Psychopharmacology & EEG
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The endocrinological-pharmacological approach to psychiatric research focused largely on synaptic function and ignored the events that occurred within neurons. In essence, it stopped at the receptor and treated the neuron as a black box.

The brain contains tens to hundreds of billions of neurons, each forming synaptic connections with perhaps thousands of other neurons. Each of the synaptic connections formed is not just “excitatory” or “inhibitory,” but can exert complicated effects on its target neuron. The goal of an ideal treatment would be to selectively influence the affected neuronal cell type(s) without influencing any other neurons in the brain. In practice, such absolute specificity has not been achieved, which probably accounts for the high rate of side effects of presently available medications.

Studies of action of psychothropic drugs to date have focused largely on their effects on neurotransmitters and receptors. Most psychotropic drugs have been shown to regulate neurotransmitter synthesis, storage, release, reuptake, or degradation, or to serve as agonist or antagonists at specific neurotransmitter receptors throughout the nervous system. This almost exclusively synaptic view of psychotropic drug action is inadequate.

Almost all psychothropic medications exposure effect brain waves. Though there is a response stereotype for each medication, there are also individual responses, which vary.

This workshop covers fundamentals of drug exposure and EEG/qEEG finding.

Course objectives:
Participants gain the following (1) Knowledge: Learn the fundamentals of drug exposure and EEG/qEEG finding. (2) Assessment: be able to recognize characteristic EEG power patterns when drugs exposure before neurofeedback treatment and during neurofeedback treatment. (3) Intervention: develop a rationale intervention based on this assessment data which combines drugs and neurofeedback or not combines drugs during neurofeedback treatment for personalized medicine treatment model.

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