Adult-Onset of Mental Health & Substance Related Problems: An Emerging Role for Prevention Specialists

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TRAINING DESCRIPTION

- This virtual seminar begins with a brief introduction to transtheoretical research designs, with an emphasis on the transdiagnostic understanding of psychopathology that emerges from *interpersonal neurobiology* (IPNB), evolutionary psychology, and related transtheoretical approaches to prevention, education, and treatment of mental health and substance-related problems.

- The overview of this transtheoretical research will be followed by a more in-depth explanation of the relationship between a child's genetic vulnerability, underlying neurobiological processes, developmental exposure to adverse childhood experiences, and familial/ interpersonal relationships; and the development of medical, physical, psychological, substance-related problems, and interpersonal functioning deficits in adulthood.

- While traditional categorical and diagnostic-based treatment and prevention interventions target the cluster of symptoms that constitute the diagnosis; transdiagnostic interventions target underlying neurobiological processes that appear much earlier in life--- thereby providing prevention interventionist with an opportunity to prevent the onset of a myriad of adult medical, psychiatric, and substance-related problems.

- This presentation will also introduce participants to the fundamentals of change theory, and motivational enhancement strategies so that they are better able to tailor prevention interventions to the target audience's phase of readiness to change.

TRAINING OBJECTIVES

- Upon completion of this virtual presentation, attendees will be able to:

- Provide examples of how diagnostic-based conceptualizations of psychopathology have influenced organizational practices, program design, and provider biases that can adversely impact rates of engagement and retention in prevention initiatives.

- Explain how “trans-diagnostic” interventions differ from traditional, “diagnosis-specific” interventions.

- Provide examples of adverse childhood experiences (ACEs) and explain why an understanding of ACEs is essential to understanding adult pathology (medical, psychiatric, and substance-related).

- Explain why it is important for prevention specialists to develop an accurate understanding of a target audience’s health beliefs, and phase of readiness to change prior to selecting prevention strategies and educational interventions.

LIFE AS SEEN THROUGH THE DISTORTED PRISM OF TRAUMA

”Until you make the unconscious conscious, it will direct you and you will call it fate.”

(Jung, 2003)

“Addiction begins with solving a problem, and the problem is that of human pain, emotional pain, and the first question is not why the addiction, it's why the pain…. [and]… it's always rooted in childhood trauma, either overt or covert.”

(Maté, 2010)

”All too often, ill-conditioned, implicit beliefs, become self-fulfilling prophecies in our lives.”

(Maté, 2019)

“The greatest damage done by neglect, trauma or emotional loss is not the immediate pain they inflict, but the long-term distortions they induce in the way a developing child will continue to interpret the world.”

(Maté & Maté, 2022)

EVOLVING MODELS FOR UNDERSTANDING ADDICTION

- **Alcoholics Anonymous** (Alcoholism described as an "Allergy" which results in uncontrollable cravings that can only be managed by total, lifelong abstinence).

(Alcoholics Anonymous, 2001)

- **Disease Model of Addiction** (Disease process described as tissue cell adaptation, and either loss of control, or inability to abstain phenomenon)

(Jellinek, 1960)

- **Type I and Type II Alcoholics** (Thrill seeking, versus Risk Avoidance)

(Cloninger, Sigvardsson & Bohman, 1996)

- **The War on Drugs** (Policy driven by politics and not science; funding focused primarily on criminalization and not treatment)

(US DHHS, 2016)

- **Addiction Conceptualized as a Brain Disease** (Neurobiology and the Cycle of Addiction)

(Koob & Volkow, 2016; Volkow, Jones, Einstein, & Wargo, 2018)

Advancements in Medical Technology & Emergence of the Biomedical Model

- The belief that mood and thought disorders were forms of brain-based illnesses was validated by several studies in the 1980's and 1990's that utilized EEG's, CT Scans, MRIs and other techniques to monitor brain activity while testing response to psychopharmacological treatments (Thorazine; Prozac; Lithium) that targeted the presumed "brain-based" etiology of symptoms of psychosis and severe mood disturbance.

- Early successes with Thorazine, Prozac, and Lithium, followed by the introduction and proliferation of several additional psychopharmacological agents helped to ensure that the Biomedical Model retained dominance as the best explanation for understanding and treating mood, thought, and anxiety disorders.

- Until about 15-years ago, strong support for the biomedical model essentially ended researcher interest in biopsychosocial models of psychopathology.

(Herman, 2015; Norden, 2007; Satterfield, 2013; van der Kolk, 2014)

Revisiting the Biopsychosocial Model

- Over the past decade, significant advances in brain research, using fMRI and other advanced neuro-imaging techniques, combined with the integration of research across diverse fields of study (e.g., evolutionary biology; wildlife biology; neurobiology, social neuroscience, developmental psychology, etc.) has led to a growing consensus that the etiology of human psychopathology can not be explained with simplistic, dichotomous constructs (i.e., nature/ nurture; organic/ inorganic).

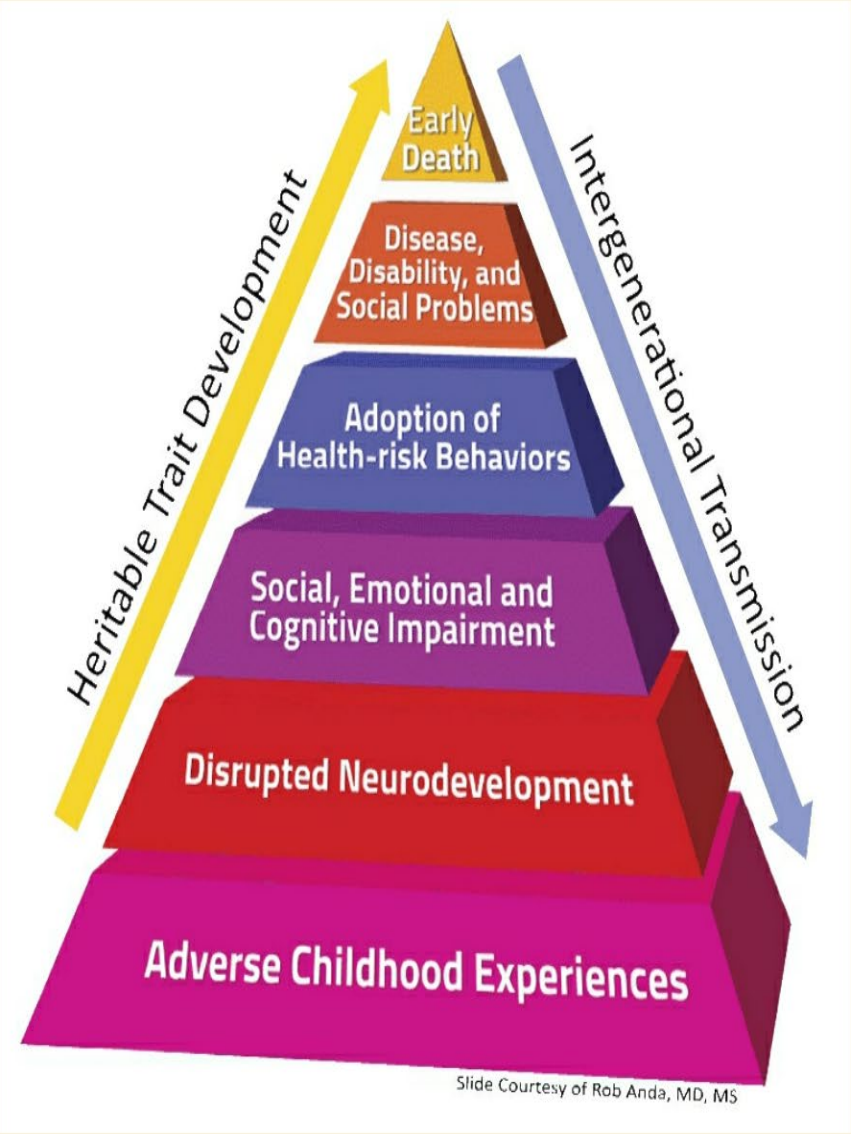
- Researchers across diverse fields of study now agree that human behavior and the development of psychopathology emerges from a myriad of interactive and synergistic forces, that at a minimum include biological, psychological, genetic influences, and social factors.

(Badenoch, 2008; Sapolsky, 2013; Satterfield, 2013; Solomon & Siegel, 2003; Siegel, 2020)

Adverse Childhood Experiences (ACEs)

- Physical Abuse
- Emotional Abuse
- Sexual Abuse
- Physical Neglect
- Emotional Neglect
- Domestic Violence
- Parental/ Caregiver Substance Abuse
- Household Mental Illness
- Incarcerated Family Member
- Parental Separation/ Divorce, or other Attachment Disruption
- Bullied at school/ In the community

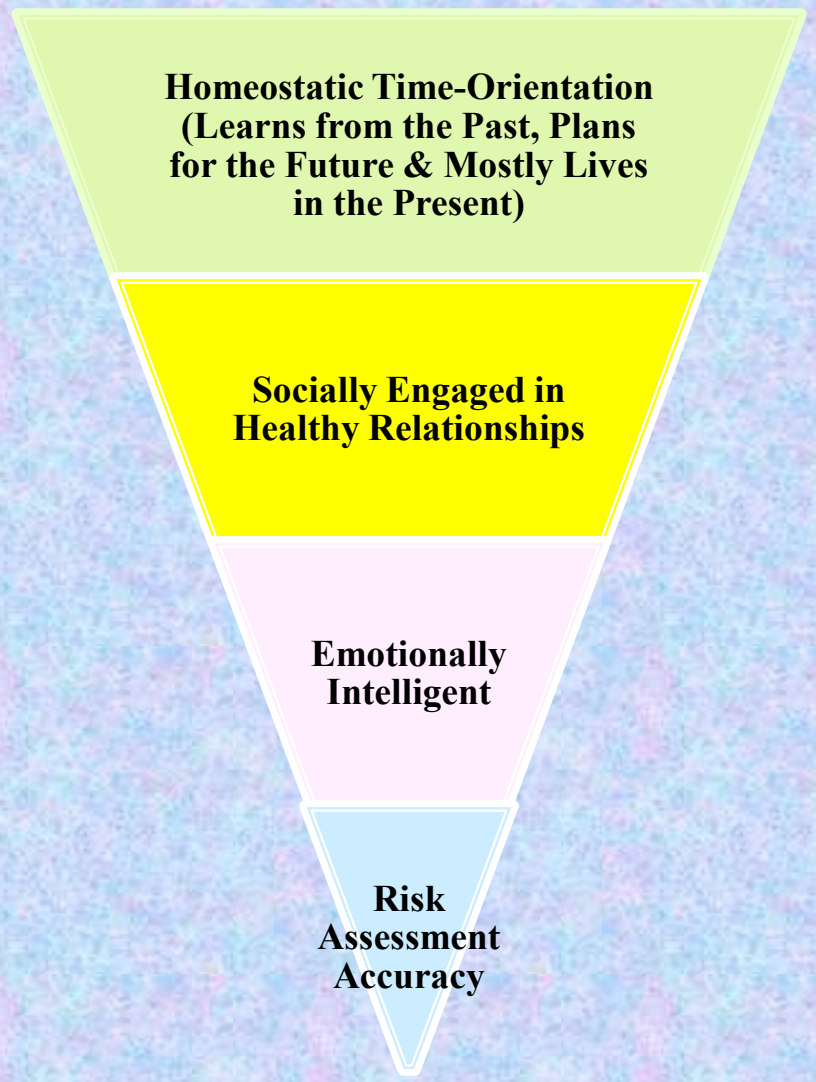
UNHEALED PATHWAY



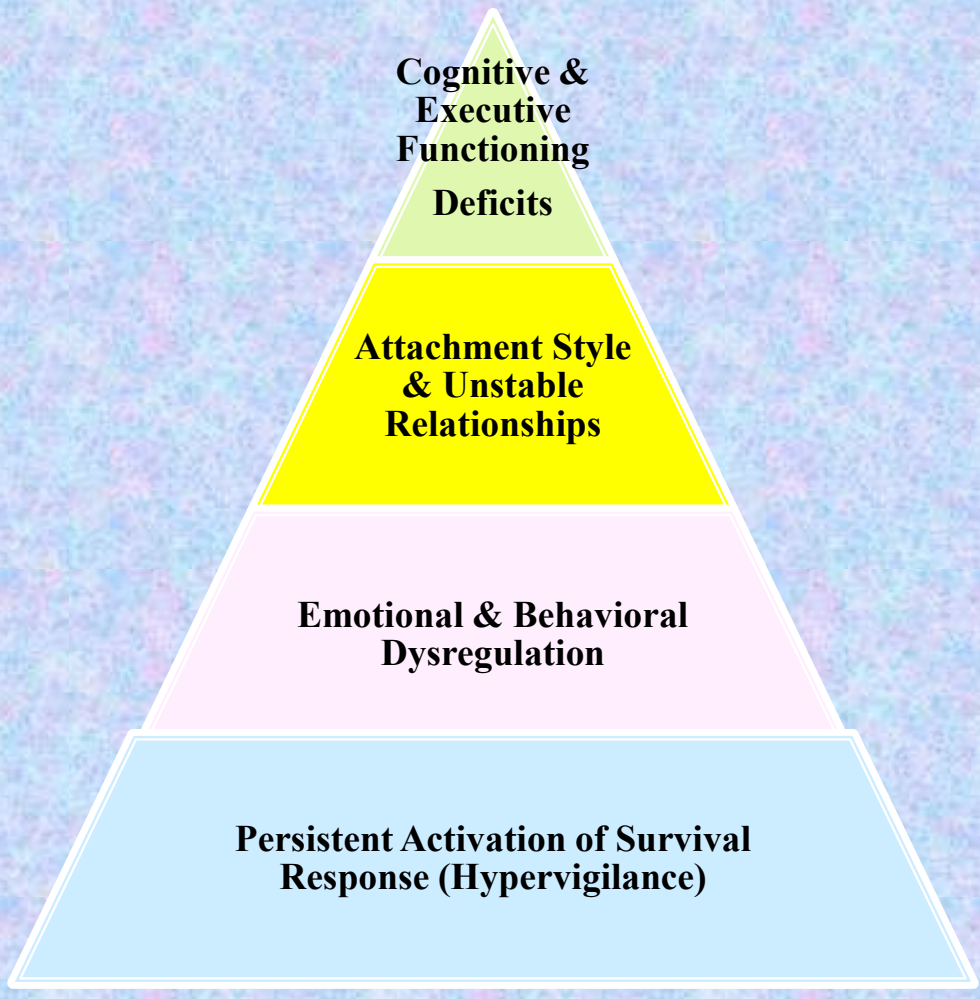
Optimal Neurobiological Development versus ACEs Exposure

(Adapted from Multiple Sources: SAHMHSA, 2022; Ogden & Fisher, 2014; Siegel, 2018; Rothschild, 2021; Holt & Jordan, Ohio Ed. Dept., nd)

Optimal Neurobiological Development



ACEs Exposure & Developmental Trauma



QUANTIFYING THE IMPACT OF ACEs EXPOSURE

- Global research efforts have concluded that at least o**ne-third** of mental and behavioral disorders can be **attributed to ACEs**.

- Negative outcomes in childhood include:
  - Externalizing disorders (e.g., conduct and impulse control problems)
  - Internalizing disorders (e.g., anxiety, depression)
  - Cognitive issues
  - Substance use disorders, process addictions, and other forms of compulsiveness

- Since 2009, all but 2 of the 50 states (i.e., Massachusetts and Wyoming) utilize the *Behavioral Risk Factor Surveillance System* (BRFSS) to quantify ACEs exposure amongst the state's adult population. Aggregate BRFSS data across these 48-states suggest that **66%** of adult respondents have experienced **at least one ACE as a child**, and approximately **25%** of adult respondents have experienced **three or more ACEs**

- A recent CDC study documented that ACEs are related to at least 5 of the top 10 leading causes of death in the United States, including heart disease, respiratory disease, cancer, and suicide

(Portwood, Lawler, & Roberts, 2023)

INTERGENERATIONAL PREVENTION PATHWAYS TO STRENGHTEN FAMILIES

Prevention specialists are well-placed to mediate the intergenerational effects of ACEs by implementing targeted resilience strategies at key times in a person's life:

- Prevention strategies that strengthen the resilience of children and adolescents will help persons served to develop a higher-level of interpersonal functioning and improved capacity to develop and maintain secure attachments when they become young adults

- Prevention strategies that strengthen the resilience of young adults before they have children or become pregnant will improve their capacity to parent in a manner that promotes secure attachment when they do become parents.

- Prevention strategies that target individuals who are pregnant, or who have minor children will strengthen the parent–child relationship while also role-modeling secure attachment for their own children.

(Portwood, Lawler, & Roberts, 2023)

IDENTIFYING & LEVERAGING PROTECTIVE FACTORS AFTER ACEs EXPOSURE

Family Strengths That Promote Development of Childhood Resilience:

- Children perceive members of their family as being "close" to one another
- Children feel "supported" by their primary caregivers
- Family members demonstrate a sense of loyalty to one another
- Primary caregivers are responsiveness to the health needs of children in their care
- Children believe that they are valued and important members of the family
- Children feel safe, and are confident that the family will protect them if there is danger

Positive Outcomes in Families with the Above-Described Characteristics:

- Significantly lower risk of adolescent pregnancy
- Later onset of sexual initiation
- Reduced rates of escalated conflict and emotional volatility in adult intimate relationships
- Lower rates of anger outbursts and behavioral dysregulation
- Lower risk of psychological distress due to financial obligations

(Portwood, Lawler, & Roberts, 2023)

COMPENSATORY ADULT EXPERIENCES TO PROMOTE POSITIVE PARENTING

- Availability of Positive Adult Relationships (e.g., having a supportive caregiver, friend, and mentor; identifying with a social group and volunteering in the community)

- Availability of Protective Resources in Adulthood (e.g., having access to a clean and safe home with a predictable routine and high-quality education; and being involved in physical activity, organized sports, and having a hobby)

- There is a strong, positive correlation between the availability of positive compensatory experiences in adulthood, and rates of positive parenting practices by adults with their own history of ACEs exposure

- The availability of positive compensatory experiences in adulthood has also been shown to reduce the risk of harsh parenting attitudes practices by adults with their own history of ACEs exposure

(Portwood, Lawler, & Roberts, 2023)

Interpersonal Neurobiology (IPNB)

- The integration of research across a diverse array of disciplines has unified into single theoretical construct known as Interpersonal Neurobiology (IPNB) which is perfectly suited for transdiagnostic treatments. IPNB proponents recognize that MH & SUD related problems are the result of a complex mix of multi-directional and continuous factors that include:

- Biological, biochemical, neuronal, environmental, inter-personal, and inter-psychic interactions within and between the brain, the body, and the social environment

- And,

- Client-specific characteristics such as developmental history, inheritable risk factors, personal resiliencies, temperament, and individual psychological factors (the mind).

(Cozolino, 2017 & 2020; Davies & Roache, 2017; Meyer, Wood & Stanley, 2013; Siegel, Schore & Cozolino, 2021)

The Triune Brain and Information Processing

- Research in Evolutionary Psychobiology theorize that the human brain developed evolutionarily in three distinct stages over a period of tens of thousands of years with the brain changing and adapting to ensure the human survival.

- While the human brain functions as single entity, each of the three evolutionarily developed brain regions process and respond to different kinds of information, and this processing is done independently of the actions of the two other brain regions.

- The three brain regions are sometimes referred to as the **Triune Brain**, which is comprised of:

  - **Reptilian Brain** (also called the Primitive Brain, the Lizard Brain, and the Body Brain) consisting of the Limbic System and Amygdala is the region of the brain responsible for processing sensorimotor information, including information related to autonomic functions, and the Fight, Flight, Freeze Survival response.

  - **Mammalian Brain** (also called the Emotional Brain), is the portion of the brain that is responsible for emotional processing, which includes a person's connection to (ownership of) the emotions being experienced, and their expression.

  - **Human Brain** (also called the Rational Brain and Thinking Brain) is the neocortical (Neocortex) region of the brain that is responsible for cognitive processing; putting words to experiences; sense of self; and historical narrative of self and others; abstract reasoning; logic; decision-making; self-reflection and other executive functions.

(Ogden & Fisher, 2014; Ogden, Minton, & Pain, 2006)

Attachment Disruption During Infancy and Childhood & Development of Adult Attachment Styles

- Attachment Theory, first proposed by Bowlby, 1951, and expanded upon by Bowlby in his three-part series on *Attachment and Loss (1968, 1973, 1980)* hypothesized that the attentiveness, reliability and predictability of parent/ primary caregivers during infancy and early childhood impacts the Attachment Style that is carried into adult relationships.

- When Bowlby first proposed Attachment Theory, he described three distinct Attachment Styles, which was expanded to include to a fourth Attachment Style that was proposed by Ainsworth (1978).

- The four Attachment Styles proposed by these researchers (Bowlby; Ainsworth), and the likely behavioral manifestation of each attachment style is detailed below:
  - **Dismissive- Avoidant** (Withdrawn, independent, emotionally distant, disconnected from intimacy, overwhelmed when others rely upon them; **Core Beliefs**: Relationships are unsafe because it renders you vulnerable to being hurt
  - **Fearful Avoidant** (Ambivalent about the level of intimacy desired/ expressed due to both wanting and fearing intimacy and vulnerability; over-analyzes nearly every social interaction); **Core Beliefs:** People can not be trusted so betrayal is quite likely).
  - **Anxious Attachment** (Self-sacrificing to the point that resentment occurs, fears rejection, strong fear of abandonment); **Core Beliefs:** Belief that love is conditional and fleeting, and betrayal is likely.
  - **Secure Attachment** (Healthy, reciprocal relationships; encouraged).

(Bowlby, 1982)

Dopaminergic Deficiency Syndrome (Reward Deficiency Syndrome)

- The phenomenon known as Dopaminergic Deficiency Syndrome (Reward Deficiency Syndrome, RDS) was first proposed in a 1996 study which identified a set of behaviors which were found to have a gene-based association with hypodopaminergic function.

- RDS Associated Behaviors Include:

  - Impulsivity and difficulty delaying gratification

  - Hypersensitivity to stress and risk-aversive tendencies

  - Difficulty making decisions involving delayed rewards

  - Chronically under stimulated & difficulty finding contentment in times of calm.

(Koob & Volkow, 2016; US DHHS, 2016; Volkow, Jones, Einstein, & Wargo, 2018)

Chronic Activation of Stress Response Systems (Stress Surfeit)

- Chronic activation of stress response systems (especially in childhood, and in adolescence) mediates release and transmission of CRF (corticotrophin-releasing factor) in the amygdala, ventral tegmental area, and pre-frontal cortex regions of the brain.

- The increased bio-availability of CRF (a key stress hormone) in the above brain-regions results in a condition referred to as Stress Surfeit, a state that manifests as:
  - Heightened experiencing of stimuli
  - increased Emotional Reactivity
  - Persistent Hypervigilance
  - Diminished ability to tolerate Distress.

- Stress Surfeit Is Paralleled By Deficits In Executive Function that may facilitate the transition to compulsive-like responding.

(Koob & Volkow, 2016; US DHHS, 2016; Volkow, Jones, Einstein, & Wargo, 2018)

PRE-FRONTAL CORTEX & EXECUTIVE FUNCTION DEFICITS

Through the process of neuroadaptation, normal functioning of the Pre-Frontal Cortex (PFC) is disrupted by chronic substance abuse, which can result in **Executive Function Deficits** (for persons with a history of exposure to ACEs, and/ or who have ADHD the impact may be even greater).

- **Activation**
  - Organization
  - Prioritization
  - Task Initiation
- **Focus**
  - Directing Attention (Tuning-In)
  - Sustaining Focus
  - Timely Shifting of Attention
- **Effort**
  - Regulating Alertness
  - Sustaining Effort
  - Adjusting Processing speed
- **Emotions**
  - Managing Frustration (Distress Tolerance & Self-Soothing)
  - Modulating Emotions (Mood Monitoring & Emotion Regulation)
- **Memory**
  - Real-time Information Capture
  - Organization of Salient Details
  - Memory Retrieval & Synthesis with New Data
- **Monitoring & Regulating Actions**

(Brown, 2013)

MOTIVATIONAL INTERVIEWING & MOTIVATIONAL ENHANCEMENT STRATEGIES

(Miller & Rollnick, 2023; Rollnick, Miller & Butler, 2022)

Matching Interventions to Level of Readiness

- Every patient possess some degree of “motivation” and “readiness” and therefore, the job of the practitioner is to select interventions that are relevant to the patient’s motivations and appropriate to the patient’s phase of readiness.

Change as a Process, Not an Event

- Even though change is best understood as an internal process that occurs within an individual over time, all too often treatment interventions are predicated on the false notion that change is an event.

- Motivation is not a fixed/ static state that exists solely within an individual, but rather, it is a fluid state that can be positively enhanced through the establishment and maintenance of a therapeutic alliance between the client and the treatment provider.

- Enhancing a client's level of motivation to initiate and sustain a desired change, and helping to restore hope that change is possible, are foundational goals of counseling and psychotherapy that can be achieved through the therapeutic alliance and the artful application of clinical models of change and motivational enhancement.

Motivational Enhancement Fundamentals

- While motivational enhancement discussions focus primarily on client concerns, the provider maintains a strong sense of purpose and direction throughout the conversation--- actively choosing the right moments for stage-appropriate interventions.

- Interventions should link client concerns, and to the provider's assessment and prioritization of known risk factors.

- Motivational enhancement strategies combine elements of directive and non-directive treatment approaches.

- Practitioners of motivational enhancement principles avoid the use of argumentative persuasion, other traditional strategies such as "confronting" denial, or waiting for a client to hit rock-bottom.

Rolling With Resistance

- **Express empathy** – "accurate empathy" (Carl Rogers) and acceptance.
- **Develop discrepancy** - between present behavior and goals of what the patient wants.
- **Avoid argumentation** - avoid head-to-head confrontations.
- **Roll with resistance** – "psychological judo" (Jay Haley); patient as a valuable resource in finding solutions; perceptions can be shifted.
- **Support self-efficacy** - patient is responsible for choosing and carrying out personal change; belief in the possibility of change is a powerful motivator.

Application of Motivational Enhancement Strategies

- **Listening**
  - Helps to acknowledge others' realities
- **Empathy**
  - Helps you see things from the client's point of view, and to more accurately understand the client's subjective discomfort.
  - Motivational Enhancement involves acknowledging and practicing acceptance of a broad range of client concerns, beliefs, emotions, and motivations, even when the practitioner does not necessarily agree with the patient's point of view.

TRANSTHEORETICAL MODEL OF CHANGE

(Prochaska, DiClemente, & Norcross, 1992)

PRE-CONTEMPLATION

- Not yet considering the possibility of change although others are aware of a problem: active resistance to change
- Rarely seeks treatment without coercion
- May benefit from “educational” information that is presented in a non-judgement manner with the goal of bringing awareness of a possible “problem” for which change is possible.

CONTEMPLATION

- Ambivalent, undecided, vacillating between whether he/she really has a "problem" or that there is a need for change
- While there may be a desire to change, the desire exists simultaneously with a resistance to making any change
- Individuals who are in the process of reflecting upon their own ambivalence may seek professional advice to get an objective assessment
- While motivational enhancement strategies are useful at this stage of change, strategies that are directive or confrontational can provoke strong resistance and defensive behaviors
- Individuals who are in a contemplative stage of change may have a desire to change but have difficulty quantifying what the change would look like or when it should occur.

PREPARATION

It is during the preparation stage of change that individuals who have set future goals for change begin planning the future action steps that they believe will help them make and sustain the desired change.

ACTION

- It is at this stage of change that a person may begin taking specific action steps that align with his/ her self-identified goals for change
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- The action stage of change requires the greatest commitment of a person's time and energy
- At this stage of change, positive encouragement is very important as it helps to decrease the risk of pre-mature treatment drop out, and/ or regression back to an earlier stage of change.

MAINTENANCE

It is at this stage of change that individuals sustain the desired changes and begin to develop strategies to reduce relapse risk.

Sustaining the desired change requires different set of skills than were needed to initiate the change, and to consolidate the gains that have been attained.

This stage is dynamic and can last as little as six months or last a lifetime.

The duration of this stage is directly related to the development and mastery of alternative coping and problem-solving strategies that replace the strategies for coping and problem-solving that had been employed historically.

RELAPSE/ RECYCLING

- Relapse is an expectable, but not inevitable outcome for any significant change being attempted.
- If relapse does occur, interventions should help individuals accept relapse as a setback, but not a complete loss of the recovery knowledge and skills that have been developed.
- Effective motivational enhancement strategies after a relapse help individuals move past the disappointment and sense of failure that accompany a relapse.
- Focus is less on the actual relapse, and more on the lessons that can be learned form a relapse (i.e., comprehensive, multidimensional exploration of factors that contributed to the relapse.

Health Belief Model

Health Belief Model (Becker, et al.)

- Perceived Susceptibility
- Perceived Vulnerability
- Perceived Benefits to Action
- Perceived Barriers to Action
- Belief in the Power of Technological Cures or Prevention
- Susceptibility to Cues to Action

SELF-DIRECTED, WELLNESS ORIENTED RECOVERY

- Patient- centered, wellness and recovery language is replacing the confrontational and label driven language that has been used in traditional mental health and substance abuse treatment settings.
- Recovery is now being defined by SAMHSA as a self-directed process of change during which a person seeks to achieve a state of wellness and an optimal level of functioning.

CHANGING PERSPECTIVES ON "COMPLIANCE"

Traditional Medical Model

From the perspective of the traditional medical model, it has historically been considered reasonable for a medical provider to unilaterally terminate the treatment of a patient who is "non-compliant" with treatment recommendations, and/ or who misuses alcohol or other drugs.

Recovery and Wellness Orientation

"There are multiple pathways to long-term recovery and wellness, and all are a cause for celebration."

(Mikhitarian Williams, 2015)

ENVISIONING AN EMERGING ROLE FOR PREVENTION

- Transtheoretical research and emerging transdiagnostic models offers an opportunity to engage prevention specialists and reduce the onset of adult mental health and addiction related illnesses.
- Rethinking traditional models for understanding psychopathology
- Becoming consciously aware of personal and professional beliefs regarding the etiology of mental health and addiction
- Identifying systemic barriers to a more comprehensive approach to interventions
- Developing a personal goal for integrating transtheoretical research, and transdiagnostic approaches into prevention strategies

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