Module 2: Models of Abnormal Psychology

LEARNING OBJECTIVES

**2.1. Uni- Vs. Multi-Dimensional Models of Abnormality**

* Define the uni-dimensional model.
* Explain the need for a multi-dimensional model of abnormality.
* Define model.
* List and describe the models of abnormality.

**2.2. The Biological Model**

* Describe how communication in the nervous system occurs.
* List the parts of the nervous system.
* Describe the structure of the neuron and all key parts.
* Outline how neural transmission occurs.
* Identify and define important neurotransmitters.
* List the major structures of the brain.
* Clarify how specific areas of the brain are involved in mental illness.
* Describe the role of genes in mental illness.
* Describe the role of hormonal imbalances in mental illness.
* Describe the role of bacterial and viral infections in mental illness.
* Describe commonly used treatments for mental illness.
* Evaluate the usefulness of the biological model.

**2.3. Psychological Perspectives**

* Describe the psychodynamic theory.
* Outline the structure of personality and how it develops over time.
* Describe ways to deal with anxiety.
* Clarify what psychodynamic techniques are used.
* Evaluate the usefulness of psychodynamic theory.
* Describe learning.
* Outline respondent conditioning and the work of Pavlov and Watson.
* Outline operant conditioning and the work of Thorndike and Skinner.
* Outline observational learning/social-learning theory and the work of Bandura.
* Evaluate the usefulness of the behavioral model.
* Define the cognitive model.
* Exemplify the effect of schemas on creating abnormal behavior.
* Exemplify the effect of attributions on creating abnormal behavior.
* Exemplify the effect of maladaptive cognitions on creating abnormal behavior.
* List and describe cognitive therapies.
* Evaluate the usefulness of the cognitive model.
* Describe the humanistic perspective.
* Describe the existential perspective.
* Evaluate the usefulness of humanistic and existential perspectives.

**2.4. The Sociocultural Model**

* Describe the sociocultural model.
* Clarify how socioeconomic factors affect mental illness.
* Clarify how gender factors affect mental illness.
* Clarify how environmental factors affect mental illness.
* Clarify how multicultural factors affect mental illness.
* Evaluate the sociocultural model.

KEY TERMS

**Acceptance Techniques**: Therapeutic strategies that encourage individuals to acknowledge and accept their thoughts, emotions, and experiences without judgment, often used in approaches like Acceptance and Commitment Therapy (ACT).

**Action Potential**: A brief electrical signal that travels along the axon of a neuron, resulting from a change in the neuron's membrane potential and serving as a means of transmitting information between neurons.

**Adrenal Glands**: Endocrine organs that produce hormones, including adrenaline and cortisol, which play a crucial role in the body's stress response and regulation of various physiological functions.

**All-or-Nothing Principle**: The concept that an action potential in a neuron either occurs completely or does not occur at all; there is no partial action potential, ensuring the consistency of neural signaling.

**Amygdala**: A brain structure located in the limbic system that plays a key role in processing emotions, particularly in the context of fear and emotional memory.

**Antidepressants**: Medications commonly used in the treatment of depressive disorders, which work to regulate neurotransmitter levels in the brain, such as serotonin and norepinephrine.

**Anti-Anxiety Medication**: Pharmaceuticals prescribed to alleviate symptoms of anxiety disorders, often including benzodiazepines or selective serotonin reuptake inhibitors (SSRIs).

**Antipsychotics**: Medications prescribed to manage symptoms of psychotic disorders, such as schizophrenia, by blocking dopamine receptors in the brain.

**Attribution Theory**: A psychological framework that explores how individuals attribute causes to events and behaviors, which can impact their perceptions and reactions to those events.

**Autonomic Nervous System**: A division of the peripheral nervous system responsible for regulating involuntary bodily functions, including heart rate, digestion, and respiration, and divided into the sympathetic and parasympathetic branches.

**Axon**: The long, slender extension of a neuron that carries nerve impulses away from the cell body (soma) toward other neurons or target cells.

**Axon Terminals**: The small branches or endings at the tip of an axon that contain synaptic vesicles filled with neurotransmitters, which are released into synapses to transmit signals to neighboring neurons.

**Behavior Modification**: A therapeutic approach that aims to change maladaptive behaviors through systematic techniques such as reinforcement, punishment, and modeling.

**Biological**: Pertaining to the biological factors and processes that contribute to mental health and psychological disorders, including genetics, brain structure, and neurotransmitter function.

**Blaming**: A cognitive error or cognitive distortion where individuals attribute blame or responsibility for negative events or outcomes to themselves or others, often inaccurately.

**Cerebellum**: A brain structure responsible for coordinating motor movements, balance, and posture, located at the rear of the brain.

**Cerebrum**: The largest and most prominent part of the brain, responsible for higher cognitive functions such as thinking, reasoning, and conscious perception.

**Client-Centered Therapy**: A humanistic psychotherapy approach, developed by Carl Rogers, that emphasizes empathy, unconditional positive regard, and active listening to create a supportive and nonjudgmental therapeutic environment.

**Cognitive Coping Skills Training**: A therapeutic technique that helps individuals develop cognitive strategies and skills to better cope with stress, manage emotions, and handle challenging situations.

**Cognitive Errors**: Patterns of systematic thinking errors or biases that can lead to distorted perceptions of reality and contribute to psychological distress.

**Cognitive Restructuring**: A therapeutic technique used in cognitive-behavioral therapy (CBT) that involves identifying and challenging irrational or negative thought patterns and replacing them with more adaptive and constructive thoughts.

**Cognitive-Behavioral Therapy (CBT)**: A widely used therapeutic approach that focuses on identifying and changing dysfunctional thought patterns and behaviors to alleviate psychological distress and promote mental health.

**Conditioning**: The process of learning associations between stimuli and behavioral responses, encompassing both classical (respondent) and operant conditioning.

**Connectionism**: A theoretical framework in psychology that views the mind as a network of interconnected nodes or units, with cognitive processes arising from the activation and interaction of these nodes.

**Consciousness**: The state of being aware of one's thoughts, feelings, sensations, and surroundings, which can vary in levels and states, such as waking consciousness, altered states, and non-conscious processes.

**Culture-Sensitive Therapies**: Psychotherapeutic approaches that take into account an individual's cultural background and values to provide more culturally relevant and effective treatment.

**DNA (Deoxyribonucleic Acid)**: The genetic material that carries the instructions for the development, functioning, and reproduction of all known living organisms, stored in the cell's nucleus.

**Depolarized**: A change in the electrical charge of a neuron's membrane potential, shifting it from a negative resting state to a more positive state, making it more likely to generate an action potential.

**Denial**: A defense mechanism in which individuals refuse to acknowledge or accept a distressing or threatening reality, often to protect themselves from emotional discomfort.

**Dendrites**: Branch-like extensions of a neuron that receive incoming signals and transmit them toward the cell body (soma) for further processing.

**Dichotomous Thinking**: A cognitive distortion characterized by black-and-white, all-or-nothing thinking, where individuals perceive situations or themselves in extreme, polarized terms without recognizing middle ground or complexity.

**Displacement**: A defense mechanism in which individuals redirect their emotions or impulses from their original target to a less threatening or safer target.

**Dopamine**: A neurotransmitter in the brain associated with various functions, including motivation, reward, and pleasure, and implicated in several mental health disorders such as schizophrenia and addiction.

**Ego**: In psychoanalytic theory, the part of the personality that mediates between the desires and needs of the id and the demands of social norms and reality, striving to achieve a balance.

**Ego-Defense Mechanisms**: Psychological strategies employed by the ego to cope with anxiety and protect the individual from distressing thoughts and emotions, such as repression, denial, and projection.

**Electroconvulsive Therapy (ECT)**: A medical procedure in which controlled electrical currents are passed through the brain to induce a brief seizure, often used as a treatment for severe depression and some other mental disorders.

**Enactive Learning**: A form of learning that occurs through firsthand experience and active participation in one's environment, such as learning by doing.

**Enzymatic Degradation**: The process by which neurotransmitters in the synaptic cleft are broken down and metabolized by enzymes, terminating their action and allowing for the recycling of neurotransmitter components.

**Existential Perspective**: A philosophical and therapeutic viewpoint that emphasizes individual freedom, choice, responsibility, and the search for meaning in the face of existential dilemmas and the human condition.

**Flooding**: A therapeutic technique used in exposure therapy to treat anxiety disorders, involving intense and prolonged exposure to the feared stimulus or situation, aimed at reducing fear and avoidance.

**Frontal Lobe**: A region of the brain's cerebral cortex responsible for higher cognitive functions, such as decision-making, planning, reasoning, and motor control.

**Fundamental Attribution Error**: A cognitive bias where individuals tend to overemphasize internal, dispositional factors and underestimate external, situational factors when explaining the behavior of others.

**GABA (Gamma-Aminobutyric Acid)**: An inhibitory neurotransmitter in the brain that plays a crucial role in regulating neural activity, reducing excitability, and promoting relaxation.

**Genital Stage**: In Freud's psychosexual stages of personality development, the final stage in which individuals develop mature sexual interests and desires.

**Glial Cells**: Non-neuronal cells in the nervous system that provide support, protection, and maintenance functions for neurons, including insulation (myelin sheath), nutrient supply, and immune defense.

**Habituation**: A form of non-associative learning in which an organism gradually reduces its response to a repeated or irrelevant stimulus over time, leading to decreased attention or sensitivity.

**Hippocampus**: A brain structure involved in the formation of new memories and spatial navigation, located in the limbic system.

**Humanistic Perspective**: A psychological approach that emphasizes the intrinsic worth of individuals, their capacity for self-actualization, and the importance of personal growth and self-awareness.

**Hypothalamus**: A brain structure located below the thalamus that regulates essential physiological functions, including temperature, hunger, thirst, and the body's stress response.

**Id**: In psychoanalytic theory, the most primitive part of the personality, driven by basic instincts and desires, seeking immediate gratification and pleasure without consideration for consequences or societal norms.

**Ions**: Electrically charged particles that play a crucial role in neural signaling by creating and transmitting electrical impulses across neurons' cell membranes.

**Learning**: The process through which individuals acquire new knowledge, skills, behaviors, or attitudes, often through experience, study, or exposure to stimuli.

**Libido**: In psychoanalytic theory, the innate energy associated with sexual and life instincts, driving human behavior and motivating various actions and desires.

**Manifest Content**: In Freudian dream analysis, the surface-level content of a dream, consisting of the events and objects experienced during the dream.

**Medulla**: A brainstem structure responsible for controlling vital autonomic functions such as breathing, heart rate, and blood pressure.

**Modeling**: A form of learning where individuals observe and imitate the behaviors, actions, or attitudes of others, often influential figures or role models.

**Model**: In the context of psychological research and theories, a simplified representation of a phenomenon or system used to explain, predict, or understand complex real-world situations.

**Mood Stabilizers**: Medications used primarily to manage and stabilize mood fluctuations in individuals with mood disorders like bipolar disorder.

**Multi-Dimensional Model**: An approach to understanding psychological phenomena that considers multiple contributing factors, dimensions, or perspectives, recognizing the complexity of mental health and behavior.

**Nerve**: A bundle of axons (nerve fibers) that transmit electrical impulses and information between the central nervous system (CNS) and the rest of the body.

**Nervous System**: The complex network of cells and structures that transmit information and signals throughout the body, allowing for communication between different body parts and organs.

**Neuron**: The fundamental building block of the nervous system, a specialized cell responsible for transmitting electrochemical signals, allowing for communication within the nervous system.

**Neurotransmitter**: Chemical substances released by neurons into the synaptic cleft to transmit signals to neighboring neurons, influencing various physiological and psychological processes.

**Norepinephrine**: A neurotransmitter that plays a role in the body's stress response, regulating alertness, attention, and mood, and implicated in mood disorders like depression and anxiety.

**Operant Conditioning**: A form of learning in which behavior is shaped and modified through the consequences (reinforcement or punishment) that follow it, as described by the principles of reinforcement and punishment.

**Oral Stage**: In Freud's psychosexual stages of personality development, the first stage, characterized by the primary focus on oral activities such as sucking, feeding, and oral exploration.

**Parietal Lobe**: A region of the brain's cerebral cortex responsible for processing sensory information related to touch, spatial orientation, and the integration of sensory input.

**Personalizing**: A cognitive distortion where individuals tend to attribute external events to themselves personally, often leading to feelings of self-blame or undue responsibility.

**Phallic Stage**: In Freud's psychosexual stages of personality development, the third stage, marked by the emergence of sexual curiosity and the Oedipus or Electra complexes.

**Pineal Gland**: A small endocrine gland located in the brain that produces melatonin, influencing sleep-wake cycles and the body's circadian rhythms.

**Pituitary Gland**: A critical endocrine gland located at the base of the brain that controls and regulates the release of hormones from other glands in the endocrine system, influencing growth, metabolism, and various bodily functions.

**Polarized**: The resting state of a neuron's membrane potential, with a negative charge inside relative to the outside, maintaining a stable electrical state until stimulated to generate an action potential.

**Positive Punishment**: A type of operant conditioning in which an aversive stimulus or consequence is added following a behavior to reduce the likelihood of that behavior occurring again.

**Positive Reinforcement**: A type of operant conditioning in which a rewarding stimulus or consequence is presented following a behavior to increase the likelihood of that behavior being repeated.

**Projection**: A defense mechanism where individuals attribute their undesirable thoughts, feelings, or characteristics to others, often as a way to avoid acknowledging these qualities within themselves.

**Psychodynamic Theory**: A psychological perspective and therapeutic approach that explores unconscious processes, unresolved conflicts, and early childhood experiences as influential factors in personality and behavior.

**Psychosexual Stages of Personality Development**: In Freudian theory, a series of stages representing different developmental periods, each associated with a particular focus on bodily pleasure and sexual energy.

**Psychopharmacology**: The study of how drugs and medications affect the mind and behavior, often focusing on their use in the treatment of mental disorders.

**Psychosurgery**: A medical procedure that involves the surgical alteration of brain tissue or neural pathways to treat severe mental disorders or neurological conditions.

**Rationalization**: A defense mechanism where individuals provide logical and socially acceptable explanations or justifications for their behaviors, often to protect themselves from facing uncomfortable truths or guilt.

**Reaction Formation**: A defense mechanism in which individuals exhibit behaviors and attitudes that are opposite to their true feelings or desires, often to conceal or cope with unconscious conflicts.

**Receptor Sites**: Specific regions on the postsynaptic neuron's cell membrane where neurotransmitters bind, initiating or inhibiting neural impulses and signaling.

**Regret Orientation**: A cognitive distortion characterized by excessive focus on past actions and decisions, often leading to prolonged feelings of guilt, regret, or self-blame.

**Reinforcement Schedule**: A predetermined pattern or timing of delivering reinforcement in operant conditioning, including fixed ratio, variable ratio, fixed interval, and variable interval schedules, influencing the strength and persistence of behaviors.

**Relative Refractory Period**: A brief period following an action potential during which a neuron is less responsive to further stimulation, requiring a stronger stimulus to generate another action potential.

**Repolarize**: The process by which a neuron's membrane potential returns to its polarized, resting state, re-establishing the electrical charge across the membrane.

**Repression**: A defense mechanism in which distressing or traumatic thoughts, memories, or feelings are pushed out of conscious awareness into the unconscious mind to reduce emotional discomfort.

**Resistance**: In psychoanalysis, the reluctance or defense mechanisms that individuals may employ to avoid exploring or discussing certain thoughts, emotions, or topics during therapy.

**Respondent Conditioning**: Another term for classical conditioning, a form of associative learning where an involuntary, automatic response becomes associated with a new stimulus through repeated pairings.

**Respondent Discrimination**: The ability to differentiate between similar stimuli in classical conditioning, responding to one but not another based on prior learning and conditioning experiences.

**Respondent Extinction**: The process of diminishing and eventually eliminating a conditioned response when the conditioned stimulus is presented repeatedly without the unconditioned stimulus.

**Respondent Generalization**: The tendency for a conditioned response to occur in response to stimuli that are similar to the conditioned stimulus, even if they were not part of the original conditioning.

**Resting Potential**: The stable, polarized electrical charge across the membrane of a neuron when it is not actively transmitting an action potential, typically maintaining a negative charge inside relative to the outside.

**Reuptake**: A neurobiological process in which excess neurotransmitters are reabsorbed by the presynaptic neuron, terminating their action in the synaptic cleft and allowing for recycling.

**Schema**: In cognitive psychology, a specific mental framework or organized pattern of thought that helps individuals process and categorize information about a particular topic or domain.

**Self-Serving Bias**: A cognitive bias where individuals tend to attribute positive outcomes to their own abilities and actions but attribute negative outcomes to external factors or circumstances, enhancing self-esteem and protecting self-image.

**Sensation**: The process by which sensory organs detect and respond to external stimuli, such as sound, light, touch, or smell, converting physical energy into neural signals that the brain can interpret.

**Sexual Dysfunctions Disorders**: A category of psychological disorders characterized by persistent difficulties or disturbances in sexual functioning, including issues related to desire, arousal, or sexual response.

**Soma**: In the context of neurons, the cell body that contains the nucleus and various organelles, responsible for maintaining the cell's metabolic functions.

**Somatization Disorders**: Psychological disorders where individuals experience multiple physical symptoms and complaints, often related to pain or discomfort, which cannot be attributed to a medical condition.

**Sublimation**: A defense mechanism in which individuals redirect unacceptable or socially inappropriate impulses or desires into more socially acceptable or constructive activities.

**Substantia Nigra**: A brain structure located in the midbrain that plays a key role in movement control, particularly in the production of dopamine, and is implicated in conditions like Parkinson's disease.

**Superego**: In psychoanalytic theory, the component of the personality that represents internalized societal and moral standards, serving as a conscience and striving for moral and ethical behavior.

**Synapse**: The junction or gap between two neurons or between a neuron and another target cell, where communication occurs through the release and reception of neurotransmitters.

**Synaptic Cleft**: The small gap or space between the axon terminals of one neuron and the dendrites or cell membrane of another neuron, where neurotransmitters are released.

**Synaptic Gap**: Another term for the synaptic cleft, referring to the space between the communicating neurons where neurotransmission occurs.

**Synaptic Space**: The region in the synaptic cleft where neurotransmitters are released by the presynaptic neuron and received by the postsynaptic neuron, facilitating neural communication.

**Target Behavior**: In behavior analysis and psychology, the specific behavior that is the focus of assessment, intervention, or research, often chosen for its relevance to a particular study or therapeutic goal.

**Thalamus**: A brain structure located at the top of the brainstem that serves as a relay station for sensory information, transmitting sensory signals to the appropriate regions of the cerebral cortex for further processing.

**Thanatos**: In psychoanalytic theory, the concept of the death instinct, representing an innate drive or instinct towards self-destruction and the return to an inanimate state, often counterbalanced by the life instinct (Eros).

**Theoretical Models**: Frameworks or conceptual structures that provide explanations and predictions for psychological phenomena, typically based on a set of principles, assumptions, and hypotheses.

**Threshold of Excitation**: The level of depolarization required to trigger an action potential in a neuron, typically reached when the membrane potential surpasses a certain threshold.

**Uni-Dimensional Model**: An approach to understanding psychological phenomena that focuses on a single factor or dimension, often simplifying complex phenomena for research or theoretical purposes.

**Unconscious**: In psychoanalytic theory, the part of the mind that contains thoughts, memories, desires, and impulses that are not currently in conscious awareness, but may influence behavior and emotions.

**Variable Interval Schedule**: A reinforcement schedule in operant conditioning where rewards are delivered at unpredictable time intervals, leading to a steady rate of behavior and reduced predictability.

**Variable Ratio Schedule**: A reinforcement schedule in operant conditioning where rewards are given after a variable number of responses, resulting in a high and consistent rate of responding.

**Visual Cortex**: The area of the cerebral cortex responsible for processing visual information, located in the occipital lobe of the brain and playing a key role in visual perception and recognition.