

Chapter 25

The Biopsychosocial Model of the Addictions

Biology: the bio part of the BPS model

- Definition
 - The anatomical, structural, and molecular substrates of a disease such as SUDs
- History
 - Dr. Benjamin Rush
- Process
 - Compounds derived by chemists that can effectively activate rewards pathways in the brain
- Biological determinism

Biology: the bio part of the BPS model

- Jellinek's work
 - Argued that alcoholism is a disease, like cancer or pneumonia; accordingly alcohol dependence
 - A loss of control
 - A progression of problems
 - If left untreated, could cause the drinker's death
 - The model offered a new paradigm for physicians to use when assessing the person with an alcohol use disorder (AUD)

Biology: the bio part of the BPS model

- Genetic inheritance theories
 - Put forth a predisposition of genetic nature to make some one an addict
 - There is indirect evidence of a genetic predisposition towards the alcohol use disorders
 - Heritability for Type II alcoholism was higher than Type I alcoholism, suggesting vulnerability that was transmitted from father to the son.
- Epigenetics
- Neurobehavioral theories

Biology: the bio part of the BPS model

- The Biological Differences Theories
 - Possible differences exist, although it is not clear whether these are enough to account for any additional risk for the individual developing an SUD
 - The dopamine D2 hypothesis
 - Neuroimaging studies
 - Digestive system

Reactions to the biological component of the BPS model

- Flaws
 - Further dichotomizes breach between biological and psychological models of SUDs
 - Reinforces stigma of mental illness
 - Poor behavior is not a disease
 - “Psychosocial” is poorly define
 - Antagonizes medical professionals
- Philosophical
- Methodological
- Reactions to the Jellinek model

Reactions to the biological component of the BPS model

- Reactions to the genetic inheritance theories
 - Neurogenetic determinism that absolves responsibility for behavior
 - Genetic heritage may account for as little as 10% of risk for developing a SUD
- Reactions to the epigenetics model
- Reactions to the Dopamine D2 receptor site hypothesis
- Reactions to the biological vulnerability studies
 - Findings regarding this have been mixed

Reactions to the biological component of the BPS model

- Challenges to the neuroplasticity aspects of the disease model
- Challenges to the brain imaging studies
 - Imaging studies do not show or allow diagnosis of any mental illness
- Challenges to the genetic modification treatment approaches
 - Remains theoretical with little clinical value

Reactions to the biological component of the BPS model

- The medical model and individual responsibility
 - Theories about “craving” “urges” and such are based on reports from those who were unsuccessful at resisting
 - Research has failed to show that choice becomes irrelevant when a SUD develops
 - Often substance use requires several active decision points to allow substance use to proceed
- Spontaneous recovery
 - 75-95% of those with SUD will eventually recover on their own

The psychological components of the BPS model

- Definition
 - The impact of psychology on substance use behaviors
- The “Moral Model”
 - addictions are viewed as weakness, perhaps a character flaw
- Learning theory
- Coping systems theory
- Personality defense theories of substance use disorders
 - Attempt to justify unacceptable behaviors through cognitive techniques

The psychological components of the BPS model

- Behavioral theories
 - All behavior can be understood in terms of stimulus-response cycles
- Cognitive-behavioral theories (CBT)
- Psychoanalysis
- The addictive personality
 - Strongly deterministic

Applications of the psychological component of the BPS model

- Assessment
- Neuropsychological assessment
- Individual or group psychotherapy
- Marital and family therapy
 - Meant to assist family members learn how to deal with issues relating to SUD

Reactions to the psychological models of addictions

- Reaction to the moral model of SUDs
- Reactions to the “alcoholic” (or “addictive”) personality theories
 - Nothing more than a clinical myth
- Challenges to the “characteristic defenses” theory
 - Persons with an SUD are likely to be honest about their drug use if they have little reason to fear that any information will be used against them later

Reactions to the psychological models of addictions

- Challenges to the behavioral psychology theories of the SUDs
 - Limits to what can be learned from animals tested in laboratory environments
- Reactions to the learning theories of the SUDs
- Challenges to the epigenetic theories of the SUDs
- Reactions to the coping skills theories

The social component of the BPS model

- Definition
 - Attempts to identify and possible correct systemic issues within society that might influence the individual's decisions about substance use
- The role of substance use in a culture
 - General cultural environment
 - The specific community the individual lives in
 - Subcultures within the parent community
 - Family/per influences
 - Context in which compound is used

The social component of the BPS model

- Social factors influencing individual substance use decisions
 - Parenting
 - Environmental factors
 - Victimization
 - Strong relationship between childhood abuse and subsequent SUD when the child grows up
 - Hopelessness
 - Music

The social component of the BPS model

- Social factors influencing individual substance use decisions
 - Social mores
- Sex ratio
- Legal sanctions
- Religious affiliation
 - Increased social support
 - Non-drinking norms
 - Opportunity to gain relief from suffering

The social component of the BPS model

- Individual life goals
- Mass media
- Advertising
 - Impact appears strongest prior to the initiation of cigarette smoking in children and adolescence
- Expectancies
- Peer groups/social support
 - Physical and emotional support, information sharing, feedback
- Cost

Applications of the social component of the BPS model

- Continuum of intervention into the SUDS involves:
 - Prevention
 - Universal interventions
 - Selective interventions
 - Indicated interventions
 - Treatment
 - Maintenance

Psycho-educational intervention programs

- Drug abuse resistance education (D.A.R.E.)
 - limited research to support effectiveness
 - Potentially even counter productive
- Some support for programs focusing on peer interaction, refusal skills training and resetting norms
- Critics suggest such programs continue because they provide the illusion of doing something, even in the absence of any hard evidence of efficacy