NURS 6630

What is EPS?

Motivation is a component of patient-focused interventions to enhance adherence. Based on the transtheoretical model, readiness to change can fluctuate across five stages. Which stage is represented by the patient who is aware that a problem exists and, while seriously thinking about overcoming it, has not yet committed to a plan of action?

contemplation

Introducing adherence in facilitating treatment goals is something that would be necessary in a patient who has previously displayed nonadherence patterns.

false *It is introduced as early as possible in treatment to mitigate the risks associated with nonadherence.*

When dopamine (subtype 2) receptors are blocked in this pathway (system), it is evident by EPS.

Nigrostriatal

Neurotransmitters are defined by four essential characteristics. These are

A. Neurotransmitters are synthesized within presynaptic neurons.

B. Depolarization of a neuron results in the release of a neurotransmitter, which exerts a multitude of actions on the postsynaptic neuron.

C. Their action on postsynaptic neurons can be replicated by administering a drug that mimics the activity of the endogenous neurotransmitter.

D. Their action in the synaptic cleft is terminated by a specific action.

a,c,d

Neurotransmission is unidirectional insofar as chemical and electrical conduction is concerned within the individual neuron. Of the following descriptions, which best characterizes the order of neurotransmitter/receptor interaction that results in an electrical signal impulse and the release of another neurotransmitter for interaction in the synaptic cleft (signal conduction through a neuron)?

Dendrites, Cell body, Axon, Axon terminals

Neurons are classified in several different ways. From the following statements, select which ones are true.

1) The two structural classifications are projection neurons and local inter-neurons.

2) Function classifications are made up of two subcategories: excitatory and inhibitory.

3) Histological classification includes bipolar, unipolar, and multipolar.

4) Classifications using a combination of structural, functional, and neurotransmitter type provide the most robust and useful description.

5) Classification by neurotransmitter type alone provides the most useful description

Statement 2 would need to include modulatory function to be correct, and Statement 5 does not include structural and functional classification systems.

1,3,4

Serotonin (5HT) is a neurotransmitter associated with mood, sleep, and psychosis. There are several serotonin receptors all over the human body. A unique aspect of the second generation antipsychotics is their ability to block 5HT2a receptors. What is the effect of this inhibition?

A. Stabilizes dopamine concentrations in the CNS

Glia cells play a supportive role to the neuron. A few of the functions of the glial cells include providing nutrition, maintaining homeostasis, stabilizing synapses, and myelinating axons. The glial cells are categorized as microglia and macroglia. Of these two cell types, which one plays an active and critical role in glutamatergic neurotransmission by providing a co-agonist required for glutamate receptor function?

Macroglial

**Microglial cells are small, phagocytic cells related to peripheral macrophages.*

The synaptic cleft is best characterized by which of the following statements?

The synaptic cleft is an area where dendrites and axon terminals are within close proximity, allowing for the release of a neurotransmitter from a presynaptic neuron that can interact with receptors on dendritic cells of a post synaptic neuron, which is the main basis for intercellular communication of neurons.

If a patient admits to taking his medication every other day (instead of daily, as prescribed), a potential concern would be:

Is the desired effect recognized at a lower daily dose?

G-protein coupled receptors are targets for several psychiatric medications. Given what we know about these receptors, what is the ultimate result we will see when one of them is activated in a way that would potentiate an action?

Modification of gene expression

Of the components of patient-focused interventions to enhance adherence, which component includes the following strategies: adaptive thinking, use of cues, and support?
Motivation
Skills
Logistics
Education

Skills *include adaptive thinking, problem solving, use of cues, and support.*

Which of the following consists of all the known major neurotransmitters that are relevant in psychiatry?	glutamate, GABA, dopamine, norepinephrine, serotonin, acetylcholine, histamine, endogenous opioids, steroids, cannabinoids, nitric oxide
Receptors trigger one of two effector pathways resulting in changes in neuronal activity. These changes will, ultimately, effect gene expression. Which effector pathway is characterized by ion flux through transmitter-activated channels resulting in an altered membrane potential and neuronal activity?	Rapid effector pathways
Treatment adherence is affected by several different factors. Clinical factors include mood, anxiety, psychosis, and substance misuse. There are also patient factors such as knowledge, attitude, and beliefs; economic and racial/ethnic disparities, and clinical encounters. A patient who presents hopeless, with decreased energy, and poor concentration is affected by which factor?	Mood
Upon blocking a Serotonin reuptake pump, what happens in the synaptic cleft and on the post synaptic cell membrane?	The result will be an increase in the available Serotonin in the synaptic cleft causing the post synaptic neuron to reduce the number of Serotonin receptors. **There is no effect on the pre-synaptic neuron, and the increases in Serotonin result in a reduction of receptor concentration on the post-synaptic neuron.*
G-protein coupled receptors are examples of what type of effector pathway?	Slow effector pathways
rapid effector pathway	NMDA glutamate receptor pathways