. Lack of control can cause a powerless feeling in the face of fears and worries and stress. The problem with stress is not that it exists. The problem is our own difficulty turning of the body's stress response. The effects of stress on our sense control have been studied by psychologists. The researches shows that certain factors increase our vulnerabilities to stress.

- Feelings as if you have no control
- The absence of sense that we are not receiving helpful predictive information about our Situation.
- The feeling that there is no way out
- The feeling that the situation is getting worse
- Lack of social and emotional support

Control has been studied widely within a variety of different psychological theories. The theories like

1. **Attribution and control Theory** by Kelly which examines control in terms of attributions for causality. The cause of stressful event would be understood in terms of whether the cause was controllable by the individual or not.

2. **Self efficacy and control**: Self efficacy theory by Bandura discusses that self-efficacy refers to an individual's confidence to carry out a particular behaviour.

3. **Categories of control**: Thompson defines five different types of control that is behavioural Control (example avoidance) cognitive control (example reappraisal of coping strategies) decisional control (example choice over possible outcome) informational control (example the ability to access information about the stressor) and retrospective control (example could I have prevented that event from happening).

4. The reality of control: Control can be subdivided into two perceived control (example I believe that I can control over an event) and actual control (example I can control over the outcome of an event). The discrepancy between these two factors is called as an illusory control. According to psychological theory, most control relates to perceived control.

8.13 THE EFFECT OF CONTROL ON STRESS

A number of researchers have studied the effect of control on stress, they have studied the controllability of stressors influence on the stress response, both in terms of subjective experience of stress and the accompanying physiological changes.

Subjective experience: Research shows that the predictability enables the subject to feel that they have control over the stressor, and this perceived control reduces the stress response. If a stressor is predicted there is a decrease in the stress response, the predictability or expectation of the stress enables the individual to prepare their coping strategies.

Physiological changes: If a stressor is regarded as uncontrollable the release of corticosteroids is increased.

3.10 PERSONAL CONTROL

Personal control is the belief that we make our own decisions and determine what we do or what others do to us-Rodin(1986).The individuals with strong sense of personal control are more likely to engage in adaptive problem focused coping. Research shown that the individuals who have control over their life show psychological and physical improvement, are more happier, more active and alert. The individuals who feel a strong sense of psychological control or more likely to exercise direct control over health-related behavior.

Personal control and biological effects

Sense of control or self- efficacy affects the behavioural responses that influence our health, it also plays a role in how the biological processes activated by stresses will or will not alter the health. Stressful situations activate several biological events. The degree to which our bodies system are activated depends on our sense of control. For example: in response to stress, the autonomic nervous system(ANS) increases heart rate, slows digestion, dilates arteries and cools us with perspiration. The individual with strong sense of self -efficacy can experience stressors with minimal arousal by the autonomic nervous system and thus not risk damage to the health.

Sense of control also affect the release of corticosteroids the endocrine hormones released by the adrenal cortex that mobilizes the body's fight or flight response. When a stress is uncontrollable or inescapable or when we perceive we have no control over it- the body releases more corticosteroids.

When an individual believes that he does not have control over a stressor, pain relieving beta- endorphins are released by the brain and various immune cells throughout the body. The perception of control has an impact of the immune system. A weak sense of control tends to impair the functioning of immune system sufficiently to increase a person's susceptibility to bacterial and viral infection and accelerates the rate of progression of disease. Stress that is aroused while a person is gaining the sense of mastery over threatening situation can actually enhance immune functioning.

Regulatory Control

Regulatory control refers to the capacity of an individual to modulate their thoughts, emotions and behaviour in everyday occurrence. Controlling one's emotions and responses has a very great impact on our health.

Research shows that self-regulation is associated with success in dieting, maintaining good interpersonal relationships, children who have good self-control are calmer, more resistant to frustration better able to delay gratification and less aggressive.

Uncontrolled people are more likely to become aggressive experience depression, dwell obsessively on self-defeating thoughts.

Individual differences in regulatory control or related to individual differences in how people cope with stressful events and experiences. Individuals with good self-control are less likely to resort to maladaptive coping responses such as angry venting of emotions and avoidant coping. Children with good regulatory control are reported by their mothers to be likely to use constructive, problem- focused coping responses and unlikely to use avoidant or aggressive coping responses in stressful situations.

8.15 PSYCHOLOGICAL CONTROL

Feelings that one can exert control over stressful events help people cope effectively with stress.

Perceived control: Perceived control is the belief that one can determine one's own

behaviour, influence one's environment and bring about desired outcomes. Perceived control is closely related to self –efficacy, it is a perception that one has the ability to enact the necessary actions to obtain a specific outcome in a specific situation. These help the individual to cope with a wide variety of stressful events.

Perceptions of control in one's work life and in general tasks of living is protective against adopting a risky lifestyle that involves health compromising behaviours. Self-control on stressful events is related to emotional well-being, successful coping with stressful events, good health, behaviour change that may promote good health and improved performance on cognitive tasks.

8.16 HARDY PERSONALITY [HARDINESS]

Hardy personality or cognitive hardiness is a personality style which was first introduced by Suzanne.C.Kobasa in 1979. According to Kobasa certain individuals remain healthy under life stress, compared to those who develop health problems. Hardiness is a personality structure comprising of three related general dispositions of commitment, control and challenge that functions as a resistance resource in the encounter with stressful conditions. The commitment disposition is a tendency to involve oneself in the activities in the life and having a genuine interest in and curiosity about the surrounding world (activities, things and other people). Control disposition is a tendency to believe and act as if one can influence the events taking place around oneself through one's own effort. Challenge is defined as the belief that change, rather than stability is the normal mode of life and constitutes motivating opportunities for personal growth rather than threats to security.

According to Maddi hardiness is a combination of three attitudes (commitment, control and challenge) that together provide the courage and motivation needed to turn stressful circumstances from potential calamities into opportunities for personal growth.

Hardy personality is one that has a large amount of commitment, control and challenge. Individual having hardy personality are less likely to suffer the ill effects of stress on their mind and body. Individuals having hardy personality are less likely to have the illness that occur due to stress, even when they face a high amount of stress. Individuals with hardy personality are less

likely to feel threatened by imposing stress. Their personality allows them to cope with stress factors. The main characteristic of their personality is control and this control is often exhibited in stressful situations. These individuals have the commitment required to push through a stressful situation. These individuals take up the commitment no matter what situations come up. These individuals look at a stressful situation as a challenge rather than as a threat.

Psychologist Salvatore Maddi and Suzanne Kobasa (1991) identified three stress buffering traits- commitment, challenge and control that have a substantial effect on how people react to threatening events. Together these traits form a personality style called hardiness.

According to Kobasa and Madddi, hardy individuals tend to view the everyday demands of life as challenges rather than as threats. These individuals are committed to their families, jobs, communities or other groups or activities that give their lives a sense of meaning. These individuals have a sense of control over their lives, of having access to needed information, of being capable of making good decisions regarding the demands of life.

Hardy individuals are healthier because they are less likely to become aroused by stressful situations. They avoid stress related physical and psychological processes that lead to illness.

Hardiness has been found to be an effective indicator of adaptation or adjustment to numerous health problems, including cancer, chronic obstructive pulmonary disease, cardiovascular disease, diabetes, epilepsy, HIV infection, hypertension, kidney transplant and stroke. Hardiness has also been linked to lower levels of anxiety active coping styles, decreased caregiver burden, reduced vulnerability to depression in older people living in a long term care facility better adaptation of professional women to the stress of multiple roles, greater spiritual well-being in elderly people and a fewer negative health outcomes during periods of extended stress.

8.17 SUMMARY

This unit has dealt in detail about the stress and various stress moderators, the ways of coping with stress, different coping styles, the effects of social support on psychological distress,

physiological and neuroendocrine responses to stress, illness and health habits, the importance of optimism, the ability and the sense of control of an individual towards the situation, personal control, psychological control and the personality type like hardy personality. Its effects on handling the stress situation are all being discussed in detail.

8.18 KEYWORDS

Stress moderators
Coping
Coping style
Avoidance
Confrontation
Problem focused coping
Emotion focused coping
Social support
Psychological distress
Physiological responses
Neurological responses
Optimism
Sense of control
Personal control
Hardy personality

8.19 CHECK YOUR PROGRESS

1. Define stress moderators.
2. Discuss the effects of social support on psychological distress.
3. Describe optimism.
4. Discuss the effects of control on stress.

8.20 ANSWERS TO CHECK YOUR PROGRESS

1. 8.3

2. 8.7
3. 8.11
4. 8.13

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BLOCK-3 : CHRONIC ILLNESS AND MANAGEMENT

UNIT - 9: ILLNESS AND STRESS

STRUCTURE

9.1 OBJECTIVES

After going through this unit you will be able to explain

- Stress and Illness
- Stress and Physical Illness
- Brain –Body Pathways of stress
- Psycophysiological disorders
- Theories of Stress and Illness
- Pain
- Types of Pain
- Pain management

9.2 INTRODUCTION

Stress is a fact of life. Each and every individual face stress in different walks of life. Certain types of stress remain for a short period after which it goes off, certain other stress does stay for a longer period of time causing various kinds of problems to the individual. Individuals do take up certain measures to deal, cope up, control or manage stress. Some of them are effective ones which helps an individual to overcome stress while certain other measures may be harmful for the health of an individual.

9.3 STRESS AND ILLNESS

The ability to withstand stress differs from person to person. There are a number of factors which affect the susceptibility to stress. Among them the major ones are genetic vulnerability, coping style, type of personality and social support. Research shows that short term stress may boost the immunity of an individual, but researches also prove that long term and chronic stress may lead to a variety of illnesses starting from minor ones to most dangerous ones. When stress is experienced for a short term duration it increases the immunity of an individual. But when stress becomes chronic it affects our immune system and leads to illnesses.

When an individual undergoes stress, it will lead to various effects upon the health of an individual. Stress causes physiological changes that have implications for promoting both the onset of illness and its progression.

Stress may lead to lots of physiological changes in the body of an individual.

- Stress may cause an increase in acid secretion in the stomach which causes ulcers
- Stress causes an increase in catecholamines, which can lead to Kidney Disease.
- Stress can also cause heart attacks due to an increase in cardiovascular response and the increased chances of injury or damage to arteries via plaque formation and fat deposits.
- Stress causes an increase in corticosteroids, which can lead to arthritis.
- Stress causes an increase incatecholamines and corticosteroids which effect the immune system, thereby making the individual more susceptible to infection.

  Stress can affect the individual in various ways. The Psychological state of the mind is most affected. The changes and effects of it has been studied and the research shows its effects as follows

Psychological state and immunity

Research has focused on the capacity of psychological factors to change immune functioning. It has examined the role of mood, thought suppression and stress.

Mood: Studies have shown that positive mode is associated with better immune functioning that negative mood is associated with poorer functioning.

Thought suppression: Certain coping styles such as suppression and denial may relate to illness onset and progression. It has been found from research that encouraging thought expression through writing may decrease autonomic system activity.

Stress: Research has shown that there is an association between stress and immunity. Stress may influence health and illness via a behavioral pathway involving changes in health related behaviours such as smoking, alcohol consumption and eating or via a physiological pathway involving changes in stress hormone. Stress may influence health via the immune system. There are a number of factors which shows the relationship between the stress and illness.Several factors may mediate the stress illness link. The factors are:

Exercise: Exercise has been presented as a mediating factor for the stress response. Exercise may influence stress either by changing and individual's appraisal of a potentially stressful event by distraction or diversion or may act as a potential coping strategy to be activated once an event has been appraised as stressful. Exercise can cause a decrease in stress.

Gender: Research has shown that there are gender differences in the stress response and the role of stress in promoting illness. Men respond most strenuously to stressors than women. Women show smaller increases in blood pressure during stressful tasks. This shows the gender may determine the stress response to a stressful event and consequently the effect of this response on the illness for health state of the individual.

Coping styles: Coping styles or behavioral patterns have been defined as follows: problem solving, eg: forming a plan of action, problem avoidance,eg: refusing to think about the problem, wishful thinking eg: dreaming about better times, emotional social support, example talking to people about feelings, instrumental social support, eg: talking to people for advice, cognitive restructuring example redefining the problem, distraction, example drinking, taking drugs, etc. Some of these coping styles are regarded as approach styles example: problem solving, social support and some are avoidance coping, example: wishful thinking, problem avoidance. Different individuals follow different types of coping. The individual's type of coping style may well mediate the event on their health status.

Life events may mediate the stress- illness link.

Type A behavior/Type A Personality: Research has shown that this may influence the individual's response to a stressful situation and effect of this response on health.

Social support: An increased social support has been related to decrease stress response and a reduction in illness.

Actual or perceived control: Control over the stressor may decrease the effects of stress on the individual's health status.

9.4 STRESS AND PHYSICAL ILLNESS

Psychological stress leads to Physical illness. There are two routes. First, when people experience stress, their heart, lungs, nervous systems and other physiological systems are forced to work harder. The human body is not designed to work in high gear and be exposed to the powerful biological changes that accompany alarm and mobilization for long periods. When stress is protracted people are more likely to experience some kind of physical disorder. Second, stress has a powerful negative effect on the body's immune system and prolonged stress can undermine the body's ability to defend itself from disease. Indirectly stress may lead to an unhealthy behavior such a smoking, drinking, overeating or skipping meals, not getting enough exercise or sleep etc.

There are individual differences in individual's reaction to stress. A given stressors will not evoke the same response in every person. Our reactions to stress are moderated by a variety of factors. These include physiological reactivity, cognitive appraisal, explanatory style, perceived control, psychological hardiness and social support.

Physiological reactivity

People differ in their pattern of physiological reactivity to stressors. Physiological reactivity refers to increased heart rate, blood pressure, stress hormone secretion and other physiological activity in response to stressors. People with slower cardiovascular recovery after exposure to stress are more prone to develop high blood pressure. Most individuals who experience stress do not develop illness. Stressful life changes are usually temporary, whereas other risk factors for disease can last longer, for eg, smoking, alcohol consumption, a high- fat, low-fiber diet and risky lifestyle. A single life event with long term behavior, seem to be more prominent in developing illness.

A relationship between stress and illness is not straight forward, there is a lot of evidence to suggest that several factors mediate the stress- illness link, including exercise, Coping styles, life events, personality type, social support and actual or perceived control. Several studies conducted in this area shows that the adaptive energy expenditure increases during stress, leading to an increase in the risk for illness. The link between stress and its negative impact on

health is not a simple and direct one, as this relationship is influenced by a number of pre-existing and intervening factors.

9.5 BRAIN- BODY PATHWAYS OF STRESS

When an individual experiences stress the brain sends signals to the endocrine system along two major pathways. The endocrine system consists of glands that secrete chemicals called hormones into the bloodstream. The major endocrine glands are pituitary, pineal, thyroid and adrenal glands. The hypothalamus, a small structure near the base of the brain appears to initiate action along both pathways. The first pathway is routed through the autonomic nervous system. The hypothalamus activates the sympathetic division of the ANS. A key part of this activation involves stimulating the central part of the adrenaline glands to release large amounts of catecholamines into the bloodstream. These hormones radiate throughout the body, producing many important physiological changes. The net result of catecholamine elevation is that the body is mobilized for action. Heart rate and blood flow increases, pumping more blood to the brain and muscles. Respiration and oxygen consumption speed up, facilitating alertness. Digestive processes are inhibited to conserve energy. The pupils of eye dilate, increasing visual sensitivity. The second pathway involves more direct communication between the brain and the endocrine system. The hypothalamus sends signals to the so called master gland of the endocrine system, the pituatary gland. The pituitary secretes a hormone ACTH that stimulates the outer part of the adrenal glands the adrenal cortex to release another important set of hormones corticosteroid. These hormones stimulate the release of chemicals that help increase the energy and help inhibit tissue inflammation in case of injury.

Stress can also produce other physiological changes The most critical changes occur in the immune system. The immune system provides resistance to infections. The stress can suppress certain aspects of the multifaceted immune response, reducing its overall effectiveness in repelling invasions by infectious agents. Research has shown the stress can reduce both cellular immune responses (which attack intracellular pathogens, such as viruses) and humoral immune responses (which attack extracellular pathogens, such as bacteria). The duration of stressful event is a key factor in determining its impact on immune functioning. Long lasting stressors are associated with a greater immune suppression than small stressors. The

physiological responses to stress are very much upon the body. Some of these responses may persist long after a stressful event has ended.

9.6 PSYCHO PHYSIOLOGICAL DISORDERS

Stress can greatly affect the psychological functioning it has an enormous impact on the physical functioning contributing in some cases to the development of significant medical problems and disorders. Stress and related psychosocial factors may contribute to somatic illnesses. Clinicians have identified a group of physical illnesses that seemed to result from an interaction of biological, psychological and sociocultural factors. Early versions of DSM labeled these illnesses psychophysiological disorders. But DSM IV labels them psychological factors affecting medical conditions. It is called as "psychophysiological disorders".

Psychophysiological disorders bring about actual physical damage. Before the 1970s clinicians believed that only a limited number of illnesses were psycho physiological. The best known and most common of these disorders were ulcers, asthma, insomnia, chronic headaches, high blood pressure and coronary heart disease. Recent research shows that many other physical illnesses including bacterial and viral infections may be caused by interaction of psychosocial and physical factors.

Peptic Ulcers: Ulcers are lesions (holes) that form in the wall of the stomach or of the duodenum, resulting in burning sensation or pain in the stomach, occasional vomiting and stomach bleeding.

Peptic ulcers a term used for group of ulcerative disorders of upper gastrointestinal tract, which appears to have in common the participation of the acid pepsin in their pathogens. Hydrochloric acid which is required for digestion is normally secreted in the stomach when a person eats. Acid secretion is under the control of autonomic nervous system. In the anxious person acid can be secreted in the empty stomach, sometimes leaving a crater like wound that result in Ulcers. Although dietary factors, disease and other organic conditions may lead to Ulcers, it is now recognized that worry, repressed anger, resentment, anxiety and other negative emotional states may stimulate the flow of stomach acids beyond what is needed for digestion.

Coronary heart disease: It is caused by blocking of the coronary arteries the blood vessels that surround heart and are responsible for carrying oxygen to the heart muscles. The term actually refers to several problems, including angina pectoris, extreme chest pain caused by a partial blockage of the coronary arteries, coronary occlusion, a complete blockage of a coronary artery that halts the flow of blood to various parts of the heart muscle, and myocardial infraction a heart attack. The majority of all cases of coronary heart disease are related to an interaction of psychosocial factors, such as job stress of high levels of anger or depression, physiological factors such as a high level of cholesterol, obesity, hypertension, the effects of smoking, or lack of exercise.

Hypertension: It is a state of chronic high blood pressure. That is, blood pumped through the body's arteries by the heart produces too much pressure against the artery walls. Hypertension has few outward symptoms but it interferes with the proper functioning of the entire cardiovascular system, greatly increasing the likelihood of stroke, coronary heart disease and hypertension. The heart is the most sensitive to emotional stress. During states of calm, the beat of the heart is regular pulse is even, blood pressure is relatively low and the visceral organs are well supplied with blood. With emotion arousing stress, the vessels of the visceral organs are constricted and blood is directed to greater quantity to the muscles of the trunk and limbs. With the tightening of the tiny vessels supplying the visceral organs, the heart must work harder. As it beats faster and with greater force, the pulses quicken and blood pressure may be come chronic. This Chronic blood pressure is called hypertension.

Migraine headaches: Headaches may occur from a wide range of organic conditions majority of it is due to emotional tension. Chronic headaches are frequent intense aches of the head or neck that are caused by another physical disorder. There are two types, muscle contraction or tension headaches and migraine headaches. Tension headaches are identified by pain at the back or the front of the head or the back of the neck. These occur when the muscles surrounding the skull tighten, narrowing the blood vessels. Migraine headaches are extremely severe often near paralyzing aches located on one side of the head. They are often produced by a warning sensation called an aura and are sometimes accompanied by dizziness, nausea or vomiting. The term migraine refers to periodic, hemicranis, throbbing headaches. It involves only one side of the head, migraine is sometimes more generalized, it may also shift from side to

side. Migraine headaches occur in two phases, blood vessels in the brain become narrow, so that the flow of blood to parts of the brain is reduced and the same blood vessels later expand, so that blood flows through them rapidly, stimulating many neuron endings and causing pain.

Asthma: It causes the body's airways the trachea and bronchi to narrow periodically, making it hard for air to pass to and from the lungs. The resulting symptoms are shortness of breath, wheezing, coughing and a terrifying choking sensation.70% of all cases appear to be caused by an interaction of stress factors, such as environmental pressures, troubled family relationships, anxiety and other physiological factors.

Insomnia: It is the difficulty in falling asleep or maintaining sleep. People with insomnia feel as though they are almost constantly awake. Chronic insomniacs are often very sleepy during the day and may have difficulty functioning effectively. This problem may be caused by a combination of psychosocial factors, such as high levels of anxiety or depression problems and other physiological problems.

Psychophsiological disorders can be classified according to the organ system affected and it seems that no part of the body is immune. Some more of it is being listed here:

Psychophysiological skin disorders- neurodermatosis, eczema, acne and hives.

Musculoskeletal disorders- backaches, muscle cramps, headaches and arthritis.

Respiratory disorders–bronchial asthma, hyperventilation syndromes hiccoughs and recurring bronchitis.

Cardiovascular disorders- hypertension, paraxysmaltachycardia, Vascular spams, heart attacks and migraine headaches.

Haemic and lymphatic disorders- disturbances in blood and lymphalic systems.

Gastrointestinal disorders– Peptic Ulcers, chronic gastritis and mucus colitis.

Genetourinary disorders- Disturbances in menstruation and urination.

Endocrine disorders - hyperthyroidism, obesity and other endocrine disorders.

Disorders of organs of special sense- chronic conjunctivitis

Disorders of other types- Disturbances in the nervous system in which emotional factors play a significant role.

9.7 THEORIES OF STRESS AND ILLNESS

Stress influences the immune system and promotes diseases. Two hypothesis have been suggested to explain this

The Direct effect hypothesis

Stress can directly cause physiological and psychological changes that are conducive to the development of illness. The precursors of illness like fatigue and aches develop, which if left untreated leads to illness. Recent research mainly in the field of psychoneuroimmunology, has documented progress in identifying bodily responses to stress that are precursor of disease. Endocrine and cardiovascular reactivity, as seen in blood pressure, heart rate or catecholamine excretion in, is caused by stress and leads to cardiovascular disease. Stress may directly affect immune efficiency through the activation of neuro endocrine mechanisms that cause the release of cortisol, epinephrine and other hormones and neurotransmitters that may reduce the body's defenses against infection and disease. The amount of reactivity is not determined only by stress experience. Rather, factors like the individual's genes, personality, age and gender influence it People react differently to the same stressors therefore, not everyone exposed to a particular stressor will develop and illness. Some people tend to deal with the stressor before it can cause any physiological or psychological damage. Some people tend to take up intervention activities as soon as they experience early symptoms and thus avoid actual illness. Only those individuals who tend to ignore the early symptoms and fail to take any corrective action tend to actually become ill.

THE INDIRECT EFFECT HYPOTHESIS

According to the indirect effect hypothesis, stress-induced delays in healing may occur because stress alters immune processes indirectly by encouraging maladaptive behaviors that disrupt immune functioning. Among the behavioural risk factors that could deny wound healing

through their effects on the immune system are smoking, alcohol and drug abuse, fragmented sleep and poor nutrition, each of which has been associated with increased stress.

Example stress indirectly alters immune processes, consider that deep sleep is associated with the secretion of growth hormone (GH). A hormone that facilitates wound healing by activating macrophages to kill bacteria at the wound site. Loss of sleep, fragmented sleep, results in reduced GH secretion and delayed healing.

9.8 PAIN

Pain is a sensation which is experienced often. It is subjective experience that is caused by an injury or disease and affects people in different ways depending upon the person's emotional response to the pain. Pain is a physical sensation. Pain occurs in our daily life in different ways. Pains are critical for survival because they provide low level feedback about the functioning of our bodily systems, this feedback is then unconsciously used as a basis for making minor adjustments. Pain has an important medical consequence. It is the symptom which leads an Individual to seek treatment. Pain can be psychological as well as medical significance. Pain is viewed as a sign of physical disorder, which prompts an individual to seek relief. It's also an important indicator of the quality of life being experienced by a person. Psychological factors affect the experience of pain. Specific psychological factors like personality, pain behaviors and coping strategies affect the experience of pain.

9.9 TYPES OF PAIN

Pain can be differentiated based on the clusters of symptoms. It can be acute, chronic, referred clinical and nociceptive, neuropathic and idiopathic.

The experience of pain is a productive mechanism to bring into consciousness the awareness of tissue damage. The experience of pain is accompanied by motivational and behavioral responses such as withdrawal and intense emotional reactions, such as crying or fear. These experiences are an integral part of the pain experience and thus become important in its diagnosis and treatment

Scientists have distinguished among three kinds of pain perception. The first is mechanical nociception (pain perception) that results from mechanical damage to the tissue of

the body. The second is thermal damage, or the experience of pain due to temperature exposure. The third is referred to as polymodal nociception, a general category referring to pain that triggers chemical reactions from tissue damage

Pain can be classified as follows

Acute pain: Acute pain may be defined as pain of recent onset that ends or is expected to end within a short duration normally before 3 months. Acute pain results from a specific injury that produces tissue damage, such as wound, it is self-limiting usually disappears when the tissue damage is repaired. When acute pain is caused by a tissue injury, it has an essential biological functioning of providing a warning of potential damage and thus signaling to the organism to protect and rest the affected part. Acute pain can produce substantial anxiety and prompts its sufferers to engage in an urgent search for relief.

Chronic pain: Chronic pain persists more than 6 months. It usually begins with an acute episode but does not decrease with treatment and the passage of time. It is often regarded as an abnormal condition in which pain is no longer a mere symptom of tissue injury, but in which pain and pain behaviour by themselves become the main disease processes.

Recurrent acute pain: It involves a series of intermittent episodes of pain that are acute in character but chronic in as much as the condition persists more than 6 months. Migraine headaches, temporomandibular disorder (involving the jaw) and trigeminal neuralgia (involving spasms of the facial muscles) are examples.

Chronic progressive pain: It persists longer than 6 months and increases in severity over time. It is associated with malignancies or degenerative disorders, such as cancer or rheumatoid arthritis.

Referred pain: Pain that is experienced at a remote site from the presumed causative lesion is termed “referred pain”. It may be focal, multifocal or generalized. Pain may be experienced in a specific part of the body (focal) at different parts of the body (multifocal) or it may also be experienced throughout the body (generalized).

Clinical pain: Pains that have no apparent physiological basis are called clinical pains, because they have clinical significance (that is people suffering from them seek clinical help) but there is no underlying disorder that can be treated. The common clinical pains are causalgia, neuralgia and Phantom Limb pain. Causalgia is a burning and high intensity pain that appears even after a wound has healed. Neuralgia is a sudden sharp pain along a nerve path way for which no organic basis may be found.

9.10 PAIN MANAGEMENT

Research has suggested that psychology can be also involved in the treatment of pain. There are several methods of pain treatment which reflect an interaction between psychology and physiological factors. Pain can be managed through a range of individual control techniques. Pain control can be done by Pharmacological, surgical and sensory stimulation techniques by chemical or physical means.

Pain Control: Pain Control refers to a variety of factors. It means the patient no longer feels anything in the area that was once affected. The patient feels only the sensation and not the pain. Or it can also mean that he or she feels pain but is no longer concerned about it or is able to withstand the pain better. Pain control techniques (example, spinal blocking) work by eliminating feeling altogether, other techniques like sensory control techniques succeed because they reduce the sensation of pain, psychological approaches work by increasing the pain tolerance levels of individuals.

Biomedical control of pain

Biomedical control of pain is the most commonly used for controlling pain.

Painkillers

The traditional and most common method of controlling pain is through the administration of drugs. Morphine has been the most popular painkiller. Painkiller and analgesics are used to control pain. Analgesics work by either blocking the signals that go to the brain or by interfering with brains interpretation of the signals thus bringing about pain relief. Pain Killers do not elevate the problem but allows the individual to carry out the routine functioning. The overuse of painkillers and analgesics are very dangerous.

Non- invasive surface stimulation

Electrical stimulation is also used to reduce pain. An electrical stimulator for pain relief is a small box shaped device, also known as the transcutaneous (across the skin) electrical nerve stimulator (TENS).TENS has been used successfully in the treatment of low back pain. Small electrodes are taped to the skin surrounding the painful area and electrical impulses are transmitted through wires to the surface of the electrodes when the device is activated. The individual feels an electrical buzzing or tingling sensation, the individual can control the intensity of stimulation with the help of a dial on the transmitting box. The electrical signals close the neural gates in the dorsal horn of the spinal column and inhibit the pain signals from moving up, thus significantly reducing the person's perception of pain.

Surgical control of pain

Surgical control of pain involves cutting or creating lessions in the so-called pain fibers at various points of the body so that pain sensations can no longer be conducted. Surgical techniques are sometimes successful in reducing pain temporarily, but the effects are short-lived.

Biofeedback

Biofeedback is a method of achieving control over a bodily process, used to treat a variety of health problems, including stress and hypertension. Biofeedback comprises a wide variety of techniques that provide biophysiological feedback to a patient about some bodily process of which the patient is usually unaware. Biofeedback can be thought of as an operant learning process in which the patients develop skills in controlling various body functions such as muscle tension, blood flow and heart rate. These skills are useful in reducing the painful reserves of stress such as headaches, anxiety, insomnia and so on. Biofeedback training begins with identification of a target body function that is to be brought under control. This body function could be blood pressure, heart rate and so on. The function is then tracked by the biofeedback machine and is passed on to the patient through lights, computer displays and so on.

Relaxation techniques

Relaxation techniques are used with pain patients either alone or in conjunction with other pain control techniques. Relaxation techniques were originally developed to treat anxiety related disorders. Relaxation is known to promote coping with stress. Relaxation techniques

helps pain patients by enabling them to cope more successfully with stress and anxiety. Relaxation may also affect pain directly. The reduction of muscle tension or the diversion of blood flow induced by relaxation may reduce pain that are tied to these physiological processes.

Hypnosis

Hypnosis is the oldest technique for managing pain. Hypnosis as an intervention relies on several pain reduction techniques. First, a state of relaxation is brought about so that the trance can be induced relaxation alone can help reduce pain. Next, patients are explicitly told that the hypnosis will reduce pain, the suggestion that pain will decline is sufficient to reduce pain. Hypnosis is itself a distraction from the pain experience and destruction can reduce the experience of pain. Hypnosis has been successful in controlling acute pain due to surgery, childbirth, dental problems, burns and headaches. It is used in the treatment of chronic pain.

Acupuncture

Acupuncture has been in China for more than 2000 years. In acupuncture treatment long thin needles are inserted into specifically designated areas of the body that theoretically influence the areas in which a patient is experiencing a disorder. The main goal of acupuncture is to cure illness, but it is also used in pain management because it appears to have an analgesic effect. Acupuncture triggers the release of endorphins, reducing the experience of pain.

Distraction

Distraction is used to manage pain. Distraction is focusing attention on an irrelevant and attention getting stimulus or distracting oneself with a high level of activity. There are two different mental strategies for controlling discomfort. One is to distract oneself by focusing on another activity distractions for children describing how they deal with stressful or painful events. The other kind of mental strategy for controlling stressful events is to focus directly on the events but to interpret the experience.

Guided imagery

Guided imagery has been used to control some acute pain and discomfort. In guided imagery, a patient is instructed to conjure up a picture that he or she holds in mind during the painful experience. The patient is encouraged to visualize a peaceful relatively unchanging

scene, to hold it in mind and to focus on it fully. This process brings on a relaxed state, concentrates attention and distracts the patient from the pain or discomfort

9.11 SUMMARY

This unit gives us a complete understanding about the stress and its negative impact. Stress not only leads to psychological problems and it may affect the physiological health. The negative effect of stress is so strong in certain situations that it will lead to physical illnesses. The various psychophysiological disorders which are caused to due stress like peptic ulcers, coronary heart disease, hypertension, migraine headache, insomnia are being discussed in detail. Pain is a sensation and a response, the types of pain, pain management are discussed.

9.12 KEYWORDS

Stress

Physical illness

Psychophysiological disorder

Peptic Ulcers

Hypertension

Migraine Headache

Coronary heart disease

Insomnia

Pain

Pain management

9.13 CHECK YOUR PROGRESS

1. Explain Stress of illness.
2. Discuss Psychophysiological disorder pain management.
3. Explain the theory of streets illness.
4. Discuss different types of pain and its management

9.14 ANSWERS TO CHECK YOUR PROGRESS

1. 9.3
2. 9.6

3. 9.7

4. 9.9 & 9.10

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UNIT: 10 - STRESS AND HYPERTENSION

STRUCTURE

10.1 OBJECTIVES

After going through this unit you will be able to explain

- Hypertension
- Stress and Hypertension
- Cardiovascular Disorders
- Stress And Heart Disease
- Diabetes
- Types of Diabetes
- Stress and Diabetes

10.2 INTRODUCTION

An Individual facing stress for a longer duration if the stress is unresolved it will lead to various physiological problems as well as psychological problems. When an individual undergoes stress for a longer duration it may affect the body, mind, thoughts, feelings and behaviour. Stress if unchecked can contribute to many health problems like high blood pressure, heart disease, obesity and diabetes. Stress is linked to high blood pressure, abnormal heartbeat (arrhythmia), blood clots and hardening of the arteries (atherosclerosis).It is also linked to coronary artery disease, heart attack and heart failure.

10.3 HYPERTENSION

When an individual faces stress for a longer duration it leaves behind a chronic effect upon the health of the individual. Chronic stressors like daily hassles, frustration of traffic jams, work overload, financial difficulties and family, relationship problems. The pent up anger which an individual holds up due to stress, the guilt, resentment all of these affects the hypothalamus.

When an individual faces stressful situations it can cause the blood pressure to spike temporarily, but a continuous stressful state can lead to hypertension has been proved by the research. The body produces a surge of hormones when the individual is in a stressful situation. These hormones temporarily increase the blood pressure by causing the heart to beat faster and the blood vessels to become narrow. Stress can cause hypertension through repeated blood pressure elevations as well as by stimulation of then nervous system to produce large amounts of

vasoconstricting hormones that increase blood pressure. Factors affecting blood pressure through stress may include social environment, emotional distress. If one risk factor is coupled with other stress producing factors the effect on blood pressure is more. When an individual faces stressful situation the bodies react by releasing stress hormones (adrenaline and cortisol) into the blood. These hormones prepare the body for the "fight or flight" response by making heart beat faster and constricting blood vessels to get more blood to the core of the body instead of the extremities. Thus constriction of blood vessels and increase in heart rate does raise blood pressure, but only temporarily. When the stress reaction goes away, blood pressure returns to its pre-stress level. This is called situational stress, its effects are short and disappear when stressful event is over. But chronic or constant stress causes our bodies to go into high gear on and off for days or weeks at a time. This may lead to hypertension. Hypertension, or high blood pressure, occurs when the supply of blood through the vessels is excessive. It can occur when cardiac output is too high, which puts pressure on the arterial walls as blood flow increases. Blood pressure and serum cholesterol increases during stress, there is a relationship between stress and hypertension, emotional stress is generally regarded as a major factor in the etiology of hypertension.

10.4 STRESS AND HYPERTENSION

Stress contributes to hypertension. Repeated exposure to stressful events during which heightened blood pressure reactions occur may contribute over the long-term to development of chronically high blood pressure. High blood pressure can result from exposure to chronic social conflict and from job strain, the combination of high demands with little control. Crowded, high stress, noisy locales produce higher rates of hypertension. Job stress and unemployment also leads to high blood pressure. In women, blood pressure is related to having extensive family responsibilities, the combined impact of family responsibilities and job strain also leads to high blood pressure.

10.5 CARDIOVASCULAR DISORDERS

Cardiovascular disorders are the disorders of heart and blood vessel system. When the blood supply from the coronary arteries is interrupted or impeded beyond a critical point, the chance of cardiovascular disease developing increases. Coronary heart disease(CHD) is a chronic

illness in which the arteries that supply blood to the heart become narrowed or clogged and cannot supply enough blood to the heart. Coronary heart disease (CHD) is also a disease of modernization, due to the alterations in diet and reduction in activity level that have accompanied modern life. Coronary heart disease is a general term that refers to illnesses caused by atherosclerosis, the narrowing of the coronary arteries, the vessels that supply the heart with blood. When the vessels become narrowed or closed, the oxygen and nourishment to the heart is partially or completely obstructed. Temporary shortages of oxygen and nourishment cause pain, called angina pectoris, that radiates across the chest and arm. When severe deprivation occurs, a heart attack (myocardial infraction) can result. Risk factors for CHD include high blood pressure, diabetes, cigarette smoking, obesity, high serum cholesterol and low levels of physical activity.

10.6 STRESS AND HEART DISEASE

Stress may affect behaviour and factors that increase heart disease risk, high blood pressure and cholesterol levels, smoking, physical inactivity and overeating. Individual may choose to drink too much alcohol or smoke cigarettes to manage their chronic stress, these habits may increase blood pressure and may damage artery walls. Being stressed can alter the way the body behaves and this can bring about changes to the blood and nervous system, which can have negative effects on the heart. Studies have shown that acute stress triggers reduced blood flow to the heart, promotes the heart to beat irregularly and increases the likelihood of blood clotting. All these can trigger the development of cardiovascular disease. If the individual has atherosclerosis and become acutely stressed the individual may experience chest pains caused by the arteries to the heart contracting and reducing the blood flow. If this is experienced over in extended period of time, all these effects can cause damage to the lining of the blood vessels. This makes the blood vessels more susceptible to atherosclerosis.

Researches has shown that hostility, depression and cardiovascular reactivity to stress are heavily implicated in the development of CHD. Cardio vascular Reactivity contributes to the development of coronary heart disease in part by damaging endothelial cells, which facilitates the deposit of lipids, increases inflammation and ultimately contributes to the development of atherosclerotic lesions. Acute stress, negative emotions and sudden loss of activity can precipitate sudden clinical events, such as heart attack, that lead to diagnosed disease.

10.7 DIABETES

Diabetes is a chronic condition of impaired Carbohydrate protein and fat metabolism that results from insufficient secretion of insulin or from insulin resistance. The cells of the body need energy to function and the primary source of energy is glucose, a simple sugar that results from the digestion of foods containing carbohydrates. Glucose circulates in the blood as a potential source of energy for cells that need it. Insulin is resistance develops (that is, the glucose can no longer be used by the cells), glucose stays in the a hormone, produced by the beta cells of the pancreas, that bonds to the receptor sites on the outside of a cell and acts essentially as a key to permit glucose to enter the cells. When there is not enough insulin produced or when insulin blood instead of entering the cells resulting in a condition called hyperglycemia. The body attempts to rid itself of this excess glucose, yet the cells are not receiving the glucose they need and send signals to the hypothalamus that more food is needed.

Diabetes is a chronic disease that must be self-managed. The defining symptoms of diabetes are fatigue, extreme thirst, excessive urination, unexplained itch, recurrent infections and weight loss due to causes that cannot be explained. Diabetes includes complications like hypoglycemia and hypoglycemic coma and infections. It includes complications like retinopathy that results in blindness, neuropathy or renal failure, heart disease and stroke. It includes other complications like autonomic and peripheral neuropathy that result in loss of sensation. A careful management of the disease by the patient can help avoid these complications.

Diabetes is classified as a metabolism disorder. Metabolism refers to the way our body use digested food for energy and growth. The food we eat is broken down into glucose. Glucose is a form of sugar in the blood it is the principal source of fuel for our body. When food is digested the glucose makes its way into our blood stream. The cells use the glucose for energy and growth. Glucose cannot enter our cells without insulin being present, insulin makes it possible for the cells to take in glucose.

Insulin is a hormone that is produced by the pancreas. After eating, the pancreas automatically releases an adequate quantity of insulin to move the glucose present in our body into the cells, as soon as glucose enters the cells blood glucose level drops. A person with diabetes has a condition in which the quantity of glucose in the blood is too elevated (hyperglycemia). This is because the body that does not produce enough insulin, produces no

insulin, or has cells that do not respond properly to the insulin the pancreas produces. This result in too much glucose building up in the blood. This excess blood glucose eventually passes out of the body in urine. Even though the blood has plenty of glucose the cells are not getting its essential energy and growth requirements.

Research shows evidence that emotionally stressful experience is associated with endocrine disorder such as diabetes mellitus. Physical or psychological stressors can alter insulin needs; stressors may often be responsible for episodes of loss of control. Type II diabetes is most often affected by stress, as it tends to occur in overweight adults and is a less severe form of diabetes.

10.8 TYPES OF DIABETES

There are two major types of diabetes, insulin- dependent (or Type 1) Diabetes and non-insulin dependent (or type 2 diabetes).

TYPE 1 DIABETES: Type 1 Diabetes is characterized by the abrupt onset of symptoms, which results from lack of insulin production by the Beta cells of the pancreas. The disorder may result from viral infection or auto immune reactions and probably has a genetic contribution as well. The immune system falsely identifies cells in the pancreas as invaders and accordingly destroys the cells comprising or eliminating their ability to produce insulin. Type I Diabetes usually develops relatively early in life. The most common early symptoms are frequent urination, unusual thirst, excessive drinking of fluids, weight loss, fatigue, weakness, irritability, nausea, uncontrollable craving for food (especially sweets) and fainting.

Type 1 Diabetes is a serious life threatening illness. It is managed primarily through direct injections of insulin hence the name insulin-dependent diabetes.

TYPE 2 DIABETES: Type II diabetes (or non insulin dependent) diabetes is milder than the insulin dependent type. Type II diabetes is typically a disorder of middle and old age striking those primarily over the age of 40. Glucose metabolism involves a delicate balance between insulin production and insulin responsiveness. As food is digested carbohydrates are broken into glucose. Glucose is absorbed from the intestine into the blood, where it travels to the liver and

other organs. Rising levels of glucose in the blood triggers the pancreas to secrete insulin into the bloodstream. When this balance goes away it sets the stage for type 2 diabetes. First cells in muscle, fat and liver lose some of their ability to respond fully to insulin, a condition known as insulin resistance. In response to insulin resistance the pancreases temporarily increases its production of insulin. At this time insulin producing cells may give out, with the result that insulin production falls in the balance between insulin action and insulin secretion becomes deregulated resulting in type 2 diabetes.

10.9 STRESS AND DIABETES

Both type 1 and type 2 Diabetics are sensitive to the effects of stress. Stress may precipitate Type 1 Diabetes in individuals with affected gene. People with high risk for diabetes show abnormal glycemic responsiveness to stress, which when coupled with the experience of intermittent or long-term stress, maybe implicated in the development of the disease. Stress also aggravates both Type 1 and Type 2 diabetes after the diseases diagnosed.

Stress hormones in our body may directly affect glucose levels. When under mental stress, people with type 2 diabetes generally experience an increase in blood glucose levels. Blood sugar can also increase when the body is under physical stress.

10.10 SUMMARY

To Sum up with, this unit has dealt in detail about the various health issues caused due to stress. Stress leads to hypertension, which in turn may give rise to some more health consequences in the individual. Cardiovascular Disorder which are cased due to variations in the blood supply to the heart. Coronary heart disease is also being discussed. Diabetes which may be triggered due to continuous stress experience is also a stress related disorder. Types of diabetes is also being discussed.

10.11 KEYWORDS

Hypertension

Stress

Cardiovascular Disorders

Diabetes

10.12 CHECK YOUR PROGRESS

1. Explain how hypertension is caused due to stress**.**
2. Discuss cardiovascular disorders.
3. Explain the relationship between stress and heart disease.
4. Explain different types of diabetes.

10.13 ANSWERS TO CHECK YOUR PROGRESS

1.10.3

2. 10.5

3. 10.6

4. 10.8

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UNIT: 11 - STRESS AND CANCER

STRUCTURE

11.1 OBJECTIVES

After going through this unit, you will be able to explain the following

- Cancer
- Types of cancer
- Causes of cancer
- Psychosocial factors of cancer
- Health beliefs, knowledge and cancer
- Personality and cancer
- Stress and cancer

11.2 INTRODUCTION

Cancer is an abnormal cell division in an uncontrolled way. There are more than 200 different types of cancer. Cancer starts when gene changes make one cell or a few cells begin to grow and multiply too much. This unit deals with the cancer, its causes, stress and cancer, chronic illness and adjustment to chronic illness.

11.3 CANCER

Cancer is a set of more than hundred diseases that has several factors in common. All cancers result from dysfunction in DNA that part of the cellular programming that controls cell growth and reproduction. Instead of the regular, slow production of new cells, this malfunctioning DNA causes excessively rapid cell growth and proliferation. Unlike other cells, cancerous cells provide no benefit to the body. They merely sap its resources.

Cancer harms the body when altered cells divide uncontrollably to form lumps or masses of tissue called tumors. Tumors can grow and interfere with digestive, nervous and circulatory systems and they can release hormones that alter body functions.

Cancer is the malignant and abnormal growth within any tissue due to abnormalities in the host. These abnormal cells multiply without any barrier and often spread to local and distant sites within the human body. This unbounded growth if not controlled often results in death.

Cancer can sometimes spread to other parts of the body this is called a secondary tumor or a metastasis. Most cancers are cured. But they may occur again. Some cancers can't be cured but treatment is often able to control them for some years.

11.4 TYPES OF CANCER

Cancers are divided into groups according to the type of cell they start from.

1. Carcinomas: Carcinomas attack the epithelial cells that line the outer and inner surface of the body. The most common type of cancer includes cancer of the breast, prostate, Colon, lungs, pancreas and skin.

2. Sarcomas: Sarcomasare malignancies cells in muscles, bones and cartilage.

3. Lymphomas: Lyphomas are cancers that form in the lymphatic system. Included in this group are Hodgkin's disease, a rare form of lymphoma that spreads from a single lymph node and non hodgkin's lymphoma in which malignant cells are found at several sites.

4. Leukemia's: Leukemia's are cancers that attack the blood and blood forming tissues, such as the bone marrow. Leukemia leads to a proliferation of white blood cells in the blood stream and bone marrow which impair the immune system.

11.5 CAUSES OF CANCER

Cancer is ultimately the result of cells that uncontrollably grow and do not die. Normal cells in the body follow an orderly path of growth, division and death. Programmed cells death is called apoptosis, and when this process breakdown, cancer begins to form. Unlike regular cells, cancer cells do not experience programmatic death instead continue to grow and divide. This leads to a mass of abnormal cells that grow out of control.

Genes: Cells can experience uncontrolled control growth is there are mutations to DNA and therefore, alterations to the genes involved in cell division. Cancer is a result of mutations that inhibit oncogene and tumor suppressor genes function, leading to uncontrollable cell growth.

Biomedical causes of cancer

The body follows a simple rule from conception to death. To have controlled growth, the cells in the body obey certain laws. The number of the cells produced in a given time equals the number of cells that die. Cancer cells do not obey this law and begin growing at a rate of their own and gradually accumulate into a tumor.

A number of reasons are given for the causes of Cancer one explanation is that cancer occurs because of some mutation in the cells code. This mutation is hypothesized to occur due to exposure to either long- term or short- term radiation.

Another reason is cancer occurs due to a breakdown in the immune system. The Immune system is responsible for recognizing the 'self' and 'not self'cells and then attacking and killing cells that are 'not self'. It functions capably most of the time killing cancer cells as they are produced. Yet, the immune system functioning may become weak under certain conditions, stressful conditions being the most important. Under conditions of chronic stress, corticosteroids, which lower the levels of circulating Lymphocytes such as T-cells are released. T-cells are Implicated in the defense against cancer. When the production of these cells are affected, a person becomes prone to caner the notion of immunosuppression is a serious one.

Dietary factors are also implicated in cancer development. Diet, physical inactivity and obesity are related. Physical inactivity is believed to contribute to cancer risk not only through its effect on body weight but also through negative effects on immune system and endocrine system. Diets that are low in vegetables, fruits and whole grains and high in processed or red meat are linked with number of cancers. Cancers are related to environmental lifestyle or behavioral exposures.

Environmental refers to everything outside the body that interacts with humans. Environment includes the biophysical environment like, example: exposure to air pollution sunlight etc, lifestyle, economic and behavioural factors, tobacco, obesity, infections, radiations, lack of physical activity and environmental pollutants.

Infections: Infections caused by viruses, bacteria, parasites also affect for the cause of cancer.

Radiation: Exposure to ionizing radiation and non-ionizing ultraviolet radiation causes majority of skin cancers.

Heredity: Hereditary cancers are caused by inherited genetic defect.

Physical agents: Some substances cause cancer primarily through their physical rather than chemical effects on cells.

Hormones: Some Hormones play a role in the development of Cancer by promoting cell proliferation.

11.6 PSYCHOSOCIAL FACTORS AND CANCER

Research has shown that psychosocial factors can also affect for the cause of cancer. Psychosocial variables may indirectly affect the initiation of Cancer through consumption of a fatty diet or exposure to stress. Psychosocial factors are involved in the progression of Cancer after it is initiated. For example, stress exposure and certain ways of coping may affect progression of cancer. Behavioural factors are also involved indirectly in the progression of cancer. For example: through failing to adhere to a low- cancer diet, not adhering to treatment, or not using screening or early detection methods.

11.7 HEALTH BELIEFS, KNOWLEDGE AND CANCER

Beliefs about personal risks and costs of health behaviours can significantly affect the risks people take and the behaviours they are likely or not likely to carry out. The great fear of cancer and inaccurate information about its curability can serve as important barriers in taking preventive steps. Cultural beliefs may play important role in coping with chronic diseases whereas the immediate goal is to cope and survive.

11.8 PERSONALITY AND CANCER

Some research has shown the role of personality factors in the development of cancer. Specific cancers are related to particular personality structures. Researchers explore the idea of a cancer prone personality. There has been a stereotype of a cancer prone personality as an individual who is easy going and acquiescent, repressing emotions that might interfere with smooth social and emotional functioning. Research has found a positive association between depression and cancer. Depression can be associated with elevated neural endocrine responses

such as cortisol and norpinephrine, which may, inturn, have implications for cancer via their impact on the immune system

11.9 STRESS AND CANCER

Research conducted upon animals and human beings have shown that there is a relationship between stress and cancer. A particular type of stress, lack or loss of social support, may affect the onset and course of cancer. The absence of close family ties in childhood may predict cancer. The absence of a current social support network has been tied to both the higher incidence of cancer and a more rapid course of illness.

Psychosocial factors and the course of cancer

Researchers have examined the role of psychosocial factors in the course of cancer, whether cancer progresses rapidly or slowly. Avoidance or the inability to confront the disease and its implications, has been associated with more rapid course of the disease. Depression is implicated in the progression of cancer, both by itself or in conjunction with other risk factors. Stress has been tied to a higher likelihood of cancer in both animal and human studies.

11.10 MANAGEMENT OF CANCER

Certain coping strategies appeared to be helpful in dealing with the problems related to cancer. Coping through social support, focusing on the positive, distancing was all associated with less emotional distress from cancer. Cognitive escape- avoidance and behavioral escape-avoidance is also used.

Cognitive behavioral interventions: Cognitive behavioral approaches to the management of Cancer related problems have focused on depression, stress, pain, appetite control and side effects associated with chemotherapy, radiation therapy and other cancer treatments. Intervention directed to these issues can significantly improve quality of life. Mindfulness-based stress reduction interventions are useful for cancer patients. The intervention enhances quality of life and decreases stress symptoms but also produces a shift in immune profile from one associated with depression symptoms to a normal profile one Pain is common problem among cancer patients and often provokes anxiety or depression.

Painkillers are the primary method of treating cancer related pains. Behavioral interventions like relaxation therapy, hypnosis, cognitive appraisal techniques, visual imaging, self-hypnosis have proven to be at least somewhat useful in the management of pain due to cancer.

Psychotherapeutic interventions: Contrast to pharmacologic and behavioural interventions which reduce the physical discomfort associated with cancer and its treatment, psychotherapeutic interventions like individual psychotherapy, group therapy, family therapy and cancer support groups attempt to meet the psychosocial and informal needs of cancer patients.

Chronic illness

A chronic illness is any condition that lasts for a long time and results in significant physical and psychological impairment. Chronic illness includes conditions ranging from relatively mild ones, such as hearing loss to more severe one's such as cancer, arthritis, diabetes or coronary artery disease. Chronically ill patients suffer as they experience physical pain, discomfort, effects of treatment procedures, their illness as the onset of Chronic illness begins abruptly, insidiously and the course of illness is long and unpredictable. The examples for chronic illness are arthritis, diabetes, stroke, cardiac incapacity, renal diseases, some forms of cancer, progressive blindness etc. Certain long-term chronic illnesses are catastrophic, even with much improved treatment and preventive methods cannot be cured but can only be managed. Usually chronic illness is attached with social stigma, isolation and some degree of dependency.

Chronic illnesses cause an imbalance or disorganization of body, mind and spirit.

A chronic illness can be defined as a disorder that persist for a long time and is either incurable or results in pathological changes that limit a person's ability to function in a normal way. All chronic disorders, whether it is cancer, diabetes, arthritis, asthma all have the potential to bring about profound changes in a person's life, causing intense damage to the quality of life. The complications caused by these illnesses such as kidney failure, stroke, heart failure, blindness etc cause reduced productivity.

Quality of life

Chronic diseases are often life long and their medical management requires considerable financial investments. Quality of life is a subject we experience and can be best assessed by the patient himself. Quality of life includes the psychological, social and economic factors. Measuring the quality of life can help to identify which problems are likely to emerge for patients with particular diseases. Such a measure would help to anticipate the kinds of interventions that might be required. It can also make it possible to assess the efficacy of treatments to identify the loopholes that could potentially hinder adherence to medical prescriptions. It can also be used to compare and improvise therapies. Quality of life measures also aid in assessing the impact of different chronic diseases on healthcare and to assess the cost effectiveness of certain therapies.

Coping with chronic illness

Most patients with chronic illness suffer at least some adverse psychological reactions as a result of the disease most does not seek formal or informal psychological treatment for their symptoms. They draw on their internal and social resources for solving problems and alleviating psychological distress. The appraisal of a chronic disease as threatening or challenging leads to the initiation of coping efforts. In cancer patients fear and uncertainty about the future are most common followed by limitations in physical abilities, appearance and lifestyle. Coping strategies used by these patients to deal with the problems are social support/direct problem solving, distancing, positive focus, cognitive escape/avoidance and behavioral escape/avoidance. Chronically ill patients report fewer active coping methods such as planning, problem solving or confrontative coping and more passive coping strategies such as positive focus and escape/ avoidant strategies. Avoidant coping is associated with increased psychological distress and thereby may be a risk factor for adverse responses to illness. Active coping has been found to predict good adjustment. Research has also found lower psychological distress when patients cope using positive, confrontative responses to stress with a high internal locus of control and beliefs that one can personally direct control over an illness.

Patient's beliefs about Chronic illness

If patients are to adjust to chronic illness satisfactorily, they must somehow integrate their illness into their lives. All chronic illness requires some alteration in activities and some degree of management. For example, diabetic patients must control diet and take daily injections of insulin. Cancer patients, even those whose cancer is not currently active, must remain vigilant to possible signs of re-occurrence. The hypertensive patients may believe incorrectly that, if they feel alright, they no longer need to take medication because their hypertension must be under control, accordingly they may fail to monitor their condition closely. People suffering from both acute and chronic illness often develop theories about where their illness came from. These theories include stress, physical injury, disease causing bacteria and God's will. It is important to know where the patients ultimately place the blame for the illness. Do they blame themselves, another person, environment or fate. Self-blame is often seen in these patients. Patients frequently perceive themselves for their illness. In some cases it is true like for health habits, such as smoking, improper diet or lack of exercise can produce heart disease, stroke or cancer. But in most cases patients self-blame is ill placed, when a disease is caused by genetically based defect. Research has shown that self-blame can lead to guilt, self-recrimination or depression, perceiving the cause of one's illness as self-generated may represent an effort to assume control over the disorder such feelings can be adaptive in coping with and coming to terms with the disorder. Self-blame is adaptive under certain conditions but not in all conditions.

Emotional responses to chronic illness.

Chronic disorders are accompanied by permanent changes in one's social, physical and vocational life.

Denial: Diagnosis of the chronic illness places the patient in a phase of confusion and uncertainty. Life, which was predictable, suddenly becomes filled with perplexity. All the plans that had been made seem to hold no relevance. Denial and anxiety are the most common feelings experienced with these patients. The patient avoids admitting to himself that the illness exists. The individual first denies it. Denial keeps the patient away from going for the treatment. It also reduces the experience of unpleasant symptoms and side effects of treatment. Anxiety is highly faced by these patients. Depression is also seen in some of the patients suffering from chronic illness.

Psychological Interventions and chronic illness.

The problems like denial, anxiety, depression need to be taken care in these patients so that the treatment can take place and the patient cooperates with the treatment to cure the problem. Depression, psychological distress, neuroticism should be taken care. Stress can aggravate the problem. Health psychologist helps them to overcome these psychological problems.

Pharmacological treatment

Pharmacological interventions involve treatment of disease through the use of drugs. It is used to treat depression in the patient suffering from chronic illness.

Individual therapy

Individual therapy is one of the most common interventions for patients who have psychosocial complications due to chronic illness. Therapy with medical patients is more likely to be episodic than continuous. Collaboration with the patient's Physician and family members. Therapy with medical patients requires respect for patient's defenses. The therapist working with the medical patient must have a comprehensive understanding of the patient's illness and its modes of treatment.

Patient education, expressive writing, relaxation techniques, stress management and exercises, social support interventions, family support, support groups all do play a very important role and they help the patient to manage the chronic illness.

11.11 SUMMARY

This unit has dealt with the stress and how stress can lead to cancer, different types of cancer, how the psychosocial factors can affect the cancer. The health beliefs knowledge and cancer, the methods of managing cancer. This unit gives us a clear understanding that stress is not only affecting the individuals mental health, but how strongly it can leave a negative impact upon the physical health and cause very dangerous illnesses like cancer.

11.12 KEYWORDS

Cancer

Psychosocial factors

Health beliefs

Emotional responses

Chronic illnesses

Psychological intervention

11.13 CHECK YOUR PROGRESS

1. Explain the types of cancer.
2. Discuss the psychosocial factors and cancer.
3. Discuss the importance of the personality in cancer.
4. What is the relationship between stress and cancer.

11.14 ANSWERS TO CHECK YOUR PROGRESS

1. 11.4
2. 11.6
3. 11.8
4. 11.9

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UNIT: 12 - BEHAVIOURAL EPIDEMIOLOGY OF HIV/AIDS

STRUCTURE

12.1 OBJECTIVES

After going through this unit you will be able to explain

- Meaning and definitions of AIDS and HIV
- Causes of AIDS and HIV
- HIV symptoms
- Coping with AIDS and HIV

12.2 INTRODUCTION

This unit gives you a clear understanding about the meaning and definitions of AIDS/HIV, its symptoms, the various psychosocial factors affecting the course of AIDS, the individual needs to implement a number of ways to cope up with AIDS/HIV. The psychosocial interventions, cognitive behavioral interventions, the necessary counseling programs, psycho educational programs, prevention programs are all discussed in detail.

12.3 MEANING AND DEFINITIONS OF AIDS AND HIV

AIDS-Acquired immunodeficiency syndrome is a syndrome caused by a virus called HIV- Human immuno deficiency virus. The disease alters the immune system making people much more vulnerable to infections and diseases. AIDS seem to have begun in Central Africa, perhaps in early 1970s. It spread rapidly throughout Zaire, Uganda and other Central African Nations.

HIV is found throughout all the tissues of the body but is transmitted by the body Fluids of an infected person (semen, vaginal fluids, and blood and breast milk).

HIV is the virus, which attacks the T- cells (CD-4 cells) in the immune system. AIDS is the syndrome which appears in the advanced stage of HIV infection. HIV is a virus. AIDS is a medical condition. HIV infection can cause AIDS to develop. It is possible to be infected with HIV without developing AIDS. Without treatment, the HIV infection can progress and it will develop into AIDS in the vast majority of cases.

12.4 CAUSES OF HIV AND AIDS

HIV is a retrovirus that infects the vital organs and cells of the human immune system. The virus progresses in the absence of antiretroviral therapy (ART) - a drug therapy that slows or prevents the growth of new HIV viruses.

HIV transmission

HIV is transmitted in various ways. Among drug users needle sharing leads to the exchange of bodily fluids, spreading the virus. It is transmitted through unsafe sexual practices, perinatal transmission and blood transmission

12.5 HIV SYMPTOMS

HIV is the result of infections caused by bacteria, viruses, fungi and parasites. These conditions do not normally develop in individuals with healthy immune systems, which protect the body against infection. The virus grows rapidly within the first few weeks of infection and spreads throughout the body. Early symptoms are mild with swollen glands and mild flu-like symptoms predominating. After 3 to 6 weeks, the infection may abate, leading to a long asymptomatic period, during which viral growth is slow and controlled. The amount of virus typically rises gradually, eventually severely compromising the immune system by killing the helper T cells and producing the vulnerability to opportunistic infections that lead to the diagnosis of AIDS.

Some of the common opportunistic infections that result from the impaired immune system include pneumocystis carini pneumonia and unusual neoplasms such as kaposi’s sarcoma or non-Hodgkin’s lymphoma. Early in the disease process people infected with HIV also begin to show abnormalities in their neuroendocrine and cardiovascular responses to stress. Chronic diarrhea, wasting, skeletal pain and blindness are also complications.

AIDS also leads to neurological involvement. Early symptoms of central nervous system (CNS) impairment are similar to those of depression and include forgetfulness, inability to concentrate, psychomotor retardation, decreased alertness, apathy, withdrawal, diminished interest at work and loss of sexual desire. In more advanced stage the patient experience confusion, disorientation, seizures, profound dementia and coma.

Behavioral Origins of AIDS

Research has been conducted to understand the behavioral factors that lie beyond the scope of Biomedical perspective. AIDS has in fact been called behavioural disease since most of the common avenues of the spread of the disorder are Lifestyle related high-risk sexual behavior, drug abuse with unsterilized needles, etc. All the high risk behaviours of AIDS as a common feature exchange of fluids. This fluid exchange can take place through blood transfusion, injecting infected needles, sexual exchange of fluids and transmission from mother to her child through the Placenta or more rarely through infected breast milk.

12.6 PSYCHOSOCIAL FACTORS AFFECTING THE COURSE OF AIDS

Psychological processes such as beliefs, attitudes, and mood states play an important causal role in a person's decision to engage in high risk or protective behaviour. Psychoneuroimmunology is the study of how people's attitudes, emotional states and behavior interact with the nervous system and immune system. Explanation regarding why or why not a person will engage in behaviours that protect our health center around the health belief model. When people perceive that a negative health outcome could occur if they perform a particular behavior, they would be more motivated not to perform it. Individuals calculate the chances for the risk and will undertake protective behaviours if they feel that the benefit would outweigh the risks. The individual’s beliefs present an important dimension to the prevention of AIDS.

12.7 COPING WITH AIDS AND HIV

Medical treatment: Research on the course of HIV has led to the identification of a stage at which the virus could be stated to be at its weakest. This knowledge hassled to the development of various drugs to limit and decelerate the progress of the disease. One such drug is the AZT (Zidovudine) which has been found to be effective in prolonging survival and in reducing the severity of infections. The protease inhibitors offer the best hope of controlling the disease. The inhibitors act by preventing the infectious HIV cells from maturing. The effect of the protease inhibitors has been to slow the progression of HIV disorders and increase CD_4 lymphocytes.

Psychosocial intervention

Psychosocial interventions include counseling both to the individual and his/her family, educational, supportive group therapy, Cognitive behavioral stress management.

Cognitive behavioral interventions

Cognitive behavioral stress management interventions have been employed with some HIV positive groups. These interventions can decrease distress, buffer the psychological and immunologic consequences of learning about positive serostatus, and improve surveillance of opportunistic infections, the improved psychological adjustment may retard the progress of the HIV virus and contribute to better health. Many programmes have been built to educational interventions, skills training motivational components to try to increase the motivation for at-risk groups to change this risk related behavior.

AIDS Counseling Programs

AIDS counseling program is the first psychosocial technique that has been adapted to deal with AIDS. There are specific goals of AIDS counseling. The primary goal is to provide information about AIDS and HIV. The therapist provides detailed information about AIDS and HIV and clears the myths and disbeliefs about AIDS. They assess the impact of AIDS or HIV positive status on the client's psychological well-being. The counselor must assess coping skills and provide training to remedy deficits the individual may encounter.

Psychoeducational programs

With the counseling, behavioural change and educational strategies have been used to typically change attitudes and behaviours. Educational programmes are tailored to increase information regarding AIDS and using protection. Mass media campaigns also serve as the sources of educational programmes. These programmes are developed to increase awareness of vital health protective behaviour that could reduce risk.

HIV prevention programs

Prevention programmes are now being introduced in schools to warn adolescents about the risk of unprotected sex and to help instill safe-sex practices. Prominent public figures are used to motivate to have a good health practices. The effective timing and use of such

announcements might be helpful in getting people tested and getting them to reduce their age related risk behaviours.

Coping with HIV

AIDS is a chronic rather than acute disease. There are a number of psychological issues like employment etc. Research shows that men with HIV at the time of diagnosis continue to work but that those who are unemployed may not return to work. People with AIDS must continually cope with the fear and Prejudice they face in the society. Despite the medical assistance people with HIV do experience deteriorating health and worsening symptoms. Depression is common among HIV patients. Changes in physical symptoms, fatigue, and perception that one's social support is insufficient are the factors most consistently associated with depression.

Coping skills

The chronic burdens associated with HIV infections necessitate coping resources, the individuals who lack coping skills are at risk for psychological distress. Coping effectiveness training appears to be successful for managing the psychological distress that is associated with HIV. Cognitive- behavioral stress management program designed to increase positive coping skills and ability to enlist social support is associated with improvement of psychological wellbeing and quality of life among HIV patients. Perceiving that one has control over a stressor is usually associated with better adjustment.

Social support

Social support is very important to people with AIDS. Individuals with AIDS have emotional, practical and informational support are less depressed. Informational support is very important in reducing the stress in HIV patients. The ability to talk to family members about AIDS is important. Family support is very important for these patients. Providing social support to these patients should be an important Mental Health Services priority.

12.8 SUMMARY

This unit has given a detailed understanding about the meaning and definitions of AIDS/HIV, its symptoms, the various psychosocial factors affecting the course of AIDS, the individual needs to implement a number of ways to cope up with AIDS/HIV. The psychosocial interventions, cognitive behavioural interventions, the necessary counseling programs, psychoeducational programs, prevention programs, the importance of knowing more about these would help in the preventive measures.

12.9 KEYWORDS

AIDS

HIV

Psychosocial factors

Coping

12.10 CHECK YOUR PROGRESS

1. Define AIDS/HIV.
2. Explain the causes of AIDS.
3. Explain the psychosocial factors affecting AIDS.
4. What are the ways of coping with AIDS?

12.11 ANSWERS TO CHECK YOUR PROGRESS

1. 12.3

2. 12.4
3. 12.6
4. 12.7

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BLOCK: 4 - HEALTH PROMOTION AND DISEASE PREVENTION

UNIT: 13- HEALTH COMPROMISING BEHAVIOUR

STRUCTURE

13.1. OBJECTIVES

After going through this unit, you will be able to explain

- Health compromising behaviour
- Substance dependence
- Alcohol abuse
- Smoking
- Sedentary life style

13.2 INTRODUCTION

Health compromising behaviours are those behaviours which an individual practices in the initial stage for the sake of peer pressure or for a chance of change and later gets into the habit of following it which are harmful for the health of an individual. This habit which start as fun in the initial stages gets into an addiction stage and it not only affects the individual's physical health but also the psychological functioning, emotions and social behaviour adversely. It is very important to understand these health compromising health behaviours, their causes, effects on the individual's health and behaviour.

13.3 MEANING AND DEFINITION OF HEALTH COMPROMISING BEHAVIOUR

Health compromising behaviours are those behaviours which are habitual in nature and harmful for one's physical, psychological, social and emotional life. They not only affect the health but also create a negative impact on the individual and create a whole lot of problems in the life of an individual. Health compromising behaviours are also called as risk behaviours or problem behaviours which include motorbike racing, violence, carrying a weapon, substance abuse, smoking, alcoholism unsafe sex and self-harm.

Health compromising behaviours are defined as those behaviours which are practiced by people, which undermine or harm their current or future health.

Health compromising behaviours are those behaviours that may threaten or undermine good health either in the present or in the future. They can be understood as those activities carried out by people with a frequency or intensity that increases the risk of disease or injury, whether or not the person is aware of the link between the activity and risk of disease or injury.

13.4 CHARACTERISTICS OF HEALTH COMPROMISING BEHAVIOUR

Many health compromising behaviours share several important characteristics.

1. There is vulnerability in adolescence. Drinking to excess, smoking, illicit drug use, unsafe sex and risk-taking behaviour that can lead to accidents or early death all begin in early adolescence and sometimes cluster together as a part of a problem behaviour syndrome. This is not to suggest that all health compromising behaviours evolve and are firmly implanted during adolescence. Several health problems, such as obesity begin in childhood and others, such as alcoholism, may be special risks for older adults. Similarity in the factors that elicit and maintain many of these health compromising behaviours. Many of these behaviours are heavily tied to the peer culture, as children form and imitate the peers they like and admire. Wanting to be attractive to others becomes very important in adolescence and this factor is significant in the development of eating disorders, alcohol consumptions, tobacco and drug use, tanning unsafe sexual encounters and vulnerability to injury among other behaviours.
2. Several health compromising behaviours are also intimately up in the self-presentation process that is in the adolescents or young adults' efforts to appear sophisticated, cool, tough, or savvy in his or her social environment. The image conveyed by their behaviours is then, is another shared characteristic that must be considered in their modification.
3. Many of these behaviours are pleasurable, enhancing the adolescent's ability to cope with stressful situations and some represent thrill seeking, which can be rewarding in its own right, however, each of these behaviour is also highly dangerous. Each has been tied to at least one major cause of death and several, especially smoking are risk factors for more than one major chronic disease.
4. Development of all these behaviours occurs gradually as the individual is exposed to and becomes susceptible to the behaviour experiments with it, and later engage in its regular use. As such, these health compromising behaviours are not acquired all at once, but through a process that may make different interventions important at the different stages of vulnerability, experimentation and regular use.
5. Substance abuse of all kinds, whether cigarettes, alcohol, drugs, or sex are predicted by some of the same factors. These adolescents who get involved in such risky behaviours

often have high level of conflict with their parents and poor self-control, suggesting that these behaviours may function in part as coping mechanisms to manage a stressful life.

6. Common to the abuse of many substances, including cigarettes, alcohol and marijuana is the profile of those who use these substances. Adolescents with low self-esteem and with problematic family relationships often show higher levels of these behaviours. Those who abuse substance typically do poorly in school. Family problems deviance and low self-esteem appear to explain this relationship. Likewise, difficult temperament, poor self-control and deviance prone attitudes are related to peer and adolescent's substance use of tobacco, alcohol and marijuana.
7. Problem behaviours are related to the larger social structure in which they occur. Most of these problem behaviours are more common in lower social class individuals. In some cases, these social class differences occur because of greater exposure to the problem behaviour and in other cases, because lower social class raises more stressful circumstances with which the adolescent may need to cope. Practise of these health compromising behaviour is thought to be one reason that social class is so strongly related to most causes of diseases and death.

This unit is mainly concerned with three of the most common and commonly treated health compromising behaviours-alcohol abuse, smoking and drug abuse.

13.5 SUBSTANCE DEPENDENCE

A person is said to be dependent on a substance when he/she has repeatedly self-administered it resulting in tolerance, withdrawal, and compulsive behaviour. Substance dependency can include **physical dependence** the state that occurs when the body has adjusted to the substance and incorporates the use of that substance into the normal functioning of the body's tissues. Physical dependence often involves **tolerance** the process by which the body increasingly adapts to the use of a substance requiring larger and larger doses of it to obtain the same effects, eventually reaching a plateau. **Craving** is a strong desire to engage in a behaviour or consume a substance. It seems to result from physiological dependence and from a conditioning process. As the substance is paired with many environmental cues, the presence of those cues' triggers intense desire for the substance. **Addiction** occurs when a person has become physically or psychologically dependent on a substance following use over time.

Withdrawal refers to the unpleasant symptoms, both physical and psychological that people experience when they stop using a substance on which they have become dependent. Although the symptoms vary, they include anxiety, irritability, intense cravings for the substance, nausea, headaches, shaking and hallucinations. All these characteristics are common to substance abuse involving addiction, which includes smoking, alcohol consumption and drug abuse.

13.6 ALCOHOL ABUSE

Alcohol is a chemical substance that affects physical and mental behaviour. Alcohol addiction gives rise to various behavioural problems. It affects the psychosocial behaviour of an individual. Alcoholism is a social evil, giving rise to various psychosocial problems in the society.

Behavioural effects

Blood alcohol concentration (BAC) is the ratio of alcohol to total blood volume. It is the factor used to measure the physiological and behavioural effects of alcohol. Despite individual differences alcohol produces some general behavioural effects, depending on BAC. At a BAC of 0.02, a person feels slightly relaxed and in a good mood. At 0.05 relaxation increases, there is some motor impairment and a willingness to talk becomes apparent. At 0.08 the person feels euphoric and experiences further motor impairment at 0.10 the depressant effects of alcohol become apparent, drowsiness sets in, and motor skills are further impaired, followed by a loss of judgment. Thus a driver may not be able to estimate distances or speed, and some drinkers lose their ability to make value-related decisions and may do things they would not do when sober. As BAC increases the drinkers suffer increased physiological and psychological effects. All these changes are negative. Alcohol ingestion does not enhance any physical skills or mental functions.

People can acquire physical and psychological tolerance to the effects of alcohol through regular use. The nervous system adopts over time, so greater amounts of alcohol are required to produce the same physiological effects. Some people can learn to modify their behaviour so that they appear to be sober even when their BAC is quite high. This ability is called learned behavioural tolerance.

Absorption and Metabolism

Unlike the molecules found in most foods and drugs alcohol molecules are sufficiently small and fat soluble to be absorbed throughout the entire gastrointestinal system. A negligible amount of alcohol is absorbed through the lining of the mouth. Approximately 20% of ingested alcohol diffuses through the stomach lining into the bloodstream and nearly 80% passes through the linings of the upper third of small intestine. Absorption into the blood stream is rapid and complete. In addition, the more alcohol the individual consumes the longer the absorption takes. Alcohol can irritate the digestive system, which causes a spasm in the pyloric valve (pylorospasm).

Immediate effects

The most dramatic effects produced by ethanol occur within the CNS. The primary action of the drug is to reduce the frequency of nerve transmission and impulses at synaptic junction. This depresses CNS functions, which results in decreased respiratory rate, pulse rate, and blood pressure. As CNS depression deepens vital functions become noticeably depressed. In extreme cases, coma and death can result.

Alcohol is a diuretic that causes increased urinary output. Although this effect might be expected to lead to automatic dehydration, the body actually retains water, most of it in the muscles or in the cerebral tissues. The reason is that water is usually pulled out of the cerebrospinal fluid, leading to what is known as mitochondrial dehydration at the cellular level within the nervous system. Mitochondria are miniature cells that are responsible for specific functions and they rely heavily upon fluid balance. When mitochondrial dehydration occurs from drinking, the mitochondria cannot carry out their normal functions. This results in symptoms that include the morning after headaches some drinkers suffer.

Alcohol irritates the gastrointestinal system and may cause indigestion, hangover and heartburn if taken on an empty stomach.

Long term effects

Alcohol is distributed throughout most of the body and may affect many organs and tissues. Problems associated with long term, habitual use of alcohol diseases of the nervous system, and liver and may cause some cancers.

Effects on the nervous system

The nervous system is especially sensitive to alcohol. Even, people who drink moderately experience shrinkage in brain size and weight and a loss of some degree of intellectual ability. The damage that results from alcohol use is localized primarily in left side of the brain, which is responsible for written and spoken language, logic and mathematical skills. The degree of shrinkage appears to be directly related to the amount of alcohol consumed. The amount of alcohol consumed at one time is critical. Alcohol related brain damage can be partially reversed with good nutrition and staying sober.

Cardiovascular effects

Alcohol affects the cardiovascular system in a number of ways. Numerous studies have associated light to moderate alcohol consumption with a reduced risk of coronary artery disease. Several mechanisms have been proposed to explain how this might happen. The strongest evidence favours an increase in high density lipoprotein cholesterol, which is known as the good cholesterol. Studies have shown that drinkers have higher levels of HDL. Another factor that might help is an antithrombic effect. Alcohol consumption is associated with a decrease in clotting factors that contribute to the development of atherosclerosis.

Liver disease

One of the most common diseases related to alcohol abuse is cirrhosis of the liver. It is among the top ten causes of death in the world. One result of heavy drinking is that the liver begins to store fat, a condition known as fatty liver. If there is insufficient time between drinking episodes, this fat cannot be transported to storage sites, and the fat filled liver cells stop functioning. Continued drinking can cause a further stage of liver deterioration called fibrosis, in which the damaged area of the liver develops fibrous scar tissue. Cell function can be partially restored at this stage with proper nutrition and abstinence from alcohol. If the person continues

to drink, however, cirrhosis results. At this point, the liver cells die, and the damage becomes permanent.

Alcoholic hepatitis

It is a serious condition resulting from prolonged use of alcohol. A chronic inflammation of the liver develops, which may be fatal in itself or progress to cirrhosis.

Cancer

The repeated irritation by long term use of alcohol has been linked to cancers of the oesophagus, stomach, mouth, tongue and liver.

Abuse

Alcohol use becomes alcohol abuse when it interferes with work, school or social and family relationships, or when it entails any violation of the law, including driving under the influence of alcohol. Alcoholism results when personal and health problems related to alcohol use are severe and stopping alcohol use results in withdrawal symptoms.

As in other drug addictions, tolerance, psychological dependence and withdrawal symptoms must be present to qualify drinkers as an addict. Addiction results from chronic use over a period of time that varies from person to person. Irresponsible or problem drinkers, such as people who get into fights or embarrass themselves or others when they drink, are not necessarily alcoholics. The stereotype of the alcoholic on skid row applies to only 5 percent of the alcoholic population. The remaining 95 percent live in some type of extended family unit. Alcoholics can be found at all socioeconomic levels and in all professions, ethnic groups, geographical locations, religions and races.

The causes of alcohol abuse and drug abuse

Biological and family factors: Research into the hereditary and environmental causes of alcoholism has found higher rates of alcoholism among family members of alcoholics. In fact, alcoholism is four or five times more common among children of alcoholics than in the general population.

Male alcoholics are more likely than non-alcoholics to have alcoholic parents and siblings. Two distinct subtypes of alcoholism provide important information about the inheritance of alcoholism. Type-1 alcoholics are drinkers who had at least parent of either sex who was a problem drinker and who grew up in an environment that encouraged heavy drinking. Type-1 alcohol abusers share certain personality characteristics. They avoid novelty and harmful situations and are concerned about the thoughts and feelings of others.

Social and cultural factors

Although a family history of alcoholism may predispose a person to problems, numerous other factors may mitigate or exacerbate that tendency. Social and cultural factors may trigger the affliction for many people who are not genetically predisposed to alcoholism.

Some people begin drinking as a way to dull the pain of an acute loss or an emotional or social problem. For example, college students may drink to escape the stress of college life/social life, disappointment over unfulfilled expectations, difficulties in forming relationships or loss of the security of the home, loved ones and close friends. Involvement in a painful relationship, death of a family member and other problems may trigger a search for an anaesthetic. Unfortunately, the emotional discomfort as the depressant effect of the drug begins to take its toll. Thus, the person who is already depressed may become even more depressed, antagonizing friends and other social supports. Eventually, the drinker becomes physically dependent on the drug.

Family attitudes toward alcohol also seem to influence whether a person will develop a drinking problem. It has been clearly demonstrated that people who are raised in cultures in which drinking is a part of religious or ceremonial activities or in which alcohol is a traditional part of the family meal are less prone to alcohol dependence. In contrast, in societies in which alcohol purchase is carefully controlled and drinking is regarded as a rite of passage to adulthood, the tendency for abuse appears to be greater.

Certain social factors have been linked with alcoholism as well. These include urbanization, increased mobility, the weakening of links to the extended family and a general loosening of kinship ties, and changing religious and philosophical values. Apparently then,

some contribution of heredity and environment plays a decisive role in the development of alcoholism. Some ethnic and racial groups also have special alcohol abuse problems.

Treatment programs

The alcoholic who is ready for help has several avenues of treatment. Psychologists and Psychiatrists specializing in the treatment of alcoholism, private treatment centres, hospitals specifically designed to treat alcoholics, community mental health facilities and support groups such as alcoholics anonymous.

Private treatment facilities

Private treatment facilities have been advertising on admission to the treatment facility. The patient receives a complete physical examination to determine whether underlying medical problems will interfere with treatment. Alcoholics who decide to quit drinking will experience withdrawal symptoms such as

- Hyper excitability
- Confusion
- Sleep disorders
- Brief hallucinations
- Headache
- Convulsions
- Agitation
- Tremors of the hands
- Depression
- Seizures.

For a small percentage of people, alcohol withdrawal results in a severe syndrome known as delirium tremens (DTs). The DT syndrome is characterized by confusion, delusions, agitated behaviour and hallucinations. For any long-term addict, medical supervision is usually necessary. Detoxification, the process by which addicts end their dependence on a drug, is commonly carried out in a medical facility, where patients can be monitored to prevent fatal reactions. Withdrawal takes 7 to 21 days. Shortly after detoxification, alcoholics begins their

treatment for psychological addiction. Most treatment facilities keep their patients three to six weeks.

Family therapy, individual therapy and group therapy

In family therapy, the person and family members gradually examine the psychological reasons underlying the addiction. In individual and group therapy with fellow addicts. Alcoholics learn positive coping skills for situations that have regularly caused them to turn to alcohol. On some college campuses, the problems associated with alcohol abuse are so great that student health centres are opening their own treatment programs.

13.7 SMOKING

Cigarette smoking is primarily practised as a route of administration for recreational drug use because the combustion of the dried plant leaves vapourizes and delivers active substances into lungs where they are rapidly absorbed into the bloodstream and reach bodily tissue.

Smoking generally has negative health effects because smoke inhalation inherently poses challenges to various physiologic processes such as respiration. Diseases related to tobacco smoking have shown to kill approximately half of long-term smokers when compared to average mortality rates faced by non-smokers.

Smoking is one of the most common forms of recreational drug use. Tobacco smoking is the most popular form, being practised by over one billion people globally of whom the majorities are in the developing countries.

Health hazards of smoking

Cigarette smoking adversely affects the health of every person who smokes. Each day cigarette contributes to more than 1000 deaths from cancer, cardiovascular disease and respiratory disorders.

Cancer

The American cancer society estimates that tobacco smoking causes 85 to 90 percent of all cases of lung cancer, fewer than 10 percent of cases occur among non-smokers. Lung cancer is the leading cause of cancer deaths in the United States. In India, by the year 2020, the cases of

head and neck cancers as estimated to be around 218,421(19% of all sites cancers). The main risk factors for these cancers are tobacco and alcohol.

Cardiovascular disease

Half of all tobacco -related deaths occur from some form of heart disease. Smokers have a 70 percent higher death rate from heart disease than non-smokers do, and heavy smokers, have a 200 percent higher death rate than moderate smokers do. In fact, smoking cigarettes poses as great a risk for developing heart disease as high blood pressure and high cholesterol levels do.

Smoking contributes to heart disease by adding the equivalent of ten years of aging to the arteries. One explanation is that smoking encourages atherosclerosis, the build-up of fatty deposits in the heart and major blood vessels. For unknown reasons, smoking decreases blood levels of HDLs, which help protect against heart attacks.

Stroke

Smokers are twice as likely to suffer strokes as non-smokers are. A stroke occurs when a small blood vessel in oxygen and nourishment to vital portions of the brain. Depending on the area of the brain affected, stroke can result in paralysis, loss of mental functioning or death. Smoking contributes to stroke by raising blood pressure, which thereby increase the stress on vessel walls. Platelets adhesiveness contributes to clotting.

Sexual dysfuntion

Despite attempts by tobacco advertisers to make smoking appear attractive, research shows just the opposite, it can cause impotence in men. A number of recent studies have found that male smokers are about two times more likely than are non-smokers to suffer from some form of impotence. Toxins in cigarette smoke damage blood vessels and create sexual dys functioning in the individual.

13.8 SEDENTARY LIFE STYLES

A sedentary life style is a type of life style involving a sedentary or no physical activity. A person living a sedentary lifestyle is often sitting or lying down while engaged in an activity like reading, socializing, watching television, playing videogames, or using a mobile phone or

computer for much of the day. A sedentary lifestyle can potentially contribute to ill health and many preventable causes of death.

A sedentary lifestyle is defined as a type of lifestyle where an individual does not receive regular amounts of physical activity. According to the World Health Organization (WHO), 60 to 85% of the population worldwide does not engage in enough activity, making physical inactivity the fourth leading risk factor for global mortality.

Research in this area has found that, physical inactivity has been shown to contribute to the following health conditions:

- It may increase the risk of certain types of cancers.
- It may contribute to psychological problems like anxiety and depression.
- It may increase the risk for cardiovascular disease.
- It may lead to obesity.
- Loss of flexibility.
- Sitting for too long may also cause a decrease in skeletal muscle mass.
- It may lead to high blood pressure and elevated cholesterol levels.
- Risk of osteoporosis
- It may slower the metabolism activities and lead to digestive problems.
- It may lead to the development of diabetes.

To avoid the negative impact of the sedentary lifestyle an individual can adopt certain steps and measures in his daily life which will avoid the above said consequences.

13.9 SUMMARY

In this unit we have discussed about the various health compromising behaviours. The habits which may just start for fun may get into a harmful habit for an individual affecting this physical, psychological and social life. Substance dependence, smoking. Alcoholism not only makes the individual week and problematic for oneself but also affects the people related to them, their family, friends etc. These behaviours affect the personal life, career and relationships. They are considered as social evil as they affect the individual and make him burden for oneself and the society. Apart from this the positive qualities and the qualifications of an individual are

overlooked once he/she becomes the slave of these habits. Hence it is important to understand these health compromising behaviours to prevent oneself and others from getting into these habits. Sedentary life style is the latest problem which is creating a whole lot chain of problems in the health of an individual. Sedentary life style should be avoided and a healthy life style to be followed. This unit has given a detailed understanding about all these concepts.

13.10 KEYWORDS

Health compromising behaviour

Substance dependence

Alcoholism

Smoking

Sedentary life style

13.11 CHECK YOUR PROGRESS

1. Explain the meaning of health compromising behaviour.

2. What are the characteristics of health compromising behaviours?

3. Write a note on Alcohol abuse.

4. Explain the hazards caused by smoking.

5. Explain the negative impact of sedentary life style.

13.12 ANSWERS TO CHECK YOUR PROGRESS

1.13.3

2. 13.4

3. 13.5

4. 13.7

5. 13.8

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UNIT: 14 - COPING STRATEGIES

STRUCTURE

14.1 OBJECTIVES

After going through this you will be able to explain

- Coping
- Types of coping
- Problem focused Vs Emotion focused coping strategy
- Task oriented Vs Defense oriented coping

14.2 INTRODUCTION

Life is a series of change, some are good and some are not so good, some of them are positive and most welcome but some of them are negative and difficult to accept. But still we need to learn to move on in life have strength to face the stress and challenges. The way we handle the stress is what can be understood as coping. Coping is the way people respond to stress. Coping refers to the cognitive, behavioural and emotional ways that people manage stressful situations. Coping refers to any attempt to preserve mental and physical health.

Coping is continuous, it is a dynamic process, it is a series of responses involving the interaction of a person and his or her environment. There are a number of coping strategy. Some of them are effective and provides relief from stressful situation and some of them may be not so effective but may provide temporary relief from the situation. Different coping strategy upon the stressful situation and their ability to adopt it. This unit deals with all these types and its importance in handling stressful situations.

14.3 MEANING AND DEFINITION OF COPING

Coping refers to the thoughts and actions we use to deal with a threatening situation. “coping consists of efforts both action oriented and intrapsychic to manage environmental and internal demands and conflicts among them”.

This definition of coping has several important aspects. First, the relationship between coping and stressful events is a dynamic process. Coping is a series transaction between a person who has a set of resources, values and commitments and a particular environment and with its own resources, demands and constraints. Thus, coping is not a onetime action that someone takes, rather it is a set of responses, occurring overtime by which the environment and the person

influence each other. For example, the impending breakup of a romantic relationship can provide a variety of reactions, ranging from emotional responses, such as sadness, such sadness or indignation to actions, such as efforts at reconciliation or attempts to find engrossing, distancing activities. These coping efforts will, in turn be influenced by the way the partner in the relationship responds with encouragement from the partner. The person may make renewed efforts at reconciliation. Whereas anger or rejection may drive the person further away.

A second important aspect of the definition of coping is its breadth. The definition clearly encompasses a great many actions and reactions to stressful circumstances. Viewed within this definition, then emotional reactions, including anger or depression can be thought of as a part of the coping process, as can action that are voluntarily undertaken by the resources that the individual has available. The person become stressed for various reasons we will need to choose different coping strategies.

As we will see there are many strategies and some are better than others.

Sources of coping

According to Start and Suden (1998) coping is the source evaluations of one's choice of coping and strategies. While the kinds of coping resources used include personal skills, social support, material assets and positive beliefs.

There are some factors that affect the ability of coping according to Vascarolis (1990)the factors that affect individual coping mechanisms for adaptive and maladaptive responses includes genetic factors, past experiences that exist in the individual as an individual's health status, motivation, age, education and economic status. Meanwhile, according to Ericson (1970) coping abilities are influenced by several factors.

1. **Internal factors**

   It is a factor that comes from within ourselves which include age, personality, and intelligence, values beliefs, cultural, emotional and cognitive.

2. **External factors**

   It is a factor that comes from outside it includes support systems, environment, financial conditions and diseases.

When there is stress the body will have the coping mechanisms to cope with change is accepted or received by the load, so it sort of defense of the body. If the coping mechanisms are satisfied, then the person can adopt to change which is happening. The ability of these coping mechanisms of each person depends on individual temperament and perception and cognition to stressors are also acceptable.

14.4 TYPES OF COPING STRATEGIES

Coping strategies demonstrated in a variety of efforts, both mental and behavioural to master, tolerable, reduce or minimize the situation or a stressful event. By mastering stress situations as a result of the pressing problems being faced by the cognitive and behavioural changes in order to get sense of security for himself.

Experts classify the two coping strategies typically used by individuals that is problem solving focussed coping in which individuals actively seeking to resolve the problem for relieving stressful situations and emotional -focused coping, which in this case involves individuals business need to manage their emotions that will be caused by a condition or a stressful situation(Lazarus 2002).

14.5 PROBLEM FOCUSED VS EMOTION FOCUSED COPING STRATEGY

Two general types of coping strategies can be distinguished, they are problem solving coping and emotion focused coping. Problem solving coping involves attempts to do something constructive about the stressful conditions that are harming, threatening or challenging an individual. Emotion focused coping involves efforts to regulate emotions experienced because of the stressful event.

Sometimes problem-solving efforts and emotional regulation work together. For example, in denying that stressors on job are causing distress, workers may keep their daily anger low but fail to deal with the cumulative damage that these stressors may cause. Problem focused coping appears to emerge during childhood, emotion focused coping skills develop somewhat later in late childhood or early adolescence.

What determines the kind of coping strategies a person uses? Typically, people use both problem focused and emotion focused coping in their stressful episodes suggesting that both

types of coping are useful for most of the stressful events. However, the nature of the event also contributes to what coping strategies will be used. For example, work related problems lead people most commonly to attempt problem focused coping efforts, such as taking direct action or seeking help from others.

Health problems, in contrast lead to more emotion focused coping perhaps because a threat to one's health is an event that must be tolerated but is not necessarily amenable to direct action. When health problems are amenable to direct action. When health problems are amenable to active coping efforts. However, problem focused coping is beneficial. Health problems also lead people to seek social support. Whereas individual's with family problems are more likely to use problem focused coping, whereas those situations that simply must be accepted favouring emotion focused coping.

Emotion focused coping, however, includes coping of two kinds. One involves emotional distress as may be experienced in rumination. Ruminating, that is, negative recurrent thoughts, is determinantal to health. Among other outcomes rumination has been tied to several indicators of comprised immune functioning in both young and elderly samples.

The other type of emotion focused coping involves emotional approach coping, which involves clarifying focusing on and working through the emotions experienced in conjunction with a stressor. This type of coping has benefits for a broad array of stressful situations. Emotional approach coping improves adjustment to many chronic conditions, including chronic pain and medical conditions such as pregnancy and cancer. Even managing the stressors of daily life can be benefited by emotional approach coping.

14.6 TASK ORIENTED VS DEFENSE ORIENTED COPING

This reaction is used in coping with the problem oriented problem solving process, including affective or feeling, cognitive and psychomotor. This reaction can be performed such as talking with others about the problems faced to look far away out find out more about the problems encountered through reading books, or the expert or can also be associated with supernatural powers, do exercise that can reduce stress and create alternative solutions by using a strategy of priority issues.

Defense oriented or ego oriented reaction is known as defense mechanisms in order not to be disturb deeper psychological processes. Among the self defense mechanisms that can be used to make the process of psychological adaptation among others, namely

a) **Rationalization**

It is an attempt to avoid psychological problems by always providing a rational reason, so the problems encountered can be resolved.

b) **Displacement**

It is an attempt to overcome psychological problems by performing displacement behaviour in other objects, for example if someone disturbed by noisy conditions, a friend who will be blamed.

c) **Compensation**

Efforts to find solution for problems with how to find satisfaction in other situations such as someone has a problem because of declining memory it will high light the capabilities it has.

d) **Projection**

Self defense mechanisms by placing his own inner nature of another person like himself hating on others and then tell people that the people hate it.

e) **Repression**

Efforts to solve the problem with pressing problems that are unacceptable to the conscious and the individual does not want to think about the things that are less pleasant.

f) **Denial**

Self-defense efforts by the rejection of the problems encountered or will not accept the fact that it faces.

Stress is the body's reaction or response to a stressor or stressors as well as a variety of coping are performed in an effort to adapt to the stress reaction among which the task oriented and defense oriented reaction.

Individual differences also influence what coping strategies are used and in a somewhat surprising ways. In a study with twins intended to identify what factors contribute to coping, here general coping strategies were identified, problem solving or other, turning to others and using denial. Based on traditional methodologies of twin studies the opening strategies of turning

to others and problem solving in response to stress could be explained substantially by genetic factors. In contrast, denial did not appear to have a genetic component but did appear to be explained by early family environment, such as parental child-rearing style, social style and exposure to childhood stressors. It appears then that genetic predispositions may predispose people to cope with stressful events by solving problems better and psychological adjustment.

14.7 SUMMARY

In this unit we have discussed about coping strategies. Coping may be in healthy ways, sometimes unhealthy ways. In coping the individual attempts to prevent, eliminate, weaken or simply tolerate stress. Emotion focused coping is the one where the individual puts his efforts to control the emotional response to a stressor, either by distancing oneself from it or by changing the way he looks and perceives it. Problem focused coping is the one where the individual puts his effort to deal directly with a stressor by applying problem solving skills to anticipate and prevent potential stressor or by directly confronting the source of stress. This unit has given a complete understanding about these and also about the various ways the individuals behave and react in those situations.

14.8 KEYWORDS

Coping
Coping strategy
Problem focused coping
Emotion focused coping
Task oriented coping
Defense oriented coping

14.9 CHECK YOUR PROGRESS

1. Define coping.
2. Explain different types of coping.
3. Distinguish between problem focused and emotion focused coping.
4. How is task oriented coping better than defense oriented coping? Explain.

14.10 ANSWERS TO CHECK YOUR PROGRESS

1. 14.3
2. 14.2
3. 14.5
4. 14.6

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UNIT :15- HEALTH ENHANCING BEHAVIOUR

STRUCTURE

15.1 OBJECTIVES

After going through this unit, you will be able to understand

- Health enhancing behavior
- Exercise and its benefits
- Food habits
- Meditation & its uses
- Yoga and its usefulness
- Biofeedback & its application
- Positive thinking and its benefits

15.2 INTRODUCTION

Individuals in their life are so busy with the everyday activities, work, career, education, relationships that they pay little attention to one's own health. This is because of the fast changing today's world and the very fast changing lifestyle due to technology and modernization. Man being busy with these many times forget to focus on his own physical and psychological health, which in turn has given rise to various physical problems and health issues like, hypertension, diabetes, obesity, etc and also various psychological problems like depression, stress, and addiction. To avoid these health problems and have a good physical as well as psychological health it is important for an individual to make certain changes in his lifestyle and adopt a few healthy habits which will help in improving one's health. These behaviors can be understood as health enhancing behaviors. This unit deals with the health enhancing behaviors, its types, its benefits upon the physical as well as psychological health and also how it can change an individual's life and lifestyle.

15.3 MEANING AND DEFINITION OF HEALTH ENHANCING BEHAVIOR

Health enhancing behaviours are those behaviours, as the term itself indicates that may enhance the chances of being healthy. That is, the behaviours or habits which when followed by an individual consciously can help the individual in improving one's physical as well as psychological health. It refers to efforts to change the individual's personal habits and attitudes to prevent disease. By adopting good habits and modifying one's behavior in individual can gain

success in self–control and health enhancing behaviours. Health enhancing behaviors refers to the motivational, volitional and action based processes of getting rid of health compromising behavior and adopting and maintaining health enhancing behaviours.

Health enhancing behaviours are activities that may help prevent disease, detect disease and disability at an early stages promote and enhance health and protect from risk of injury.

15.4 TYPES OF HEALTH ENHANCING BEHAVIOR

Human beings have in principle, control over their conduct. Behaviour modification can contribute to the success of self – control, and health enhancing behaviours. Risky behaviours can be eliminated including physical exercise, weight control, preventive nutrition or accident preventions.

15.5 EXERCISE

In recent years, health psychologists have examined the role of aerobic exercise in maintaining mental and physical health. Aerobic exercise is sustained exercise that stimulates and strengthens the heart and lungs improving the body utilization of oxygen. All aerobic exercise is marked by its high intensity. Long duration and requisite high endurance. Among the forms of exercise that meet these criteria are jogging, bicycling, rope jumping, running and swimming. Other forms of exercise – such as isokinetic exercise or high intensity, short duration, low–endurance exercises may be satisfying and build up specific parts of the body but have less effect an overall fitness because they draw an short-term stores of glycogen rather than an the long- term energy conversion system associated with aerobics.

Benefits of Exercise

1. Increases maximum oxygen consumption
2. Decreases resting heart rate
3. Increases strength and efficiency of heart (pumps more blood per beat)
4. Decreases use of energy sources, such as glutamine
5. Increases slow wave sleep
6. Increases HDL, unchanged total cholesterol

7. Decreases cardiovascular disease
8. Decreases obesity
9. Increases longevity
10. Decreases menstrual cycle length
11. Decreases risk of same cancers
12. Increases immune system functions
13. Decreases negative mood.

The effects of exercise translate directly into increased longevity. Higher levels of physical fitness is both men and women clearly delay mortality, particularly that to cardiovascular disease and cancer. The quality of the exercise experience is also an important factor.

Effects on Psychological Health

Researchers have examined the effect of exercise on psychological states, such as mood, anxiety, depression and tension, and have found a beneficial role of exercise on both mental and physical health. Regular exercise improves and feelings of well–being immediately after workout; there may also be some improvement in general mood and well-being as a result of long–terms participation in an exercise program.

At least some of the positive effects of exercise on mood may stem from factors associated with exercise, such as social activities and a feeling of involvement with others. For example, bicycling with friends, swimming with a companion, running with group may improve mood in part because of the companionship the exercise provides. Social support during exercise increases the likelihood that people will maintain their exercise programs, perhaps because feedback from other people increases feelings of self–efficacy. An improved sense of self–efficacy can also underlie some of the mood effects of exercise.

Exercise as stress management

The fact that exercise improves well- being suggests that it might be an effective way of managing stress. Research suggests that this intuition is well placed. J.D Brown and Siegel (1998) conducted longitudinal study to see if adolescents who exercised were better able to cope with stress and avoid illness than those who did not. Results indicated that the negative impact of

stressful life events on health declined as exercise levels increased. Thus exercise may be a useful resource for combating the adverse health effects of stress.

Exercise may also have a beneficial effect on cognitive processes by focusing attention and concentration.

Weight Control

Maintaining a proper diet and getting enough exercise jointly contribute to weight control. This issue has become especially urgent in recent years because of the galloping levels of obesity in the population. Consequently, our discussion will begin to cross the line into the area of health compromising behaviors, as we will look at interventions both for the obese, who may need to modify their weight to promote their health.

As same point in our lives, almost all of us will decide to go on a diet, and many will meet mixed success. The problem in probably related to the fact that we think about losing weight in terms of dieting rather than in terms of adjusting life style and eating behaviours. It is well documented that hypocaloric diets produce only temporary losses and may actually lead to disordered binge eating or related problems. While repeated bouts of restrictive dieting may be physiologically harmful, the sense of failure that we get each time we try and fail can also exact far reaching psychological costs. Drugs and intensive counseling can contribute to positive weight loss, but even then, many people regain weight after treatment.

The genetic factor adds on theses, at least some genes affect weight. Also, factors such as depression, stress, culture, and available foods all affect obesity.

Weight loss is more difficult for some people and may require more supportive friends and relative plus extra ordinary efforts to prime the body for burning extra calories. Being overweight does not mean people are weak–willed or lazy. As scientists unlock the many secrets of genetic messengers that influence body weight and learn more about the role of certain foods in the weight loss equations, dieting may not be the same villain in the future that it is today.

Physical Activity

Approximately 90 percent of the daily calorie expenditures, of most people occur as a result of the resting metabolic rate. Slightly higher than the BMR, the RMR includes the BMR

plus any additional energy expended through daily sedentary activities such as food digestion, sitting studying or standing, Because lean muscle tissue appears to influence metabolic rates, increasing muscle mass may be a factor in burning calories throughout the day. The exercise metabolic rate (EMR) accounts for the remaining 10 percent of all daily calorie expenditures; it refers to the energy expenditure that occurs during physical exercise. For most of us, these calories come from light daily activities. Such as walking, climbing stairs, and mowing the lawn. If we increase the level of physical activity to moderate or heavy, however, our EMR may be 10 to 20 times greater than typical RMR s and can contribute substantially to weight less.

Physical activity makes greater contribution to BMR when large muscle groups are used. The energy spent on physical activity is the energy used to move the body's muscles – the muscles of the arms, back, abdomen legs, and so on – and the extra energy used to speed up heartbeat and respiration rate. The number of calories spent depends on three factors;

1. The amount of muscle moved
2. The amount of weight moved
3. The amount of time the activity takes

An activity involving both the arms and legs burns more calories than one involving only the legs, an activity performed by a heavy person burns more calories than one performed by a lighter person. And an activity performed for 40 minutes requires twice as much energy than one performed for only 20 minutes. Thus obese people walking for 1 mile for burn more calories than do slim people walking the same distances. It also may take overweight people longer to walk the mile which means that they are burning energy for a longer time and therefore expending more overall calories than the thin walkers.

15.6 CHANGING EATING HABITS

At any given time many people are trying to lose weight. Given the hundreds of different diets and endless expert advice available, why do we find it so difficult?

Determining What Triggers an Eating Behaviour

Before you can change a behavior, you must first determine what causes it. Many people have found it helpful to keep a chart of their eating pattern: when they feel like eating?where

they are? when they decide to eat?, the amount of time they spend eating other activities they engage in during the meal, whether they eat alone or with others, what and how much they consume, and how they felt before they took their first bite. If you keep a detailed daily log of eating triggers for at least a week; you will discover useful clues about what in your environment or your emotional makeup causes you to want food. Typically, these dietary triggers center problems in everyday living rather than on real hunger pangs. Many people find that they eat compulsively when stressed. For other people the same circumstances diminish their appetite. This causes them to lose weight.

Changing our Triggers

Once you recognize that factors that cause you to overeat, removing the triggers or substituting other activities for them will help you developing more sensible eating patterns. Here are some examples of substitute behaviours.

1. When eating dinner, turn of all distractions including the television and radio
2. Replace snack breaks or coffee breaks with exercise breaks.
3. Instead of gulping your food, chew each bite slowly and savor it.
4. Vary the time of day when you eat. Instead of eating by the cheek, do not eat until you are truly hungry. Allow yourself only a designated amount of time for eating – but do not rush.
5. If you find that you generally eat all that you can cram on a plate, use smaller plates.

Seek assistance from reputable sources in selecting a dietary plan that is nutritious and easy to follow registered dietitians. Some physicians, health educators and exercise physiologists with nutritional training and other health professionals can provide reliable information.

15.7 MEDITATION

Meditations is a practice where an individual uses a technique- such as mindfulness, or focusing the mind on a particular object, thought or activity to train attention and awareness and achieve a mentally clear and emotionally calm and stable state.

Meditation has been practiced since 1500 BCE antiquity in numerous religious traditions, often as part of path towards enlightenment and self-realization. The earliest records of

meditation (dhyana) come from the Hindu Traditions of Vedantism. Since the19thcentury, Asian meditative techniques have spread to other cultures where they have also found application in non- spiritual contexts, such as business and health.

Meditation may be used with the aim of reducing stress, anxiety, depression and pain and increasing peace, perception, well-being. In general, the easiest way to begin meditating is by focusing on the breath an example of one of the most common approaches to meditation is,

Concentration Meditation

Concentration meditation involves focusing on a single point, it may be following the breath repeating single word or mantra, staring at a candle flame, listening to a repetitive gong or counting beads on a mala**,** since focusing the mind is challenging, a beginner might meditate for only a few minutes and then work up to longer durations.

In this form of meditation, you simply refocus your awareness on the chosen object of attention each time you notice your mind wandering. Rather than pursing random thoughts, you simply let them go. Through this process, your ability to concentrate improves.

Mindfulness Meditation

Mindfulness meditation encourages the practioner to observe wandering thoughts as they drift through the mind. The intention is not to get involved with the thoughts or to judge them, but simply to be aware of each mental note as arises. Through mindfulness meditation, you can see how your thoughts and feelings tend to move in particular patterns. Overtime you can become more aware of human tendency to quickly judge an experience as good or bad, pleasant or unpleasant. With practice, an inner balance develops.

Benefits of Meditation

If relaxation is not the goal of meditation. It is often a result. It provides the following benefits:

Lower blood pressure

Improved blood Circulations

Slower respiratory rate – Less anxiety

Lower blood cortical levels, more feeling of welt- being

Less stress, deep relaxation.

15.8 YOGA

Yoga is an integral part of our life style. It removes the impurities from the level of mind and unites everything with the spirit and it is a systematic practice of physical exercise, breath control, relaxation diet control and positive thinking and meditation aimed at developing harmony in the body, mind and environment.

The practice entails low impact physical activity, postures (called Asana), breathing technique (Pranayama) relaxation, and meditation.

Yoga means 'to attach' join, the word yoga comes from the Sanskrit 'Yuj'. According to Panini the term yoga can be derived from either two roots, yujiryaga (to yoke) or 'Yujsamadhan (to concentrate)

The term yoga means according to Pathanjali yoga is the calming down the fluctuations/ patterns of consciousness". According to Katha Upanishad 'when the five senses along with mind remain still and the intellect is not active, that is known as the highest state. They consider yoga to be firm restraint of the senses. Then one becomes undistracted for yoga is the arising and the passing away.

According to Bhagavadgita "Yoga is skill in action know that which is called yoga to be separation from contact with suffering".

Benefits of Yoga

The benefits of various Yoga techniques have been preferred to improve body flexibility performance, stress reduction, attainment of inner peace, and self- relaxation. It helps in treatment to aid healing of several ailments such as coronary heart disease, depression, anxiety disorders, asthama and extensive rehabilitation for disorders including and extensive musculoskeletal problems and traumatic brain injury. The system has also been suggested as behavioral therapy for smoking cessation and substance abuse.

If you practice Yoga, you may receive these benefits;

Physical

- Improved body flexibility of balance

- Stronger heart
- Improved digestion
- Improved abdominal strength
- Enhanced overall muscular strength
- Enhanced immune system

Mental

- Relief of stress resulting from the control of emotions
- Preventions and relief from stress–related disorders
- Intellectual enhancement, leading to improved decision making skills

Spiritual

- Life with meaning purpose of direction
- Inner peace and tranquility
- Contentment

15.9 BIOFEEDBACK

Biofeedback is mind- body technique that involves using visual or auditory feedback to gain control over involuntary bodily functions. This may include gaining voluntary control over such things as heart rate, muscle tension, blood flow, pain perception, and blood pressure. This process involves being connected to a device with sensors that provide feedback about scientific and specific aspects of our body.

The goal of biofeedback is often to make subtle changes to the body that results in a desired effect. This might include relaxing certain muscles slowing heart rate or respiration or reducing feelings of pain. By doing this people are often able to improve their physical, emotional and mental health. For example, biofeedback can also be used to help people better manage the symptoms of a condition.

The association for applied psychophysiology and biofeedback defines ‘as a process that allows people to alter their physiological activity is order to improve health or performance utilizing precise measurement instruments, information about the body’s functions are provided to the user.

They suggest the presentation of this information often in conjunction with changes in thinking, emotions and behavior supports desired physiological changes over time, these changes, can endure without continued use of an instrument.

Types of Biofeedback

There are many different types of biofeedback. The specific approach you choose to utilize might depend upon what you hope to accomplish and what your therapist or physician recommends. Some of the available options include;

Breathing

Respiratory biofeedback involvers wearing sensor bands around the chest and abdomen to monitor breathing rates and patterns, with training people can learn to have greater control over their breathing rates which can help in a variety of situations.

Heart Rate

This type is known as heart rate variability biofeedback and there is some evidence that it might possibility be useful for a number of different disorders including asthama and depression. Patients using this type of biofeedback wear a device connected to sensors in either the ears or fingers or sensors placed on wrists, chest or torso. These device measure heart rate as well as heart rate variability.

Galvanic Skin response.

This type of biofeedback involves measuring the amount of sweat on the surface of the skin. Galvanic skin response, also known as skin conductance, is a useful marker for detecting levels of emotional arousal. Aside from the obvious thermoregulatory function of sweat, emotional stimulation can also easily trigger sweating. The more strongly people are aroused, the stronger, their skin conductance will be.

Blood Pressure

This type of biofeedback involvers wearing a device that measures blood pressure. These devices provide information about the patient's blood pressure and often guide the user through

relaxation techniques that may rely in visual cues. Breathing exercises or music. While such devices have gained popularity.

Skin temperature.

In this form of biofeedback, patients wear sensors that detect blood flow to the skin. Because people often experience a drop in body temperature during times of stress, such devices can help people better detect when they are starting to feel distressed. A low reading on one of these monitors can indicate a need to utilize some stress management techniques.

Bran waves

This type of biofeedback, often referred to as Neurofeedback, involves utilizing electroencephalography (EEG) to measure brain wave activity. Scalp sensors are connected to an EEG device. Neurofeedback is sometimes used as a non- invasive treatment for ADHD, pain, addiction, anxiety, depression and other disorders.

Muscle Tension

In this type of biofeedback, sensors are placed at various points on the body and connected to an electromyography (EMG) device. This device detects changes in muscle tension over time by monitoring electrical activity that results in muscle contractions.

User of Biofeedback

Biofeedback has been used for a range of applications, including;

- Treating tension headaches, migraines, and other pain.
- Controlling high and low blood pressure
- Alleviating digestive disorders such as irritable bowel syndrome
- Helping patients control physical reactions to stress or anxiety.
- Aiding in relaxation and stress management.

15.10 POSITIVE THINKING

“Change your thoughts and change your world” by Norman Vince Peale, Thinking goes both ways says Norman, as much as positive thinking works like a fulfilling prophecy that will

make our own fears a reality. On the other hand, when you think positive, you make your positive thoughts a reality.

Positive thinking means that you approach unpleasantness in a more positive and productive way, you think the best is going to happen. Positive thinking often starts with self-talk.

If the thoughts that run through your head are mostly negative, your outlook on life is more likely pessimistic. If your thoughts are mostly positive, you are likely an optimist -someone who practices positive thinking.

Benefits of Positive Thinking

Researchers continue to explore the effects of positive thinking and optimism on health. Health benefits that positive thinking may provide include;

- Increased life span
- Lower rates of depression
- Lower levels of distress
- Greater resistance to the common cold
- Better cardiovascular health and reduced risk of death from cardiovascular disease
- Better coping skills during hardships and times of stress.

People who engage in positive thinking experience health benefits. One theory is that having a positive outlook enables you to cope better with stressful situations.Which reduces the harmful health effects of stress on your body. It's also thought that positive and optimistic people tend to live health their life styles, they get more physical activity, follow a healtheir diet, and don't smoke or drink alcohol in excess.

IDENTIFYING NEGATIVE THINKING

Filtering: The individual magnifies the negative aspects of a situation and filters out all of the positive ones.

Personalizing: When something bad occurs, you automatically blame yourself.

Focusing on Positive Thinking

Identify areas to change

Cheek Yourself

Be open to humor

Follow a healthy life style

Surround Your Self with Positive People Practice positive self-talk: Start by following one simple rule: Don't anything to yourself that you would not say to anyone else. Be gentle and encouraging with yourself. If a negative thought enters your mind, evaluate it rationally and respond with affirmations of what is good about you. Think about things you are thankful for in your life.

If you tend to have a negative outlook, don't expect to become an optimist overnight. But With practice, eventually yourself–talk will contain less self- criticism and more self–acceptance. You may also become less critical of the world around you.

When your state of mind is generally optimistic you are better able to handle everyday stress in a more constructive way. That ability may contribute to the widely observed health benefits of positive thinking.

15.11 SUMMARY

This unit has given you a detailed understanding about the importance of health enhancing behaviours. A number of health enhancing behaving like exercise, eating habits, meditation, yoga, biofeedback, positive thinking are being discussed in detail. It has also focused upon the positive impact and the benefits of adopting these on an individual physical and psychological health and also the personality change it can bring in the way they affect the behavior of an individual.

15.12 KEY WORDS

Health enhancing behaviours

Exercise

Meditation

Yoga

Biofeedback

Positive thinking

15.3 CHECK YOUR PROGRESS

1. Define health enhancing behavior.
2. Explain the benefits of exercise upon health.
3. Discuss the importance of changing one's eating habits.
4. Elaborate on the benefits of Meditation.
5. Explain the importance of positive thinking.

15.14 ANSWERS TO CHECK YOUR PROGRESS

1. 15.3
2. 15.5
3. 15.6
4. 15.7
5. 15.10

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UNIT- 16: HEALTH BEHAVIOUR MODIFICATION

STRUCTURE

16.1 OBJECTIVES

After going through this you will be able to explain

- Health behaviour modification
- Theories of health behaviour modification
- Relapse prevention

16.2 INTRODUCTION

Health behaviours are those behaviours undertaken by people to enhance or maintain their health. A health habit is a health related behaviour which is firmly established and is often performed automatically without awareness. These habits usually develop in childhood and gets established by adulthood. Health habits are developed initially because it is reinforced by specific positive outcomes, and later as the individual grows it becomes independent of the reinforcement process and is maintained by the environmental factors. Once established it is highly resistant to change. In this unit we are going to discuss about the health behaviour and its modification so that good health behaviours are engrained in an individual's behaviour.

16.3 MEANING AND DEFINITION OF HEALTH BEHAVIOUR MODIFICATION

A health behaviour may be defined as any behaviour which is aimed at preventing a disease. It is usually practiced by an individual to enhance or maintain their health. Usually individuals learn these health behaviours from their childhood but some individuals due to lack of reinforcement or lack of awareness about the importance may not follow certain health behaviours. In these cases it becomes important to inculcate this health behaviour by modifying the behaviour or by making changes in one's personal habits and attitudes to prevent future health problems.

These behaviour changes are very much important for the individual to stay healthy and avoid the illness or diseases. Modifying or developing health behaviour consciously and in a planned manner is understood as health behaviour modification.

16.4 THEORIES OF HEALTH BEHAVIOUR MODIFICATION

The success of theories that link beliefs to behaviour and modification of health habits, attitudinal approaches are not very successful for explaining spontaneous behaviour change nor do they predict long term behaviour change very well. An additional complication is that communications designed to change people's attitudes about their health behaviours sometimes evoke defensive or irrational process. People may perceive a health threat to be less relevant than it really is, they may falsely see themselves as less vulnerable than others and they may see themselves as dissimilar to those who have succumbed to a particular health risks, including a false sense of complacency.

People may also have irrational beliefs about health, illness and treatment that led them to distort health relevant messages or practice health habits such as the ingestion of dozens of over-counter treatments. With these multiple capacities to distort health threats and the relevance of health messages may be unable to get around these biases in the processing of information moreover thinking about disease can produce a negative mood, which may, in turn lead people to ignore or defensively interpret their risk. Although some studies have found that inaccurate risk perception can be modified by information and educational interventions, other reports suggest that unrealistic optimism is peculiarly invulnerable to feedback.

Because health habits are often deeply ingrained and difficult to modify, attitude change procedures may not go far enough in simply providing the informational base for altering health habits. The attitude change procedure may instill the motivation to change and health habit but not provide the preliminary steps or skills, necessary to actually alter behaviour and maintain behaviour change. Consequently, health psychologists have also turned to therapeutic techniques.

CLASSICAL CONDITIONING

This theory first described by Russian Physiologist Ivan Pavlov in the early 20th century, classical conditioning was one of the earliest principles of behaviour change identified by researchers. The essence of classical conditioning is the pairing of an unconditioned reflex with a new stimulus, producing a conditioned reflex, with a new stimulus, producing a conditioned reflex.

Classical conditioning was one of the first methods used for health behaviour change. For example, consider its uses in the treatment of alcoholism. Antabuse (unconditioned stimulus) is a drug that produce extreme nausea, and vomiting (unconditioned response) when it is taken in conjunction with alcohol. Overtime, the alcohol will become associated with the nausea and vomiting caused by the Antabuse and elicit the same nausea, gagging and vomiting response (conditioned response).

Classical conditioning approaches to health habit modification do work, but clients know why they work. Alcoholics, for example, know that, if they do not take the drug, they will not vomit when they consume alcohol. Thus, even, if classical conditioning has successfully produced a conditioned response. It is heavily dependent on the client's willing participation. Procedures like these produce health risks as well and as a result, they are no longer as widely used.

OPERANT CONDITIONING

In contrast to classical conditioning, which pairs an automatic response with a new stimulus, operant conditioning pairs a voluntary behaviour with systematic consequences. The key to operant conditioning is reinforcement. When an individual performs a behaviour and that behaviour is more likely to occur again. Similarly, if an individual performs a behaviour and reinforcement is withdrawn or the behaviours is punished, the behaviour is less likely to be repeated. Overtime, these consequences build up those behaviours paired with positive reinforcement and behaviours that are punished or not rewarded decline.

Many health habits can be thought of as operant responses. For example, drinking may be maintained because mood is improved by alcohol or smoking may occur because peer companionship is associated with it. In both of these cases, reinforcement maintains the poor health behaviour. Thus, using this principle to change behaviour requires altering the reinforcement or its schedule.

An important feature of operant conditioning is the reinforcement schedule. A continuous reinforcement schedule. A continuous reinforcement schedule means that a behaviour is reinforced every time it occurs. However, continuous reinforcement is vulnerable to extinction. If the behavioursis occasionally not paired with reinforcement the individual may cease

performing the behaviour, having come to anticipate reinforcement each time psychologists have learned that behaviour is often more resistant to extinction if it is maintained by a variable or an intermittent reinforcement schedule than a continuous reinforcement schedule.

OPERANT CONDITIONING TO CHANGEHEALTH BEAVIOURS

Operant conditioning is often used to modify health behaviours. At the beginning of an effort to change a faulty health habit, people typically will be positively reinforced for any action that moves them closer to their goals. As progress is made toward reducing or modifying the health habit, greater behaviour change may be required for the same reinforcement. For example, suppose an individual smokes 20 cigarettes a day, he might first define a set of rein forcers that can be administered when particular smoking reduction targets are met reinforcement. Such as giving a reward. If the individual reduces it again then again reward can be given, in this manner the individual will reduce from 20 cigarettes to 5,4,3,2,1,0. Through this process, the target behaviour of abstinence would eventually be reached.

COGNITIVE BEHAVIOUR APPROACH

Attitudinal approaches to the modification of health behaviours appear to be most useful in predicting when people will be motivated to change a health behaviour. Cognitive behaviour therapy approaches to health habit change. The focus to the target behaviour itself the conditions that elicit and maintain it and the factors that reinforce it. Cognitive behaviour therapy also focuses heavily on the beliefs that people hold about their health habits. People often generate internal monologues that interfere with their ability to change their behaviour. For example, a person who wishes to give up smoking may derail the quitting process by generating self-doubts (I will never be able to give up smoking, I have tried before but failed). Unless these internal monologues are modified, cognitive-behavioural therapists argue, the person will be unlikely to change a health habit and maintain that change over time. Recognitions people's cognitions about their health habits are important in providing behaviour change has led to another insight, the importance of involving the patient as a cotherapist in the behaviour change intervention. Most behaviour change programs begin with the client as the object of behaviour change efforts but in the therapeutic process, control over behaviour change shifts gradually from the therapist to the client. By the end of the formal intervention stage, clients are monitoring their own

behaviours applying the techniques of cognitive behavioural interventions to their behaviour and rewarding themselves or not appropriately.

16.5 RELAPSE PREVENTION

One of the biggest problems faced in the health habit modification is the tendency for people to relapse to their previous behaviour following initial successful behaviour change. This problem occurs both for people who make health habit changes on their own and for those who join formal programmes to alter their behaviour. Relapse is a particular problem with the addictive disorders of alcoholism, smoking, drug addiction, and obesity which have relapse rates between 50 and 90 percentages.

Research suggests that relapse rates tend to stabilize at about 3 months, which initially led researchers to believe that most people who are going to relapse will do so within the first 3 months. However, subsequent research suggests that, although relapse rates may remain constant, the particular people who are abstaining from a bad health habit at one point in time are not necessarily the same people who are abstaining at another point in time. Some people go from abstinence to relapse, others from relapse back to abstinence.

Relapses may be due to genetic factors, it may be implicated in alcoholism, smoking and obesity. Withdrawal effects occur in response to abstinence from alcohol and cigarrates and may prompt a relapse, especially shortly after efforts to change behaviour. Conditioned associations between cues and physiological responses may lead to urges or craving to engage in the habit. For ex: people may find themselves in a situation in which they used to smoke, such as at a party relapse at the vulnerable moment.

Relapse is more likely when people are depressed, anxious or under stress. For ex: when people are moving, breaking off a relationship or encountering difficulties at work, they may have greater need for their addictive habits than is true at less stressful times. Relapse occurs when motivation goal for maintaining the health behaviour have not been established. Relapse is less likely if a person has social support from family and friends to maintain the behaviour change, but it is more likely to occur if the person lacks social support or is involved in a conflictual interpersonal situation.

A particular moment that makes people vulnerable to relapse is when they have one lapse in vigilance. For ex: a single cigarette smoked is called an abstinence violation effect that is, a feeling of loss of control that results when a person has violated self- imposed rules. The result is that a more serious relapse is then likely to occur as the individual sees this or resolve falter. This may be especially true for addictive behaviour because the person must cope with the reinforcing impact of the substance itself.

CONSEQUENCE OF RELAPSE

Relapse produces negative emotions, such as disappointment, frustration, unhappiness or anger. Even a single lapse can lead a person to experience profound disappointment, a reduced sense of self-efficacy and a shift in attributions for controlling the health behaviour from the self to uncontrollable external forces. A relapse could also lead people to feel that they can never control the habit that it is simply beyond their efforts. Relapse may be a deterrent to successful behaviour change in other ways as well. For ex: among the obese, repeated cycles of weight loss and regain make subsequent dieting more difficult.

In some cases, however, relapse may be having paradoxical effects, leading people to perceive that they can control their habits at least to a degree with smoking, for ex: multiple efforts to stop often take place before people succeed, suggesting that initial experiences with stopping smoking may prepare people for later success. The person who relapses may nonetheless have acquired useful information about the habit and have learned ways to prevent relapse in the future.

REDUCING RELAPSE

Because of the high risk of relapse behavioural interventions build in techniques to try to reduce its likelihood. Typically, such interventions have centered on three techniques of the initial treatment phase have been one method. Several weeks or months after the end of a formal intervention, smokers may have an additional smoking prevention session or dieters may return to their group situation to be weighted in and to brush up on their weight control techniques.

Another approach has been to add more components to the behavioural interventions, such as relaxation therapy or assertiveness training, but, as noted earlier the addiction of components does not appear to increase adherence rates and under some circumstances may actually reduce them.

A third approach to relapse prevention is to consider abstinence a lifelong treatment process, as is done in such programs as alcoholic anonymous and other well established lay treatment programs. Although this approach can be successful, it also has certain disadvantages. The philosophy can leave people with the perception that they are constantly vulnerable to relapse, potentially creating the expectation of relapse when vigilance wanes. Moreover, the approach implies that people are not in control of their habit and research on health-habit modification suggest that self-efficacy is an important component in initiating and maintaining behaviour change.

RELAPSE PREVENTION

Researchers have argued that relapse prevention must be integrated into treatment programs from the outset. Changing a health habit is not a simple action, but it is a process that may occur in stages and relapse prevention efforts can be built in at all stages.

Some factors are especially relevant when people first join a treatment program. These people who are initially highly committed to the program and motivated to engage in behaviour change are less likely to relapse. These observations imply that one important focus of programs must be to increase motivation and maintain commitment, for ex: programs may create a contingency management procedure in which people are required to attend meetings or change their behaviour.

Another, more controversial approach is the use of screening techniques to weed out people who are therefore vulnerable to relapse. On the one hand, denying people access to a treatment program that may improve their health may be ethically dubious. On the other hand, including people who will ultimately relapse may demoralize other participants in the behaviour change program, demoralize the practioner, and ultimately make it more difficult for the person predisposed to relapse to change behaviour.

Once motivation and commitment to follow through have been instilled, techniques must be developed in the behaviour change programs itself to maintain behaviour change and act as relapse prevention skills once the program terminates. One such strategy involves having people identify the situations that are likely to promote a relapse and then develop coping skills that will enable them to manage that stressful event successfully.

This strategy draws on the fact that successful adherence promotes feelings of self-control and that having available coping techniques can enhance feelings of control still further. In addition, the mental rehearsal of coping responses in high risk situations can promote feelings of self-efficacy, decreasing the likelihood of relapse. For ex: some programs train participants to engage in constructive self-talk that will enable them to talk themselves through tempting situations.

Cue elimination or restructuring the environments to avoid situation that evoke the target behaviour, can be used. The alcoholic who drink exclusively in bars can avoid bars. For other habits, however, cue elimination is impossible. For ex: smokers are usually unable to completely eliminate the circumstances in their lives that led them to smoke. Consequently, some relapse prevention programs deliberately expose people to the situations likely to evoke the old behaviour to give them practise in using their coping skills. The power of the situation may be extinguished overtime if the behaviour does not follow. Moreover, such exposure use can increases feelings of self-efficacy and decrease the positive expectations associated with the new addictive behaviour. Making sure that the new habit (such as exercise or alcohol abstinence) is practiced in as broad an array of new contexts is important as well for ensuring that it endures.

16.6 SUMMARY

In this unit we have discussed about the health behaviours and the importance of modifying or changing one's behaviour to enhance one's own present as well as future health. Health behaviour modification helps the individual to follow a better lifestyle and maintain one's physical as well as psychological health. Theories of health behaviour modification and relapse prevention are discussed in detail in this unit. This unit emphasizes the importance of cultivating, maintaining and modifying one's behaviour, habits attitudes for a healthy personality.

16.7 KEYWORDS

Health behaviour modification

Classical conditioning

Operant conditioning

Cognitive behaviour approach

Relapse prevention

16.8 CHECK YOUR PROGRESS

1. Define health behaviour modification.

2. Explain the theories of health behaviour modification.

3. Explain relapse prevention.

16.9 ANSWERS TO CHECK YOUR PROGRESS

1. 16.3

2. 16.4

3. 16.5

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