LECTURE NOTES

For Health Science Students

General Psychology

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ACKNOWLEDGMENTS

FOREWORD

Psychology is increasingly getting importance in human lives. Major problems of our time such as poverty, environmental and ecological crisis and many other social and economic problems have important psychological implications. Today, no walk of human life can be out of the practical contributions of psychology. Its contribution is particularly recognized in the area of health. Psychologists focus on the prevention of physical and psychological problems rather than just on their treatment. To achieve this, the study of human behavior and how human beings interact with their environment and how they develop physically, socially, emotionally and mentally is important.

This teaching material is prepared as part of The Ethiopian Public Health Initiative: Curriculum and Staff Strengthening Program sponsored by The Carter Center.

It was recognized that there is a need to write simplified lecture notes to health science students enrolled in the university colleges. The specific need for writing this lecture note arose from mitigating shortages of teaching materials in these higher institutions.

This teaching material provides students with basic understanding of human behavior in general and shows the

contribution of psychology in alleviating the health problems of our society in particular. It has incorporated essential and selected topics arranged in a logical manner so as to serve the prospective practitioners in carrying out their duties and responsibilities effectively.

Each chapter begins with a list of behavioral objectives and an introductory remark about the contents, followed by brief concepts structured in a didactic approach. The topics under each chapter are enriched with varieties of health related examples and activities aimed at promoting active learning. What is more, all chapters end with self-assessment questions measuring higher-order learning outcomes in line with the objectives stated under each chapter.

Long years of teaching experience in the field coupled with constructive comments and suggestions solicited from the intra and inter review workshops largely helped the writer to elaborate basic concepts of the subject in a simple and understandable way.

Though the teaching material is intended primarily to serve instructors and students in the health colleges, it is equally relevant to universities and colleges running non-health related programs.

ACRONYMS

WHO: world health organization

ACH: acetylcholine

DA: dopamine

ATP: adenosine tri-phosphate

EEG: electro encephalogram

CAT: computerized axial tomopgraphy

HIV: human immuno-deficiency virus

PET: position emission tomography

MRT: magnetic resonance imaging

S-R: stimulus-response

UCS: unconditioned stimulus

UCR: unconditioned response

NS: neutral stimulus

CS: conditioned stimulus

CR: conditioned response

VIS: visual information store

DRT: drive reduction theory

MMPI: Minnesota-multi phase inventory

ABC: antecedent behavioral consequences

AIDS: acquired immuno deficiency syndrome

PTSD: post traumatic stress disorder

GAs: general adaptive syndrome

DSM: diagnostic statistical manual

CHAPTER ONE
INTRODUCTORY CONCEPTS IN
PSYCHOLOGY

Objectives: at the end of the chapter the student is expected to:

> Define basic terms in the course;
>
> Explain the role of psychology as a means of promoting human welfare;
>
> Differentiate the sub fields of psychology;
>
> Relate major perspective of psychology with issues it is concerned about;
>
> Describe and evaluate major theoretical approaches to psychology;
>
> Identify the main areas of research interest and professional activities in psychology.

1.1. The subject matter of psychology and its definition

Brainstorming: Students will exchange their experience on the following questions as a means to assess their pre-conception about the subject psychology.

> What comes to your mind when you hear the word psychology?

Have you read or listened to anything related to psychology?

What was its content about?

Did you appreciate it? Why?

What do you expect from the course in psychology?

The introductory part of psychology emphasizes on two aspects:

1. Psychology as a science

A Science is defined not by what it studies but by how it studies. Psychologists like any other scientists systematically observe facts about human beings and organize these facts to arrive at generalizations. Psychology shares with other sciences certain aims, assumptions, ways of carrying out research and ways of building and modifying theories.

2. Psychology is a body of knowledge that can be applied to help solve a variety of human problems. In addition to the contribution in the area of research (developmental, social, experimental, physiological psychology), there are many other areas of

and in the home. They collaborate with parents and teachers to assess a child's progress at school and provide help and advice. Counseling psychologists work with individuals, families, couples or groups to improve people's well being, alleviate distress and help them solve their own problems and take their own decisions.

Definition and general remark

The word psychology is derived from two Greek words "psyche" and "logos."

Psyche means soul and logos means the study. Thus, originally psychology was defined as the study of "soul" or "spirit." But later on philosophers defined psyche as mind. Because of this, psychology began to be regarded as the study of an individual's mind or mental process. Through time, this later definition of psychology was given up because the mind as an object does not exist: and cannot be observed and measured objectively. The most widely and accepted definition of psychology is: the science of behavior and mental processes of both humans and animals.

There are some concepts in this definition which need further explanations: The terms are "science" and "behavior."

What is science?

Science is a group of related facts and principles of a particular subject. In science we collect related facts by the use of objective methods to develop a theory to explain those facts. From a given set of conditions, science helps us to predict future happenings.

Example-Biology explains how living things grow and develop. Anatomy describes the structure of human body. Physiology deals with the function of various parts and systems of the body. Nursing and the rest of the health sciences are also founded on science.

Similarly, Psychology as a science deals systematically with human behavior, motives, feelings, emotions, thoughts and

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Example- Motor activities (Walking, speaking)

Cognitive activities (perceiving, remembering, thinking, reasoning)

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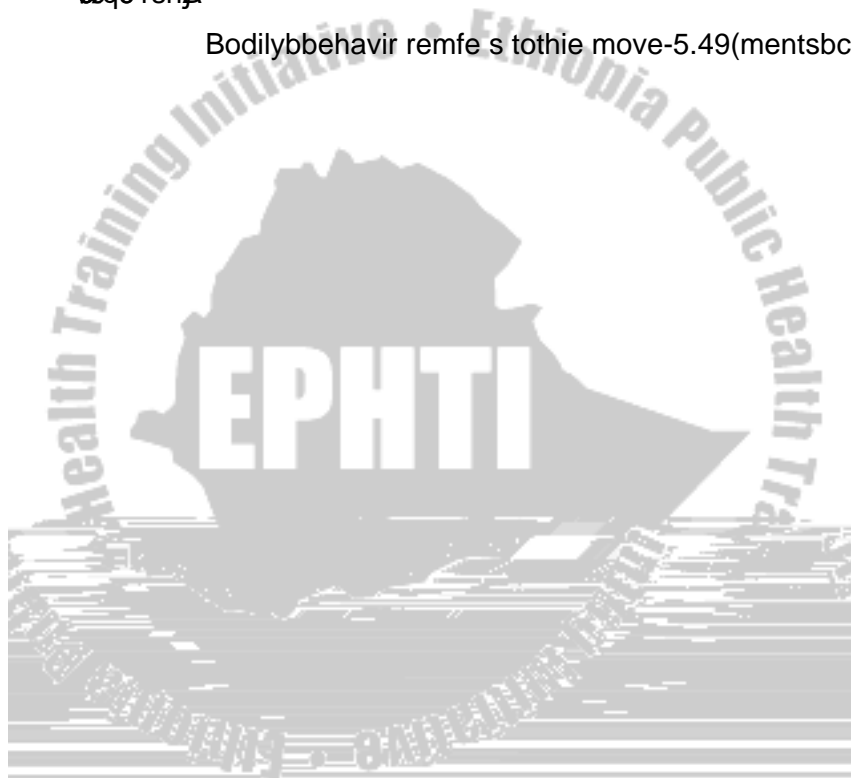
Behavior shows growth and development from the early years of infancy to maturity and old age. Psychology as a science studies how behavior grows and develops from infancy to old age and also studies behavioral differences between people.

In general there are four major facts proposed in relation to the nature of behavior. These are:

Behavior has a bodily basis

Behavior is dynamic

Behavior varies from person to person

Behavior is social

Psychologists collect facts of behavior by means of objective methods such as observation and experiment and predict human behavior.

Example- a patient may react with anger if his movements are restricted in the ward. If the health professional has knowledge of scientific psychology, it is possible to predict and control the patient's behavior.

At times psychologists study animal behavior. The reasons are:

The study of animal behavior helps to develop general laws of behavior that apply to all organisms.

The study of animal behavior provides important clues to answering questions about human behavior.

For ethical reasons it is sometimes difficult to conduct psychological experiments on human beings.

Psychology has a contribution to the health professional. Some of the contributions are:

1. It helps to understand oneself.

    Helps to make rational decisions on becoming a health professional;

    To fulfill the need for economic self-sufficiency;

    Helps to assess ones own abilities and limitations;

    Enables to control situations in the college and attain goal through self-discipline.

2. It assists in understanding other people.

    The health professional works with patients, families, other nurses, doctors and administrative staffs.

    Equipped with the knowledge of psychology, the health professional will achieve greater success in interpersonal relationships.

    Psychology helps the health professional to learn why others differ from him/her in their

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preferences, customs and beliefs or cultural patterns.

3. It enlightens to appreciate the necessity of changing the environment and how to bring it about.

By changing the environment, the health professional can bring about change in the patient's life.

Example: introducing eyeglasses and hearing devices into the environment can help people with visual or auditory impairments.

Scope-   Psychology studies different subject matters and its scope is diverse. It is related with other disciplines.

1. Psychology and politics

Many political problems consist psychological problem. The political battle can be effectively carried on at all, in so far as it can be supported by a scientific psychology.

2. Psychology and Economics

The solution and clarification of an economic problem such as poverty, for example, requires the full understanding of the psychological needs of the human being: which is an essential concept in the theory of personality.

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a. Attractive -Psychology gives you certain skills and understanding that books and theory don't always supply.

b. Important -Human advancement is the activity of human brain. The human brain is the focus of psychological studies. It is the human brain that has brought material security and cultural improvement.

c. Tantalizing - No branch of science is actually too easy to understand. Psychology is also the least 'easy'; because we are trying to study the brain with the help of the brain. However, it still creates the desire to know and understand.

1.2. Major perspectives in the historical development of psychology

Psychology broke away from philosophy and physiology and emerged as a separate discipline over 100 years ago. In the last century, this young and fertile discipline went through a series of changes and expansions in both subject matter and research methods.

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1.2.1. Early perspectives of psychology

1.2.1.1. Structuralism

which were drawn together and synthesized by the mind.

Its method of study was introspection.

In introspection people are taught, trained to observe and report the 'content' or 'elements' of awareness in a particular situation. For example; people are presented with stimulus such as a sentence on a card and asked to describe in their own words their own experiences.

Introspection is detailed description and how people perceive things in the world.

Comments: Introspection is not a true examination of the contents of consciousness, but a retrospective glance at that which has passed through consciousness. The problem is that people will have difficulty in describing and explaining some kinds of inner experiences.

Nowadays introspection as a method is rarely used in some problem-solving and psycholinguistic experiments. Otherwise as an approach it is outdated.

1.2.1.2. Functionalism

The American psychologist William James pioneered functionalism.

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It focused on what the mind does on the functions of mental activity and the role of behavior in allowing people to adapt to their environment.

Functionalism was strongly influenced by biology. The work and ideas of Charles Darwin had a great impact on the emergence of functional psychology. According to Darwin's theory of evolution, living organisms change and develop over time through a process of natural selection. Organisms whose characteristics were best suited to their environment survived and reproduced. While organisms whose characteristics were less adaptable died out. Survivors would transmit to the next generation those characteristics that enabled them to survive.

William James was greatly influenced by Darwin. James held that the function of consciousness was to enable humans to behave in ways that would act survival through adaptation to the environment.

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Where these adaptive behaviors were repeated frequently they became habits. Habits provide stability and predictability in society.

1.2.1.3. Gestalt psychology

The leading proponents of the Gestalt view were the German psychologists Max Wertheimer, Kurt Kafka and Wolfgang Kohler.

Instead of considering separate parts that make up thinking, Gestalt psychologists concentrated on the 'whole'. Their slogan is 'the whole is greater than the sum of its parts'. Gestalt means shape, form or configuration.

Their belief was that the whole is different from the sum of its parts. In order to understand our environment we have to perceive it in its totality not in its individuality. Max werthiemer said that '***it is a mistake to analyze psychological events into pieces, or elements, as the strtucturalists did***.'

Further research by the Gestalt psychologists led to the development of a set of principles of perceptual organization. Such organizations arose through the brains innate ability to structure and organize the

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They cannot be directly studied through introspection.

According to Freud the methods of studying the unconscious mind are:

a. Free association

In this method the psychoanalyst gives the client a word and asks to reply with the first word that comes to mind be it nonsense or irrelevant. The psychoanalyst makes associations and meanings between ideas, words, and thought.

It is a projective technique to explore the client'seply with the first word th

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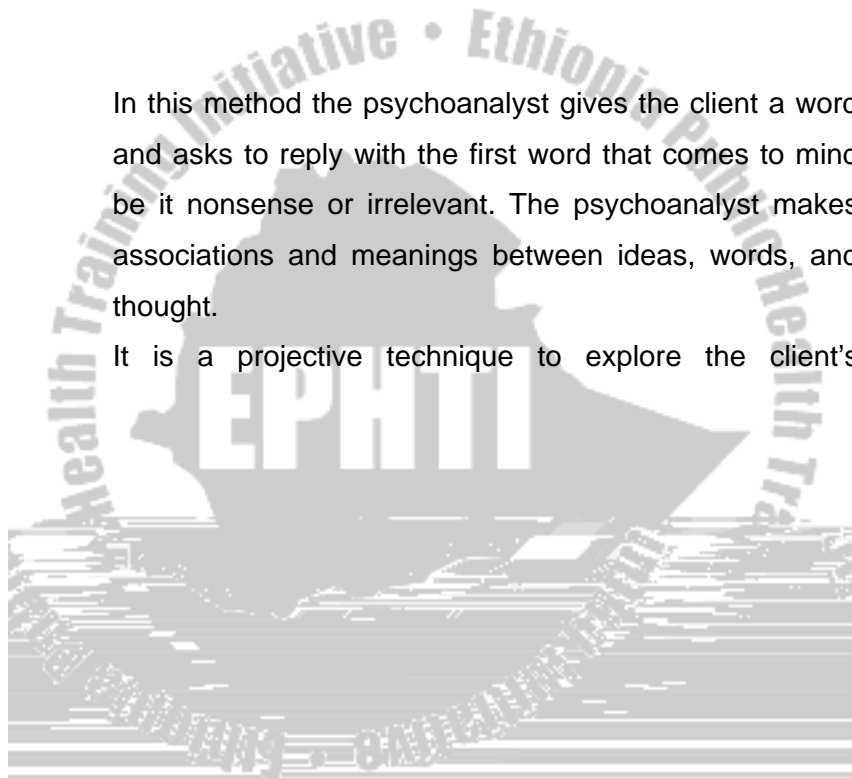
Comments: Most wishes are repressed in the human mind. So it is difficult to understand and interpret the contents of dreams.

Conclusion   -The concept of unconscious experience strongly initiated psychological research in modern times. Freud's work attracted many followers, but his theory also generated much debate and controversy. Even among his original followers such as Carl Jung and Alfred Adler, eventually broke away from him and developed their own modified thoughts of psychoanalytic theory. For further explanations see Adler's individual psychology and Roger's humanistic theory under personality psychology chapter seven.

1.2.1.5. Behaviorism

John Watson (1878-1958) revolutionized psychology by changing the subject matter of psychology from the study of conscious experience to the study of behavior. Watson believed that the study of psychology should be about observable behavior and its aim should be to describe, predict, understand and control behavior.

He contended that psychologists should never use the terms consciousness, mental states, introspection, imagery and the like.

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Followers of behaviorism did not reject the existence of mind and consciousness. Rather, they viewed these concepts as impossible to observe and contributing little to a scientific approach to psychology.

Watson's focus on the study of observable behaviorx7ĵ14722 TD0en(std as 7a

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1.2.2. Recent perspectives

1.2.2.1. The biological perspective

It states that behavior has a biological basis. The behavior of both people and animals should be considered in terms of biological functioning. Topics that are discussed in this perspective include:

How the individual nerve cells are joined together?

How heredity influences behavior?

What are the physiological responses when a baby confronts a stranger?

1.2.2.2. The cognitive perspective

It focuses on the process that helps people to know, understand, and think about the world.

This perspective explains how information in the memory is processed at different

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a new way of thinking for psychological investigations.

His experiment on dogs enabled psychologists to explain certain behavior and certain differences among individuals as the result of learning.

Following the works of Pavlov, Thorn dike and Watson behaviorism got strength. Through time, its principles and methods of study became an integral part of psychology. By the middle of the twentieth century, it was widely accepted that psychology was about the study of behavior rather than conscious experience.

The American psychologist B.F.Skinner refined and popularized behaviorism. He showed that the consequences of behavior provide the basic mechanism for predicting and shaping future behavior.

Contribution: Skinner's theory inspired certain techniques of toilet training how to loose weight, quit smoking and learn new skills. His theory helped to develop techniques for the treatment of various psychological disorders, the resolution of sexual problems and even the halting of drug addiction.

Comment: Some psychologists argue that Skinnerian conditioning using reinforcement technique is manipulative; because it limits personal freedom.

1.2.2.4. The humanistic perspective

It is a psychological approach that suggests that people are in control of their lives

This perspective assumes that people are naturally endowed with the capacity to make decisions about their lives and to control their behavior.

Humanistic psychologists claim that everyone has the capacity to develop to higher levels of maturity and realize his/her full potential if given the opportunity.

The human being has free will to make decisions about his/her own life, rather than depending on societal standards. For example, if a person chooses to lead an average life, it cannot be considered as worse compared to a person who has higher aspirations.

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General conclusion: The above brief summary on the definition and the subject matter of Psychology is far from being comprehensive. It explores only a few of the most important contributions of psychologists. You may enrich it by further readings

1.3. Some branches of Psychology (fields of specialization)

and suggested him that his concern is one that is shared by many students in the college.

Case 3. A researcher on the laboratory table removed the adrenal glands from a brown Australian marsupial mouse. Male members of the species show a sort of matching dance. After five to twelve hours of continuous sex they die. However, this behavior only occurs during a twelve-week period. The researcher believed that the adrenal glands trigger this furious sexual behavior in response to seasonal varieties in the length of day and change in temperature.

Psychology can be likened to a large extended family. Each of the branches of psychology can be considered as nephews, aunts, uncles, and cousins who may not interact on- day- to- day basis, but have blood relationship. Some of the branches are:

1. Experimental psychology

   Generally they use controlled laboratory experiments to pursue their study

   Basic topics studied include:

   . Sensation
   . Perception
   . Learning
   . Memory
   . Problem solving

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. Communication

. Emotion

. Motivation

Experimental psychologists attempt to answer the following questions.

What is the basis for love between a mother and her baby?

Can animals think?

What is the role of the brain in memory?

Experiments are made not only on human beings; but also on animals. This is because that animal research leads to human research that can give us insight into the behavior of our own species.

2. Physiological psychology

This branch of psychology looks for explanations of behavior in the physiological structures of humans and animals. Some of the questions raised by physiological psychologists include:

What physiological changes occur in people during sleep and dreaming?

What is the relationship between the incidence of motorway accidents and changes in the

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The study of the relation between personality and behavior is an example of research in personality psychology.

It studies individual differences in behavior and why people not react in a similar way to the same situation.

5. Social Psychology

Social psychology is a wide-ranging field of study. Among the topics that can be studied are:

.   Friendship formation

.   Conflict

.   Perception of other people

.   Aggressiveness

Example: Research findings in social psychology showed that delinquent boys who watched aggressive or violent movies are engaged in more acts of physical aggression after seeing these movies than delinquent boys who watched neutral movies.

The Particular interest of social psychologists is on the relevance of their research to human society i.e. human problems in the group, the community, the nation and the world.

6. Clinical Psychology

Conclusion: Given the diversity of roles that psychologists play, many psychologists in our country are employed by institutions of higher education and secondary schools. Very few psychologists work in human service organizations like hospitals, social affairs and non-governmental organizations as consultants. However, nowadays the importance of psychology is getting bettework d1ogy wornn and4.8ary she imp22T(Hrtry i)0009 Tc0 .00 usionps02ting be1.4

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avoid ambiguity. One way to check the objectivity of findings is to see if they can be replicated. If similar results are yielded with the same or different participants and in different contexts objectivity of findings is

Identifying and clearly stating the problem;

Generating hypothesis;

Deciding the research procedure;

Decide the type of data;

Gather the Data;

Analyze the data by means of statistical techniques.

Conclusion and recommendations.

Data gathering is influenced by factors involved in the research and the nature of the population to be studied. When gathering data psychologists focus on variables, factors or events.

A variable is something that undergoes changes. If the variable in the research is, for example, intensity of a tone, intensity is the variable; if difficulty of a test is the variable in a study, the study variable is difficulty. There are two major types of variables. These are:

1. Independent variable: any factor whose change is expected to affect the event that is being studied.

2. Dependent variable: the event that is expected to change when the independent variable is altered.

Suppose an epidemiologist wants to investigate the effect on tooth decay of the addition of fluoride to drinking water. The independent variable in this research design is addition of fluoride. Tooth decay is the dependent variable.

Collecting all possible data is not practical. Hence, there is a need to sample from the target population. But the sample must be:

    a. Large enough to reflect the universe (population)

    b. Randomly selected i.e., every member of the population has an equal chance of being included in the sample. In a random sampling, some members are not favored over others. It is called representative- ness.

Representative ness goes beyond the choice of subjects. The specific items in which people in a study respond should be an adequate sample of possible items.

Once the problem is identified, we can use any of the following five methods.

1. The experimental method

It is regarded as the method of choice. This enables to infer cause - effect relationship with reasonable confidence. Extraneous variables that can affect the result of the experiment can be controlled. In experimental research method there are two groups. These are the experimental group and the control group. A group in an experiment that is exposed to the independent variable(s) under investigation is the experimental group. The group that receives similar treatment except for the critical independent variable(s) is called the control group.

Advantages: the experimental method enables to rule out all influences on the subject's behavior except the factors being considered and to make influences based on objective findings.

Limitations: ruling out extraneous influences sometimes makes the situation so unnatural that behaviors shown during the experiment may not resemble its counterpart in daily life.

Not all experiments take place in a lab setting. Some are conducted on street corners, subways hospitals, schools, airports, offices etc., These field experiments

are, however, difficult to conduct for the very reason that control of extraneous variables is unlikely.

2. Correlational research

It is a research method, which studies the relationship between two or more variables. All problems cannot be studied using experimental method.

See the following research problem;

'The relationship between parental discipline and juvenile delinquency.'

Hypothesis.

a. Permissive parental discipline leads to juvenile delinquency;

b. Strict parental discipline leads to juvenile delinquency;

To investigate this problem using the experimental method we select those parents who are permissive and strict toward their children and count the number of delinquencies when they reach adolescence.

But not only it is difficult to get such willing parents but also it is unethical for the children to be treated in the

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Correlation: It is the degree of relationship between two variables.

If a high rank on one measure is paired with a high rank on the other measure it is positive correlation. If a high rank on one measure is paired with a low rank on the other then it is negative correlation.

The correlation coefficient is a numerical index showing the extent of relationship between the two variables under examinations. The values range from –1 to +1.

Examples: socioeconomic status versus years of schooling (the direction is positive)

Musical ability versus tone deafness (the direction is negative)

Eye color versus education (usually no correlation)

Interpretation of correlation coefficients: coefficients indicate merely that two things tend to occur together. They do not show cause and effect relationship. But correlational studies help at least to predict human behavior.

Example: a young girl from an upper middle class home is likely to join college.

Advantages: It corresponds to daily life. When practical or ethical questions do not permit the use of experimental method we can use correlational studies.

Limitations: Since variables are manipulated by life not in the lab, it is impossible to control other factors that might affect the outcome.

3. The survey method

It is a method of getting information regarding peoples' characteristics attitudes, opinions or behavior by asking them all the same question.

Example: the central statistical office (CSO) conducts a large-scale survey. It enables to establish the size, distribution and characteristics of the population.

Advantages: Survey research tells us a great deal about people. Questioning every household produces accurate information. But completeness is beyond the budget, staff and time of the psychologist. Hence, sample of individuals are queried.

Survey methods are often used alone. But sometimes they are used in connection with experiments.

Survey can be Oral (interview) or written (questionnaire).

Interview: allows the investigator to see the subjects.

Questionnaire: it takes less time to administer. Its advantage is to gather information from a

we want to prove the hypothesis" *Experience with language in the first few years of life is necessary if a person is ever to acquire a language"*

Experimental method is not suitable to study this problem. Because it is unethical to deprive a child from social interaction to test our hypotheses.

Correlational method is not suitable. Because almost [Ex4(ral Psyoulconto8Q2)]TJ01c18yrae gear1dnrlTw the)mssary

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Suppose we want to study whether men and women smile at each other more in a supermarket or at a car wash. The above methods all tell us nothing. To answer this question we have to visit a number of supermarkets and car washes and observe men and women.

In naturalistic observation the observer is:

Passive;

Unobserved;

Does not intrude the situation being studied.

Different kinds of behavior that might be observed:

Physical signs;

Expressive movements;

Physical location: where people sit or stand in relation to one another;

Conversation;

Length of time children play with toys.

Advantage: It is directly applicable to daily life and people are more likely to behave normally in such settings than in a laboratory.

Limitation: the observer has no control over any of the variables.

Solution: observing children from behind a one-way mirror without being recognizes can solve the problem of the effect of the observer.

Sometimes participant observation can be used. Members of a research team actually join an existing group to record events and impressions that are accessible only to group of members.

To make observational research valid:

Develop ways of recording data that avoid the problems of subjective interpretation.

Develop explicit rules for categorizing and recording what thew observer sees, so that two observers can come up with comparable results.

General conclusion: problem is identified. Hypotheses are generated. Method is selected. Data is collected. The next step is to organize, analyze and systematically put the data using statistical techniques.

Self- assessment questions

1. What is the general importance of psychology? Why should a health student study it?

2. Explain the term behavior by giving examples of your friend's behavior in the classroom, at the dinning hall and at the student lounge.
3. Why is psychology regarded as a science?
4. According to the behaviorists, what is the most important influence on the development of behavior?
5. List down the main school of thoughts in psychology in their chronological order.
6. Mention at least three branches of psychology and explain their interest

CHAPTER TWO

BIOLOGICAL BASIS OF BEHAVIOR
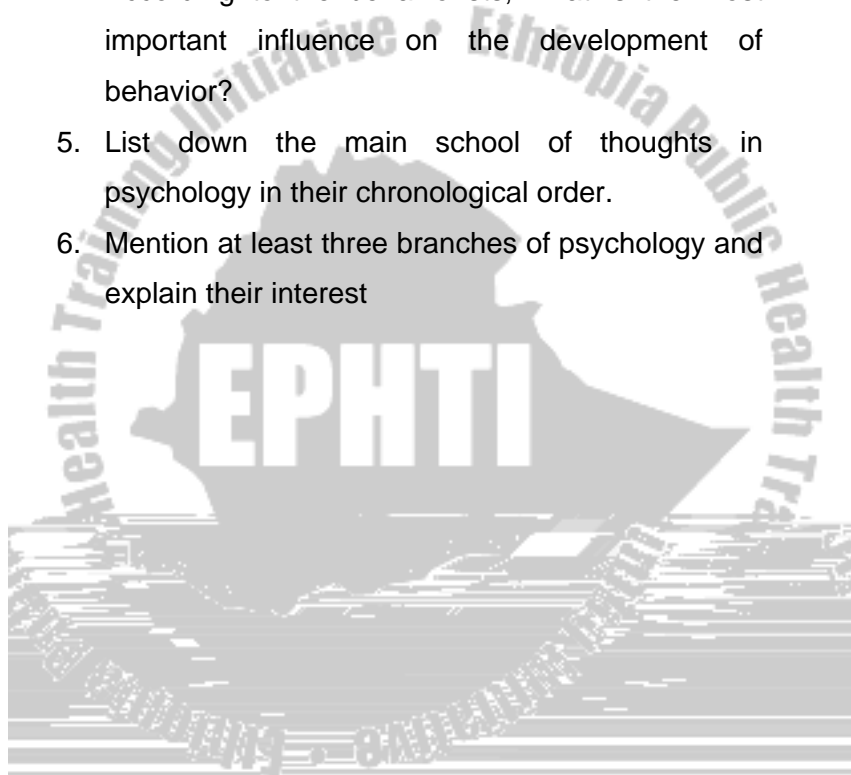
At the end of this chapter the student is expected to:

Relate the physiological mechanisms of the body to mental processes;

Discuss the relationship between physiology, mental processes and behavior;

This chapter attempts to answer the following questions.

1. Why do psychologists study the brain and nervous system?
2. What are the basic elements of the nervous system?
3. How does the nervous system communicate electrical and chemical messages from one part to another?

2.1. Definition and general remark

Sometimes Biological psychology is referred to as physiological psychology or psychobiology. It studies the relationship between the mind and the body and how one influences the other. Bio psychologists are professionals who study the ways biological structures and body functions affect behavior.

In order to understand how the brain exerts control over the different body movements involved in simple and complex tasks,

it is essential to examine the neurons and the ways in which nerve impulses are transmitted throughout the brain and body.

2.2. Neurons: Neurons are specialized cells that are the basic elements of the nervous system that carry massages.

The most important feature of neurons is their ability to communicate with other cells. It is estimated that about two billion neurons exist in the brain alone and the number of neural connections within the brain to be one quadrillion.

The structure of the neurons

In playing the piano, driving a car, or throwing a ball to the basket, different muscles are involved. The body system sends messages to the muscles and coordinates these messages to produce successful results. Such messages are passed through specialized cells called neurons.

a. Dendrites: They are cluster of fibers at one end of a neuron that receives messages from other neurons.

b. Axon: It is a tube like long extension from the end of a neuron that carries messages to other cells through the neuron. The length of axons range from several millimeters to three feet.

c. Terminal buttons: They are small branches at the end of an axon that relay massages to other cells. Electrical messages travel through neuron beginning with detection of messages by

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dendrites, continue into the cell body(nucleus) and pass down the axon.

d. Myelin sheath: It is the axons protective coating, made of fat and protein. Its function is to prevent messages from short circulating by insulating the axons.

In certain diseases like multiple sclerosis, the myelin sheath loses its function, exposing parts of the axon. In this case, there will be a message disturbance between the brain and muscles and results in the inability to walk, vision disabilities, and general muscle impairment.

Chemical substances needed for the nourishment of the cell nucleus move also in a reverse direction i.e. axons-to-cell body. When vital material is not transported to the neuron in this reverse direction, the neuron dies from starvation and the disease amyotrphic lateral sclerosis develops. Similarly, rabies is caused by the transmission of the rabies virus by reverse flow along the axon from the terminal buttons.

The firing of electrical charges in a neuron follows an all –or-none law. They are either on firing or resting state. When neurons are off or at resting state, there is one thousandth of a volt (70 milli volts). When a message arrives, the cell wall in the neuron allows positively charged ions to rush in at rates as high as 100 million ions per second. The sudden arrival of positive ions causes the charge to change from negative to positive in the

If a receiving neuron fires and an action potential travels down the axon, it is excitory message.

If the neuro-transmitters chemical information prevents or decreases the likelihood of the neuron fire, it is inhibitory message.

The integration of simultaneous messages by the dendrites depends on the number of messages. If the number of excitory message outweighs the number of inhibitory ones, the neuron will fire. On the other hand, if the number of inhibitory messages outweighs the excitory ones, nothing will happen. The neuron will remain in its resting state. Effective communication across synapse becomes impossible when receptor neurons are constantly stimulated by neurotransmitter. In this case the terminal button reabsorbs the neuro transmitter. It is called reuptake.

The major neurotransmitters are:

1. Acetylcholine (Ach)
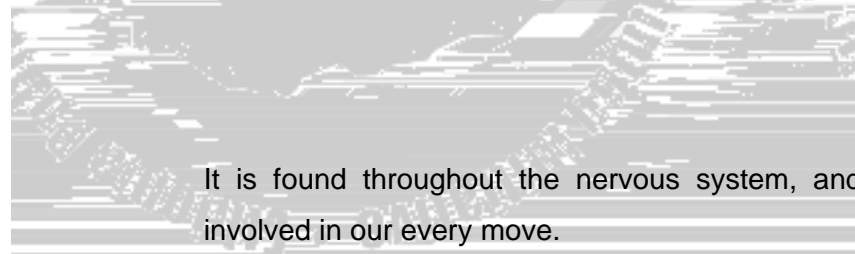
    It is found throughout the nervous system, and involved in our every move.

    The drug curare used by South American Indians on the tips of poisoned darts keeps Ach from reaching receptor cells, thereby paralyzing the

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skeletal muscles and ultimately producing death by suffocation.

Ach is closely related to memory capabilities.

Example: Alzheimer disease is associated with a deficiency in the production of Ach.

2. Gamma- amino butyric acid (GABA)

It is found in the brain and spinal cord

It is primarily an inhibitory neuro transmitter.

It moderates activities, such as, eating and aggression.

The poison Strychnine prevents GABA from carrying out its inhibitory role, permitting neurons to fire wildly, thereby producing convulsions.

Tranquilizers (e.g. Valium) and alcohol are effective because they permit GABA to operate more effectively.

3. Dopamine (DA)

Muscular rigidity and shaking (Parkinson's syndrome) seems to be caused by a deficiency of dopamine in the brain.

Researchers have hypothesized that schizophrenia and some other severe mental disturbances are

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caused by the presence of unusually high levels of dopamine.

4. Adenosine tri-phosphate (ATP)

It is the fuel used by the body to produce energy within cells.

Because it works very quickly, some investigators hypothesized that ATP is essential in the formation of synapses vital to memory.

5. Endorphins

They are a family of chemicals similar in structure to painkillers.

They are found in large concentration in the brains of people afflicted with diseases that produce long term severe pain.

In addition to pain reduction, endorphins also produce euphoric feelings that joggers experience.

The belief that patients can be relieved from pain due to acupuncture and placebos can be partly explained by the release of endorphins.

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2.4. Major parts of the brain and their relationship to behavior

2.4.1. Major parts of the brain and their function

a. The central core

It is similar to that found in all vertebrates

Its function is to control eating, sleeping and breathing.

b. The reticular formation

It is made up of groups of nerve cells that can immediately activate other parts of the brain to produce general bodily arousal.

Example: If we are startled by a loud noise the reticular formation prompts us to respond. The reticular formation as well allows sleeping by guarding us from disturbing background noises.

c. The cerebellum

Its function is to enable us to walk straight and control body balance

It constantly monitors feedback from the muscles to coordinate their placement, movement and

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coordination. Drinking too much alcohol affects the activity of the cerebellum, leading the person to stagger.

a. The thalamus

It is a station for messages coming from the eyes, ears, and skin and communicated upward to higher parts of the brain.

It integrates and sorts out information from higher parts of the brain and sends to the cerebellum and medulla.

b. The hypothalamus

It is located just below the thalamus

It helps to maintain a balanced internal environment

It regulates such behaviors as eating, drinking, sexual behaviors,

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c. The cerebral cortex

> It is part of the brain that distinguishes human kind from all other animals.

> Unique function of the brain, that allows human beings to think evaluate and make complex judgments are principally located in the cerebral cortex.

> The three major areas of the cortex are:

1. The motor area

> This area is responsible for the voluntary movement of particular parts of the body

> Every portion of the motor area corresponds to a specific locale within the body.

Example: If mild electrical stimulation were applied to a particular portion of the motor area, there would be involuntary movement in the corresponding part of the body.

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2. The sensory area

>This area includes three regions corresponding to the senses.
>
>The somatic sensory area corresponds to touch and pressure
>
>The auditory corresponds to sight
>
>The visual area corresponds to sound. Raw sensory inputs from the eyes are transformed into meaningful stimuli.

3. The association areas

>The association areas are generally considered to be the site for higher mental processes such as thinking, language, memory and speech.

Damage to the association areas can result in:

>Personality changes that affect the ability to make moral judgments
>
>Apraxia: a condition in which an individual is unable to integrate activities in a rational or logical manner

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Example: a person with apraxia when asked to open a lock with a key may be unable to do so in response to the request.

Aphasia: problem of verbal expression

Example: speech becomes halting, laborious and often ungrammatical

Difficulty in understanding others

2.4.2. Major brain scanning techniques

Important advances have been made in the study of the brain. This has been possible by using the brain scanning technique.

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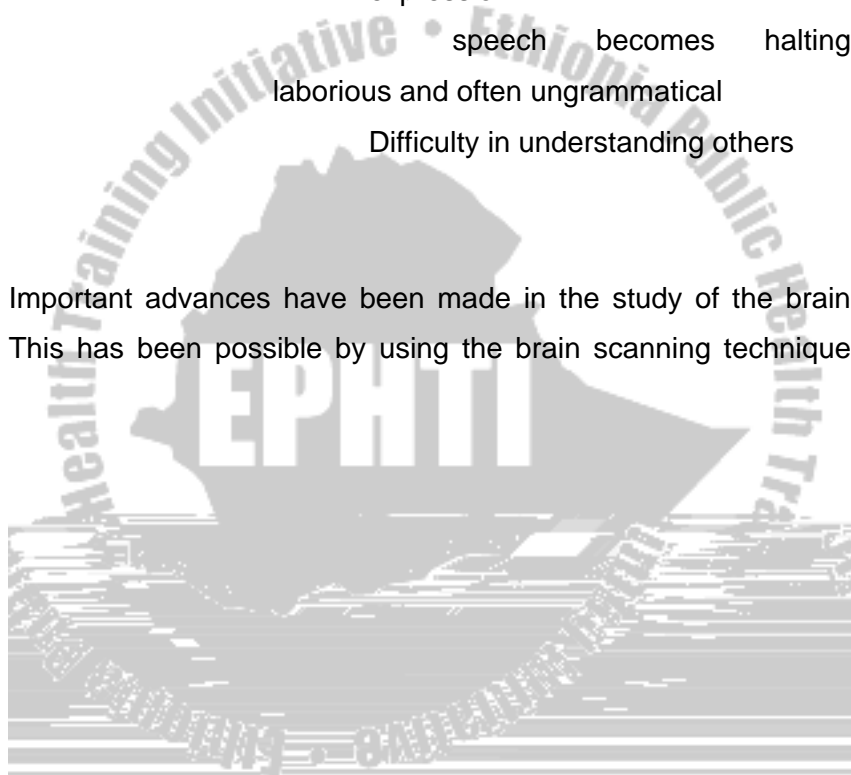
The brain's electrical activity is transformed into a pictorial representation of the brain.

The use of this technique enabled the diagnosis of epilepsy and some learning difficulties.

e. The Computerized Axial Tomography (CAT) scan:

The scan uses a computer to construct an image of the brain by combining thousands of separate x-rays.

Its use is to show abnormalities in the structure of the brain such as swelling and enlargement.

f. The Magnetic Resonance Imaging (MRI) scan:

It provides detailed and vivid image of brain structure and individual bundles of nerves in other parts of the body.

g. The Position Emission Tomography(PET) scan:

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It shows bio-chemical activity within the brain at a given moment.

The computerized devise helps to determine the more active regions of the brain at work.

2.5. Major components and functions of endocrine systems

Definition: Endocrine system is a chemical communication network that sends messages through the nervous system via the blood stream and secretes hormones that affect body growth and functioning.

Major components of the endocrine system are:

Pituitary glands;

Thyroid glands;

Adrenal glands.

Major functions of the endocrine glands are:

Regulate metabolism and growth;

Regulate absorption of nutrients;

Regulate fluid balance and ion concentration;

Regulates the body's response to stress;

Regulates sexual characteristics, reproduction, birth and lactation.

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CHAPTER THREE
SENSATION AND PERCEPTION

By the end of this chapter the student is expected to:

    Distinguish between sensation and perception;

    Outline some factors which determine perception;

    Explain the gestalt laws of perception;

    Explain the different theories of perception.
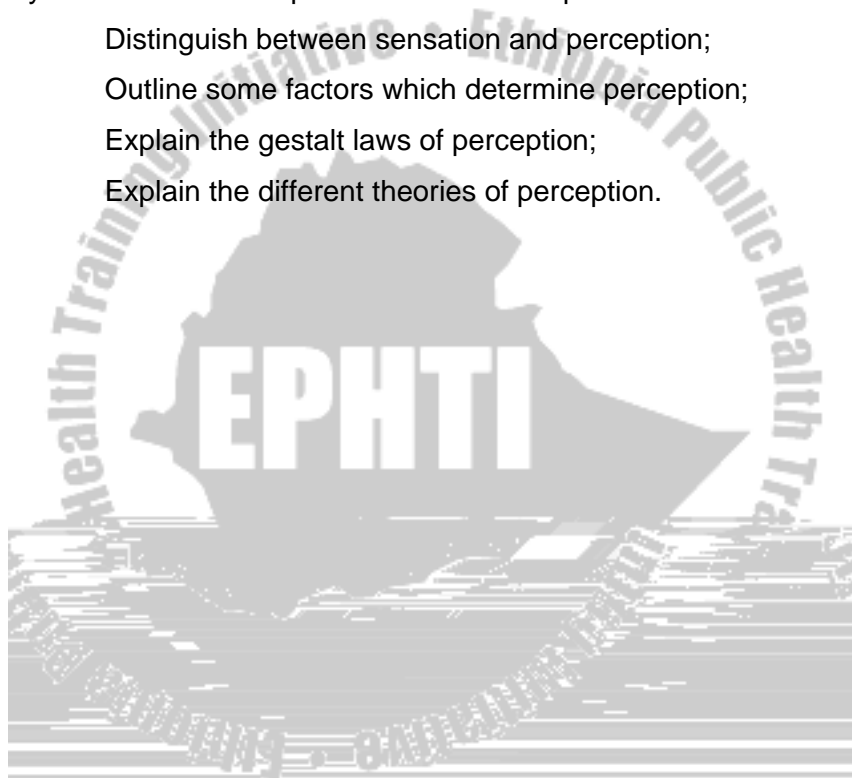
Simple and complex questions related with our day to day experiences such as:

> What processes enable us to see and hear?
>
> How we know whether sugar or lemon is sweeter?
>
> How we distinguish one person from another? We can get answers to the above questins from our knowledge of sensation and perception.

Sensation and perception are the starting points for all other psychological processes. They supply the data we use for learning and remembering for thinking and problem solving, for communicating with others, for experiencing emotions, and for being aware of ourselves. Without sensation and perception we would not form thoughts or feelings.

Brain storming activity: read the following case and brainstorm the questions below it.

Bezawit is at her parent's home for the Easter vacation. It is a semester break. She is exhausted from campus life, intensive academic work and especially from the tasteless lunches at the campus cafeteria. But these thoughts were soon interrupted when she saw her mother carrying *dorowat with injera* (one of

Ethiopian favorite dishes), on a tray and placed it at the center of the table. All family members were sitting and they were talking and laughing.. The smell of the *dorowat* reached Bezawit and soon she felt her stomach growl from hunger. The sight and voice of her family members around the table along with the smell and taste of the *dorowa*t made Bezawit feel more comfortable and forget the tiresome college life.

Brainstorming questions

How different her feeling be if any one of Bezawit's senses were not functioning.

What would happen to Bezawit had she not listened to the conversion of her family members.h1 Tml6/TT2 ,cshed Bezawit and

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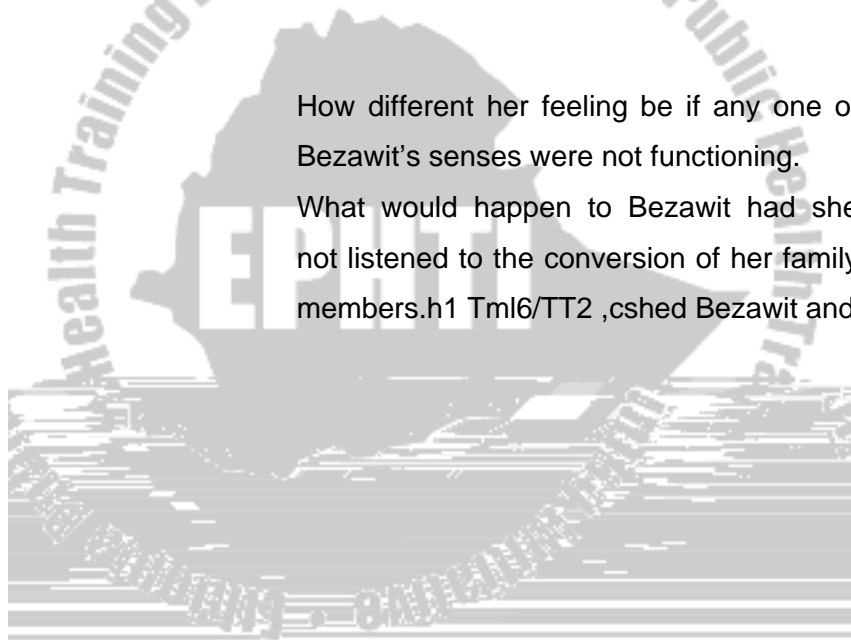
1. Stimulus: It is a source of physical energy that produces a response in the sense organs. The energy could be sound waves, light waves, and heat pressure to which an organism is capable of responding. A sensation is a response to that energy by a sensory system. Stimulus and sensation have cause and effect relationship.

The quality of a stimulus refers to the kind of sensation it produces.
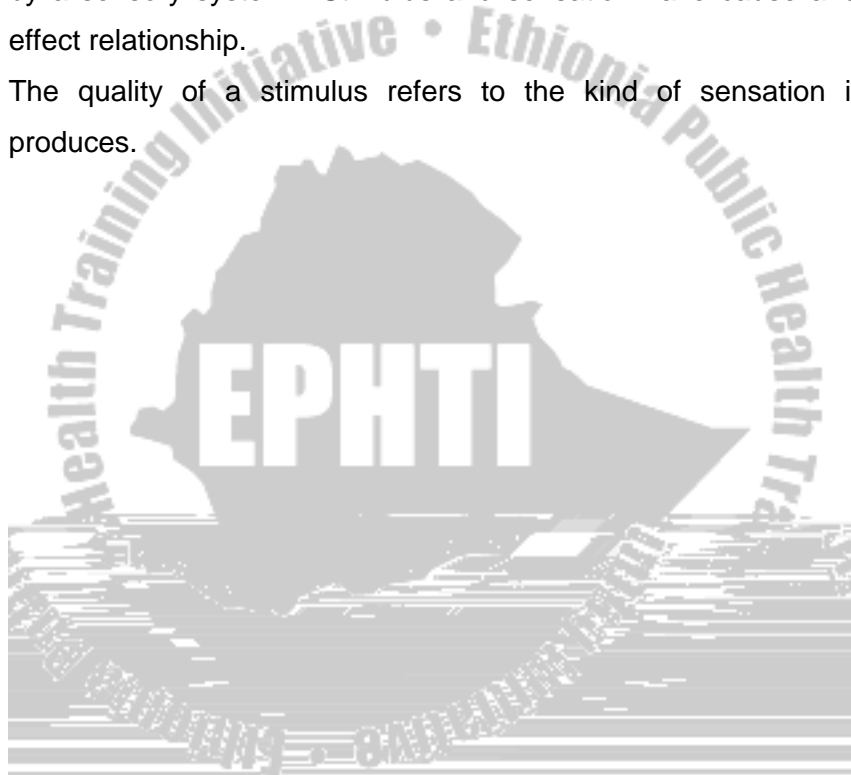
A branch of psychology called psychophysics studies the relationship between the intensity of a stimulus and its sensory response. In other words it studies the relationship between the physical nature of stimuli and people's sensory responses to them.

There are several factors that affect our perception. Some of these are:

a. Context and expectation

In an experiment by Bruner and Minturn (1955, cited by Baron), participants were shown sequences either of letters or of numbers, for example:

    C D E F G H or

    8 9 10 11 12

When perceived with a figure/number I3 that could be either B or 13, those who had seen the sequence or letters tended to perceive it as B, while those who had seen the numbers perceived it as 13. The context in which it was seen produced expectation and induced a particular set.

b. Motivation

Studies have shown the effects of motivation upon the way in which things are perceived. Solley and Haigh(1956, cited in Baron), for instance, asked children aged four to eight to draw

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pictures of Santa Claus during the month running up to Christmas. As Christmas approached, Santa Claus became larger, nearer, more elaborate, a more decorated costume and a bigger bag of presents. After Christmas, Santa shrank and his present bag all but disappeared.

c. Emotion and perception

In a study by McGinnis (1949, cited in Baron), participants were presented with either neutral stimulus such as table apple chair or 'taboo' words. Each of these words was presented very briefly, then for increasing length of time. At the same time a measure of emotional response (Galvanic Skin Response) was taken. It was found that the taboo words had a higher recognition threshold and were also accompanied by greater GSR.

d. Values, culture and personality

There is evidence that suggests that an individual's value system may induce a set. Post man (1948,cited in Baron), rated participants on the Allport-Vernnon scale of values. The scale divides values into six categories. These are theoretical, social, economic, aesthetic, political and religious. The result showed that, words, which are relatd to highly rated value categories, were found to be more easily perceived than lower-rated values. Cultural prejudices have an effect upon perception. In

Pettigrew(1958, cited in Baron) study, different racial groups of south Africans pictures were shown to Afrikaners. The pictures were shown to each of their eyes simultaneously. Afrikaners tended to exhibit a cultural set in that they saw all the pictures as either Europeans or African without differentiating Indians and those of mixed race from the Africans.

6. Absolute threshold: It is the smallest intensity of a stimulus that must be present for it to be detected.

For a stimulus to be detected by our sense organs it must become strong enough.

The following research findings on absolute threshold are taken from the works of Galanter (1962) as cited in (Feldman, 1996)

Sight: a candle flame can be seen 30 miles away on a dark, clear night.

Hearing: the ticking of a watch can be heard 20 feet away under quiet conditions.

Taste: A teaspoon of sugar can be detected in nine liters of water

Smell: A drop of perfume can be detected when one drop is present in a three-room apartment.

Touch: The falling of a bee's wing from a distance of one centimeter can be felt on a cheek.

7. Difference threshold: it is the smallest detectable difference between two stimuli.

A noticeable difference depends on the value of the initial intensity of the stimulus.

Example: When the moon is seen in the late afternoon, it appears relatively dim. When it is seen in the dark, it seems quite bright.

Weber's law: The law states that 'the just noticeable difference is in constant proportion to the intensity of an initial stimulus."

Weber's law in psychophysics explains the relationship between changes in the original value of a stimulus and the degree to which the change will be noticed.

Example: If a one-pound increase in a ten-pound weight produces a just noticeable difference, it would take a ten-pound

Example A

produto

8. Sensory adaptation: It is an adjustment in sensory capacity following long period of exposure to stimuli. It is the tendency of receptor cells in the sense organs to respond less and less to a constant stimulus. Adaptation occurs as a result of prolonged

small portion of this information. Selective attention enables them to sort out and process this information.

In this operation we can distinguish between controlled and automatic processing. Controlled processing is serial; one thing is processed after another. Automatic processing is parallel. More than one processing operation can occur at a time. Difficult and unfamiliar tasks require controlled processing. Simple and familiar tasks can be processed automatically.

Factors which determine whether or not we pay attention to a stimulus are:

1. Intensity: a bright color will attract us more than a dull one.
2. Size: a large thing is more likely to catch our attention than something small.
3. Duration of repetition: a quickly running stimulus will not catch our attention as easily as one, which persists or is repeated.
4. Emotional content: a stimulus, which creates emotional feeling, attracts our attention more than a neutral one.
5. Suddenness or novelty: sudden stimulus is likely to catch our attention more easily than one we have been expecting.

6. Contrast: contrasting stimulus will attract attention more easily than those, which are similar to each other.

7. Movement: a stimulus, which moves, is more likely to attract attention than something stationary.

Activity: Observe advertisements on the Ethiopian television. List the occasions and describe how the above factors are evident. Assess the effectiveness of these advertisements in attracting the attention of the public.

Reading assignment

1. What are the basic processes that underline the senses of vision and hearing?

2. What role does the ear play in the senses of sound, motion, and balance?

3. How do the senses of smell and taste function?

4. What are the skin senses, and how do they relate to the experience of pain?

3.3. Theories related to sensation and perception

3.3.1. Signal detection theory: this theory addresses the role of psychological factors in detecting stimuli.

Activity: Pose the following questions to your students so that they may identify psychological factors, which will enable them to answer the questions below.

> Is this person HIV-positive?
>
> Is the person lying?
>
> Is this athlete using drugs?
>
> Will this college applicant succeed?

Several factors influence us how we answer such questions. For instance, physicians who are seeking to identify the presence of a tumor in an x-ray are influenced by their expectations, knowledge, and experience with patients. From this we can understand that the ability to detect a stimulus depends not only on the type and intensity of the stimulus but also on psychological factors.

People can make mistakes in their attempt to detect a stimulus. According to signal detection theory there are two kinds of errors made by people in their attempt to detect a stimulus. These are:

> Reporting a stimulus as existing when it is non-existent;
>
> Reporting a stimulus as non-existent when it actually exists;

In such conditions, using signal detection theory, psychologists are able to obtain an understanding of how observer's expectations, motivations, and judgment affect individual's ability to detect a stimulus.

The findings in signal detection theory have great practical importance in our life.

Example: If a radar operator, who is responsible for distinguishing incoming enemy missiles from the images of passing birds, makes a mistake, the consequence will be dangerous.

The gestalt laws of organization are principles that describe how we organize and construct pieces of information into meaningful wholes. They include: closure, proximity, similarity, and simplicity. Activity: encourage your students to reflect their knowledge of Gestalt psychology discussed in chapter one.

1. Closure: We perceive things by grouping them as complete figure rather than open and breaks. We tend to ignore the breaks in the figure below and concentrate on the overall form as a triangle.
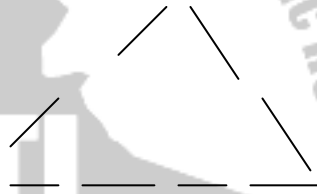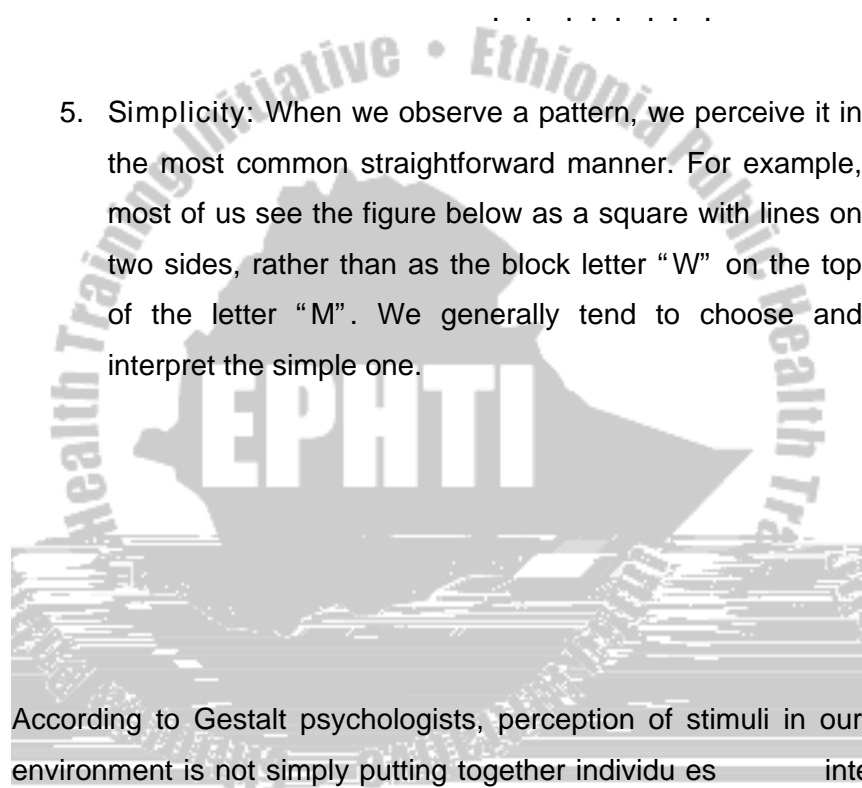
2. Proximity: Things that are closer together are grouped together. As a result we tend to see pairs of dots rather than a row of single dots in the following patterns.
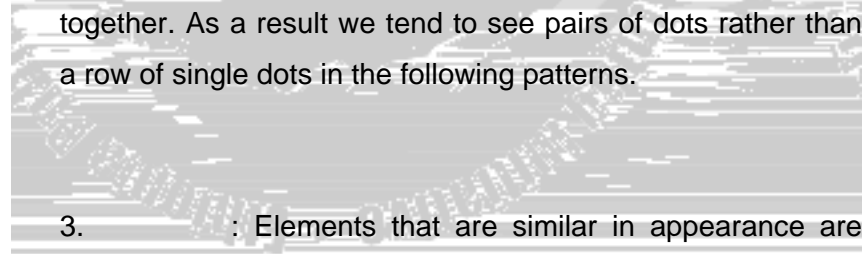
3. Similarity: Elements that are similar in appearance are grouped together. We see horizontal rows of dots and squares instead of vertical mixed columns below.

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. . . .

. . . .

. . . .

5. Simplicity: When we observe a pattern, we perceive it in the most common straightforward manner. For example, most of us see the figure below as a square with lines on two sides, rather than as the block letter "W" on the top of the letter "M". We generally tend to choose and interpret the simple one.

According to Gestalt psychologists, perception of stimuli in our environment is not simply putting together individu es   inteho bloc.   n.n63dpen031b( )-

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Example: To introduce a new health package into a community, it is important to see the culture, economic and consciousness of the people in that community. It requires an integrated approach.

6. Figure-Ground perception

It is the perceptual relationship between the object of focus (the figure) and the field (the ground). The figure has form or structure and appears to be in front of the ground. The ground is seen as extending behind the figure. The relationship can be reversed by focusing on or attending to the ground rather than the figure (for further explanation see the Gestalt perspective of learning under the heading theories of learning)

3.3.3. Feature analysis theory

The theory is a more recent approach to the study of perception. According to feature analysis theory, to perceive an object in our environment, we first react to individual aspects such as, shape, pattern, object or scene. We start from these individual components and move to comprehend the overall nature of what we perceived.

Evidences suggest that sensitivity of individual neurons in the brain to specific configuration such as angles, curves, shapes,

and edges is responsible to breakdown an object into different component parts.

Example: To perceive a letter in the English alphabet, we perceive vertical line, a diagonal line, and a half circle. In this

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3.3.4. Directions in perception

The processing of Perception proceeds along two directions. These are top-down processing and bottom-up processing.

1. Top- down processing

The top- down processing of perception is guided by a higher-level of knowledge, experience, expectations, and motivations. Patterns can be recognized easily and rapidly, because we expect certain shapes to be found in certain locations.

Example: When we read a sentence, we perceive that sentence with the missing letters in it. This is because we had past experiences. Therefore, it is not important to decode the

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In the top- down processing, the context in which we perceive objects is important. The figure "I ", for example, is perceived as the letter B in a row that consists of the letters A through F. The same figure can be perceived as the number 13 in a row that contains the numbers 10 through 14.

2. What is gestalt law of organization?
3. List two theories that explain pattern recognition. Which theory seems most satisfactory to you? Give reasons for your choice.
4. List the gestalt principles of perceptual organization.
5. Suppose you are at a dinner party with your friend. The fork, the spoon, knife and glasses all produce noisy sounds. What psychological factors influence the

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CHAPTER FOUR
PSYCHOLOGY OF LEARNING

By the end of this chapter the student is expected to:

Explain what is meant by learning;

Describe some of the questions that have been explored by learning theorists;

Describe different forms of learning;

Evaluate some of the clinical and educational applications of learning theories to humans;

Outline the most important ways in which the humanistic approach differs from other learning approaches.

4.1. General remark and definition

One of the most important, universal and distinctive characteristics of human beings is their capacity to learn. Our habits, skills, knowledge, attitudes, interests and characteristics are largely the result of learning. The capacity to learn progresses throughout the life span until death. It is through the process of learning that human behavior changes or undergoes modification. The knowledge, understanding and skills obtained from the process of learning help mankinds to control and change their environment for their own benefit.

Definition- Learning is a relatively permanent change in behavior as a result of practice and experience.

The above definition contains the following components

> One has to distinguish between performance due to maturation and changes brought about by experience;
>
> One has to distinguish between short-term changes in behavior due to fatigue,; tension, stimulants and changes that are due to actual learning.
>
> The changes in behavior could be for worse or better;
>
> Learning is not directly observed but manifested in the changed activities f the individual.

Habituation is thought to be the simplest form of learning necessary for survival. It involves learning not to respond to a particular stimulus. For example; humans habituate to the ticking of a clock or the sound of traffic noise. The phenomena of habituation shows that animals and humans can learn to ignore a stimulus that continues to be experienced.

Example- A health student has learned a new procedure in his/her area of specialization. Thus the trainee has become rich in his/her experience and thereby, modified his/her behavior. Because the trainee improved his/her efficiency, the trainee has easy adjustments to situations, which required knowledge and procedure. The trainee was able to learn that procedure by observations, through drill and practice and by imitations.

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Issues related to learning

Some Psychologists claim that learning can only be inferred indirectly by observing changes in performance.

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2. Learning by conditioning

It is the simplest form of learning.

It is a process in which a response or action due to some original stimulus becomes transferred to another stimulus which occurs at the same time or shortly after the original stimulus.

It enables us to see the relationships between things

It enables us to reason and judge correctly and critically.

3. Maturation

Neuro-muscular coordination is important for learning a given task. Example- The child has to be physically mature before he is able to walk or run.

4. Physical condition of the learner

The learner should be in a good health status.

Example- Sensory defects, malnutrition, toxic conditions of the body, loss of sleep and fatigue hinder effective learning.

5. Good working conditions

Example- Fresh air, light, comfortable surrounding, moderate temperature, absence of distractions like noise, aid in learning efficiently.

6. Mental health of the learner

Example- Worries, fears, feelings of loneliness and inferiority hinders learning.

Self-respect, self-reliance, and self-confidence are necessary for effective learning.

7. Associating things

Example- All related facts and understandings from a previously learned course should be brought to new

Students are Involved in higher forms of thinking

4.4. Theories of learning

4.4.1. General remark

Why learning theories are important for health practitioners?

Health practioners are required to demonstrate that they regularly employ sound methods and clear rationales in educating patients and interacting with them, in staff management and training, as well as in teaching the community.

Health practioniners are often responsible for designing and implementing plans and procedures for improving health education.

Knowledge of the learning process also relates to nearly all aspect of daily life. Learning theories can be applied at the individual, group, and program levels to change unhealthy habits, build constructive relationships, develop effective behavior, and become more adept at comprehending and teaching new things.

There are four major theories of learning. These are:

1. Behaviorist learning theory;
2. Cognitive learning theory;
3. Social cognitive learning theory;
4. Psychodynamic learning theory;
5. Humanistic learning theory.

Questions to consider while reading theories of learning

1. Is the stimulus for learning and change largely derive from environmental experience or from the internal dynamics of the learner?
2. Is the learner viewed as relatively passive or more active?
3. What is the educator's task in the learning process?
4. What motivates individuals to learn?
5. Which influences more strongly the transfer of learning: the structure of the situation or the learners understanding and emotional feelings?

4.4.2. Behaviorist learning theories

Behaviorists view learning as the product of the association between stimulus conditions (S) and the responses (R).

It is sometimes referred as the S-R model of learning.

The behaviorist closely observes responses and then manipulates the environment to bring about the intended change.

The behaviorist, to modify people's attitudes and responses, recommends either to alter the stimulus conditions in the environment or to change what happens after a response occurs.

For behaviorists, transfer of learning from one situation to the other is largely a matter of practice (strengthening habits); and similarity between two situations

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After a few such pairings, the neutral stimulus alone, elicits the same response.

Pavlov (1927), the Russian physiologist, was studying the salivary reflex in dogs. When he observed that the dogs salivated not only at the sight and smell of food, a natural response, but also at the sight of the food container alone.

Through a series of experiments, he demonstrated that dogs could be conditioned to salivate to other unnatural stimuli such as a buzzer being sounded slightly before the presentation of food. Such a pairing caused an association to be formed between the buzzer and the food subsequently between the buzzer and the salivation response. Figure one illustrates the process of classical conditioning and the terminology associated with it.

Figure 1: The process of classical conditioning model of learning.

UCS ⟶ UCR (before conditioning)

(Food)   (Salivation)

NS+UCS ⟶ UCR (during conditioning)

(Buzzer + Food)   (Salivation)

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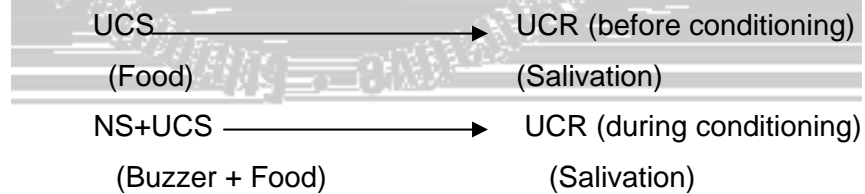
(Several pairings)

NS   UCR

Or

CS   CR (after conditioning)
(Buzzer)   (Salivation)

Where: NS   =   Neutral stimulus
            UCS   =   Unconditioned stimulus

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Hospital   ⟶   unwanted feeling

CS   CR

Basic features of the classical conditioning model of learning

a. Extinction

Principles of the classical conditioning model of learning are used not only to acquire new responses to environmental stimuli, but also to extinguish a previously learned response.

Responses are decreased if the presentation of the conditioned stimulus is not accompanied by the unconditioned stimulus over time.

Example: Visitors who feel discomfort in one hospital subsequently go to other hospitals to see relatives or friends without smelling offensive odors, and then their discomfort and anxiety about hospitals may be lessened after several such pairings.

b. Systematic desensitization

It is a technique based on principles of classical conditioning that is used by psychologists to reduce fear and anxiety in their clients.

Fear can be learned and unlearned or extinguished.

d. Stimulus generalization

It is the tendency of initial learning experience to be easily applied to other similar stimuli.

Example: When listening to friends and relatives tell about a

conditioned stimulus), the patient becomes conditioned to experience unwanted feeling to the sound.

g. Temporal relationship between cs and ucs

Conditioning depends upon the cs preceding the ucs slightly or occurring simultaneously with it. If the cs follows the ucs it is called backward pairing. In this case no excitory conditioning results. When the cs precede the ucs by several seconds, it may terminate before the ucs. This usually results in poorer learning. The optimal interval for quick, skeletal responses such as the eye

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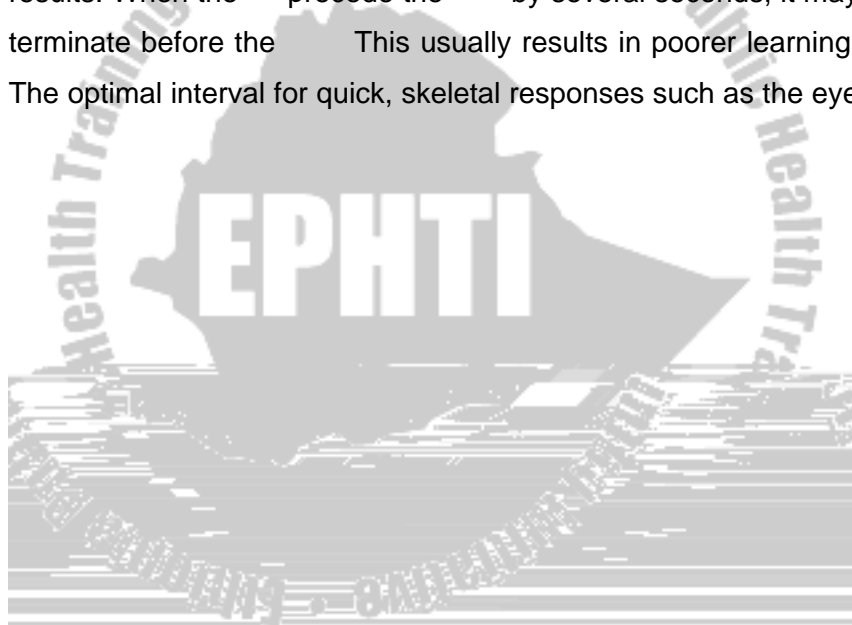
2. Dentist   No reaction

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Example-3.   A patient moans and groans as he attempts to get up and walk for the first time after an operation. Praise and encouragement for his efforts will improve the chances that he will continue struggling toward independence.

Basic steps followed by Skinner in operant conditioning
1. A hungry animal (a cat, a rat, a pigeon) is placed in a laboratory setting (example- Skinner box)
2. The animal will wander in the box, exploring its environment in a random way.
3. The animal will press a lever by chance, which enables it to receive food from the food container.
4. The first time the response occurred, the animal will not learn the connection between lever pressing and the stimulus (food)
5. As the frequency of lever pressing increases, the animal learns that the receipt of food is dependent on lever pressing behavior.

Basic features in operant conditioning

a. Shaping: It is the process of teaching behavior by rewarding closer and closer approximation of the desired behavior. In shaping, the behavior that is similar to the expected behavior is reinforced first. Therefore, we use reinforcement selectively to

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f. Reinforcement: It is the process whereby a reinforcer increases the likely hood of a response. The whole process that

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increase in the probability that a preceding response will occur again in the future.

Example- lowering the volume of the radio when you study prevents attention distraction.

Negative reinforcers work in two forms

1. Escape conditioning: the learner makes a response to bring about an end to an aversive situation.

Example-1. A college student takes a day to escape from a workload.

Example-2. Suppose an instructor chastises a young student nurse. She says something humorous, and her instructor stops criticizing and laughs. Because the use of humor has allowed the student to escape an unpleasant situation, she will employ humor again to alleviate a stressful encounter.

2. Avoidance conditioning: when the learner responds to a signal that marks the coming (onset) of unpleasant event with the aim of avoiding the evasion.

   Example:. The pretension of some people to look ill in order to escape from doing something that they do not want to do.

   If a person becomes truly ill when fearful events are anticipated, sickness is the behavior that has been increased through negative reinforcement.

The pros of punishment

> It often is the quickest way to change behavior.
>
> Special instances like the behavior of autistic children can be suppressed temporarily until to buy time to use positive reinforcement techniques.

The cons of punishment

> It is ineffective if the punishment is not delivered shortly after the individual exhibits the unwanted behavior.
>
> It is ineffective if the punishment is delivered out of the
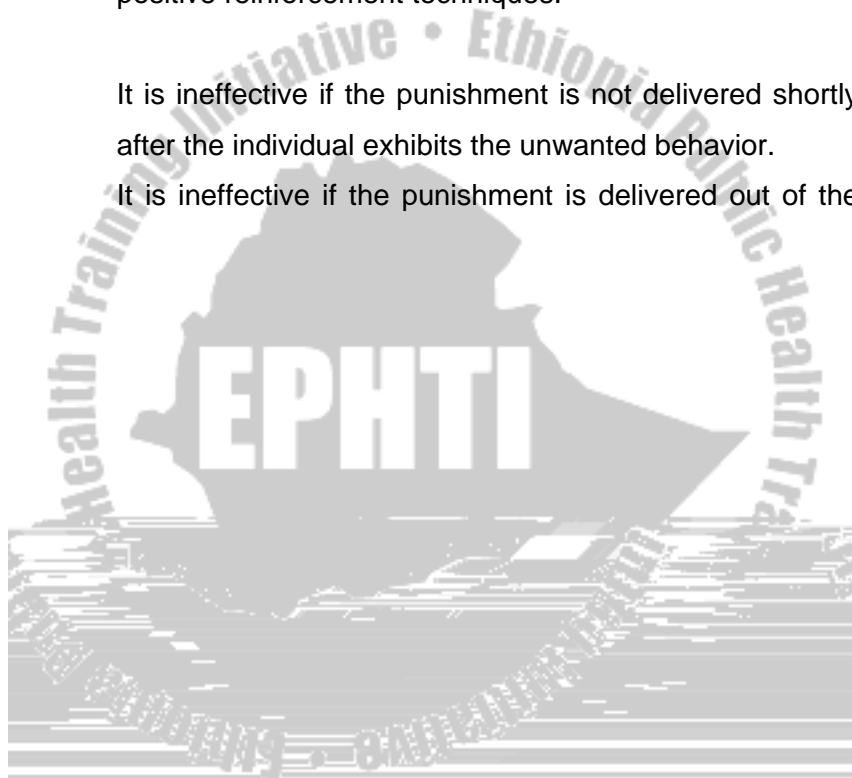
Reinforcing every correct response would be time consuming and practically impossible;

Helps the organism not to expect reinforcement every time it demonstrates a given behavior;

Strengthens the occurrence of a desired behavior by counteracting extinction.

The four partial reinforcement schedules that are commonly used are:

Fixed-interval: the learner is reinforced after regular time intervals, say every 50 seconds, provided at least it shows one desired response.

Variable-interval: reinforcement is given on average not precisely every, say, 50 seconds.

Fixed-ratio: the learner is reinforced after a regular number of desired responses say after every four responses.

Variable ratio: reinforcement is given on average every, say, four responses, though not exactly after each fourth responses.

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In general continuous reinforcement produces the quickest learning, while partial reinforcement produces learning, which lasts longer in the absence of reinforcement.

c. Careful planning of behavior modification techniques

Example- The families of a patient with chronic back pain have been taught to minimize their attention to the patient whenever he/ she complains and show dependency, helplessness. When the patient attempts to function independently, express a positive attitude.

Comment on operant conditioning

Operant conditioning emphasizes on extrinsic rewards and external incentives and promotes materialism rather than self-initiative, a love of learning, and intrinsic satisfaction.

Activity: Divide the class into groups and see if students can work out a procedure based on the principles of operant conditioning that a teacher could use to encourage children to improve their handwriting. What reinforcers might be used? How might the undesirable behavior (poor hand writing) be extinguished? Which would be the more effective; continuous or partial reinforcement?

4.4.3. Cognitive learning theories

4.4.3.1. General remark

The theory stresses on the importance of what goes on inside the learner.

Accordingly, the key to learning and changing in behavior is the individual's cognition (perception, thought, memory, and ways of processing and structuring information).

According to this theory, in order to learn, individuals must change their cognitions. Learning involves:

Perceiving information;
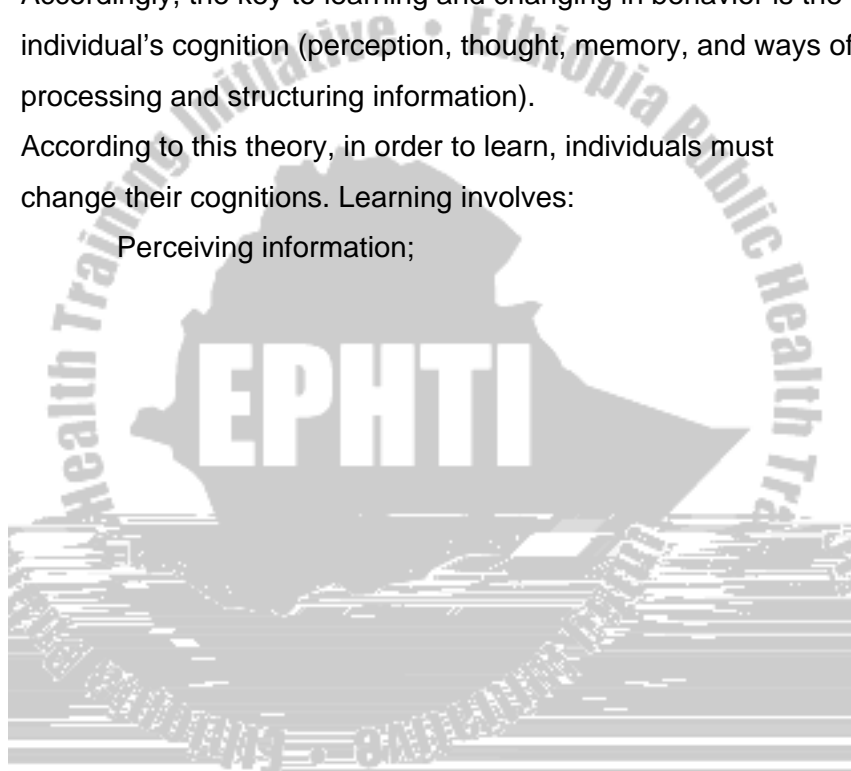
Setting similar but different situations and finding relationship between initial learning situation and

experiences, needs, personal motives and attitudes, reference groups, and the structure of the situation.

Example: Patients who are seriously sick may not attend to some well-intentioned patient education information. Assessing the internal and external learning situation is essential for the health professional before dealing with any learning situation.

The psychological tendencies used to organize the perceptual world are:

1. Figure Ground perception

    In the treatment procedure, the central requirement is taking all the medication prescribed (figure)

    The patient may level this basic requirement as secondary and may say that "as long as I feel somewhat better, why take medication?"

2. The principle of closure

    It is the psychological desire to complete, end, or conclude a gestalt situation that is unfinished.

    The more unclear or uncertain a perceived situation is, the more people tend to use alternative patterning

> The more they be influenced by external suggestions the more they are affected by their internal needs.

Example: Patients left unclear and uncertain while awaiting laboratory test results and a physician's diagnosis are likely to be in a state of imbalance and tension. Some patients may construct their own diagnosis. Few individuals may resort to extreme behavior to reduce anxiety (example: denying medical treatment, attempting suicide).

NB. Perception is individual. Individuals perceive and respond to the same situation in different ways. This may entail communication problem between the patient and the health professionals. Therefore, there is a need to provide complete information about the patient's condition. If diagnosis is unclear, it may leave the patient bewildered or confused about his status. Counseling and therapy will help them accept what they view as a very difficult, anxiety-producing situation.

4.4.3.3. Information processing perspective

This perspective emphasizes on thought process, reasoning, the

External processes   Internal processes   External

Processes

| Stage-1 Attention | Stage-2 Processing | Stage-3 Memory stage | Stage-4 Action |

Encoding   Storage

Strategy

Fleeting   Brief   Enduring
Less than   less than   but

Sensory memory stage
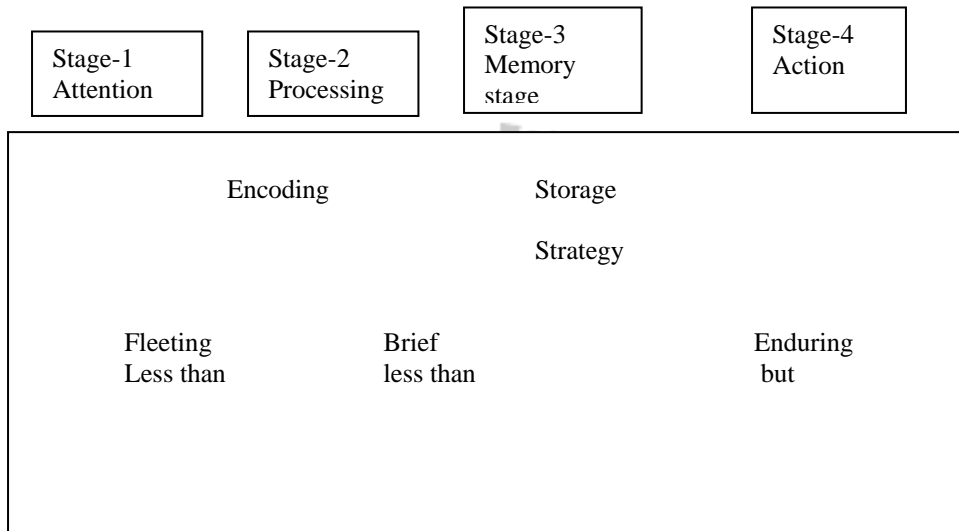
It is immediate memory. Some psychologists call it the visual information store (VIS). Others call it iconic memory. For the auditory, it has been called an echoic store. Once the material has been selected by means of the immediate memory process (the iconic or echoic memories), it passes into short-term memory.

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Short term memory (STM)

The second stage is sensory processing that involves the patient's preferred mode of sensory processing (visual, auditory, or motor manipulation) and sensory depicts.

It is related to the ability to retain information just long enough to use it.

It is the memory involved in retaining a telephone number just long enough to dial it after looking it in a directory.

Short term memory contained material which needed to be kept in store for not longer than 30 seconds

The capacity of this store is limited to seven, plus or minus two items, letters or even longer units of information like words or chunks.

Research findings show that correct recall was high after short intervals such as 3 or 6 seconds, but by 18 seconds interval it was possible to recall only about 10 percent correctly.

Findings suggest that the duration of STM was only about 6 to 12 seconds if unrehearsed. Gradually the information is decayed and forgetting takes place. This is called the trace decay theory of forgetting.

Forgetting also occurred when other material interfered with memorization. This was an interference theory of forgetting.

Long term memory (LTM)

This relates to the ability to retain information over almost indefinite period of time.

There seems to be no known limits to the duration or to the capacity of long-term memory storage.

Understanding of meanings are involved in the process of coding for long-term memory. All kinds of knowledge and beliefs, objects and events, people and places, plans and skills are stored in LTM.

Long-term memory involves organizing the information by using a preferred strategy. For example, imagery, association, rehearsal, and breaking the information into units are commonly used strategies to organize information in the long-term memory. Long-term memories are enduring though there is a problem of remembering and retrieving the stored information at a later time. By expanding the already existing information and by the use of meaningful repetition we can easily recall and use information from the long-term memory.

Example: Community members learn better about health extension packages when learning experiences are related to life. If a patient were not paying attention to what a nurse is saying, perhaps because he is weary or distracted, it would be

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more useful to repeat the explanation at another time when the patient is more receptive and attentive.

4.4.3.4. Observational learning theory

The founder of the theory was Albert Bandura.

The theory claims that a major part of human learning takes place through observing the behavior of another person called a model. Models have been classified into two categories. These are:

1. Real life models: These are really existing models such as parents, teachers, friends, heroes of films, sport stars and other most successful persons in life.

2.

children who observed the film are more likely to approach a strange dog than children who had not viewed the film.

Another experiment showed that subjects who watched a lot of aggressive television programs, as third grader became more aggressive adults than those who did not watch as much.

Bandura and others went to investigate what characteristics of a model were most likely to encourage imitation in children. Studies showed that children are more likely to perform behavior that is imitated from models are:

Similar in some respect to themselves;

Exhibit power and control over some desirable commodity;

Are warm and nurturing.

In addition to making viewers to be more aggressive, watching violent films may result in insensitivity to the suffering of victims of violence in actual life.

Important skills are learned by means of observational learning when success is reinforced and failure is punished. But observing the punishment of a model doesnot necessarily stops observers from imitating undesirable behavior.

Example: A college student imitates the behavior of his friend if his friend gets higher grades. If his friend puts more time into his study and shows no improvement in his achievement, the behavior is unlikely to be modeled.

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Psychologists have devised ways to reduce aggressive behavior in children who view television frequently. These are:

Teaching children that televised violence does not represent the real world;

Teaching children that viewing violence is objectionable;

Teaching children to refrain from imitating behavior seen on television.

Observational learning takes place in four steps. These are:

1. Paying attention and perceiving the most important aspect of another person's behavior.

Models attract our attention because of distinctiveness, prestige, power and other winsome qualities.

2. Remembering the behavior. Some of the ways to remember the action of a model are:

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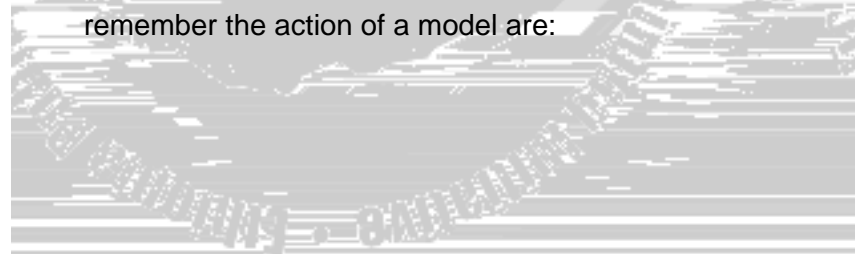
4. Being motivated to learn and carry out the behavior. To be motivated and carry out the imitated behavior the person must:

> Be rewarded;
>
> See the consequences the model obtains;
>
> Evaluate ones own behavior.

Comment on observational learning theory

Viewing of an aggressive behavior is not the only factor for imitation. Some additional factors such as personality characteristics also play important role in modeling.

Activity: Brainstorm the following question. Do video houses open at every corner of the city led teenagers to be delinquent in our society?

Some applications of learning theories to humans

There are three important applications of condt theorgraomme

their achievement at regular intervals. Teaching materials,

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Self assessment questions

1. List and briefly describe three practical applications of conditioning theory

2. List at least two basic differences between classical and operant conditioning learning theories

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Primary drives are related to biological needs of the body.

Example: hunger, thirst, sleepiness, and sex.

Secondary drives are related to prior experience and learning without the fulfillment of any biological needs.

Example: Motivation for academic achievement

An organism tries to maintain an internal biological balance, which is called homeostasis.

Example: except sexual behavior, most of the basic needs of life are to maintain balance.

Comment on drive reduction approach

We show some kind of behavior simply for curiosity. The behavior may not be related to biological balance.

Example: Many of us spend the whole day in solving puzzles, which are not directly related to the satisfaction of biological drives.

5.2.3. Arousal approaches to motivation

According to this approach, each of us tries to maintain a certain level of stimulation and anxiety.

In DRT---if the arousal is too high, we try to reduce them

In arousal approaches ---if the level of stimulation and activity are too low, we will try to increase them by seeking stimulation

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If both expectations and value are high, we will be motivated to study hard; but if either one is low, our motivation to study will be relatively lower.

In line with this approach, there are two forms of motivations.

a. Intrinsic motivation: It is motivation by which people participate in an activity for their own enjoyment, not for the reward it will bring.

It enables to work hard, produce higher quality work and be perseverant.

Some psychologists argue that providing rewards for desirable behavior may cause intrinsic motivation to decline.

b. Extrinsic motivation: It causes us to do something for a tangible reward.

Activity

5.2.6. Maslow's motivational theory

Basic assumptions of the theory

Different motivational needs are arranged in a hierarchy in a pyramidal shape.

The more basic needs are at the bottom and the higher level needs are at the top.

Before higher ordered needs are satisfied in the hierarchy, the primary needs must be satisfied.

Self
Actualization

Esteem

Love and belongingness
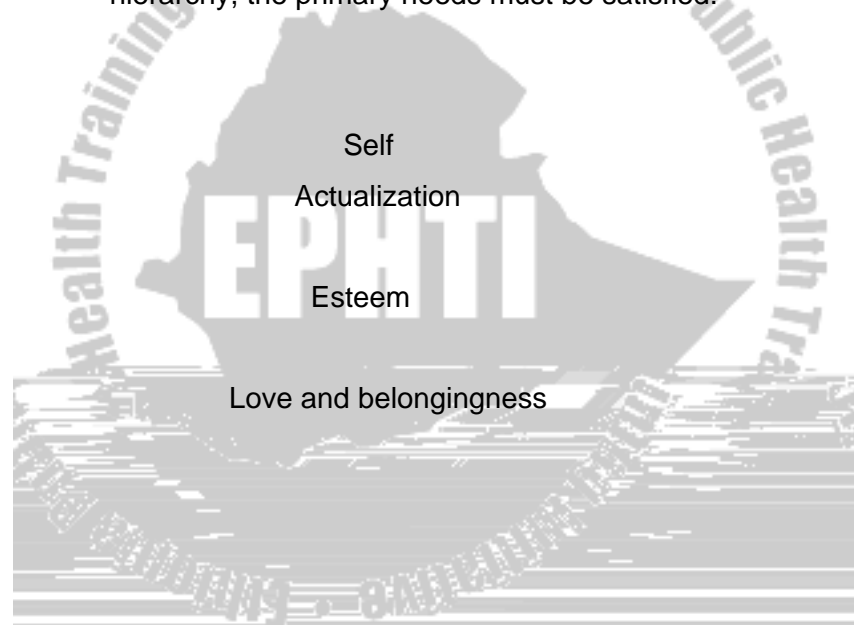
Physiological needs are based on body needs or tissue needs (e.g., food, water, avoidance of noxious stimulation)

Security need is a need for sense of confidence, safety, and freedom from fear or anxiety, particularly with respect to fulfilling ones present and future needs.

Love and belongingness needs include the need to obtain and give affection and contributing to members of some group or society.

Esteem need relates to the development of a sense of worth by knowing that others are aware of one's competence and value.

Self- actualization is a state of self- fulfillment in which people realize their highest potential. The concept of self- actualization is applicable not only to few well-known individuals. In its broader sense it can happen to:

A parent with excellent nurturing skills;

A teacher that maximizes students' opportunities for success;

A health professional who works hard to alleviate health problems of the country.

Activity: Discuss the following points with your students

If people are hungry, their first interest will be obtaining food, not love and self-esteem.

Describe characteristics   and contributions of well-known individuals in our society. According to your

Activity: Brainstorm the class by posing the following questions.

Do different cultures bear differences in achievement motivation?

Is there a gender difference in achievement motivation?

How can we foster achievement motivation in the minds of children?

Conclusion on the different approaches to motivation

The different approaches are complementary rather than contradictory.

It is useful to employ different approaches simultaneously in order to understand and explain the motivational aspects of behavior.

5.3. Emotions

5.3.1. Definition and general remark

Emotions are feelings such as happiness, despair, and sorrow that generally have both physiological and cognitive elements influencing behavior. While motives are internally caused, emotions are responses to an external stimulus.

Example: physiological

Heart rate increases

Jumping for joy

Cognitive

Understanding and evaluating of the meaning of the act we do when we are happy

There are a number of components of emotion. Some of these are:

1. The perception of the emotion-arousing stimuli (an armed robber entering a bank)
2. Subjective feeling or experience of emotion (pleasant/unpleasant)
3. Involuntary physiological changes of the body's internal balance (arousal/ depression)
4. External bodily changes (facial/posture)
5. Cognitive factors; awareness of situation, previous experience, memory(seen people killed)
6. Voluntary behavioral consequences; response to the stimulus ((a1ib863 T)-3dn3ycrpoe

e; rgarnding emotiose

f

Darwin suggested that there are specific, fundamental emotions that find expressions in the species.

Example: Swans mourn hopelessly at the death of a male.

Some research findings suggest that there is gender difference with respect to emotions. Women tend to experience emotions more intensely and expressing more readily than men. This difference is attributed to:

Innate biological factors

Societal expectations for men and women

5.3.2. The functions of emotions

1. Preparing us for action

    Example: If we see an angry dog running toward us, the sympathetic division of the autonomic nervous system prepares us for emergency action.

2. Shaping our future behavior

    Example: When we encounter a threatening dog some other time, the previous experience teaches us to avoid an incoming danger.

3. Shaping us to regulate social interaction

    Example: Verbal and non-verbal ways of communicating emotions help us to understand the behavior of another person. Then we modify our actions.

5.3.3. Types of emotions

- Plutchik (1984) after combining a large set of emotions came up with eight different fundamental emotions. These are Joy, acceptance, fear, surprise, sadness, disgust, anger, and anticipation

Love

Optimism

Submission

JOY   **ACCEPTANCE**

FEAR

Aggressiver

ANTICIPATION

awe

SURPRISE

ANGER

SADNESS

DISGUST
DISGUST

Contempt

Disappointment

Remorse
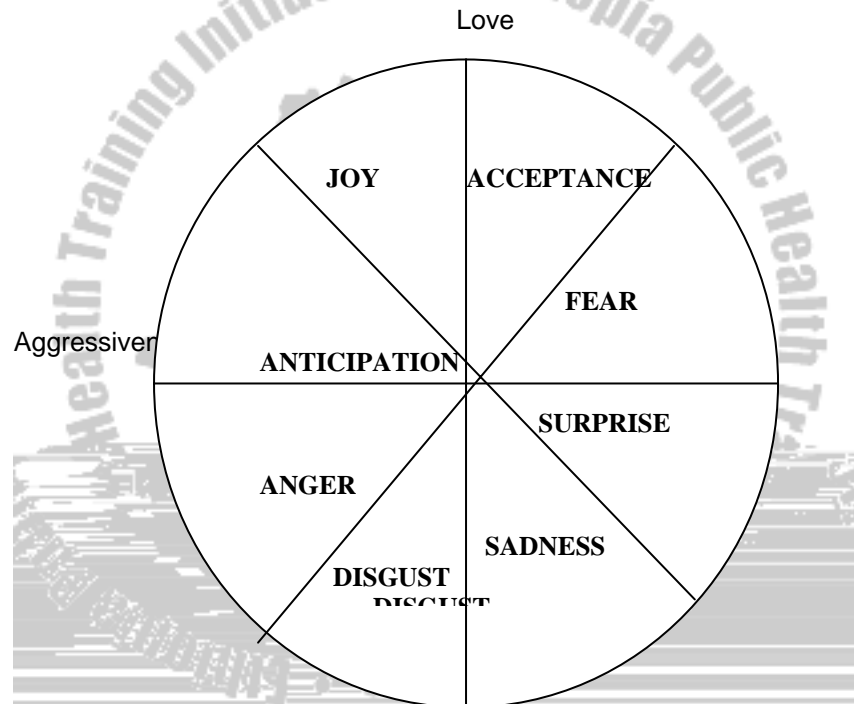
Figure4: Fundamental emotion types and their combinations

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From the figure above the following inferences can be made.

Two emotion combinations are formed from primary emotions.

Emotions nearer one another in the circle are more closely related.

Emotions opposite to each other are conceptually opposite.

Comment on Pluthik's emotion theory

Human emotions are much more than eight types.

These eight types of emotions are not equally important across all cultures.

5.3.4. Theories of Emotion

5.3.4.1. The James-Lange theory

Lang was a Danish physiologist who proposed a theory of emotion.

His theory states that emotional experience is a reaction to instinctive bodily events that occur as a response to some situation or event in the environment. We feel sorry because we cry. We feel angry because we strike. We feel afraid because we tremble.

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Input from the Senses

Figure5: The James-Lang theory of emotion

James and Lang proposed that human beings experience emotions as a result of

Physiological changes that produce specific sensations. The brain interprets the sensations as particular kinds of emotional experiences.

Comment: For emotional feelings to occur physiological changes have to be perceived instantaneously. But emotional experiences frequently occur even before there is time for certain physiological changes to be manifested outwardly.

5.3.4.2. The Cannon-Bard theory

The theory states that both physiological and emotional arousals are produced simultaneously by the same nerve impulse.

According to this theory:

> Emotion-inducing stimulus is perceived.

> The thalamus is the initial site of the emotional response.

Then the thalamus sends a signal to the autonomic nervous system and communicates a message to the cerebral cortex regarding the nature of the emotion being experienced.

```
                    ┌──────────────┐          ┌──────────────┐
                    │ Hypothala    │ ──────►  │ Changes in   │
                    │ mus          │          │ ANS, Muscles │
                    │              │          │ and Glands   │
┌──────────┐    ┌──►└──────────────┘          └──────────────┘
│ In put   │    │
│ from the │ ───┤
│ Senses   │    │
└──────────┘    └──►┌──────────────┐          ┌──────────────┐
                    │ Thalamus     │ ──────►  │ Experience of│
                    │              │          │ Emotions     │
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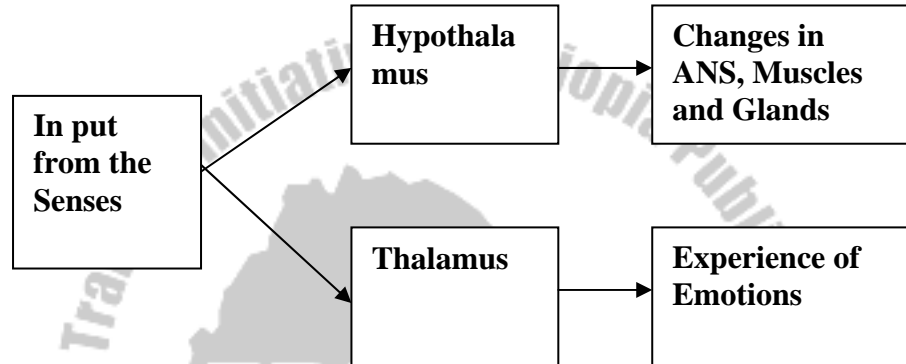
Figure6: The Cannon-Bard theory of emotion

In this case different emotions do not have unique physiological patterns associated with them.

Comment: Recent research evidences suggest that it is the hypothalamus and the limbic system and not the thalamus that play a major role in emotional experiences.

5.3.4.3. The Schachter-single theory

The theory proposes that a non-specific kind of physiological arousal and the meaning we attach to environmental cues determine emotions jointly.

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The theory emphasizes that we identify the type of emotion we are experiencing by observing our environment and comparing ourselves with others.

Comment: Some research findings suggest that physiological arousal may or may not always account for an individual's emotional state. For example, some drugs invariably produce depression as a side effect no matter what the nature of the situation is. However, the theory indicated the necessity of appraising our surroundings in case the source for physiological arousal is not clearly understood.

General conclusion on theories of emotion.

Emotions are complex phenomena. No single theory has been able to fully explain all facets of emotional experiences.

5.3.5. Expression of emotions

Non- verbal behavior is a major means of communicating and revealing people's emotions.

The Non- verbal behavior communicates using several channels or paths. These are:

Facial expressions;

Eye contact;

Bodily movements;

Tone voice;

Positioning of the eyebrows.

CHAPTER SIX

DEVELOPMENTAL PSYCHOLOGY

By the end of this chapter, the student is expected to:

Explain the concept of socialization;

Assess the importance of early experience for later social and emotional development;

Explain the impact of social and biological factors on the stages of human development.

Describe and evaluate Piaget's theory of cognitive development;

Consider the educational implications of theories of cognitive development;

Identify and discuss physical and psychological changes that take place during adolescence;

Discuss the impact of particular life events on adulthood; for example marriage, parenting, divorce, unemployment, retirement, bereavement and death;

Explain Erickson's psych-social development stages.

6.1. Definition and general remark

In the dictionary of psychology (Reber, 1985), developmental psychology is defined as:

The field of psychology concerned with the lifelong process of change.

Change here means any qualitative and/or quantitative modification in structure and function.

Example: Crawling to walking

Babbling to speaking

Illogical reasoning to logical reasoning

Infancy to adolescence

Maturity to old age

Birth to death

It was first articulated as a sub-discipline in psychology by G.S.Hall around the turn of the century.

Most of the scientists in developmental psychology are interested in childhood; hence the branch developmental psychology is equated to child psychology. Some specialists also call it life-span psychology.

Development: It is the sequence of changes over the full life span of an organism.

It is an irreversible sequence of stages that regularly follow one upon the other.

Example: The motor development during infancy. Raise head (2m), hand-eye coordination (4--7m), sitting erect (7m), crawling (10m), walking (1yr)

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Development is a progressive change leading to higher levels of differentiation and organization.

It is an increase in effectiveness of function, maturity, sophistication, richness and complexity.

Growth :It is a gradual and progressive increase in size such as height and weiht of an individual or its parts.

It is an increase in effectiveness or competence of a function.

Growth is differentiation and refinement of parts and/or functions.

Maturation -It is the developmental process leading toward the goal of maturity. It refers to innately determined sequence of growth or bodily changes that are relatively independent of environmental events. Maturation is genetically programmed, naturally occurring changes over time. Natural capacities common to human races such as sitting, crawling, walking, etc are the results of maturation. The origin of the word is from the Latin word meaning ripeness. It is mostly used with prefix

Example: sexual maturity, intellectual maturity, emotional maturity.

6.2. Heredity (nature) Vs environment (nurture) issue in developmental psychology.

The transition from infancy to adulthood is an orderly sequence common to all normal members of the human species. It is governed by the combined action of heredity and environment. The nature-nurture issue in developmental psychology is a fundamental issue. It has philosophical roots. The English philosopher John Locke said that the newborn baby is a Tabular Rasa (blank slate). The French philosopher Jean Jacques Roseau considered genetic factors as most influential.

The question nowadays has changed from which influences behavior to how and to what extent environment and heredity affect development. Because no one grows up without being influenced by heredity and environment. Developmental psychologists take an interactionist position. They consider the combined influence of heredity and environment.

Two key questions in human development.

1.   How do people change physically, mentally and socially, as they grow older?
2.   Why do these patterns of change occur as they do?
               During conception, the twenting h1 Tf4 do?

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make a complete set of genetic instructions for a new human being.

Genes affect development throughout life, and every organism has, to some extent a genetically programmed timetable (not identical) for its physical maturation.

Example: puberty is a genetically timed event.

Heredity has a three-fold influence on human development.

It influences physical form

It influences behavioral capacities

It influences the rate of physical maturation

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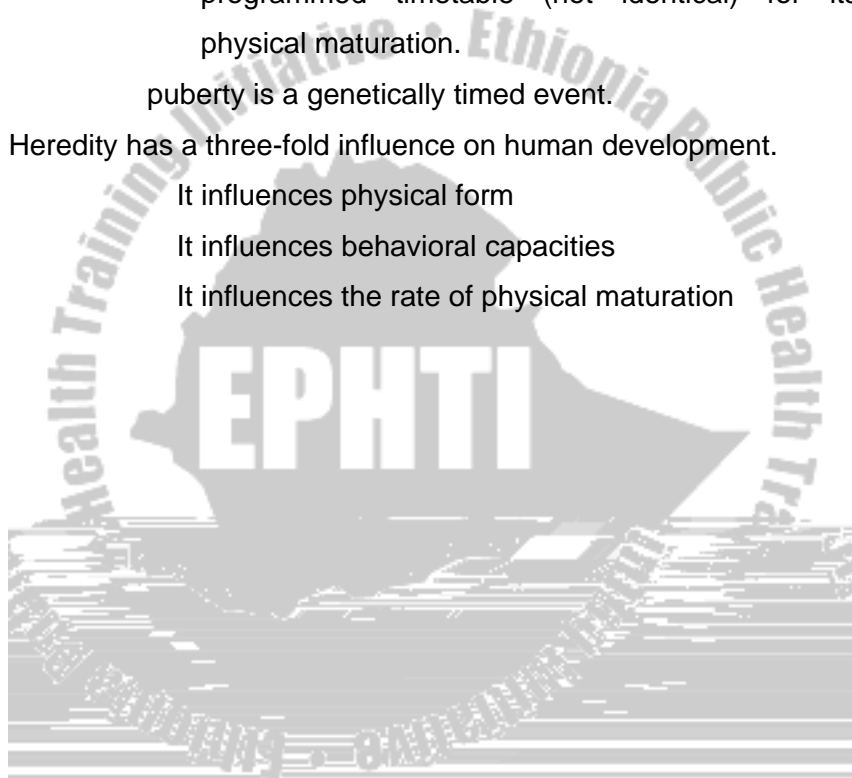
Firmness of hand shake	_____	_____
Age of death	_____	_____

Source: Feldman (1996), understanding psychology

Conclusion: It is important to keep in mind that these characteristics are not totally determined by heredity. Environmental conditions play important role in enabling people to realize their potential capabilities. The great athlete Haile Gebreselasie would have been unable to show his talent had he not been trained in an environment that nurtured his natural abilities. Research with identical twins has generally supported the idea that genes affect many aspects of development.

Example 1. Case studies of identical twins who were adopted into very different environments found that their rates of maturation their hobbies, food preferences, choice of friends and academic achievement were quite similar (Bouchard, 1981)

Example 2. Intelligence test scores showed no correlation at all for adopted siblings and a coefficient of 0.35 for biological siblings. Therefore, genes have some influence on the development of cognitive process.

Environmental factors

Heredity is not the only influential factor on development. Environment is necessarily an important factor in any developmental process, including that of the prenatal period. In the case of motor skills, for example, development can be accelerated or retarded by the presence or absence of environmental stimulation.

Example 3. In a foundling home in Lebanon, where children spent most of their first year lying on their backs in cribs, totally ignored by adults, motor skills were so retarded that some infants over a year old could not sit up, let alone walk (Dennis and Sayegh, 1965).

While a poor environment retards development, additional experience and stimulation can encourage some motor skills provided the stimulation is appropriate to the baby's age.

Example 4. One study has shown that when babies are trained to use their walking reflex regularly, they begin to walk about one to two months earlier than most other infants (Zelazoetal, 1972).

Note: No matter how much exercise young infants are given, they will not walk at six months.

Example 5. Experiment on premature babies (generally accepted criteria is being less than 2.5kg)

Nurses and parents tend to regard premature babies as especially fragile and so they avoid fondling them but they

do it for normal babies (research by rice, 1975; Rose etal, 1980)

Experimental group: A group of mothers do stroke and gently massage their premature babies for 15 minutes four times a day.

Control group:

Early separation of babies from parents, caregivers can have severe effects on later development. The optimal period for language development, for example, seems to be between two and three years, and after that time it is extremely difficult to learn a first language (John Bowlby, 1958)

Many psychologists don't accept the idea of sensitive periods in human beings. They say children who are neglected and shut away in attics and basements often recover and become normal adults when they are given adequate environments. The effect of critical period appears to disappear with time. They assume the human child like a "piece of magic plastic with a memory. "

General conclusion for the heredity and environment argument is that Individual differences in development can depend upon genes, upon environment or upon the combined action of both.

6.4. Stages of Human Development

6.4.1. Pre-natal development

Development begins as soon as a sperm and egg unite. In approximately 38 weeks this single cell is transformed into a newborn baby. This developmental stage from fertilization up to birth is called prenatal stage of development. Development during the nine months of pregnancy is more rapid than during any postnatal period. The stage of development before birth is initiated and guided by both genetic and environmental factors.

During this phase behavioral potential and structural complexity increase. Postnatal development is divided into the following basic periods.

1. The germinal period

   After fertilization, the egg begins the process of cell division.

   At first the multiplying cells are all identical. Nerve, muscle, bone, and blood cells can't be distinguished from one another.

   By the end of the first two weeks, the cells have begun to differentiate into three layers that will form the various tissues and organs. Each layer produces different body systems.

   What triggers this development is still not clearly known for developmental psychologists.

2. The embryonic period

   Four weeks after conception, the embryo is one-fifth of an

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Studies of prematurely delivered fetuses have shown that by twenty-four weeks a fetus can cry, open and close eyes, and look up, down and sideways. It also developed a grasping reflex and it may even hiccup.

During the final weeks in the uterus, fat forms over the entire body. Its function is smoothing out the wrinkled skin.

Usually the fetus gains about half pound weight every week during the last eight or nine weeks, so that at birth the average baby is about twenty inches long and weighs a little more than seven pounds.

Environmental influences on the unborn baby

Even within the uterus the fetus is not free from external influences.

Diet deficiencies in calcium, phosphorus, iodine, and vitamin B, C, and D are associated with high frequencies of malformed features.

Maternal protein deficiency may cause an irreversible reduction in brain weight, number of brain cells, and learning ability.

Drugs adversely affect fetal development. During pregnancy, it is advised to take as little medication as possible.

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6.4.2. Post-natal Development (after birth)

6.4.2.1. The new born

Human babies are born with good motor coordination and highly acute sensory capabilities. They are born completely helpless, totally dependent on their parents. Though human infants are the most helpless and immature when they come to this world, their sensory development is mature and well integrated even before birth. Human infants may not be able to direct their course of movement in their environment at birth. But they can perceive and be influenced by that environment from the moment of birth. Different kinds of reflexes and motor activities help newborn babies to survive after birth.

Motor skills and reflexes

1. Motor skills

Example: Feeding requires the coordination of three separate activities i.e. sucking, swallowing and breathing.

2. Reflexes

2.1 Grasping reflex-the meaning is not clear. But it could be a remnant of our pre-human past.

Its adaptive significance is that it keeps an infant from falling and increases the chance of survival.

2.2 Rooting reflex- it is the most familiar form of reflex. It is the tendency to turn the head in the

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Example: They classify objects into general categories.

Mashed potatoes- food

Parrot   - bird

Note that their intelligence is not based on reason and logic.

Accomplishments

Children show insight for learning first. They confront a problem, think about it for a moment and then solve it.

The concept of number appears as early as the third year of life. Two-year-olds can count up to ten. They can add and subtract, can compare groups of objects. However, objects must be small in number.

According to Piaget the period from 2 to 7 years of age is the preoperational stage. It is characterized by:

The use of language.

By the use of language children at this stage are able to represent objects, people, events and feelings that are not directly in front of them.

They pretend in plays like, for example, they push a chair across the floor symbolizing it for a car.

The concept of a number appears as early as the third

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Immature features of the young child's thinking

Their thought is egocentric. It doesn't mean that they are selfish. Rather, they believe that other people see things as they see them. They think that every one shares their own perspectives and knowledge. For example, 3 year olds play the hide and seek (**Dibebikosh**) game. They hide their face against a wall covering their eyes, although they are still in plain view. It seems to them that if they cannot see, no one else will be able to see them.

Another immature feature of the preoperational children thinking is their inability to understand the principle of conservation. They cannot understand that quantity does not change when arrangement and physical appearance of objects are changed.

The child's thought jumps from one idea to the next instead of concentrating ideas around a single theme.

They are unable to carry out tasks that require self-directed thinking. They need external cues or hints to guide their thinking.

Social development during early childhood begins as a result of a positive emotional bond between a child and a particular caregiver. It is called attachment.

Strong attachment is due to the responsiveness of the caregivers to the signal babies provide such as cries, smiles, reaching and clinging.

In trying to understand social development, it is important to consider how society and culture present challenges to the

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Piaget conducted a series of experiments to know how mastery of conservation progresses in relation to age and experience. The sequence is conservation of number (6-7 years), mass and length (7-8 years), area (8-9 years), weight (9-10 years), and volume of an object in terms of water displacement.

Piaget's conservation experiments

Experiment 1: conservation of quantity

Container 1	Container 2	Container 3
½ liter water	½ liter water	----------------

Container 1 and 2 are equal in size.

Container 3 is longer and narrower.

The same amount of water is poured from container 1 to container 2. The child understands that equal amount of water is conserved.

The same amount of water is poured from container 1 to container 3. The level of water increases. In this case the child claims that the water in container 3 is more than in container 1.

Conclusion: A child who understands the conservation of quantity will say that the amount of water in container one and three remains same.

Experiment 2: conservation of length.

A. ⟷

B. ────────────────

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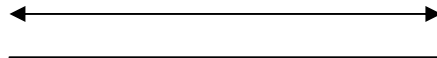
The child is asked to identify the longer piece of yarn.

Experiment 3:

6.4.2.4. Adolescence

Activity: Read the following case and interpret it in terms of physical, mental and social changes associated during adolescence.

Case

Year 13 was an important time in my life. It was the time that I started to grow physically. It was also the time when more girls
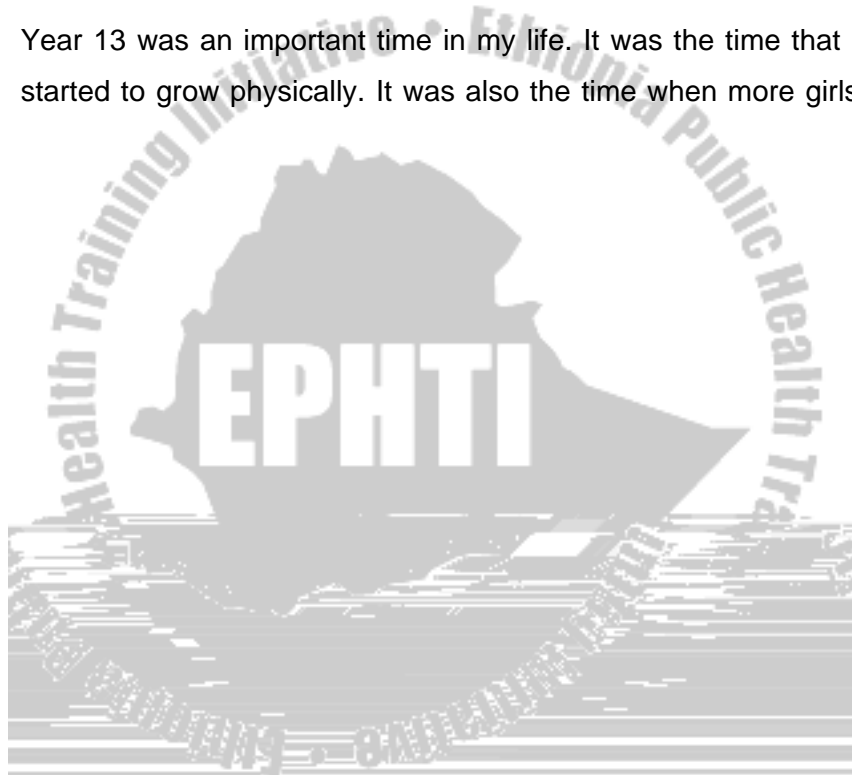
Table 2: Major physical and biological changes during adolescence

	Males		Females	
Male-sexual changes	Average range of age	Major-sexual changes	Average range of age
High spurt	12-16	Height spurt	11-14
Penis growth	13-15	Onset of menarche	11.5-13.5
First ejaculation	12-16	Breast development	11.5-13.5
Pubic hair	12-18	Pubic hair	11-14

Source: Feldman (1996), understanding psychology

Puberty: It is the period during which maturation of the sexual organs occur.

For girls	11 or 12 years
For boys	13 or 14 years

However, there are wide cultural variations depending on quality of nutrition and access to health services.

Early maturation has an advantage and disadvantage for both sexes. Early maturing boys may do better in athletics and are generally more popular with peers. This enhances self-concept. Early maturation in girls may expose them to untimely sexual practices and sexually transmitted diseases. In general the

impact of early and late maturation is related to the specific reactions and attitudes of the society.

Activity: Form small groups and let your students discuss the pros and cons of early and late maturation in light of different ethnic cultures in the Ethiopian context.

A new set of cognitive capabilities, which Piaget called formal-operational thought starts to emerge during adolescence. At this stage adolescents:

Use scientific reasoning;

Test possible explanations in an attempt to prove or disprove hypothesis

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Difference:	The Cognitive process in adolescents is not necessarily limited to the physical reality.

This abstract thinking is extremely important for the adolescent. Because it allows the study of mathematics, science, economics and language. Adolescence is the first phase of life in which individuals begin to think carefully about themselves, their role in life, and their plans. Unlike the younger children, adolescents are often concerned with the meaning of their past and the direction of their future.

The psycho- social development stage during adolescence is named as the identity versus confusion stage. During this stage:

> The adolescence raises the identity question (who am I?)
> External pressures are due to:
>> * Physical change
>> * Societal expectation changes (they consider themselves as adults, yet they are economically dependent on their parents)

There is decline in reliance on adults for information with a shift toward using the peer group as source of social judgment.

To avoid role confusion appropriate role model formation is important.

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Activity: Explain the multifaceted problems of adolescents in our country and suggest possible strategies and measures to be taken by the society to alleviate the problems.

6.4.2.5. Adulthood

It includes the years from 20-60 but usually 20-40.

Physical changes during this period are less apparent and occur more gradually than the preceding stages.

Although physical strength and status of health are great at early adulthood period, gradually they decrease. The body begins to operate less efficiently and immune system decreases. At about late forties and early fifties, women stop menstruating (Menopause)

Menopause was once considered as having strong association with psychological symptoms including depression and memory loss. However, recent investigations show that a society's attitude and women's' perceived reactions to menopause are important variables than the physiological changes of menopause. According to the Ethiopian Anthropologist Yewubdar Beyene's study, women in Mayan village perceived menopause as something natural. She found out that some of the assumed

symptoms of menopause; hot flashes for example, were not problems of women in that particular society.

Except in decline in the amount of sperm production and frequency of orgasm, men remain fertile up to old age.

In general, the high value society attaches to the youth has more impact than the physical changes associated with aging during adulthood.

In general adulthood is a time of peak intellectual accomplishment. An increase in IQ is observed at this stage. They perform better on any learning or memory task. They find it easy to accept new ideas and they can readily shift their strategies for solving different problems.

Table 3: Typical life goals and concerns during adult stage

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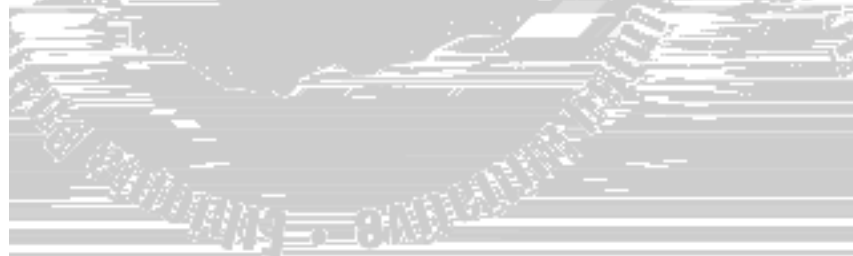
According to Erickson the stage of social development during early adult hood is termed as intimacy versus isolation stage. Young adults feel a need for intimacy in their life. After establishing a stable identity, a person is prepared to share meaningful love or deep friendship with others. By intimacy we mean an ability to care about others and to share experiences with them. One research showed that 75% of college -age men and women ranked a good marriage and family life as important adult goals. Failure to establish intimacy with others leads to a deep sense of isolation (feeling alone and uncared for in life).

Once two people have established some degree of intimacy, their interest begins to expand beyond just the two of them. They become concerned with rising the next generation. They enter the stage of generativity versus stagnation. Generativity refers to the creation and care for children. Parents must do more than giving birth to children. They must adequately care for and guide children for future life. But people can achieve a sense of generativity without having children of their own. Nuns and priests, for example, can still guide and care for the next generation by working with other people's children or helping to create a better world for them.

When generativity is lacking, the result is stagnation and impoverishment of the personality. In such case people often

become too exclusively involved in their interest and neglect the responsibility of caring for others.

6.4.2.6. Old age

Physical changes brought about by the aging process include skin wrinkling and folding, slight loss of height due to decrease in the size of disks between vertebrates in the spines.

Sensory activities i.e. Vision, hearing, smell and taste decrease.

The major theoretical explanations or reasons for physical decline are:

1. Genetic programming theories of aging

> The theory suggests that there is built in time limit to the reproduction of human cells.

> Some cells are genetically programmed and become harmful and self destructive to the internal biology of the body.

2. Wear and tear theories of aging

> The theory suggests that as time goes on functioning of the body stop working efficiently.
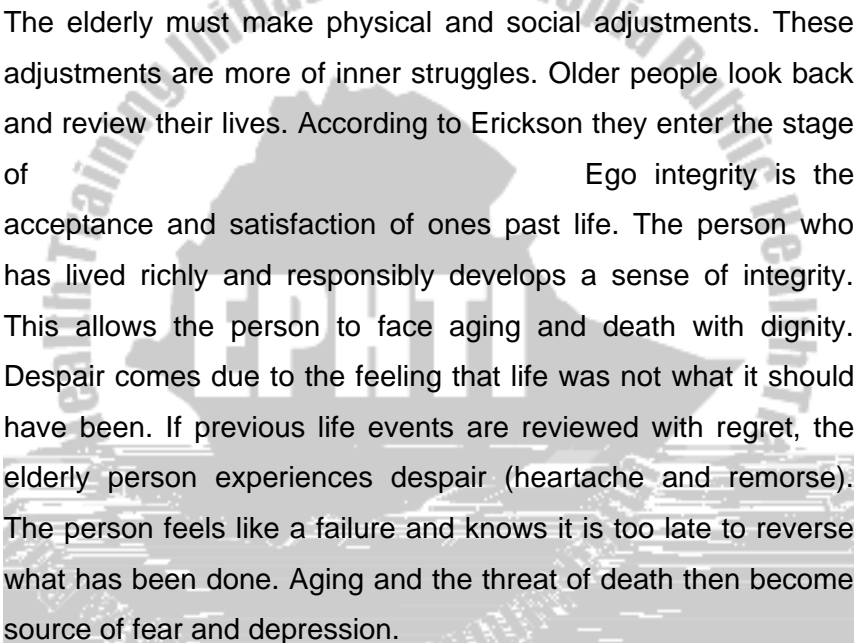
> Waste-by- products eventually accumulate and in effect creates problem on cells reproduction.

Conclusion: Consensus is not yet reached to decide on which theory provides a better explanation of aging.

The activity theory of aging suggests that continuation of activities from middle age and improving social interaction contribute to successful life.

Conclusion: We cannot say which of the two theories present accurate view of the elderly because there are individual differences in coping strategies of people.

The elderly must make physical and social adjustments. These adjustments are more of inner struggles. Older people look back and review their lives. According to Erickson they enter the stage of ego integrity versus despair stage. Ego integrity is the acceptance and satisfaction of ones past life. The person who has lived richly and responsibly develops a sense of integrity. This allows the person to face aging and death with dignity. Despair comes due to the feeling that life was not what it should have been. If previous life events are reviewed with regret, the elderly person experiences despair (heartache and remorse). The person feels like a failure and knows it is too late to reverse what has been done. Aging and the threat of death then become source of fear and depression.

Self assessment questions

1. Briefly discuss the nature-nurture issue
2. Are there psychological differences between males and females? Refer to research evidence.

CHAPTER SEVEN
PSYCHOLOGY OF PERSONALITY

By the end of this chapter the student is expected to:

Describe and evaluate the different theories of personality;

Assess the relevance of different techniques used in the study of personality.

7.1. Definition of personality and general remark

Man's interest in personality is as old as his interest in the supernatural. Thus some ideas about personality may be found in primitive customs, myths and superstitions as well as in all the great religions of the world. In Literature, since the days of the great poetry, character writers have presented interesting personality types.

Psychology of personality, however, is of recent growth. Though psychologists have been always concerned with personality, it was not till Galton and Freud that the study of personality became scientific. Psychology of personality, in a sense, is very old and at the same time, has a brief history. In the last three decades, however, there has been a very rapid development in this field with regard to concepts, techniques, findings, applications, publications and number of works.

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These variations cause differences in personality from one individual to another.

There are three basic factors, which have to be considered in describing personality. These are:

1. The internal aspects: these are feelings, the physiological systems, glands and inherently determined physical features.
2. The social situation: they include the influence of the family and other groups to which one belongs, the influence of customs, traditions and culture.
3. The reactions or behavior; they are results from the interaction of the individual and the stimuli from the environment.

Personality is a dynamic growing thing. It grows in a social setup, through social experiences and continual adjustment to the environment.

There are three main factors that contribute to differences in personality. These are:

1. The physiological factors. These include:

The physique of the individual (his size, strength, looks);

Physical appearances and deficiencies and how other people react to these characteristics;

Endocrine glands production of hormones;

Example: excess insulin secretion may make the individual fatigued or anxious. Hypothyroidism may cause sluggishness, inertia or dullness, slowness or stupidity. Hyperthyroidism may cause nervous tension, excitement and over activity.

2. The environmental or social factors

Reactions of other people and reactions to other people;

Example: relationships in the home and the family, the influence of school

An atmosphere of peace, love, mutual understanding at home develops self-confidence and security;

Repressive home atmosphere will result in rebellious or dependence as personality traits;

Personality of the teacher, richness of the curriculum, the presence or absence of co curricula activities, methods of teaching affect the child's personality.

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3. Mental or psychological factors include

> Motives, interests, activities, will and character, intellectual capacities, reasoning, attention, perception and imagination.

7.2. Brief historical development of personality psychology

7.2.1. The clinical influence

> Clinical study of personality was started in France. Beginning from 19[th]c, psychology in France centered on psychopathology.

Philippe Pirelli's (1745-1826), idea helped to remove the chains in which mental patients had been kept. Later more systematic observation of mental patients was made resulting in a description of mental disorders. Jean Martin Char cot (1825-1893) used hypnosis and applied to hysterical disorders. Hysteria is loss of bodily functions without apparent organic or physiological cause. Example- Paralysis of the arm, Numbness

7.2.2. Psychoanalysis

> Before Freud, psychology was far removed from the study of personality.

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Wilhelm Wundt's experimental psychology had little contribution about human motives, feelings or traits.

Freud, after a period of involvement in basic research in physiology and neurology opened a medical practice in neurology.

Freud later realized that, he could find no organic neurological cause for the symptoms most of his patients brought to him for treatment.

7.2.3. Galena's theory of temperament

The theory is based on Hypocrite's doctrine. Hippcrates about 400 BC. thought that people could be classified into four types. Each of these types was connected with certain types of personality traits. These are:

Sanguine------activity and rush ness

Phlegmatic----slowness and stability

Choleric--------ambitiousness, industrious

Melancholic----pessimism and reflective ness

Modern theories of personality, however, show that human personality is not simply combination of four qualities.

Hippocrates's temperament theory related biological characteristics to personality traits.

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Structure

It is anatomy of personality with basic dispositions and interrelationships of different elements of personality.

These personality structures are enduring and stable aspects of personality.

Development

Individuals' are different from each other even at birth, in physical appearance or temperament.

The differences become more complex with increasing age and interaction with the environment.

Dynamics

The dynamic aspect of personality is concerned with the meaning and function of behavior.

It looks for the purpose or the objective of an act, why the individual behaves the way he/ she does.

7.3.1. General remark

Suppose you were asked to write a letter describing yourself to stranger. How could you paint an accurate self-portrait of yourself in words?

You may begin with simple facts.

Example: I am a student in the College of health sciences.

I am a member of the international red cross

society etc.

I am thick-skinned or sensitive;

I am out going or shy;

I am aggressive or timid;

I am emotional or restrained.

Question: Do you think these traits will still describe you in the coming ten years?

Do your thinking and acting change in time?

Psychologists who study personality ask two key questions

Question.1 Why don't all people react in the same way to the same encounter?

Example a.   When meeting with a group of strangers one finds it easy to start conversation, whiaTesti97268 7t1.1901:1Eo e.7322 TD-0.0TT2 Qqestion.s

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Others stress on the influence of people's biological makeup.

Others stress on the influence of learning.

Question 2   Do individual differences have power in shaping behavior?

Example   a. Do shyness, friendliness, punctuality exert a strong impact on behavior. Do they cause people to act in a certain way?
(Predictability of behavior)

b. Might the health officer student be extremely careful and honest in handling fund but be willing to cheat on exams if given the opportunity? Or his honesty can hold him to behave with integrity in both situations?

Theories of personality, therefore, concentrate on

Specific traits (honesty, shyness) and how combination of traits can be measured and described.

Factors that integrate personality (the concept of self).

Internal feelings (anxiety, conflict, self-fulfillment)

The four major theories of personality are

1.   Psychoanalytic theory
2.   Trait and type theories
3.   Humanistic theory
4.   Social cognitive theory

7.3.2. Psychoanalytic theories

It is general and best-known theory of personality.

The greatest figure in psychoanalytic theory is Sigmund Freud (1856-1939).

All psychoanalytic theories have two themes in common.

1. They are concerned with powerful but largely unconscious motivations believed to exist in every human being. This school emphasizes on childhood experiences as critically important in shaping adult personality.

2. Human personality is governed by conflict between opposing forces i.e.; anxiety over unacceptable motives and defense mechanisms that develop to prevent anxiety from becoming too great.

Basic theoretical concepts in psychoanalysis are understood within the context of a model.

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From the biological survival model two broad theoretical concepts can be drawn. These are homeostasis and hedonism.

Homeostasis

It is the Tendency toward the maintenance of a relatively internal environment.

It is a state of equilibrium.

Example   No food   tissue deficit   disequilibrium

Hedonism

The concept of hedonism states that pleasure and happiness are the chief goals in life.

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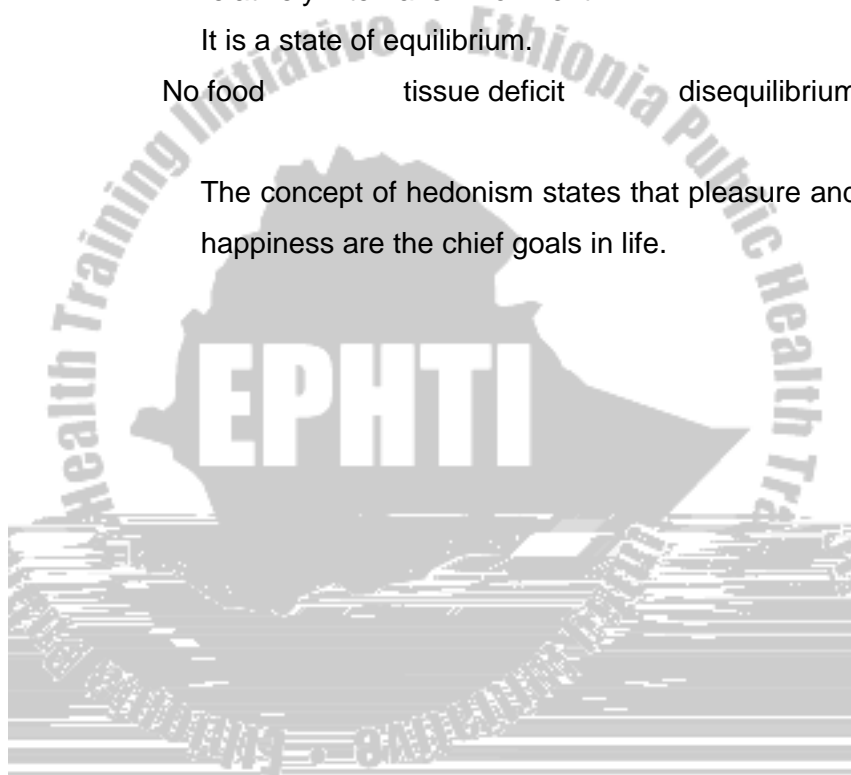
water, warmth, sexual gratification and avoidance of pain etc.

It is inborn.

It is governed by the pleasure principle the principle of hedonism.

The id has no link to objective reality

It looks for immediate discharge of tension arising from biological drives, without regard for logic or reason, reality or morality.

The id is like a demanding, selfish child. It looks only its own pleasure.

The id has no way of determining which meanness of doing things (strategy) is safe and which are dangerous. Goal setting is not realistic.

In the absence of external goal satisfaction, internal mental acts (Example: dream about accomplishment, achievement desire, daydream of attacking some one in order to gratify aggressive needs) are used to fulfill wishes.

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2. The Ego

It begins to develop soon after birth, but does not become apparent until the age of about six months.

It serves as a mediator between the id impulse and reality.

Unlike the id, the ego is conscious.

It operates according to the reality principle. Satisfaction of biological needs is not given up; but reality is taken into account to satisfy these biological needs.

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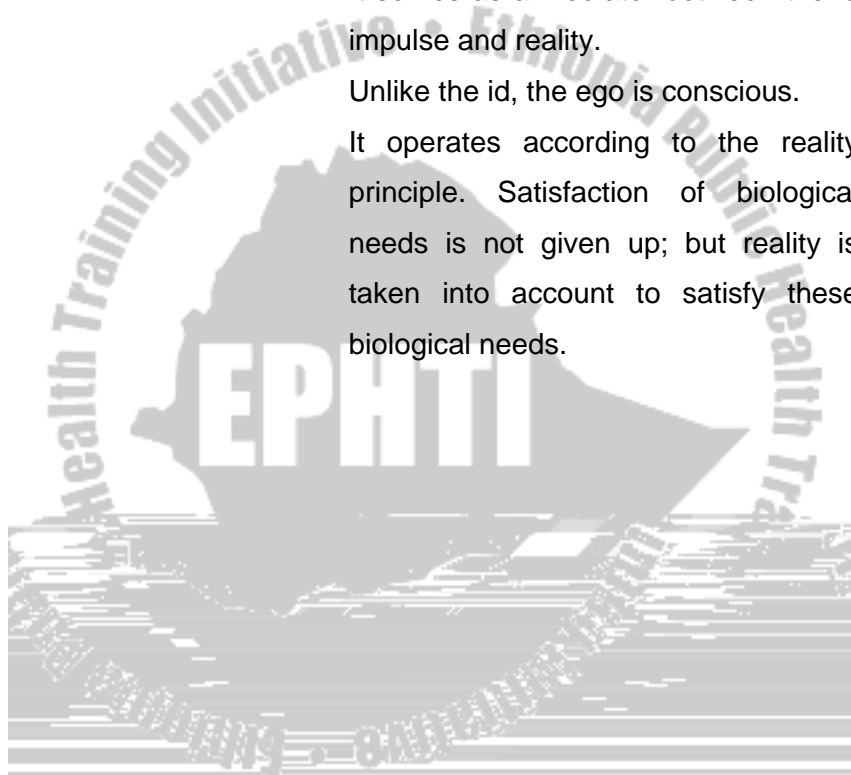
The ego follows the rules of adult thinking.

Adult thinking is characterized   by logic

Time orientation

Distinction

a. For good behavior -   The super ego rewards

    Consequence   -   feeling of pride and self-esteem

b. For bad behavior   -   The super ego uses punishment

    Consequence   -   feeling of guilt and inferiority.

According to Freud the superego is harsh and punitive taskmaster. It wants the person to be perfect.

It doesn't take into account individual capabilities and circumstances in the environment

Integration of the three personality structures

Ego ⟶ executive agency (highest) structure in a person ⟶ mediates to satisfy the constant demands of id ⟶ but bound by the constraints of reality and moderate the ideals of superego.

The following hypothetical example illustrates how the three personality structures operate in real life situation.

A six-year-old child Bereket spots his favorite candy in a supermarket.

The id shouts -   "I want it now! Take it!"

The super ego-   "Thou shall not steal."

The ego   -"I could ask my father Girma to buy it for me, but he might say no."

7.3.2.2.   Anxiety and defense mechanisms

How does the ego then try to reconcile, moderate the opposing goals of the id and the superego?

When the ego loses its energy to resolve the divergent demands of the id, anxiety is signaled.

Anxiety is a feeling of apprehension or tension that hinders our daily functioning.

Anxiety arises when:

>   Ego realizes that expression of an id impulse will lead to some kind of harm to the personality.

>   The superego is making an impossible demand to the satisfaction of the biological needs.

Anxiety as an alarm signal tells ego that something must be done to resolve the conflict and to protect the personality from danger.

The ego, therefore, uses defense mechanism, a mental strategy to block the harmful forces while at the same time reducing anxiety.

It protects the individual from overwhelming anxiety, punishment of the superego and other unpleasant experiences.

There are varieties of defense mechanisms. The most common defense mechanisms are described below.

1. Compensation

When the individual tries to overcome a failure or deficiency in one area through achieving

recognition in another area, the adjustment is called compensation.

This enables the individual to enhance his self-esteem.

Example- Demostnenes was a stutter, but he overcame his problem and became the greatest orator in Greece.

2. Rationalization

The individual who has been frustrated or who cannot solve the problem successfully feels discomforted and restless. To lessen his feelings of anxiety, he gives reasons other than true reasons.

Example- A student who cannot do well academically, often satisfies himself by saying "It is not rewarding to work hard in this college"

3. Projection

When a person attributes his shortcomings, moral defects to others as a means of lessening a sense of guilt or inadequacy it is called projection.

Projection is deflection of the attention of others from our own shortcomings.

Example- A student nurse who has cheated in an examination may satisfy herself by saying that others also have cheated. A medical student who is criticized for poor work on the wards by his/her professor may

retaliate by finding many weaknesses in his/ her profession.

4. Displacement

It is a specific form of projection

Example- The ward sister has scolded a student nurse for showing carelessness on duty. The student nurse

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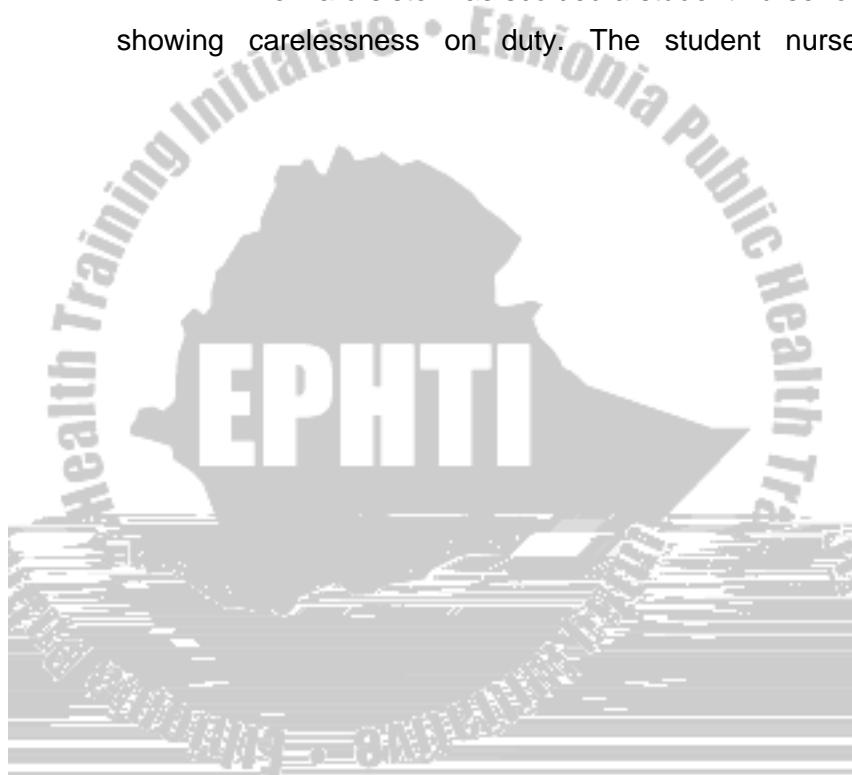
> The original goals are difficult to achieve and an attempt at achieving them may end in failure.
>
> The individual tries to lessen the effects of failure by selecting a new goal or a new situation, which is easier to attain.

Example- A student who has not been accepted for admission by a medical school may satisfy herself/himself by becoming a nurse. A student who cannot go to the medical college for lack of money takes evening courses in x- ray technology.

7. Sublimation

> It is a form of substitution in which our unacceptable desires or activities are redirected into social desirable channels.
>
> We cannot give direct expression to our sexual, or aggressive impulses due to many social restrictions, laws and regulations.
>
> These impulses have to be repressed and the energy associated with them may produce maladjustment.

Example- An unmarried woman interested in children may give expression to her repressed maternal need by engaging herself in orphanage work or in any child welfare institution.

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Unsatisfied sexual needs may be redirected in useful artistic and literary works.

8. Negativism

Some individuals react to frustrating situation by becoming negative.

They refuse to attack the problem.

They become uncooperative and do the opposite of what should be done.

Example- patients, who have developed negativism, will not cooperate in the treatment planned for them.

Children who are treated unfairly and discriminately are likely to develop disobedience, tepertantrum.

9. Sympathies

The individual avoids the necessity of solving his problems by obtaining the sympathy of others.

The individual tries to get attention and concern of others.

Example- a student nurse is not doing well in her/his studies. Instead of finding out the cause realistically and making effort to improve herself, she/he may evoke by telling others how difficult things are for her, how her family is in great trouble.

7.3.2.3. Psychosexual stages and how personality develops.

General: Sexual impulses undergo five developmental stages. These are oral, anal, phallic, latency and genital. At each stage in a child's life, the drive for pleasure centers around a particular area of the body i.e. mouth, anus, and finally the genitals. Freud believed that adult personality is shaped by the way in which the conflicts between early id urges and the requirements imposed by society, like for example in weaning, toilet training, prohibitions against masturbation are resolved at each of the psychosexual stages.

Fixation

Adult emotional problems can be traced to specific disturbances during the four stages of psychosexual stages of development. When the individual is not able to resolve the conflicting demands of the id impulses and the restrictions of superego, development will be tied up at a certain stage. It is called Fixation. The greater the fixation at a certain stage, the lesser mental energy the person has for mature social and emotional relationships with his environment.

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1. The oral stage

Sexual pleasure focuses on the mouth.

Sucking is an important activity at this stage not only to obtain food to satisfy hunger, but also a source of intense pleasure for the child. This is why babies suck, lick, bite, and chew anything they can get.

Fixation at the oral stage can occur for the following reasons.

a.   When babies repeatedly experience anxiety over whether food will be given or not given.

b.   When they come to learn that they are totally dependent on others.

Consequences

Passive, over dependent, unenterprising adult.

A child who experienced strong oral fixation, due to the birth of a sibling may revert to thumb sucking and exaggerated dependency. It is a form of regression.

2. The anal stage

It occurs during the second year of life, when children begin to develop voluntary control over bowel movements.

Holding in and expelling feces gives great sensual pleasure to the child.

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The demands of toilet training by parents are imposed at this stage.

Toilet training, according to Freud, is a crucial event because it is the first big conflict between the child's id impulses and society's rules.

Fixation at this stage can occur due to strict and punitive toilet training.

Consequences

The child may resist completely the urge to defecate in a free and enjoyable manner.

May result in extreme orderliness during adulthood.

May result in excessive neatness during adulthood.

3. The phallic stage

It covers the years from about three to five or six years.

Pleasure focuses on masturbation (self-manipulation) of the genitals.

It is the period when the Oedipal and Electra conflicts occurs.

The concept of Oedipal and electra complex

At five or six, sexual behavior is directed to mother. The child sees his father as rival. This is the rise of Oedipal conflict. But the boy fears to retaliate his father. Freud called this castration anxiety. Castration anxiety is the earliest form of subsequent anxieties. In girls it is called Electra complex. The girl being

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jealous of her mother maintains relationship with her father. But ultimately both boys and girls identify with parents of opposite sex with her mother.

feelings threaten to break into consciousness, and now the young person is big enough to carry them out in reality.

Freud said that from puberty onward the individual's great task is freeing himself from the parents. For the son, this means releasing his tie to the mother and finding a woman of his own. The boy must also resolve his rivalry with his father and free himself of his father's domination of him. For the daughter, the tasks are the same; she too must separate from the parents and establish a life of her own. Freud noted, however, that independence never comes easily. Over the years we have built strong dependence upon our parents, and it is painful to separate ourselves emotionally from them.

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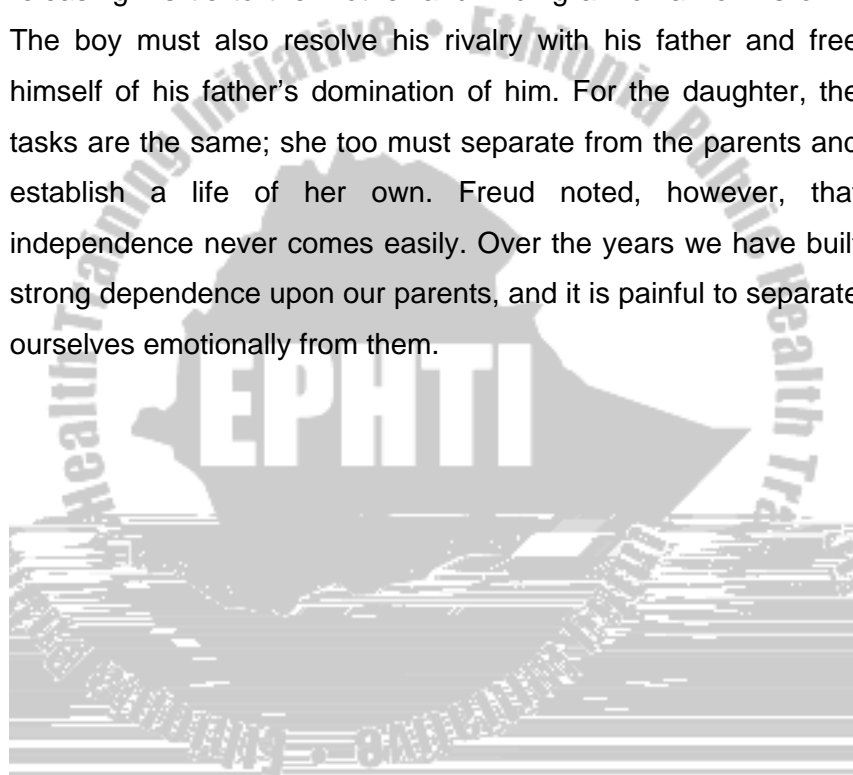
dissidents, took different directions and developed their own theory.

Differences between early psychoanalytic theories and post- Freudian theories

1. Post-Freudian theorists gave more importance to the ego and less importance to the id. In the foregoing pages, we saw that the ego is viewed as simply submissive. Post-Freudian analysts instead saw the ego as an important force, capable of much creativity, rational planning, and the formation of realistic goals.

2. Later psychoanalytic theorists emphasized the importance of social interaction in explaining how human personality develops. They saw human personality as the product of a child's relationships with significant others in his or her life.

3. Here we will discuss two theories, perceived as different from the earlier Freudian theory.

7.3.3.2. The analytic psychology of Carl Jung (1875-1961)

In 1910 the Psychoanalytic association was found. Carl Jung was the first president. But due to theoretical differences with Freud, their relationship was affected and Jung withdrew the association. But Jung developed his own theory and called it the Analytic Psychology.

Basic assumptions of Jung's theory

Personality consists of competing forces and structures.

Example   .Masculine and feminine tendencies

.Conscious and unconscious

.Introversion and extroversion

An integrated personality balances masculine aggressiveness with more famine sensitivity.

A self-actualized individual emerges out of the struggle to balance and integrate the various opposing forces that make up the personality.

Jung emphasized on conflicts between opposing forces within the individual, not between the individual and the demands of society or between the individual and reality.

7.3.3.3. Alfred Adler's individual psychology (1870-1937)

The basic idea of Individual Psychology is that human beings have an innate social interest and are cooperative and interested in the welfare of other people.

Three concepts in Adler's individual psychology

1. Striving for superiority

It is basic human tendency.

Superiority for Adler is not necessarily mean power over others or competitive success. It refers to a more general

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However, a realistic self-perception about the strengths and weaknesses is necessary to achieve success, self-improvement and perfection in life.

3. Style of life

Refers to distinctive personality that each of us develop in response to our inferiorities.

Refers to uniqueness, formed at the age of five that characterizes the person throughout life and becomes the distinguishing feature of the personality.

Adler's theory can be summarized by the following points

a. The theory presents a positive image of human nature and its potential to grow.

b. Human beings are motivated by social interest to overcome inferiority and attain perfection.

c Malpractices in child rearing can change this positive goal to destructiveness.

7.3.3.4. Evaluating psychoanalytic theories

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well to do social classes. It does not represent the different social strata.

3. Freud's writings showed a stronger gender bias. According to Freud, when little girls notice that they lack a penis, " they feel themselves heavily handicapped and envy the boy's possession of it". Freud said, this is the beginning of inferiority. Gender movement groups seriously criticize this theory.

7.3.4. Trait Theories

7.3.4.1.   Definition and general remark

Definition: -   A trait is defined as any relatively enduring way in which one individual differs from another (Guilford, 1959).

Three assumptions are included in this definition

1. Personality traits are relatively stable over time.

Example- a person who is shy at parties at age twenty is likely still to be shy at Party five, ten, even twenty years later. Research evidence supports this view. James Conley (1985). for example, compared the personality traits of several hundred adults at three different times in their lives. He discovered that extraversion, neuroticism and impulse control did not showed major change over a forty-five years period.

2. Personality traits are consistent over time.

Example- A person who is domineering at work is likely to be domineering at home at parties or other settings. The assumption here is that on average people will act in the same way in many different situations. Research, too, supported this view. Nancy Cantor (1985), for example, found that college freshmen students used consistent strategies to pursue in their goals to get good grades and making friends.

3. Individual differences are the result of differences in the strength, number and combination of traits. No two individuals are alike, but the differences are largely a matter of degree.

Example- Everyone can be classified as more or less sociable. But sociability can be seen as a continuum with two extremes. Most people fall between these two extremes.

Extroversion   Introversion

↑   ↑

Figure 7: Extroversion- Introversion dimension

7.3.4.2.   AllPort's Trait Approach

Gordon W, Allport (1936), searched for words that could describe people in a dictionary and found about 18,000 different words. After simplifying his descriptions, he came up with three kinds of traits

Activity :Try to list down as many words as possible that are used in our society to describe people's personality

1.   Cardinal trait

It is a single trait that directs a major portion of a person's behavior.

Example-   A person consumed by ambition or by greed would be characterized by a cardinal trait.

The 16th C. Italian political theorist Nicholo Machiavell is usually taken as an example. Nowadays, a person who is persistently manipulating others for his own political ambition is considered as having Machiavellian type personality.

Allport says cardinal traits are rare. Most individuals do not have one predominant trait. Instead they have combinations of different traits.

2.   Central trait

It is based on life experiences.

Certain central traits are unified together and manifested in a person's behavior.

Example For the Americans General Collin Powell, the first black American to be chief of staff, might be said to have central traits having ambition, achievement and

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service to his country. Every society has public figures possessing central traits.

Activity: Encourage your students to identify personalities with important central traits in Ethiopian society.

3.   Secondary traits

They are characteristic modes of behavior that are less important than central traits

They are seen in few situations.

Example- Tastes and preferences for certain foods or styles of music are secondary traits.

7.3.4.3.   Cattel's personality traits

Cattel concluded that personality is composed of sixteen Primary or Source traits. These traits are opposing tendencies.

1.	Reserved	Out going
2.	Less intelligent	more intelligent
3.	Stable, ego strength	Emotionality/ neuroticism
4.	Humble	Assertive
5.	Sober	Happy-go-lucky
6.	Expedient	conscientious
7.	Shy	Venturesome
8.	Tough-minded	Tender-minded
9.	Trusting	Suspicious
10.	Practical	Imaginative

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11.	Forthright	Shrewd
12.	Placid	Apprehensive
13.	Conservative	Experimenting
14.	Group-dependent	Self-sufficient
15.	Undisciplined	Controlled
16.	Relaxed	Tense

To Cattell, trait is structure of the personality inferred from behavior in different situations. He classified traits into four categories. These are:

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7.3.4.4. Eysenck's Dimensions of Personality
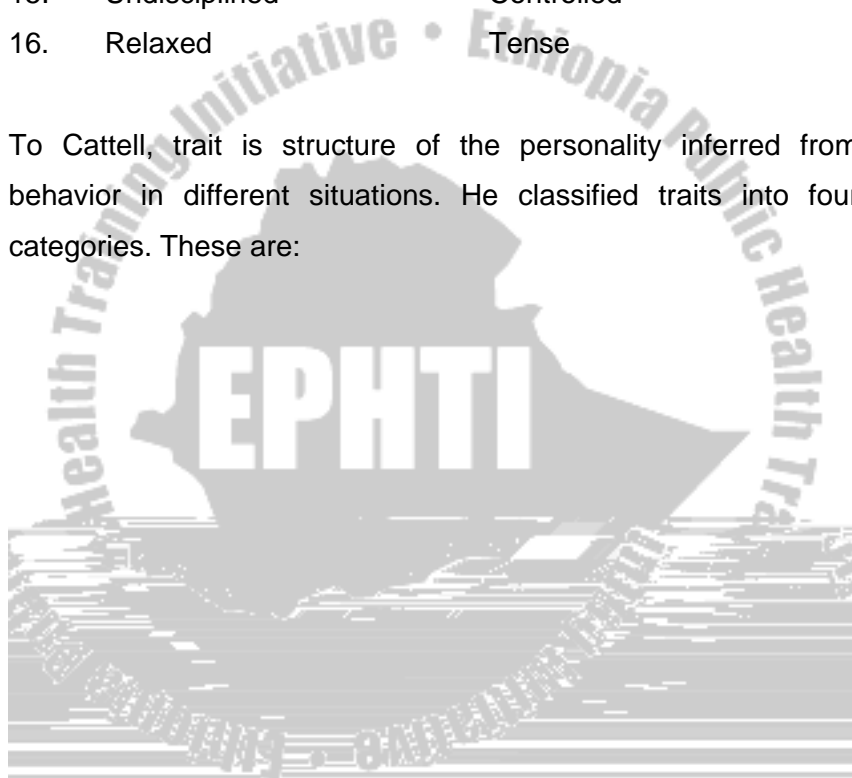
Eysenck reduced personality traits into the following major dimensions.

Table 4: Dimensions of personality

1. Neuroticism Vs Emotional stability The degree to which people have control over their feelings.	Neuroticism Anxious Moody Touchy Restless Quick to fly Out of control	Emotional Stability Calm Even-tempered Reliable Almost never Falling to pieces
2. Extraversion Vs Introversion the degree to which people are sociallyout going or withdrawn	Extraversion Active Gregarious Impulsive Excitement of oriented	Introversion Passive Quiet Cautious Reserved
3. Psychopathology	Lack of feeling for others A tough manner of interacting with others A tendency to be different Defy social conventions	--------

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The followings are sample items taken from Eysenck's questionnaire to differentiate people according to the dimensions.

	Yes	No
1. Do you usually take the initiative in making new friends?	-	-
2. Do ideas run through your head so that you cannot sleep?	-	-
3. Are you inclined to keep in the background on social occasions?	-	-
4. Are you inclined to be moody?	-	-
5. Do you very much like good food?	-	-
6. When you get annoyed do you need someone friendly to take to about it?	-	-
7. Do you often make up your mind too late?	-	-

Eysenck hypothesized two explanations why people show different traits.

1. Extroverts have a naturally low level of arousal in the cortex of the brain.

2. The introverts in contrast, already have a naturally high level of cortical arousal

From these two hypotheses, it was found that

The introverts take longer time to fall asleep;

The introverts are more sensitive to pain than extraverts, suggesting that their brains are somehow more alert;

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Table5: The Big Five personality dimensions

No	Dimensionsof personality	Traits
1	Extraversion	Socially active, assertive, outgoing talkative- the opposite of shy.
2	Neuroticism	Emotionally unstable, anxiety, worry, fear, distress, poor emotional control, irritable, hypersensitive-the opposite of well adjusted.
3	Agreeableness	Helpful, cooperative, friendly, caring, nurturing, the opposite of hostile and self-centered.
4	Conscientiousness	Achievement oriented, dependable, responsible, prudent, hardworking, self controlled- the opposite of impulsive.
5	Openness to experience	Curious, imaginative, creative,

7.3.4.6.   Evaluation of trait theories

1. Trait theorists see personality as static. However as we learned earlier, personality is dynamic. Trait theory doesn't fully answer the following questions.

    Where do traits come from?

    Can traits change?

    Why does an individual develop one set of traits instead of another?

2. Research supports the idea of human inconsistency and day to day observation proves this. But trait theorists exaggerate the consistency of human behavior.

Example: An assertive boss in the office can be shy and hesitant in social gatherings.

7.3.5. Humanistic approaches to personality.

The major proponent of humanistic theory is Carl Rogers. The theory emphasized that people have natural tendency to grow to higher levels of functioning. Rogers suggested that people have a universal need to be loved and respected by others. To have positive regard for ourselves, we rely on the value others attach to us.

A balance between the individual's self concept and opinion of others is important for healthy personality development.

If the discrepancy between the individual's self-concept and the opinion of others is great, it will lead to psychological disturbances such as anxiety.

An attitude of acceptance respect and support from friends, a spouse or any other significant person allows people the opportunity to grow cognitively and emotionally and to develop more realistic self-concept.

For humanistic psychologists the final goal of personality growth is self-actualization.

Self-actualization is a state of self-fulfillment in which people realize their highest potential. A self-actualized person is one, who works hard, realizes his full potential and happens what he wants to be.

A self-actualized person is one who is committed, dedicated and contributing something worthmenioning to his people in particular and to human kind in general.

Example- Consider the contribution of Abebech Gobena, the creativity of Afework Tekle and other brilliant Ethiopians.

Activity-Ask your students to mention the names of Ethiopians who achieved great success, happiness and fulfillment in their lives and let them describe the achievements.

Reading assignment

Theories on personality are not only those mentioned above. For further knowledge read:

Social cognitive approaches to personality;

Biological approaches to personality;

Eclectic approach to personality.

7.4. Personality assessment

7.4.1. Definition and general remarks

Personality assessment means judging, evaluation and measurement of personality traits or the general personality pattern possessed by an individual. Personality is a complex thing and it varies from person to person. It is very difficult to form a correct idea of one's personality by one method or technique. To have a good picture of an individual's personality applying combination of different assessment techniques is advantageous. There are a number of procedures and techniques that can be used for proper evaluation.

Psychologists frequently use tests to obtain information about clients. There are a number of approaches. The three commonly used approaches to study personality are:

1. What the individual says about himself (self report inventories)

2. What others say about the individual (socio metric inventories)

3. What the individual does in a particular kind of situation (observational techniques)

7.4.2. Self report inventories (Tests)

- It is the quickest method.

- It is the least expensive method. Because just as physicians draw a small sample of blood in order to test it, psychologists use self report measures to ask people about a relatively small sample of their behavior.

Assumptions

1. The inventories assume that people possess varying amounts of the trait being measured.

2. Many items are used to obtain a reliable assessment; a single item or question is not applicable to everyone.

- Psychologists who favor a trait approach to personality have developed self-report tests. Suppose we want to construct a test to study conscientiousness which is one of the 'Big Five' personality traits. As we have seen this trait involves, achievement orientation, dependability and a sense of responsibility.The following sample items are meant to measure the trait.

a. I always make sure I finish the project I start   Yes No

                                        Cannot   say

b. If someone gives me a job to do,

  I feel an obligation to do it well   Yes No

                                        Cannot say

c. I am very careful and meticulous   Yes   No

Cannot say

The Minnesota Multiphase Personality Inventory (MMPI) is the most widely used instrument to assess personality. (Hathaway and McKinley, 1940)

It is used to asses psychiatric symptoms

It is also given to a group of psychologically healthy people.

Example: -delusions, hallucinations, obsessive and compulsive states, sadistic and masochistic tendencies, physical health, and general habits. Family and marital status, occupational and educational problems, attitude toward religion, sex, politics and social problems are assessed using the instrument.

The MMPI scores are good predictors of whether college students will marry within ten years and whether they will get an advanced degree.

Police departments use the test to measure whether police officers are prone to use their weapons.

Psychologists in the former Soviet Union even administered the MMPI to their cosmonauts and Olympic athletes

The inventory consists of a set of 567 True-False statements. It has 10 scales

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Table 6: Clinical scales of the MMPI and its meanings

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Sample items from MMPI

> I have never indulged in unusual sex practice.
>
> Someone has been trying to poison me.
>
> I am afraid of losing my mind.
>
> I get mad easily and then I get over it soon.
>
> My way of doing things is apt to be misunderstanding by others.
>
> I am troubled by attacks of nausea and vomiting.

7.4.3. Projective techniques

Psychologists with a psychoanalytic background use the projective tests. Because they believe that personality is shaped by unconscious conflicts. Projective tests assess the way people respond to and interpret ambiguous stimuli, such as inkblots and pictures in which the motives and feelings are not clear. The test takers describe what they see in the inkblots or pictures. In doing so they project their own unconscious feelings, conflicts, emotions, wishes and other reactions freely in some situations. They may be asked to write or tell stories with the help of the pictures or they may be asked to say what an inkblot looks like to him.

A child may be asked to play freely with toys and say what he is doing or paint freely what he wants to. The stories, the responses to inkblots, the arrangement of playing situations and the content

of drawings are then interpreted by the clinical psychologist who should be experienced and trained in the field.

Example: -   Someone who repeatedly sees blind eyes and threatening figures in abstract blots of ink may project onto the inkblots the fears and suspicion of typical paranoia.

Its use depends upon clinical interpretation.

Interpretation by the psychoanalyst or clinical psychologist depends upon how people respond to and interpret ambiguous material.

There are no right or wrong answers. Because there is no established meaning to the test materials.

Therefore the procedure is individualistic and

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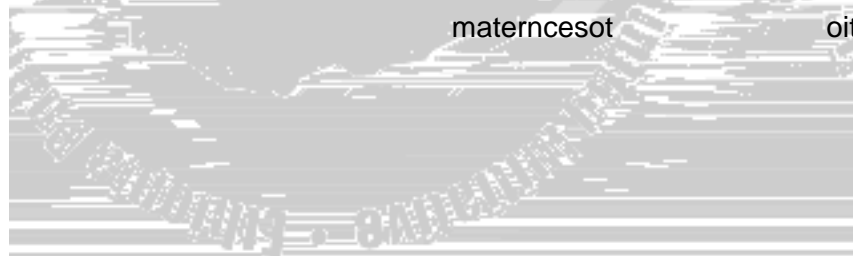
Example: Rising blood pressure is connected with level of hostility. Anger is associated with rapid heart rate, increased skin conductance, and high blood pressure.

Anxiety is associated with rapid heart rate, rapid breathing, perspiration and muscle tension.

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a. Structured

> Interviewer asks the same set of questions in a particular order to all individuals participating in the study.
>
> The interviewer reads the questions and then records the responses.

b. Unstructured Interview

> The interviewer might begin anywhere, proceed in any direction.
>
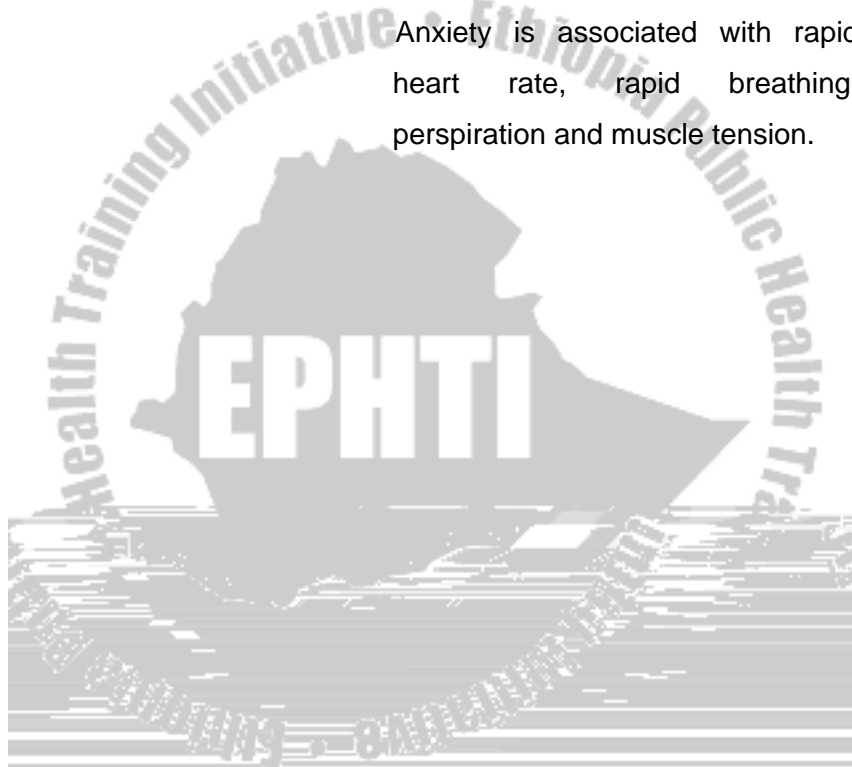> He can change the focus of the interview or whatever.
>
> The content of the interview depends upon the wishes of the interviewer.
>
> The interviewer lets the individual to speak freely, so as to get a clear picture of the individual.
>
> From what the interviewee says the interviewer knows about his/ her interests, problems, assets and limitations.

7.4.6. Behavioral Assessment

> It is based on the assumption that situations play an important role in behavior, so that human behavior can be measured only within the context in which they occur.

procedures. The focus is on observable behavior not searching for hidden motives.

Behavioral assessment may be carried out naturalistically by observing people in their own setting, in the work place, at home or in school.

Behavioral assessment can take place in the

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3. Identifying environmental consequences that might be reinforcing an undesirable response, consequences that could be changed to help alleviate the problem.

The behavioral approach of assessing personality has been called the ABC technique. This is because it looks at:

Antecedent conditions

The nature of the problem behavior

Consequences

Analyze the following case

Bereket is a five-year-old boy. His mother wanted to stop Bereket's tempera tantrum behavior. Bereket suddenly displays anger. She visited a behavioral therapist. The therapeutic session (procedure) was as follows.

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1. Bereket screams, kicks, hits and bites anything around him when he is denied something he wanted;

7.4.8. Personality and the health professional: concluding remarks.

The health professional is not only to acquire skills and scientific knowledge. He/ she should have and develop a pleasing and strong personality to accomplish the duties and responsibilities. Besides possessing professional qualities, integrity, dignity, self-confidence, dependability, sympathetic, understanding, friendliness, gracious manner are important traits. Patients in particular and the community at large appreciates a health
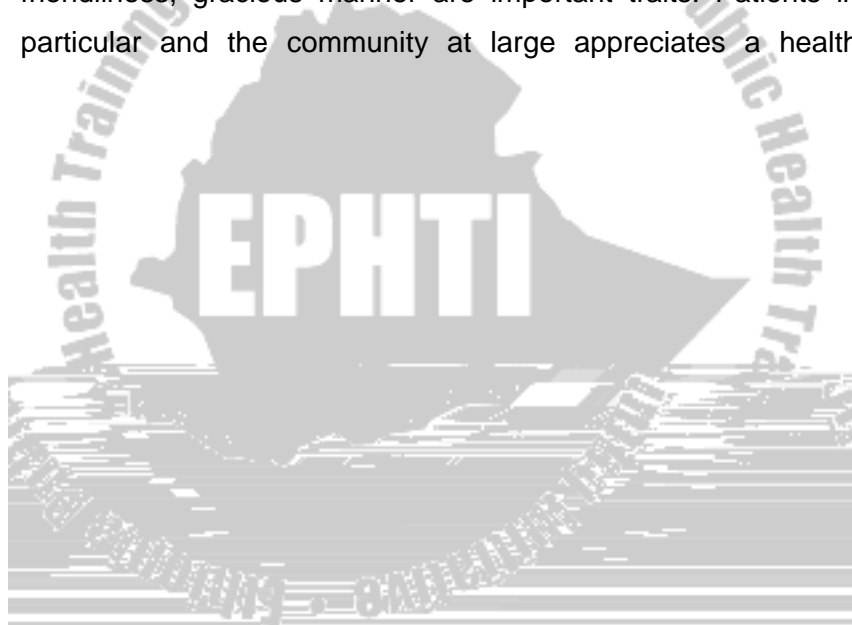
3. Briefly explain the nature and function of the major parts of the personality proposed by Freud.

4. What did Freud mean by 'defense mechanisms'. Briefly describe three of them.

5. Explain the concept of fixation in relation to the development of the personality.

6. Outline Allport's views of the nature of personality traits. Refer to cardinal traits and central traits.

7. Evaluate Roger's self-theory.

8. Compare and contrast Freud's personality theory with the Neo- Freudian theories.

CHAPTER EIGHT
HEALTH STRESS AND COPING

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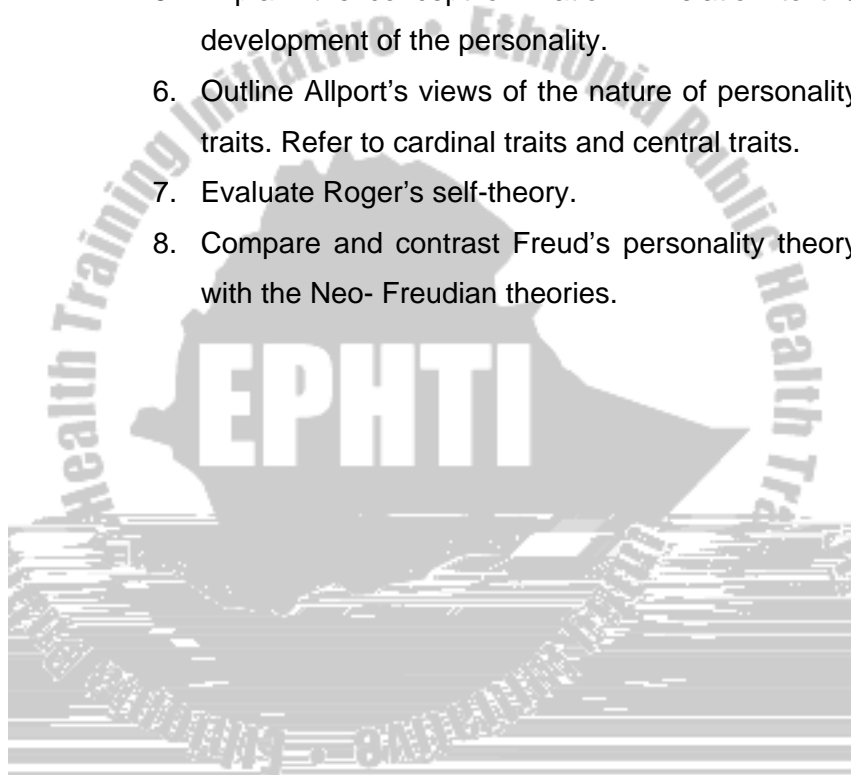
spite of their persistent nature, these chronic illnesses remain increasing health problems. Because of this, during the past 100 years the concept of health has changed in several different ways.

1. The leading death causes have changed from infectious diseases to those that stem from unhealthy behavior and life style. AIDS, for example, which is related to behavior and life style, has become a major concern of all people throughout the world.

2. The growing cost of medical care has indicated the importance of educating people about how health-related practices can lower the risk of becoming ill. A new definition of health has emerged, so that health is now seen as the presence of positive well being, not merely the absence of disease (stone, 1979)

3. Physicians and others advocated a broader outlook of health and disease and questioned the usefulness of the traditional biomedical model (Engel, 1977)

Prevention of disease through a healthy life style, for example, educating people about weight control, smoking cessation, nutrition and exercise can optimize prevention, curing and

reduction of health risks and have all become part of a changing philosophy within the health care field.

In 1989 Julius Seeman insisted that total health should not be defined simply as an absence of disease. He emphasized that health includes not only the biological realm but also mental and social domains. This multifaceted view of health includes physical, mental, and social dimensions, indicating that health extends beyond the structure and function of our body to include feelings, values, and the ability to reason. It also includes the nature of your interpersonal relationships.

The above explanation of health is further expanded by a broader view known as holistic health. This view extends the concept of health to include intellectual, spiritual, and occupational dimensions. The holistically healthy person functions as a total person. Some experts say that holistically healthy people have reached a high level of wellness. In view of the holistic health a person who has a serious physical illness can also be considered quite healthy.

Another new view to explain health is the concept of health promotion. Health promotion is linked to disease prevention. Advocators of health promotion claim that health is the function of accepting scientific opinion and adopting specific health-enhancing practices.

To promote the health of a person or group, health professionals use a number of strategies. These include:

Health screenings such as blood pressure or cholesterol measurements.

Health education activities such as first aid, human immuno-deficiency virus(HIV) and

Behavior change strategies such as the use of specific eating plans or exercise programs.

However these strategies would not guarantee a person to be healthy. Because not being sick and doing healthful things alone will not assure a person growing and developing to his fullest potential.

Another popular concept to explain health is wellness. Wellness is a process of periodically assessing risk factors and providing information, behavior change strategies, and the adoption of a wellness lifestyle. This life style is characterized by low risk, health-enhancing behavior which produce a sense of well-being. According to this view, when people follow a wellness lifestyle, they can reach their fullest potential as they interact with the family, classroom, or workplace.

To realize this potential, individuals must take responsibility for their health behavior. People must understand that they have more control over their health behavior than they think.

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A wellness perspective encourages people to focus on the present and future and not on the past, especially if one's past includes negative health behavior. Wellness also discourages blaming others for ones own behavior.

Empowerment is another concept used in the health literature. In the context of health, empowerment refers to:

  Increasing the capacity to control over ones health.

  Liberating oneself from a variety of barriers that restrict health enhancement

  To take charge of ones own life

  Focus on producing constructive change through dialogue and collaboration.

Empowerment programs have produced positive results particularly among the economically disadvantaged, the elderly, and the minority populations.

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It includes both the physical health and social effectiveness.

From psychological point of view mental health is the ability of the individual to make personal and social adjustment.

Social adjustment is establishing of a satisfactory relationship between the individual and his environment, between his needs, desires, and those of other people.

A well-adjusted person feels happy because he has resolved emotional conflicts and tensions.

In broader terms mental health refers to decision-making abilities, ability to carry responsibilities, finding satisfaction, success and happiness in life.

What are the characteristics of a mentally healthy individual?

1. A mentally healthy individual can realistically assess weaknesses and strengths.

2. His self-esteem is high. He has a sense of personal worth.

3. A mentally healthy person feels that he is wanted and loved by others and can give affection to others.

4. A mentally healthy person has the capacity to face reality rationally and objectively.

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5. A mentally healthy person is able to regulate his emotions and expresses them in a socially desirable manner.

The mental health of an individual depends upon three factors: heredity, physical and social.

A. Hereditary factors

Hereditary factors are potentials of an individual.

These inherited potentials have relationship to physical growth, appearance, intelligence and lifestyle.

Hereditary factors play an important role in the development of a particular type of mental illness.

Example- Heredity is a prominent factor in causing mental retardation.

B. Physical factors

People with greater strength, better looks and health have a social advantage in the development of personality characteristics.

Physically healthy person is enthusiastic, intellectually alert, and has high achievement Tm/romion( )TJ/TT6 1 Tf(r3r2J/o50romion(a.5(.yple-)]/T

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effective time usage are more likely to have good mental health.

C. Social factors

The social factors includes the individual's environment in which the person interacts and his/her social functioning with other people.

The development and utilization of hereditary potentials is

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model, the bio-psycho-social model. See the following quotation.

"To provide a basic for understanding the determinants of disease and arriving at rational treatments and patterns of health care, a medical model must also take into account the patient, the social context in which he lives and the complementary system devised by society to deal with the disruptive effects of illness, that is, the physician's role and the health care system. This requires a bio-psycho-social model." (P. 132)

8.2. Definition of stress and stressors

Definition: It is the response to events that are threatening or challenging. Any stimulus that places a strain on a person's physical or psychological capacity to adjust is called stressor. Stress and stressors have cause- and- effect relationship.

1. Cataclysmic events

    These are strong stressors that occur suddenly affecting many people at once.

    Example: Natural disaster

2. Post traumatic stress disorder (PTSD)

    It is a phenomenon in which victims of major catastrophes re-experience the original stress event and associated feelings in vivid flashbacks or dreams.

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Example: sexually raped individuals usually experience posttraumatic stress disorder.

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11	Change in health of family member	44
12	Pregnancy	40
13	Sex difficulties	39
14	Gain of new family member	39
15	Business readjustment	39
16	Change in financial state	38
17	Death of close friend	37
18	Change to different line of work	36

19   Change   in   number   of   arguments   with

33	Change in school	20
34	Change in recreation	19
35	Change in church activities	19
36	Change in social activities	18
37	Mortgage or loan less than 10,000	17
38	Change in sleeping habits	16
39	Change in number of family get together	15
40	Change in eating habits	15
41	Vacation	13
42	Christmas	12
43	Minor violations of the law	11

8.3. The coping process and coping strategies

Coping refers to the way the mind responds to events that are challenging or threatening. It is important to be aware that an occurrence perceived as threatening by one person may be a challenge to another; and be perceived by a third person as normal.

Effective coping is the ability to manage internal or environmental stressors. Adequate physical, psychological, behavioral, or cognitive resources aid effective coping. The most commonly used coping strategies are discussed below.

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1. Emotional focused coping

> It is a coping style in which a person experiencing stress attempts to relieve it by changing his or her internal reactions to environmental stressors.

> Example: talking to oneself to reduce worry.

> Having lunch with friend and talking about the stress.

> Using food or drink to reduce tension.

NB. These thoughts or actions do not change the external event. They change the internal emotional reaction to the event.

2. Problem focused coping.

> It is a coping style in which a person experiencing stress seeks to change the external event that is causing the internal stress reaction.

> Example: making an appointment with a teacher when a student is having difficulty with a course.

> Sitting down with a family member to attempt to resolve a problem when there is stress occurring within the family.

> Studying with another student before an exam.

Coping responses are not the same for all people. Coping is the result of the interplay between:

> Perception of stressful events

> The psychological meaning attributed to them and

> The physiological response associated with that meaning.

3. Appraisal focused coping

The mind is monitoring external and internal events that cause distress. It is engaged in active conscious problem solving about the distress. When the solutions work, we call it coping devices.

The mind also modifies the steps that make up the coping process. The mind constantly monitors the environment in order to provide safety. This monitoring process is called appraisal.

The three steps in process appraisal are:

A. Primary appraisal

> The event is unimportant and can be ignored.
>
> The event is good and contains no threat.
>
> The event is potentially or already threatening causing harm to self-esteem, relationship, and physical health.

B. Secondary appraisal

> The mind decides whether it is all right or in trouble.
>
> The mind considers the events as problem, and then it uses defense mechanism.
>
> The individual asks himself "what can I do to help myself"

C. Reappraisal

> The mind is continually evaluating the outcome of its coping efforts.

The mind develops new strategies.

4. Defense Mechanisms. These are mental strategies we use when we do not wish to face reality.

Examples: avoidance, denial, repression

5. Mal- adaptive coping methods

Example: taking drugs, heavy alcohol, and other stimulants to cover the problem for only a limited time

6. Time management: It includes wise usage of time, planning, and prioritizing of activities

7. Assertiveness: It is to say no when there is imposition. It is a means of developing self-esteem.

8. Relaxation technique: included are focused attention, physical exercise and appropriate diet.

8.4. The general adaptive syndrome (GAS)

When coping efforts are not successful and defense mechanisms are not able to reduce the effects of stress, the result is a subjective feeling of anxiety and concurrent physiological symptoms created by the stressors.

Hans Sely, known as the father of stress research describes the physiological response to stress in a concept called the general adaptive syndrome (GAS). The GAS includes the following three stages.

1. The alarm reaction: The body responds to a stressor with a strong defensive response stimulated by hormones

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from the adrenal cortex. If the stressor is not withdrawn, the body moves to the next step.

2. The stage of resistance: The body maintains resistance to the stressor until it disappears. If the stressor does not disappear the body moves to the next stage.

3. The stage of exhaustion: The effects of the continuing stressor cause the body's resistance ability to fail. Ultimately, without intervention, it may lead to death.

General responses to stress

A. Body response

Increased heart rate

Increased blood pressure

Indigestion

Diarrhea

Prone to accident

B. Mind response (cognitive)

Forgetting

Math's and spelling errors

Preoccupation

C. Emotional

Anxiety

Depression

Feelings of worthlessness

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Psychology's role is not limited to changing behaviors that have been implicated in chronic diseases. Psychologists use their skills:

To relieve pain and reduce stress
To improve health with medical advice
To help patients and family members live with chronic illness (family counseling)

That is why, the distinguished psychologist J.B Watson, as early as the beginning of the 19th century, proposed a course in psychology for medical students.

Shelly Taylor further noted that health psychology was becoming better integrated into the health system. Their contribution advanced from merely being statistical consultants, test administrators, therapists to psychosomatic illnesses to the level of researcher. Nowadays, health psychology is part of the curriculum in almost all health institutions.

Let us sum up the above discussion by presenting a workable definition of Health Psychology given by Matarazzo.

"Health psychology is the aggregate of the specific educational, scientific, and professional contributions of the discipline of psychology to the promotion and maintenance of health, the prevention and treatment of illness, and the

identification of ethnological and diagnostic correlates of health, and related dysfunction." (Motarazzo, 1980, P.815)

Self assessment questions

1. Explain with some examples what the term stressors mean.

2. What is the use of social readjustment rating scale (SRRS)?

3. Describe a personality trait and say why it may produce stress in an individual?

4. Discuss   w

CHAPTER NINE

ABNORMAL PSYCHOLOGY
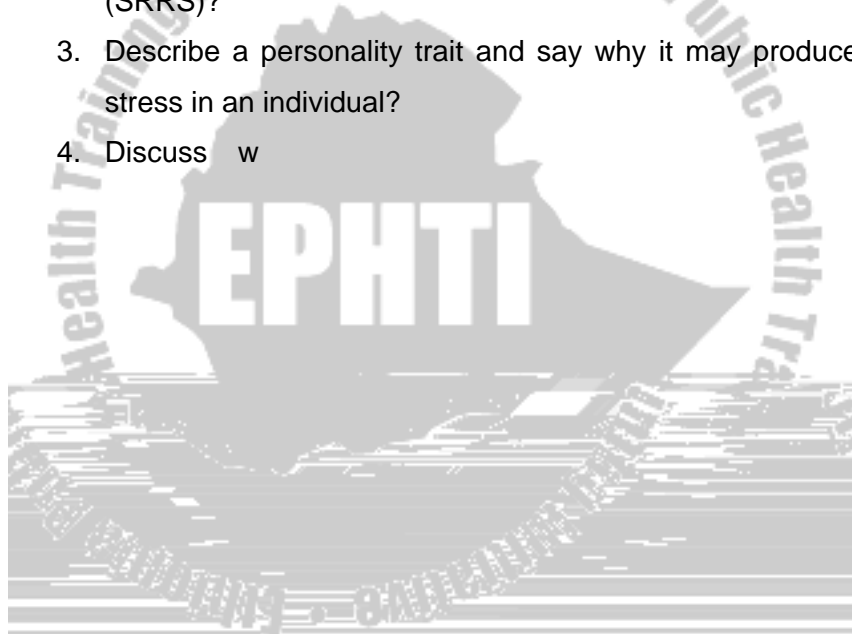
By the end of this chapter the student is expected to:

Discuss the concept of normality and abnormality;

Outline the diagnostic statistical manual (DSM) classification of mental illness;

Discuss the relationship between genetic, environmental, neuro-chemical factors and mental disorders.

9.1. General remark

Why are we interested in Abnormal Psychology?

Despite some misconceptions, abnormal behavior is not limited to the strange actions of few individuals with unbalanced personality. We all have seen it in others to some degree and we all have experienced it ourselves.

Example - Anxiety and depression are common experiences.

-Hallucinations are part of each person's life

Abnormality' is part of our every day life. Psychodrama is common in plays. Some characters play the role of a criminal offense, and others act as outlaws. Still others play

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the role of drug abusers or alcoholics. What is interesting about Abnormal Psychology is that it studies the unusual reactions and responses we make to our daily problems in life.

Death incidences due to abnormality in behavior are found recorded elsewhere in different parts of the world.

Activity-Project assignment for students. The instructor will divide the class into manageable groups and give this assignment. The students are expected to submit the project at the end of the chapter.

Health students are expected to gather and analyze data on the prevalence and incidence rate of deaths and other consequences due to various forms of abnormalities labeled as psycho-pathological. Sources are records kept in mental hospitals and the psychiatric departments in the teaching hospitals.

Abnormal Psychology focuses on the following issues.

Why people show unusual reactions?

How some people break with reality?

How communication fails between two or more people?

How violence erupts (example, terrorism)?

Why individuals' needs collide with social needs?

How sexual expression and enjoyment become blocked?

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Abnormal psychology shares many things with other branches of psychology and discipline. Consider its relationship with the following sub fields of psychology.

Comparative psychology

They receive training from medical school, followed by a three to four years practice in psychiatry.

They are legally permitted to prescribe drugs and to use

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expectations. For example; In the Southern Nations and
Nationalities Regional States of Ethiopia, the Surma people

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A behavior is said to be psychopathological if it is harmful to that person's physical, social and mental health or proper functioning in the society. Is mental illness a disease? Is behavior deviation an illness like a physical disorder? Or is it simply a disturbance in interpersonal relationships? These questions have different answers. For instance compare the following two views.

George Albea (1969), former president of APA argued that, diagnosing an individual as sick when he is functioning well as a member of society is not acceptable. He proposed that state hospitals and public clinics should be replaced by social intervention centers staffed with less trained specialists like social workers.

In contrast David Ausbel (1990) argued that:

Personality disorder is a disease

Considering mental disorders as both expressions of problems of living and manifestations of illness is almost the same.

A symptom need not necessarily reflect a physical wound or injury in order to qualify as a manifestation of disease.

There is no one and universally accepted definition of psychological disorder. Components of the widely accepted standard definitions are:

Persistent emotional problem and suffering;

Behaving in a way that is disturbing to others;

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> Failing to perform ordinary day to day activities (at home, school, work place)
>
> Being irrational thinker or excessively lacking in self-control.

Activity-For illustrative purpose read the following cases and try to associate the personalities with your life-experiences

Case1.A twenty-four year old man, armed with a 44-caliber crossed the road late at night, looking for 'pretty girls' to shoot. At last when police captured him after a yearlong search, it was found that he has killed six people and wounded seven others. He said that "demons" drove him to commit these crimes.
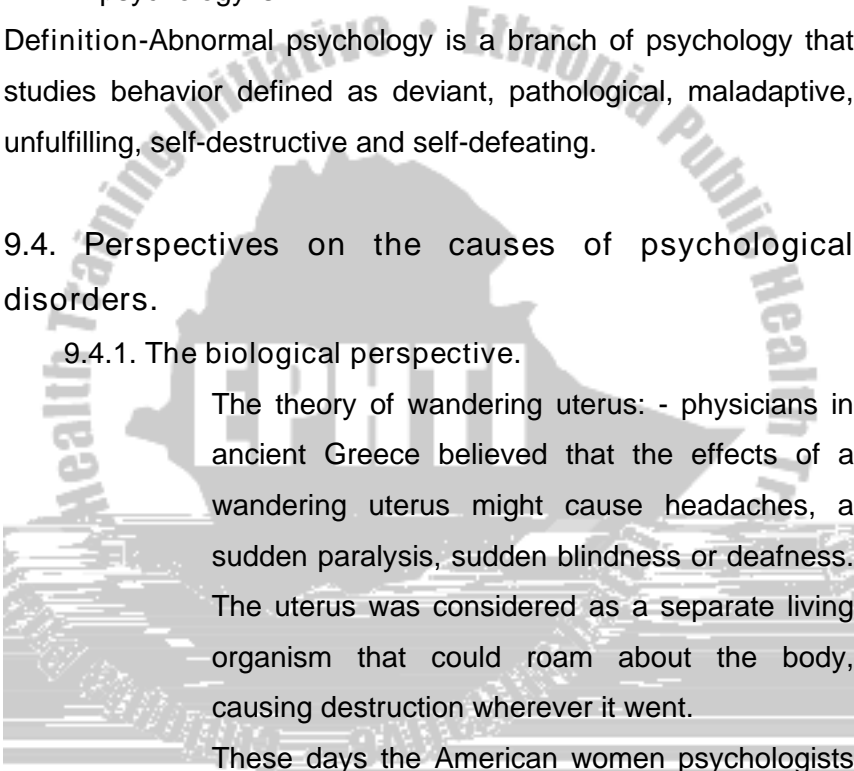
Case2. A middle-aged businessman fade up with his stressful job, and the demands of daily hassle, packs a small bag and flees to the mountains, where he settles in a cave, determined not to return home.

Case3. A young woman who showed great academic promise in

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develops into panic. Eventually even the simple thinking of playing a piano in a public, becomes a terrifying thing for him

In light of the above discussion let us define what abnormal psychology is?

Definition-Abnormal psychology is a branch of psychology that studies behavior defined as deviant, pathological, maladaptive, unfulfilling, self-destructive and self-defeating.

9.4. Perspectives on the causes of psychological disorders.

9.4.1. The biological perspective.

The theory of wandering uterus: - physicians in ancient Greece believed that the effects of a wandering uterus might cause headaches, a sudden paralysis, sudden blindness or deafness. The uterus was considered as a separate living organism that could roam about the body, causing destruction wherever it went.

These days the American women psychologists association also state that 'world ecology is womb ecology'. This is to explain the role of the womb in producing healthy generation. Conversely, if the womb is unhealthy it will

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undoubtedly be a source of psychological, physical and other disorders.

9.4.2. The psychological perspectives. The psychological perspectives are:

1. Psychoanalytic perspective

Abnormal behavior is caused by the Ego's inability to manage the conflicts between the opposing demands of the Id and the Superego.

How people resolve emotional conflicts during childhood affects their thoughts and behaviors for the rest of their lives.

2. Learning perspectives

Most emotional and mental disorders arise from inadequate or inappropriate learning.

People acquire abnormal behaviors through the kinds of learning or imitation.

3. Cognitive perspective

Whether we accept or belittle ourselves contributes to our behavior.

Over estimation or under estimation of ourselves has a profound effect on our mental health and social effectiveness.

Example: Consider a student who fails a difficult exam in medical school. He decides that he does

not have the capacity for college. He becomes depressed and gives up trying. To stop his self-defeating tendency, he must first stop attributing his failure to lack of ability.

Changing negative cognitions to positive image about ourselves and logical assessment of our problems is important.

9.4.3. The interpersonal or family-systems perspectives

It assumes Psychological disorder as arising partly from a person's network of social relationship, the most important being the family.

9.4.4. The socio-culture perspective

This perspective assumes that mental illness would result from such social problems as poverty, poor nutrition, inadequate housing, crime, and discrimination.

The primary evidence in support of this view is the generally higher rate of mental disorders among the lowest socioeconomic classes. (Example. schizophrenia and alcoholism)

9.5. Classification of Psychological Disorders

The definition and classification used in this teaching material is the one provided by the American Psychiatric Association, revised manual called the Diagnostic and Statistical Manual of mental disorder (DSM-iv)

The DSM-iv is meant to assist psychiatrists, psychologists, counselors, health and social workers in diagnosing disorders so that they can be effectively treated.

DSM-iv lists and describes many different psychological disorders. All of these are not covered in this material. Instead, those disorders that are most common and received most attention in systematic research by psychologists are discussed.

9.5.1. Anxiety disorders

people have difficulty in coping with anxiety producing situations. These situations become major source o58xiety

Common phobia types and stimuli in the environment

Phobia types	Feared objects or situation
Acrophobia	High place
Claustrophobia	Enclosed places
Ergasiophobia	Work
Gramophobia	Marriage
Haphephobia	Being touched
Hematophobia	Blood
Monophobia	Being alone
Ocholophobia	Crowds
Xenophobia	Strangers
Ophidiophobia	Fear of snakes

Activity-Cite individuals from your life experiences (friends, relatives, etc) you know, having one or other forms of phobic disorders. Describe the behavioral manifestations and how they affect their day-to-day life. Describe how the society attempts to resolve the problem of people with phobic disorders.

9.5.1.4. Obsessive-compulsive disorder

An Obsession is an involuntary, irrational thought that occurs repeatedly. Sometimes it is mild.

Example: a person locking and unlocking a door before leaving home.

At other times it can be severe.

Example: the desire to burn down a house, rape a neighbor.

This violence and sexual desire makes the person feel guilty and horrified.

Example- A bank clerk may go on adding a column of figures again and again for fear that he was not sure of the result of the addition.

The normal person also can suffer from indecision in a matter, which is important to him.

A compulsion is an action that a person uncontrollably performs again and again although she or he has no conscious desire to do so. The act is often senseless such as looking under the bed several times before going to sleep or locking and unlocking the door several times before going out.

Two general categories of compulsions

a.   Checking rituals (example- looking under the bed.)

b.   Contamination compulsions (example-hand washing)

9.5.2.   Somatoform disorders

It is a persistence of symptoms that have physical form, but in which there is no actual physiological malfunction.

The two typical somatoform disorders are:

9.5.2.1.Hypochondriasis

It is the pre-occupation with bodily symptoms as possible signs of serious illness. The hypochondriac is perfectly healthy, but lives with the conviction that cancer, heart disease, diabetes or some other particular disorder is about to develop..

If a hypochondriac has a headache, he believes it is due to some serious kidney disorders. The stomachache will be taken as an evidence of stomach ulcers or cancer.

Behavioral manifestations are:

> Reading every popular magazine concerning health;
>
> Adopt difficult health routines like hours of sleep and rest;
>
> Stop eating certain foods and drinks;
>
> Consume vast quantities of vitamins and medicine;
>
> Frequently visits doctors.

9.5.2.2. Conversion disorders

> When certain part of the body is not functioning well (blindness, deafness, paralysis or loss of sensation) with no organic problems, it is called conversion disorder.

The individual expresses some psychological problem, which does not necessarily exist.

There are no hard and enough evidences to verify the causes of such disorders.

9.5.3. Dissociative Disorders

It is the dissociation or splitting of a certain kind of behavior that are normally integrated.

Example- Cases indicate that people who are wandering in the streets without the notion of who they are or where they came from have dissociation disorders.

Among the dissociate disorders are:

9.5.3.1. Amnesia

Amnesia is the partial or total loss of memory concerning past experiences, such as an automobile accident or a battle.

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The forgotten material or situation can often be recovered as a result of suggestion given by the therapist.

Organic amnesic syndrome is physiological and is caused by some form of damage to brain tissues.

Brain damage may result due to the disturbed proportion of acid to alkali in the blood.

The insufficiency of oxygen may damage the brain tissue as well.

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When the usual integrity of one's personality becomes so partitioned that two or more relatively independent sub personalities emerge, we name it multiple personality. Most normal persons show pronounced changes in style, behavior and reactivity as they move between different social situations and different social roles. One personality may be conformist and nice while the other is rebellious and naughty.

9.5.4. Mood Disorder

Experiences of being happy or upset in life are normal. In some people, however, changes of feelings are so long lasting that they affect every day life. When disturbances in emotional feelings are so strong enough, we call them mood disorders. Mood disorders tend to run in families; thus, genetic factors play a role in their occurrences.

The most common forms of mood disorders are:

9.5.4.1. Major depression

It is the most frequent problem diagnosed in out patient clinics. Interviews conducted in many parts of the world show that incidence of depression has increased significantly in the previous years.

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In one study, the cost of depression to society is estimated to be 43.7 billion a year.

People who suffer from major depression may feel useless, worthless, and lonely and may despair over the future.

Depression also seems to involve disturbances in brain activity and biochemistry. Psychological factors such as learned helplessness, tendencies to attribute negative outcomes to internal causes, and neglect active perceptions of oneself and others are also involved.

Suicide is a major cause of death among young people. Individuals are more likely to attempt suicide when they have recovered to some extent from depression than when they are in the depths of despair.

The hallmark is that such feeling may continue for months and years.

Women are found to experience major depression twice as men.

9.5.4.2 .Mania

It refers to an extended state of intense euphoric.

People experiencing mania feel intense happiness, power and energy.

People with manic disorder may be involved in an activity much greater than their capacity believing that they will succeed at any thing they attempt.

Sometimes mania and depression can come alternatively. The swings between high and low moods may alternate over a period of few days or years. This is called bipolar depression.

9.5.5. Schizophrenia

Evgen Bleuler (1911) coined the term schizophrenia. It is a general term for a number of psychotic disorders characterized by thought disturbance that may be accompanied by delusions, hallucinations, attention deficits and bizarre motor activity.

Schizophrenia is splitting in the function of the mind, emotion on one hand and thinking on the other.

Schizophrenia has complex origins, involving genetic factors, certain aspects of family structure, and

biochemical factors. Schizophrenia may also be related to damage in several regions of the brain. Many homeless persons appear to be individuals suffering from serious psychological disorders such as schizophrenia or mood disorders.

Schizophrenias are different and their causes and prognoses are also different. The distinct types are paranoid, disorganized, and catatonic. However the following features are taken as common properties.

a)   Deterioration from previous levels of social, cognitive and vocational functioning.

b)   Onsets before midlife (roughly 45-50 years of age)

c)   Duration of at least six months and mostly puipf

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Concepts, ideas, symbols are sometimes put together simply because they seem similar;

The tendency to jump from one track of thought to another.

9.5.5.2. Disorder of perception

Distorted view of reality;

The schizoid consistently reports distortions of sensory perception, auditory, somatic and tactile hallucinations.

Auditory-   takes the form of insulting.

Tactile-   feel burning sensations

Somatic-   Sensation of something crawling under the abdomen.

9.5.5.3. Disorder of affect

Frequently show inappropriate emotional responses or none at all;

Might laugh when told of the death of a favorite relative;

Might get angry when given a present. Face remains immobile, voice becomes monotone;

The external situation or stimulus fails to trigger an appropriate response.

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9.5.5.4. Disorder of motor behavior

Perform repetitive and inappropriate behavior or acts.

The schizoid might spend hours rubbing his forehead, slapping leg, or might sit all day, sometimes no physical activity (catatonic stupor).

9.5.6. Personality disorders

It is an umbrella term for a number of psychological disorders. It is a class of behavioral disorders manifested as pathological developments in one's overall personality. When personality traits become so inflexible and maladaptive that they impair a person's functioning, we label it as personality disorder. The different forms are:

9.5.6.1. Paranoid personality disorder: It involves pervasive mistrust of others. The paranoid suspects that virtually every one around him is trying to deceive or take advantage of him in some way.

9.5.6.2. Schizoid personality disorder: It is a personality disorder in which individuals become almost totally detached from the social world.

They show little interest in friendships, love affairs, or any other kind of intimate contact with other persons.

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They are indifferent to praise and criticism and

Substance Abuse

Psychoactive substances are those which when introduced into the body, affect the mental well being of the user. Abuse occurs when persistent use entails social, occupational, psychological or physical problems. Psychoactive substances include depressants, stimulants and hallucinogens, such as alcohol, tobacco, cannabis and khat. They are used for various ends. According to Nikowane and Jansen (1999)

> Street children use them to help them cope with the frustration, boredom, and hardships of street life
>
> Sex workers use substances to remain awake at night to withstand the difficulties of their occupation.
>
> For the unemployed such substances provide as a pass time and as an outlet for feelings of frustration.

Other underlying reasons for using substances are poverty, ignorance, and lack of organized recreational facilities or programs. Psychological, environmental and biological factors all play a role. If consumption of substances like tobacco, alcohol etc remains within reasonable bounds, the practice is not psychological disorders. But if the individual is dependent on one of the above indicated substances and devoted to get and use it, and then it fits the definition of abnormality.

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Health consequences of substance abuse

1.   Individuals using psychoactive substances are at risk for
     suicide, poisoning and acquisition of serious blood borne
     diseases, such as HIV and hepatitis B and C, especially
     when there is sharing of infection equipment.

     Example-Researchers found that sexual abuse has been
     linked to other behavioral problems, including excessive
     use of alcohol and other drugs, unprotected sex with

Malnutrition is common among the children of smokers and drinkers, as income is used to buy cigarettes or alcohol.

Social damages of alcoholism

Family disruption;

Decreased job productivity due to inefficiency;

Accidents;

Absence or low morale;

Death;

Injury;

Property damage from alcohol related automobile accidents;

Increased medical care for alcoholics.

Economic damage of alcoholism

Alcoholism costs all nations economy.

Personal damage

Psychological and physiological dysfunction;

In large quantities, it causes disorders of sensation and perception;

It leads to self-destructive behavior (suicide);

It is capable of producing coma and death.

Jellinek (1946) conducted a study on 2000 alcoholics and showed that the slide into alcoholism follows the following sequences.

1.   Periodic excessive drinking;

2.   Progress through blackouts (in darkness);

3.   Sneaking drinks (secretly);

4.   Losing control over the amount of alcohol drunk;

5.   Move over drinking and rationalization of excess alcohol consumption;

6.   Morning drinking;

7.   Alcoholic binges lasting for several days;

8.   The onset of alcohol related physical ailments;

9.   The centering of life around alcohol;

10.   The admission of defeat.

Project work: At the end of the chapter trainees are expected to undertake project works as part of the fulfillment of the course.

1.   Collect and analyze data regarding the problem of rape and other sexually related violence.

2.   Collect and analyze data regarding the problem of

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disorders report that they rarely have the sexual fantasies most persons generate, that they avoid all, or almost all-sexual activity, and that these reactions cause them considerable distress.

b. Sexual arousal disorders: involve the inability to attain or maintain an erection (males) or the absence of vaginal swelling and lubrication(females). Orgasm disorders involve the delay or absence of orgasm in both sexes, and may also include premature ejaculation.

c. Paraphilias: Sexual disorders involving choices of inappropriate sexual objects, such as young children, or the inability to experience arousal except in the presence of specific objects or fantasies.

Sexual behaviors the psychologists and psychiatrists consider as paraphilias are:

1. Fetishism: Sexual gratification that is dependent upon an inanimate object or some part of the body other than the genitals

2. Transvestitism: Sexual gratification obtained through dressing of the opposite sex.

3. Transsexuals: Gender identification with the opposite sex

4. Exhibitionism: Sexual gratification attained through exhibiting the genitals to involuntary observer

5. Voyeurism: Sexual gratification obtained through secretes observation of another person's sexual activities or genitals.

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6.

individuals receive extended counseling, learning the mannerism of the other gender, how to wear its clothes, and so on.

Existing evidences indicate that these people are satisfied with the results and happier than they were before. However, follow-up studies suggest that some persons who undergo such operations experience regrets and unhappiness, sometimes to the extent that they commit suicides.

9.5.8. Eating Disorders: These are serious disturbances in eating habits or patterns that pose a threat to individuals' physical health and well-being. Eating disorders include anorexia nervosa and bulimia nervosa. Anorexia nervosa is a disorder in which individuals, intensely fearful of being or becoming fat starve themselves, failing to maintain a normal body weight. In contrast, bulimia nervosa involves episodes of binge eating followed by various forms of compensatory behavior designed to avoid weight gain, such as self-induced vomiting or over use of laxatives.

Eating disorders are much more common among females than among males. Both disorders seem to arise in part from dissatisfaction with personal appearance and efforts to match the thin-is-in model promoted strongly in the mass media.

Self assessment questions

1. What classification system is used to diagnose mental disorders?

2. What major criteria are applied when attempting to define abnormality, and what are the limitations of each?

3. How would you describe a normal person?

4. Identify the different perspectives used to explain causes of mental disorders.

5. Briefly outline some of the characteristics of substance abuse.

6. What is meant by 'multiple personality disorder?'

7. Describe some of the typical behaviors associated with schizophrenia. Why is it difficult to make a diagnosis of schizophrenia?

CHAPTER TEN
TREATMENT OF PSYCHOLOGICAL DISORDERS

By the end of this chapter the student is expected to:

> Differentiate between various forms of treatments available for psychological disorders;
>
> Relate those treatments to the various approaches to psychology;
>
> Discuss research that indicates which treatment may be beneficial for a specific form of mental disorders;

10.1. Psychotherapy: General remark

> Human ailments are organic or non-organic.
>
> Psychotherapy is a way of solving non- organic or psychological problems by utilizing different psychological approaches.
>
> Psychotherapy is the treatment of problems of an emotional nature by psychological means.

The objective of psychotherapy is to bring:

> Ego strength
>
> Self-integration
>
> Self-direction

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In play therapy, the therapist observes the child in a playroom. The therapist never criticizes the child, or stops the child from displaying any varieties of plays.

From series of observations, the therapist tries to determine the root causes of the child's problems.

Comment on the psychoanalytic therapy

Psychoanalysis is time consuming and expensive. A client meets with his/her therapist an hour a day, four to six days in a week, for several days.

10.2.2. Behavioral therapy

It is concerned with behavioral changes. It involves the

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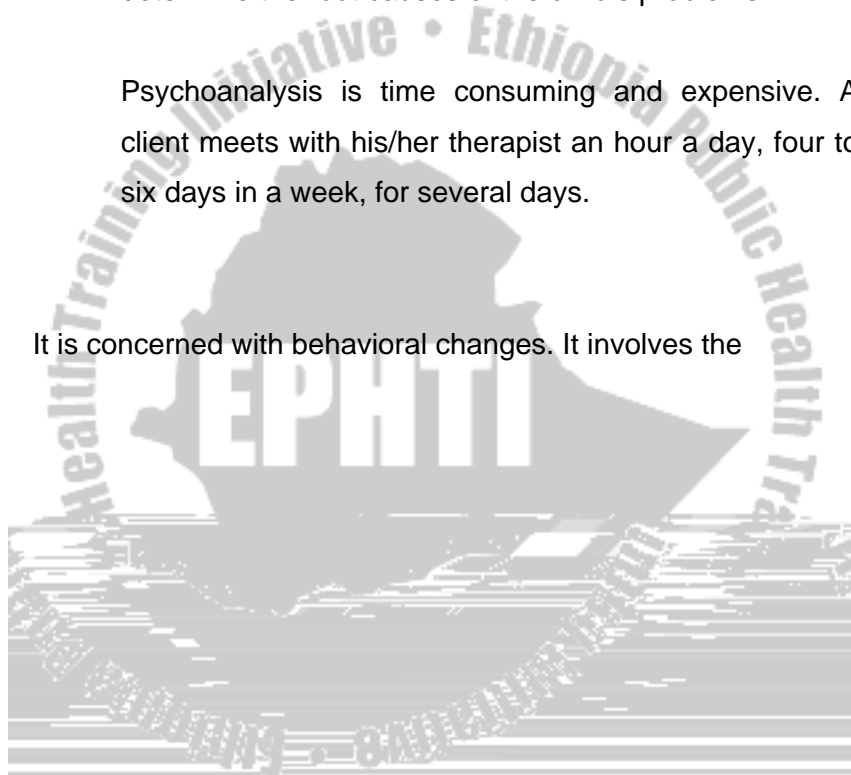
d. The behavioral therapy is not concerned with case
history.

Behaviorist therapy based on classical conditioning.

1. Systematic desensitization

It is the most successful treatment based on classical
conditioning

Phobias, anxiety disorder, impotence and fear of sexual
contact are often treated successfully using this
technique.

Patients are taught to relax and then are shown pictures
of their feared object or problem, to desensitize them, or
reduce their unfavorable response patterns.

The threatening stimuli are systematically paired with
less threatening stimuli and proceed to more threatening
representation of the real object.

Example: A person begins to sweat and to shake when he/she
starts thinking about flying by airplane. Using systematic
desensitization, the client would first be trained in relaxation
techniques by a behaviorist therapy. The steps in relaxation
technique are:

Relax one muscle group at a time;
Then Progressively the entire muscle groups are
relaxed;

Activity: Suppose your classmate frequently uses khat in his course work in the college. Develop a strategy that would help him to abandon khat chewing.

Behavioral modification therapy based on operant conditioning.

1. General remark

It is a process for changing behavior through the application of operant conditioning principles.

The goal is to shape behavior, not to alleviate the problem.

Different kinds of childhood problems; for example, bedwetting, thumb sucking, hyperactivity, poor school performance, extreme social withdrawal are dealt using operant conditioning techniques. The techniques are also effectively used with autistic and mentally retarded children, to improve social skills.

Reinforcers include praise, attention, financial compensation, special foods, sweets or toys.

Example: Nursing staff and patient's spouse have been trained to use praise and attention to reinforce more desirable behaviors and to withhold reinforcement, when patients exhibit less desirable behaviors. In other words, inappropriate groans and complaints are ignored and efforts toward more physical activity are reinforced.

Activity: Bezawit is a teenager living with her family. She is not willing to clean her teeth regularly. Devise a reinforcement program to encourage Bezawit to clean her teeth. Show breakdown (sequences) of the steps.

2. Biofeed back

It is the process of providing information about the status of ones biological system.

Electronic instruments measure biological responses,

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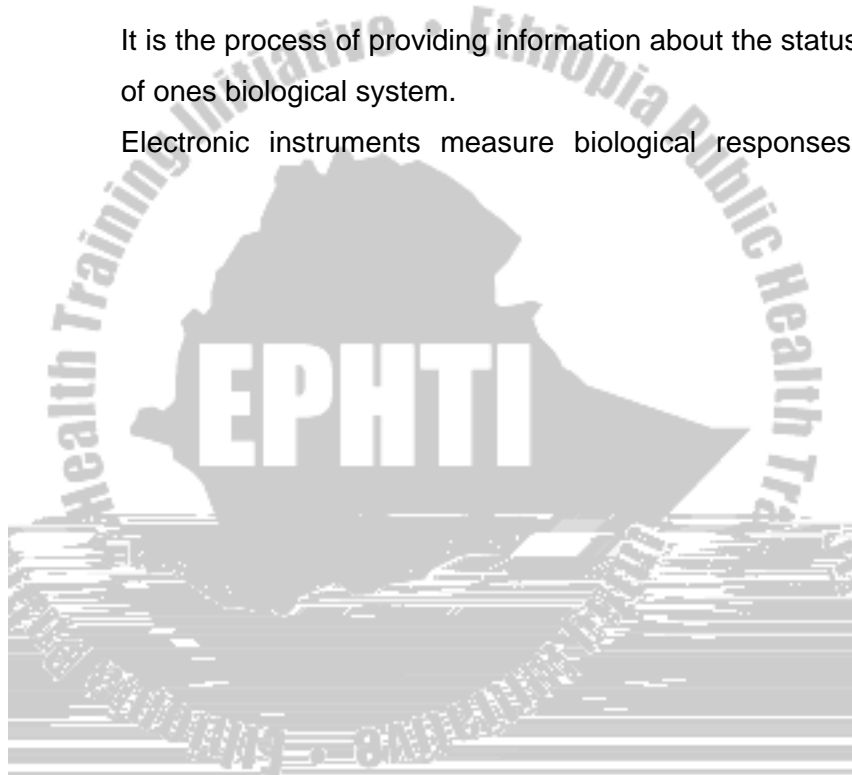
decrease and vise versa. With such information, the patient can gain some degree of voluntary control over his heartbeat.

How effective is behavior modification?

According to him the goal of cognitive therapy is to change irrational beliefs and thoughts to rational ones. Logic and reasoning will enable clients to deal effectively with their problems.

Rational emotive therapy is used to help a person develop rational statements regarding stressful situations rather than eliciting statements that worsen the situation.

Example: A Nurse working in the surgical ward may state that "Because the surgeon is harsh person, I can never be happy with my job and I am to lead miserable life."

A rational self-statement for the above is:

> "Even though the surgeon often behaves in an over demanding manner, I am not forced to react to his behavior with negative emotions; because I have the resource0 TD0.001usefor ratiouc toth thcopeheirstion. seforratherT*0.00--1.7322 TD0.0

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2. Acquisition and rehearsal of skills

> Patients are thought relaxation and controlled breathing skills.
>
> Patients are encouraged to direct their attention away from the pain experience by concentrating on a pleasant scene.

Example: thinking about a funny movie they have seen recently.

3. Follow through phase of treatment

> Clients are encouraged to undertake physical activity and exercise greater feeling of self-efficacy.
>
> Clients receive medication on the basis of time (schedule) rather than on reporting pain.
>
> Spouses and family member are thought how to ignore pain behavior.
>
> Developing a post treatment plan for coping with future pain.

Comment on cognitive approaches to therapy

> The Cognitive-behavioral therapists pay attention to what their clients perceive the world to be.

10.2.4. Humanistic therapy

This therapeutic technique is based on the philosophical perspective of self-responsibility in developing treatment techniques.

The underlying ideas are:

We have control of our own behavior

We can make choices about the kinds of lives we want to live

It is up to us to solve the difficulties that we encounter in our daily lives

The role of the therapist in this technique is to facilitate the therapeutic procedure so that people could come closer to the ideal condition for themselves.

Accordingly, psychological disorders are the result of people's inability to find meaning in life and of feeling lonely and unconnected with others.

2. According to your view, should psychology be offered as a course for health science students else where in our

GLOSSARY

Army-Alpha tests: Tests of intelligence developed for use in screening recruits for the U.S. Army in world war one.

Autism: The tendency to be absorbed in oneself.

Behavior: A general term covering acts, activities, responses, reactions, movements, processes, operations, in short, any measurable responses of an organism.

Castration anxiety: A psychoanalytic term for the anxiety resulting from real or imagined threats to ones sexual functions.

Chromosomes: Microscopic body in the nucleus of a cell that carry the genes.

Cognition: A broad term, which has been traditionally used to refer to such activities as thinking, conceiving, reasoning, etc.

Conditioning: A general term for a set of empirical concepts, particularly those that specify the conditions under which associative learning takes place.

Consciousness: Having sensations and perceptions, reacting to stimuli, having feelings and emotions, having thoughts, ideas, plans and image

Counseling: A generic term that is used to cover the several processes of interviewing, testing, guiding, advising, etc. designed to help an individual solve problems.

Desensitization: Generally any decrease in reactivity or sensitivity.

Environment: The total physical and social surrounding of an individual organism.

Foundling home: An abandoned child of unknown parents who is found by somebody.

Geriatrics: The medical specialty dealing with treatment of the aged.

Gerontology: The study of the aged and the aging process.

Hedonism: The theory that states behavior is motivated by approach toward pleasure and avoidance of pain.

Heredity: The biological transmission of genetic characteristics from parents to offspring (biological, inborn, inherited, innate).

Hypotheses: Any statement, proposition or assumption that serves as a tentative explanation of certain facts.

Infancy: From the Latin infantia (inability to speak) the first year of life.

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Insight: An act of apprehending or sensing intuitively the inner nature of something.

Instincts: unlearned response characteristics of the members of a given species.

Intelligence: Cognitive processes involving abstraction, learning and dealing with novelty.

Life span: The actual duration of life of an individual organism from inception to death.

Machiavellianism: Description of a pattern behaviors including manipulation of others through deception and opportunism with increase of power and control as the central motive.

Memory:

Puberty:

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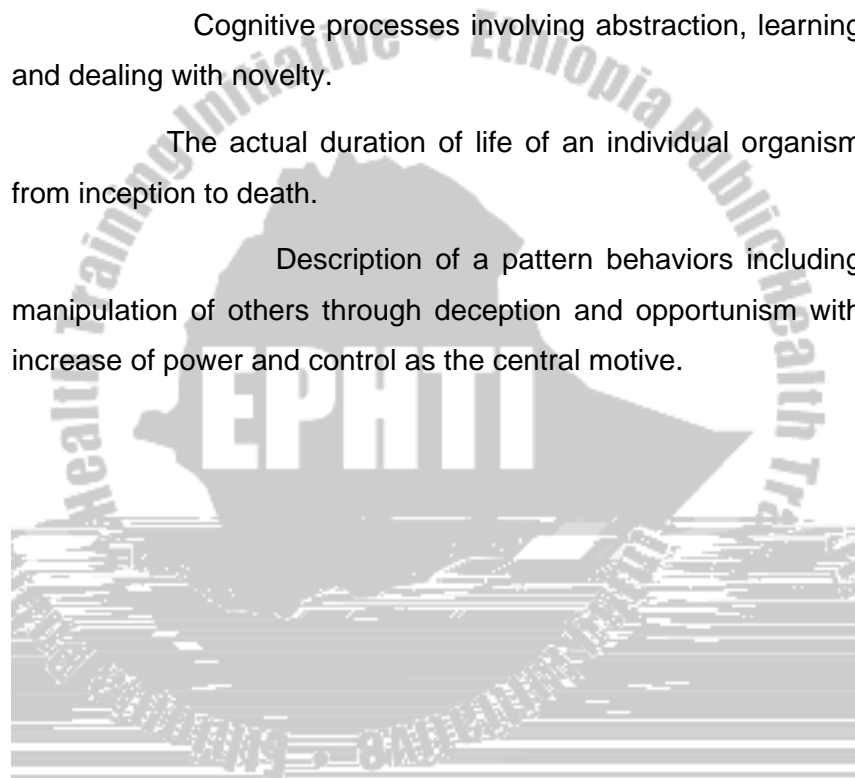
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