

MARGARET H. ROLLINS SCHOOL OF NURSING
N-201 Nursing Care of Special Populations
MENTAL HEALTH NURSING
Class Preparation #1

Directions: Fill in the charts below. Identify what mental health disorders can occur when each neurotransmitter is increased or decreased.

	Functions	Increase	Decrease
Dopamine	Fine muscle movement, integration of emotions and thoughts, decision making, stimulates hypothalamus to release hormones	Psychosis, Mania	Parkinson's disease, depression
Norepinephrine	Mood, attention and arousal, stimulates sympathetic branch of autonomic nervous system for "fight" or "flight" in response to stress	Mania, anxiety, psychosis	Depression
Serotonin	Mood, sleep regulation, hunger, pain perception, aggression and libido, hormonal activity	Anxiety states	Depression
GABA	Reduces anxiety, excitation, aggression; may play a role in pain perception, anticonvulsant and muscle-relaxing properties, may impair cognition and psychomotor functioning (inhibitory)	Reduction of anxiety	Mania, anxiety, psychosis
Acetylcholine	Learning, memory, regulates mood: mania, sexual aggression, affects sexual and aggressive behavior, stimulates parasympathetic nervous system	Depression	Alzheimer's disease, Huntington's disease, Parkinson's disease

Structures of the Brain

Brain Structure	Function
The limbic System	Includes the hippocampus, amygdala, hypothalamus, thalamus; considered the "emotional brain," thoughts memories, emotions processed and then tell body how to react
Frontal Lobe	Thought processes; decision making, insight, motivation, social judgement, voluntary motor ability
Parietal Lobe	Sensory and motor; receive and identify sensory info., concept formation and abstraction, proprioception and body awareness, reading, math, R/L orientation

Temporal Lobe	Auditory; language comprehension, stores sound into memories, connects with limbic system to allow expression of emotions
Occipital Lobe	Vision; interprets visual images, visual association, visual memories, involved with language formation