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THE PSYCHOPHYSIOPATHOGENETIC BASIS OF DRUG ADDICTION: AN INTEGRATIVE VIEW

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Drug addiction is a complex neuropsychophysiological disease process of the brain that results from recurring drug use and is modulated by genetic, developmental, experiential, and environmental factors, involving both neurobiological and psychogenetic mechanisms of action, which is associated with the limbic subcortical and frontal (orbitofrontal cortex and the anterior cingulate gyrus) structures with a complex system of network - mesolimbic dopamine, opioid peptide, -aminobutyric acid, and the endocannabinoid systems, which are localized to key circuits in the basal forebrain, including the nucleus accumbens and amygdala. Addiction is marked by intoxication, bingeing, withdrawal, craving and involves fluctuation in dopamine levels resulting in disruption of circuits that regulate the behavioral, cognitive, motivational and emotional responses. These responses are in many cases modulated by molecular neuroadaptations, subsequently leading to changes in the brain's addictive cycle. In spite of the huge scientific data on addiction, much on the topic is still needed to be unraveled. Here, we proposed a linkage between the psycho- and physiopathogenetic basis of addiction. An important psychological explanatory model of alcohol use that will necessarily provide significant linkage with physiogenetic basis of addiction is the tension-reduction and expectancy models -the initiative-effectors of addictive behaviors.

References

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