

Sleep A Criminal Waste Of Time Or An Important Behavioral Manifestation?: Literature Review Showcasing The Relationship Between Sleep And Psychiatric Disorders

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Learning Objectives:

Understanding the neuroscience of sleep. Call attention to the bi-directional relationship between sleep and various mental health disorders. Highlighting the relationship between sleep and addiction disorders.

Case Summary:

Sleep is an incredibly important part of our biology and is one of the single most important behavioral experience we have. By some estimates humans spent 36% of their life spent asleep. The evidence from clinical various studies show that in severe mental illness, there is always sleep disruption. Studies show that mental illness and sleep are not simply associated but are physically linked as the neural networks that predispose us to normal sleep and normal mental health are overlapping. Sleep disruption has been shown to precede certain types of mental illness. There is evidence showing genes responsible for normal sleep when mutated predispose individuals to mental health problems. There is strong evidence suggesting a bidirectional relationship between sleep problems and involvement with substances of abuse. Poor quality or lack of sleep has shown to effect various cognitive processes namely poor decision-making capacity, concentration, attention, creativity, social skills with functional neuroimaging demonstrating corresponding decrease in brain activation in the frontal-parietal region. Sleep deprivation may result in a mental status that resembles depression or anxiety whereas adequate sleep has shown to reduce mood changes, stress, level of anger, impulsivity. Research show that sleep disturbances experienced in early life may precede and/or predispose an individual to developing substance use disorder. Further studies have supported this finding highlighting the relationship between sleep problems during adolescence and future involvement in substance abuse.

Conclusions:

Psychiatrists by understanding the neuroscience of sleep and psychiatric disorders can use sleep disruption as an early warning signal making early intervention possible for individuals at higher risk of developing mental illness to help alleviate some of their appalling symptoms. Future research can focus on finding new therapeutic targets in our brain's sleep centers involved in expression of both sleep and implicated psychiatric disorders to help mitigate mental illness severity.