

Domain 4 of 4

Psych

Overview

This section tests knowledge of the psychological, sociological, and biological factors that influence health and health-related behaviors. It consists of 59 questions in 95 minutes and was added to the MCAT in 2015.

The section draws from introductory psychology (65%), introductory sociology (30%), and biology (5%). It emphasizes applying concepts to real-world health scenarios.

Psychological Foundations

- Sensation and perception: signal detection theory, sensory thresholds, perceptual organization
- Learning: classical conditioning (Pavlov), operant conditioning (Skinner), observational learning
- Memory: encoding, storage, retrieval; types (episodic, semantic, procedural, working)
- Cognition: problem solving, decision making, language, cognitive development (Piaget)
- Motivation and emotion: Maslow's hierarchy, drive reduction theory, James-Lange theory
- Personality: psychoanalytic (Freud), humanistic (Rogers), trait theories (Big Five)
- Psychological disorders: DSM classification, anxiety, mood, psychotic, personality disorders

■ **Exam Tip:** Know the difference between classical and operant conditioning. Classical: involuntary responses to stimuli. Operant: voluntary behaviors shaped by consequences (reinforcement/punishment).

Social Foundations

- Social behavior: conformity (Asch), obedience (Milgram), groupthink, bystander effect
- Social cognition: attribution theory, cognitive dissonance, stereotypes, prejudice
- Social stratification: class, race, gender, socioeconomic status, social mobility
- Culture: norms, values, socialization, cultural competence in healthcare
- Demography: population growth, age structure, migration, health disparities
- Social institutions: family, education, religion, healthcare systems

Biological Bases of Behavior

- Nervous system: CNS vs. PNS, sympathetic vs. parasympathetic, neurotransmitters
- Brain structures: cerebral cortex lobes, limbic system, brainstem, cerebellum
- Neurotransmitters: dopamine, serotonin, GABA, glutamate, acetylcholine, norepinephrine
- Endocrine system: hypothalamus-pituitary axis, stress response (HPA axis), cortisol
- Sleep: stages (NREM/REM), circadian rhythms, sleep disorders
- Drug effects: agonists vs. antagonists, tolerance, dependence, addiction

■ **Exam Tip:** Health disparities are a major theme. Know how social determinants of health (income, education, race, geography) affect disease prevalence and healthcare access.

Key Research Methods

The MCAT tests your ability to interpret research. Know the difference between correlation and causation, experimental vs. observational studies, and how to identify confounding variables.

Understand statistical concepts: mean, median, mode, standard deviation, p-value, confidence intervals, and the difference between statistical and clinical significance.