

# *DIGGING INTO THE BIO-PSYCHO- SOCIAL*

IRETA Webinar, December 2024

Dr. James H. Berry, West Virginia University  
Rockefeller Neuroscience Institute



# OVERVIEW



- The Bio-Psycho-Social Model
- Psychological Treatments
- Social Elements of Treatment/Recovery
- Spirituality and Faith Communities
- Q&A



**“DOC, CAN I GET  
A BRAIN  
TRANSPLANT?”**

HUMANS  
ARE *NOT*  
BRAINS ON  
LEGS!



Image: Freepik

# HEALTH = HOLISTIC



# ADDICTION AS DISEASE

## American Society of Addiction Medicine (2019)

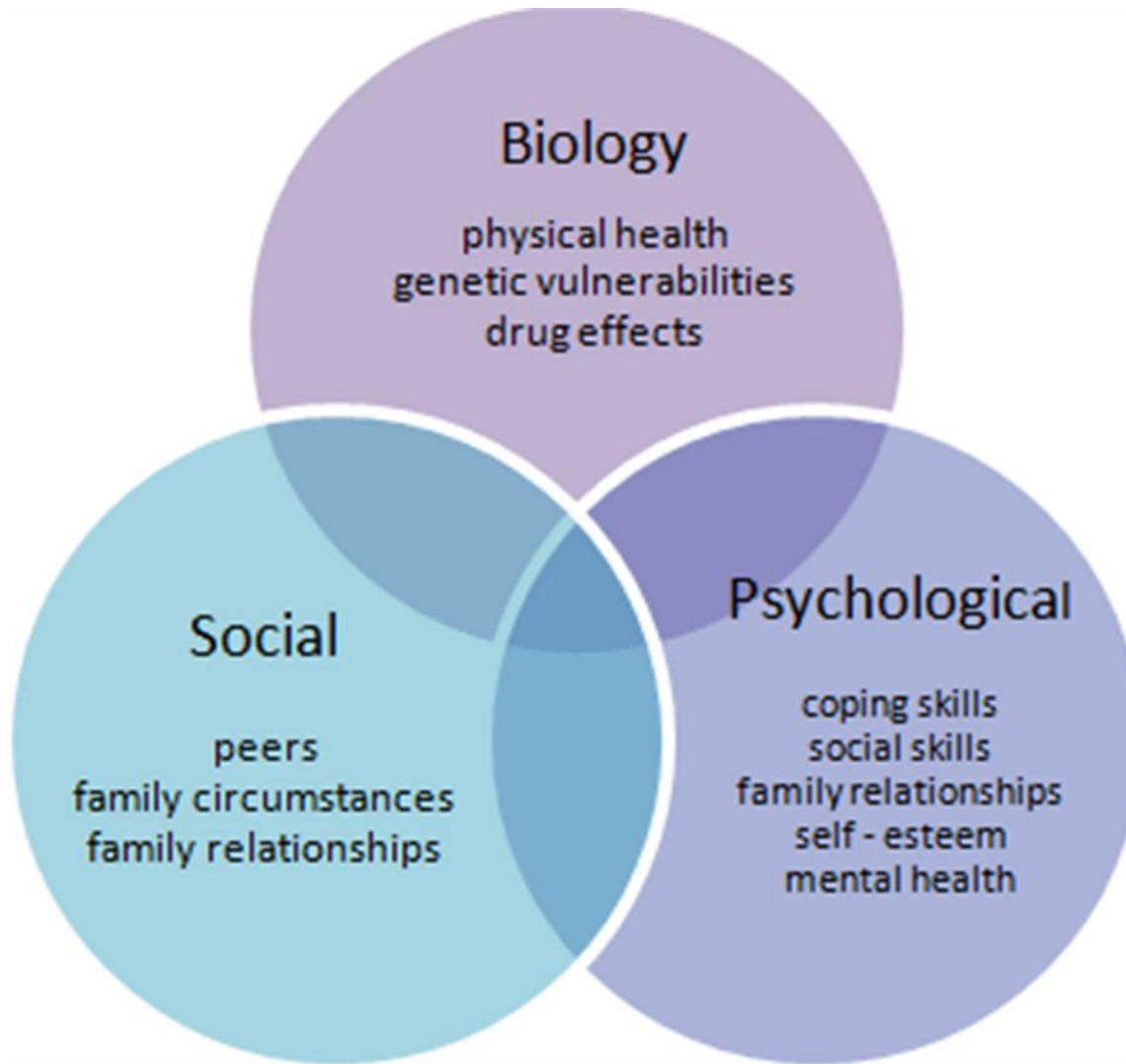


Addiction is a **treatable, chronic** medical disease involving complex interactions among **brain** circuits, **genetics**, the **environment**, and an individual's life **experiences**. People with addiction use substances or engage in behaviors that become **compulsive** and often **continue** despite harmful **consequences**.



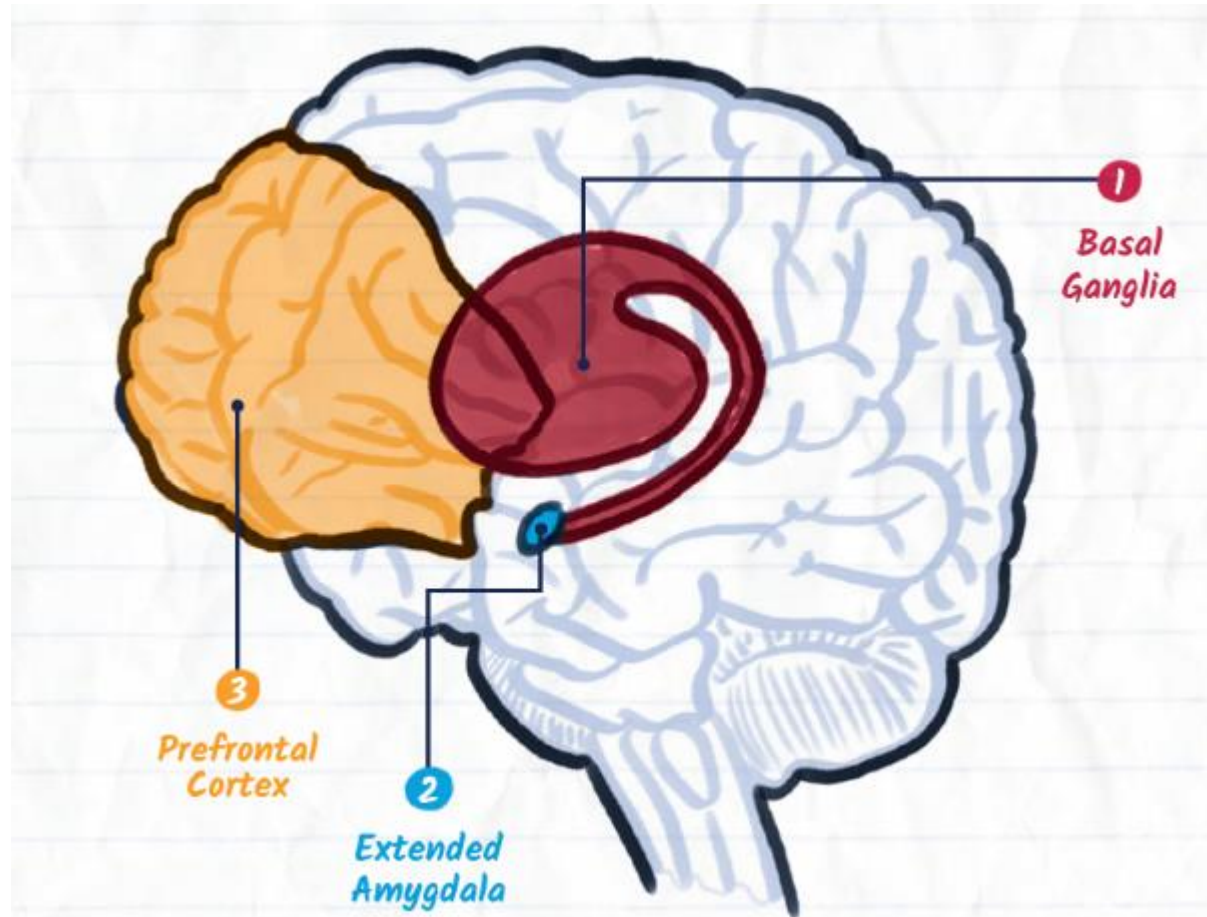
Prevention efforts and treatment approaches for addiction are generally as successful as those for other chronic diseases.

# Bio- Psycho- Social Model





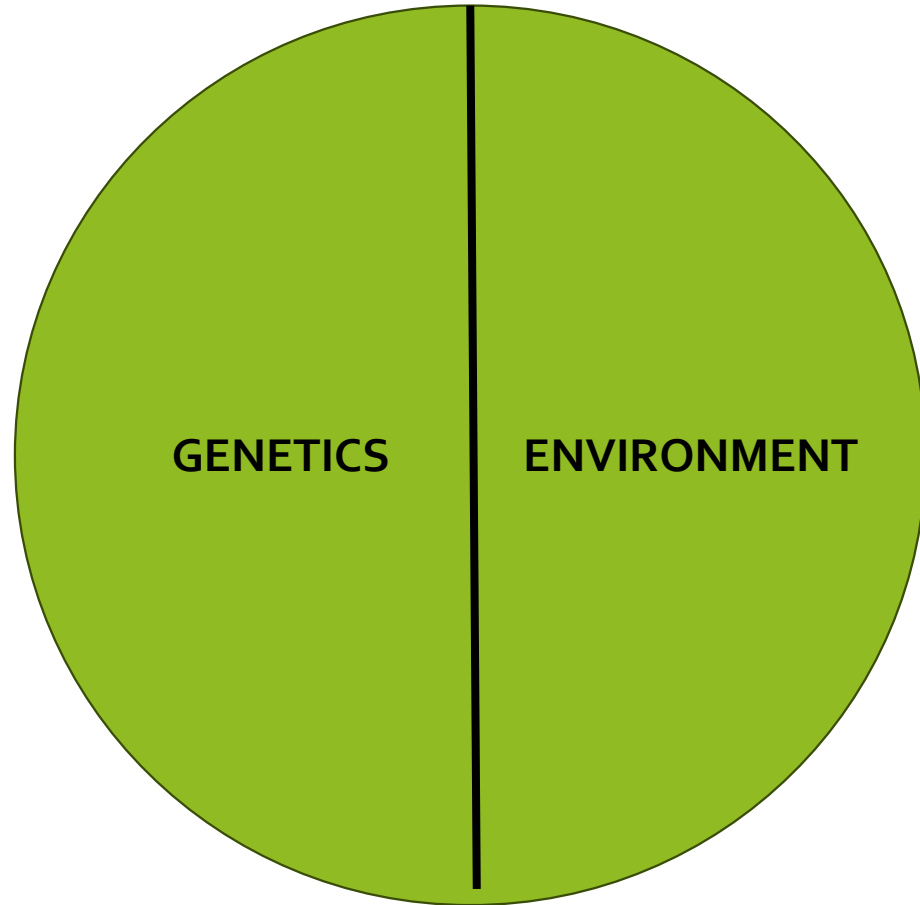
# THE BRAIN

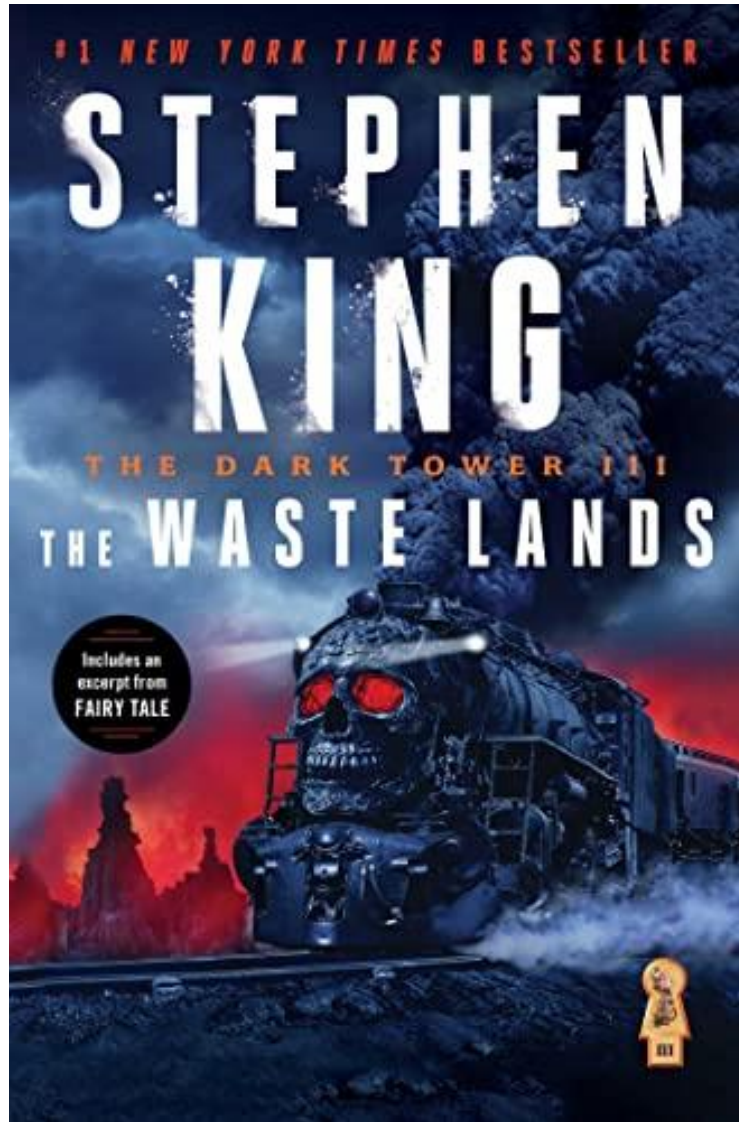


NIDA's Mind Matters, Drugs and The Brain



**NATURE  
AND  
NUTURE**





*“Beating heroin is child's play compared to beating your childhood.”*

# ADVERSE CHILDHOOD EXPERIENCES

## ABUSE



Physical



Emotional



Sexual

## NEGLECT



Physical



Emotional

## HOUSEHOLD DYSFUNCTION



Mental Illness



Incarcerated Relative



Mother treated violently



Substance Abuse



Divorce

# Adverse Childhood Experiences

Traumatic events that can have negative, lasting effects on health and wellbeing



People with 6+ ACEs can die

**20 yrs**

earlier than those who have none



1/8 of the population have more than 4 ACEs




www.70-30.org.uk  
@7030Campaign

## 4 or more ACEs

3x the levels of lung disease and adult smoking 

11x the level of intravenous drug abuse 

14x the number of suicide attempts 

4x as likely to have begun intercourse by age 15 

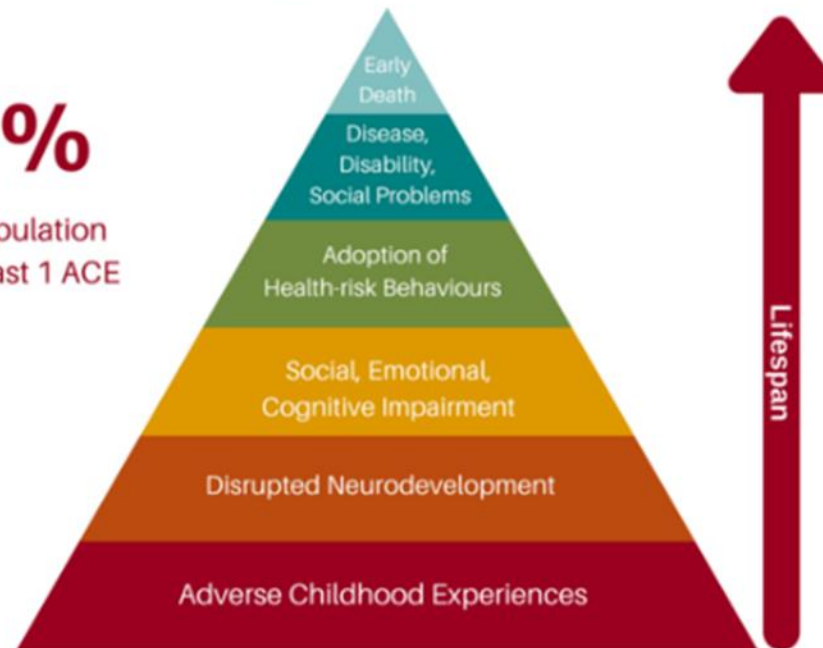
4.5x more likely to develop depression 

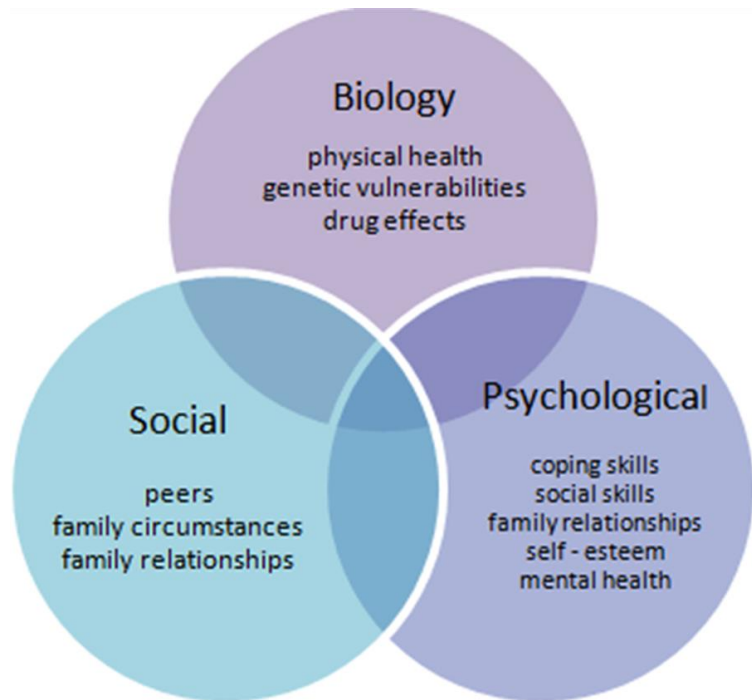
2x the level of liver disease 

“ Adverse childhood experiences are the single greatest unaddressed public health threat facing our nation today ”

Dr. Robert Block, the former President of the American Academy of Pediatrics

**67%**  
of the population have at least 1 ACE





# BIOLOGIC TREATMENT

MEDICATIONS

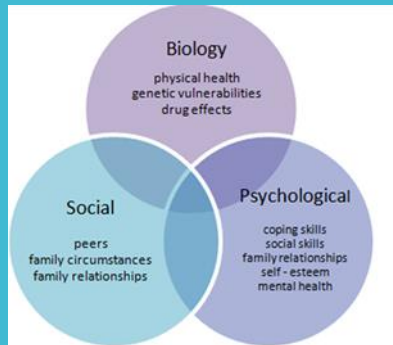
DIET

EXERCISE

SLEEP

NEUROMODULATION

# PSYCHOLOGIC TREATMENT



## Individual therapy

- Ideal if co-occurring trauma hx

## Group Therapy

- Modality of choice for patients with SUDs

## Family Therapy

- CRAFT – Community Reinforcement and Family Training – can do with or without the identified patient

## Couples Therapy

- Emotionally Focused Couples Therapy – grounded in attachment theory, short term, examines relationship patterns

## Multi-family Group therapy

Peer support

Reduction of  
isolation

Witness progress of  
others

Learn coping/social  
skills from others

Learn new  
information

Gain feedback

Support/nurturance

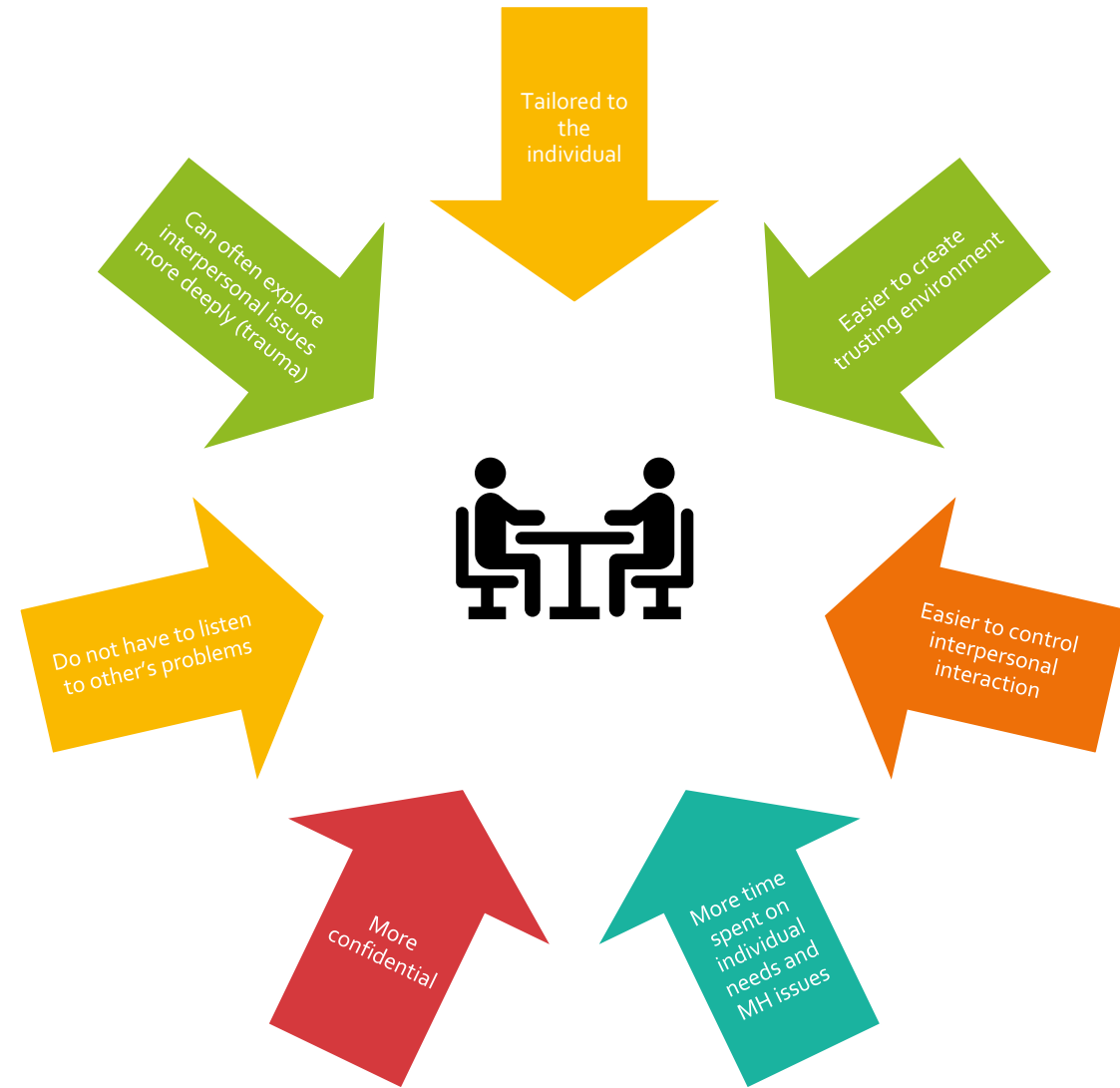
Confrontation

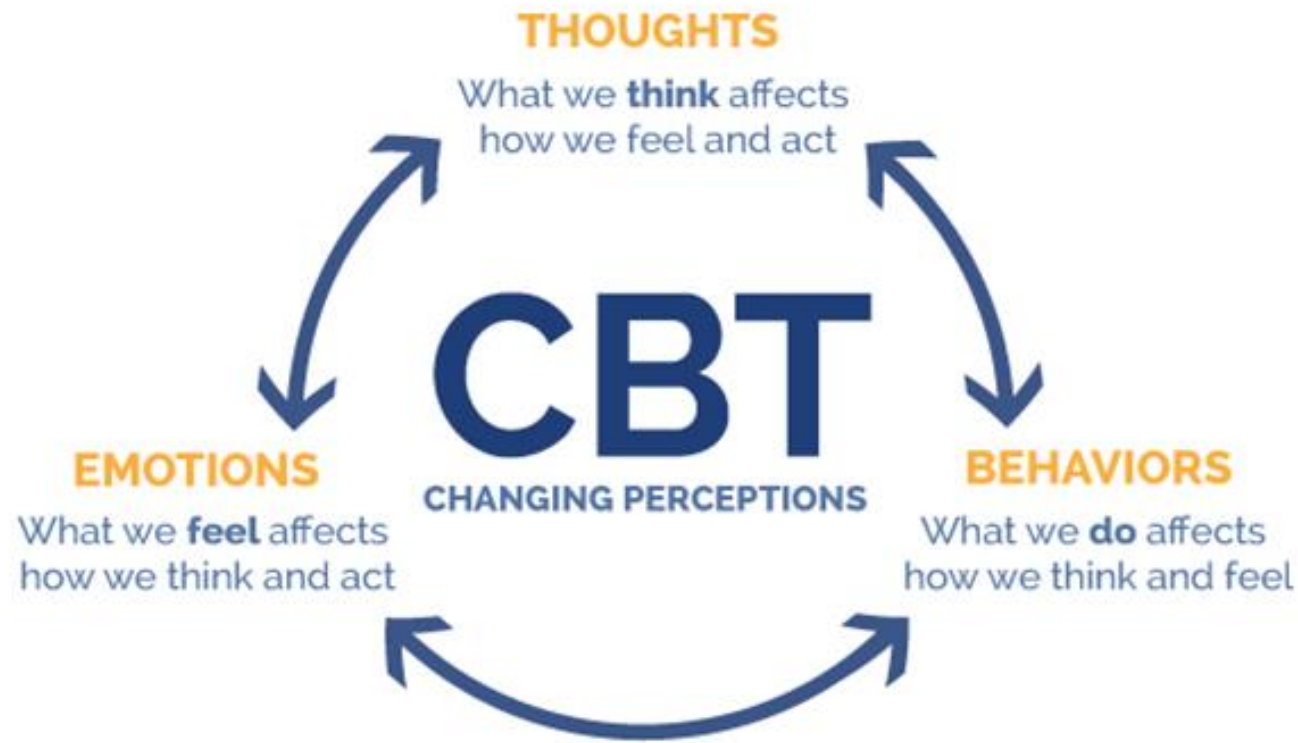
Force Multiplier

# BENEFITS OF GROUP THERAPY



# BENEFITS OF INDIVIDUAL THERAPY





# COGNITIVE BEHAVIORAL THERAPY

Founded in the 1960s as a combination of work by Albert Ellis and Aaron Beck

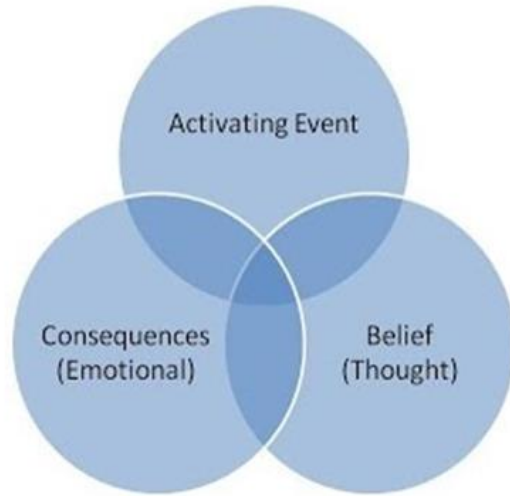
“problem-focused” and “action-oriented”

If we can find a connection between our thoughts, feelings and actions, we can increase our awareness, change thoughts and behaviors necessary for successful recovery.

Group or individual therapy

Has the greatest evidence for the treatment of SUDs

# ABC MODEL



$A \rightarrow B \rightarrow C$

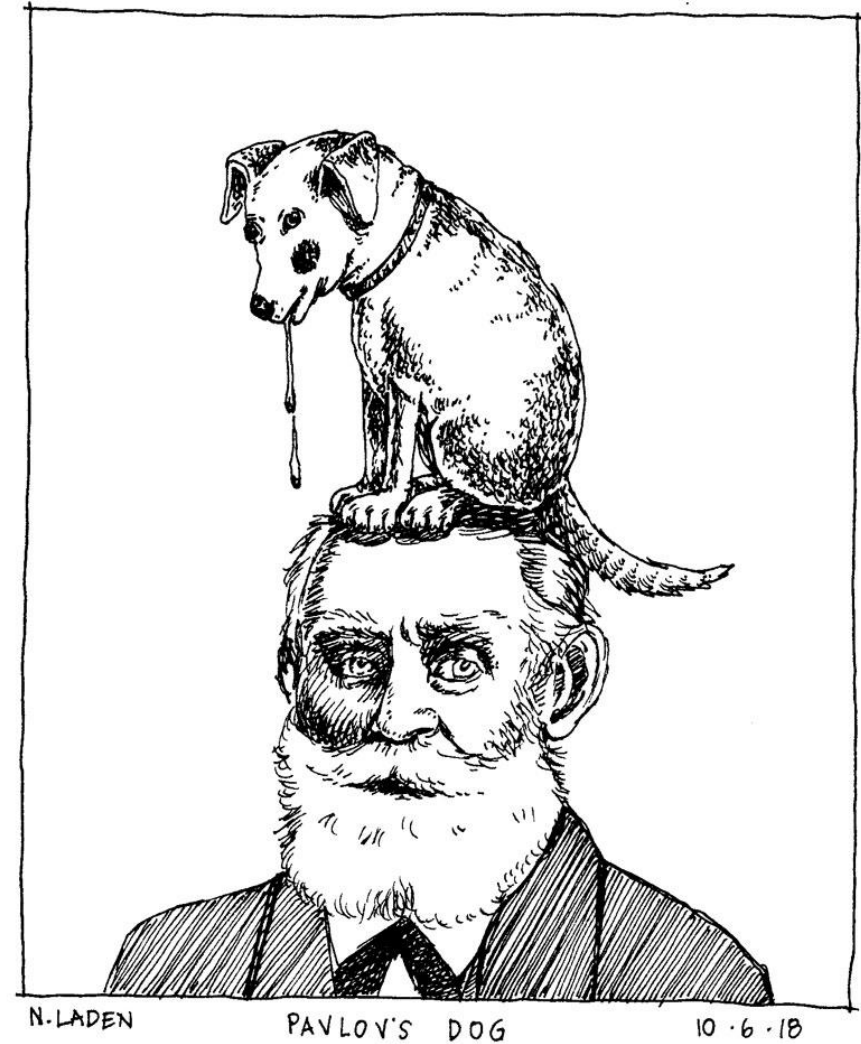
A = Activating Event

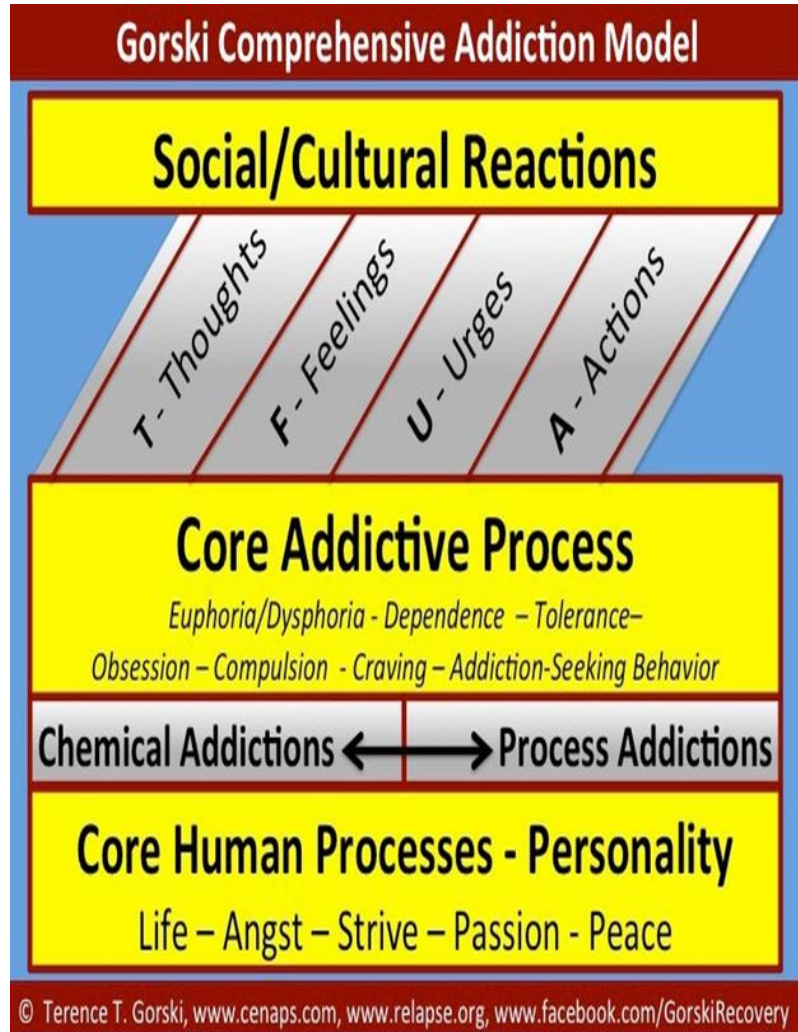
B = Beliefs, Thoughts, Attitudes,  
Assumptions, motivations

C = Consequences, Feelings,  
Emotions,  
behaviors, Actions

# ABCs of CBT

# CLASSICAL CONDITIONING





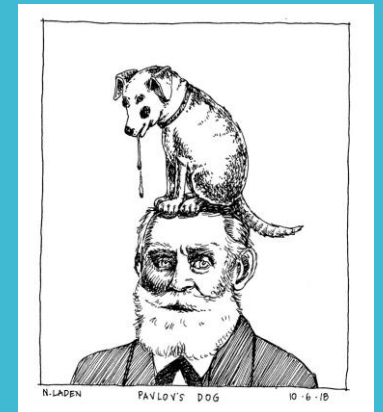
# RELAPSE PREVENTION

Incorporates CBT strategies

Emphasizes having awareness of warning signs  
Changes in behavior, attitudes, emotions

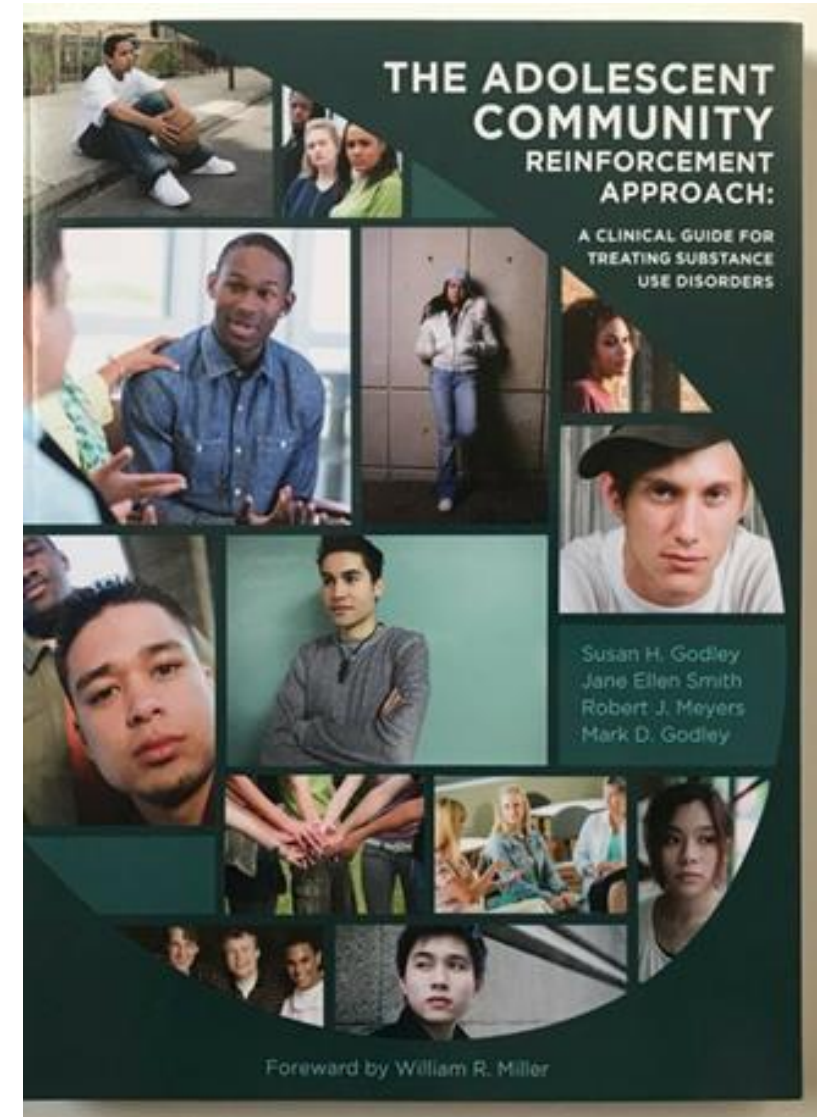
Identify triggers  
People, places, and things

Have a relapse prevention plan



# COMMUNITY REINFORCEMENT APPROACH

Behavioral skills training  
Social and recreational counseling  
Marital therapy  
Motivational enhancement  
Job counseling  
Relapse prevention







Teaches behavioral and motivational strategies for interacting with loved one and addressing resistance to change

#### Skills:

- Understand triggers for use
- Positive communication strategies
- Positive reinforcement strategies
- Self-care
- Precautions against domestic violence
- Problem-solving
- Goal-setting

Family members learn practical strategies to motivate change

Learn communication skills to support healthy behaviors

Helps family create an environment where loved one is motivated to reduce or discontinue their use



# Carrots & Sticks



**Carrot**

*[noun] (literal)*

A plant of the parsley family, valued for its edible root.

*[noun] (figurative)*

An incentive or reward to encourage a specified outcome.



**Stick**

*[noun] (literal)*

A tree branch that has been cut or broken off.

*[noun] (figurative)*

A punishment or penalty, used to induce cooperation.

# CONTINGENCY MANAGEMENT

# OPERANT CONDITIONING



# CONTINGENCY MANAGEMENT

Systematic delivery of positive reinforcement for desired behaviors.

In the treatment of methamphetamine use disorder, vouchers or prizes can be “earned” for submission of methamphetamine-free urine samples.



**How Using Contingency Management  
Can Support Families Affected by  
Substance Use Disorders**

September 29, 2022

Natasha Maryn, NCS

National Center on  
Substance Abuse  
and Child Welfare

# BASIC CM PRINCIPLES

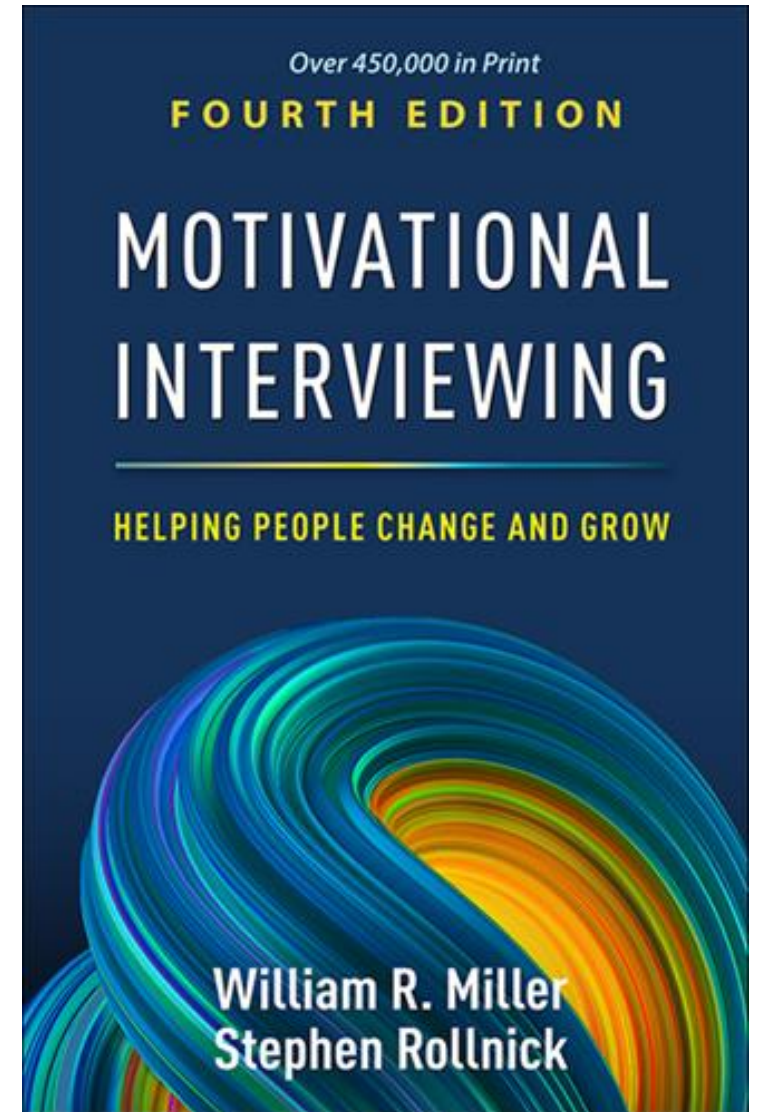
1. Frequently monitor target behavior
2. Provide incentive when target behavior occurs
3. Remove incentive when target behavior does not occur

Repeat





# MOTIVATIONAL INTERVIEWING



“MI is about arranging conversations so that people talk themselves into change, based on their own values and interests. Attitudes are not only reflected in but are actively shaped by speech.”

Attending to natural language about change

How to have more effective conversations about change

***A collaborative conversation style***

for strengthening

a person's

*own*

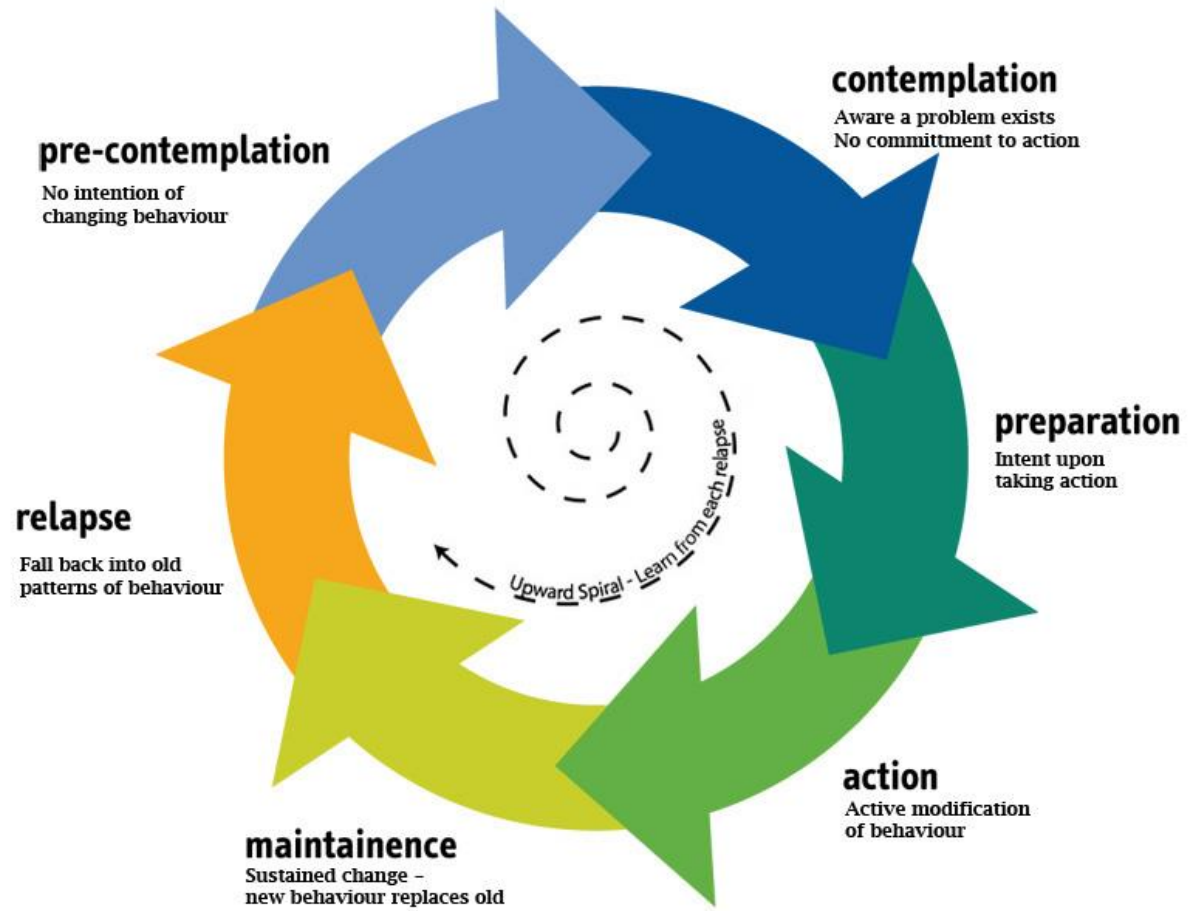
motivation and commitment to change











**Transtheoretical Model of Change**  
Prochaska & DiClemente

## MOTIVATIONAL INTERVIEWING

Especially useful for people who are reluctant to change or **ambivalent** about changing

Intended to resolve ambivalence and get a person moving along the path of change



# SPIRIT of MI

*Inter – view*

Collaboration vs. Confrontation

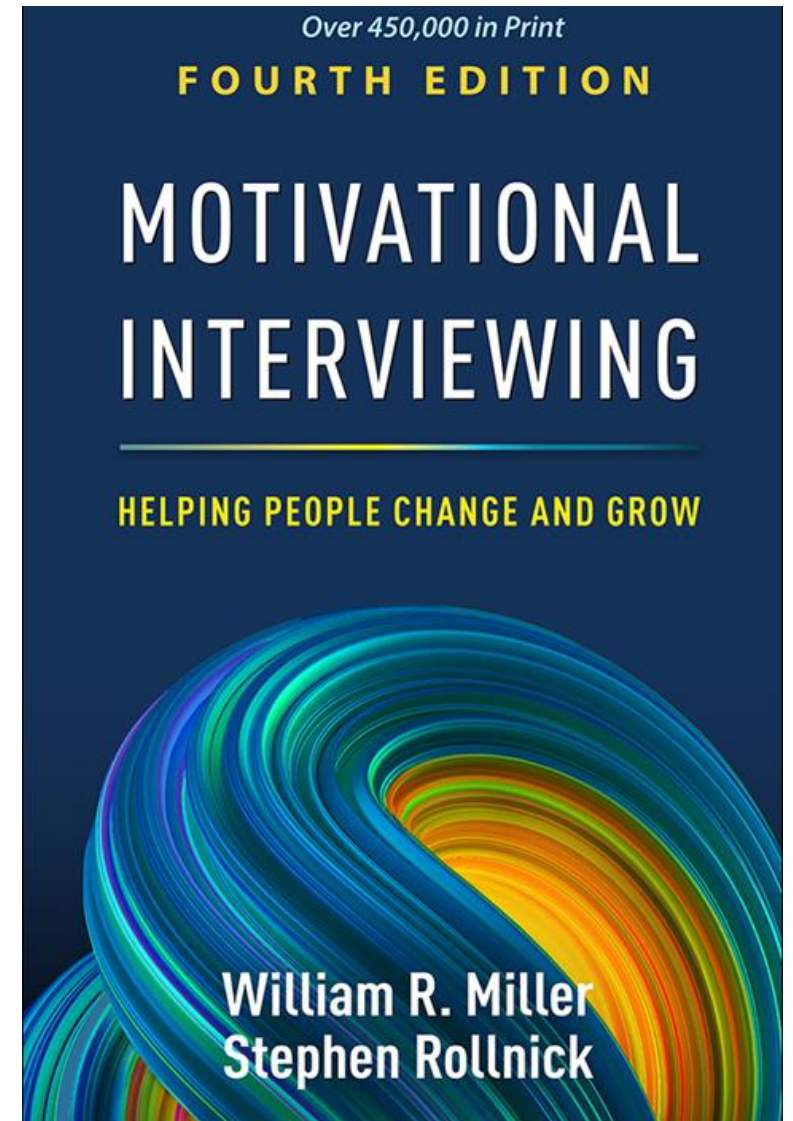
- Not done “to” or “on” a person
- Done “for” and “with” a person

Elicitation vs. Education

- Evoking that which is already present, not installing what is missing

Autonomy vs. Authority

Compassion



# MINDFULNESS BASED INTENTERVENITIONS

- Mindfulness-Based Relapse Prevention
- Mindfulness-Oriented Recovery Enhancement
- Acceptance and Commitment Therapy and Dialectical Behavioral Therapy also have Mindfulness components

Have been shown to be most effective in patients with co-occurring mood disorders

# MATRIX MODEL

Is a manualized, 16-week, psychosocial approach for SUD

Integrates several interventions into a comprehensive approach:

- Individual counseling

- Cognitive behavioral therapy

- Motivational interviewing

- Positive reinforcement for behavior change

- Family education groups

- Urine testing

- Participation in 12-step programs

## Counselor's Treatment Manual

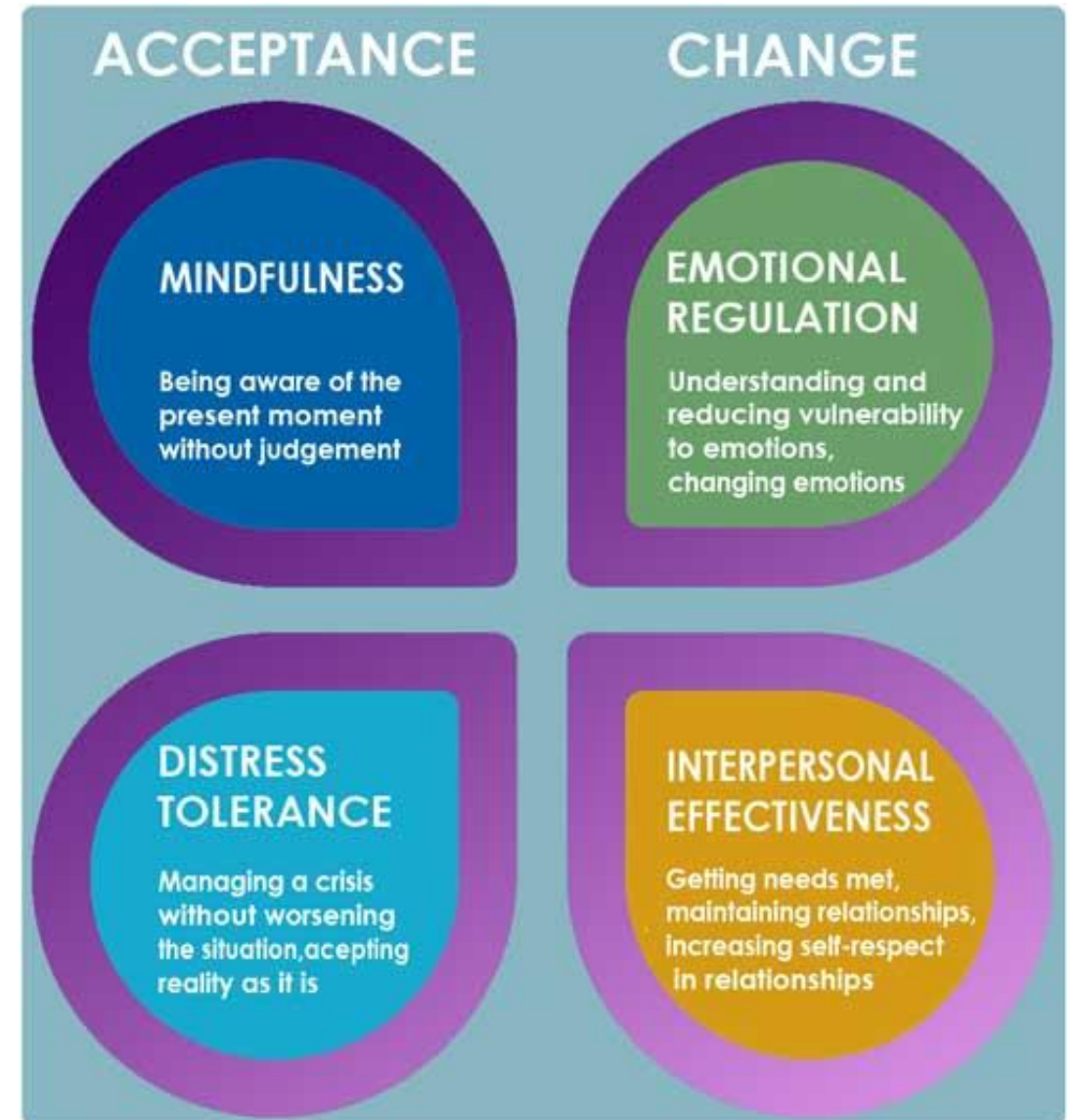
*Matrix Intensive Outpatient  
Treatment for People With  
Stimulant Use Disorders*



# Dialectical Behavioral Therapy Addiction Treatment (DBT-AT)

4 Core components:

- Mindfulness
  - Distress Tolerance
  - Emotion Regulation
  - Interpersonal Effectiveness
- Additional DBT-AT skills include community reinforcement of abstinent behaviors, building bridges to new stimuli to condition abstinence, and adaptive denial of unbearable expectations of remaining abstinent





# The Twelve Step Facilitation Outpatient Program

*The Project MATCH Twelve Step Treatment Protocol*

**FACILITATOR GUIDE**



**JOSEPH NOWINSKI, Ph.D.**

## 12 STEP FACILITATION

Manualized treatment utilizes 12-step group-based model of treatment emphasizing 12 step concepts of acceptance, surrender and getting active

Encourages attendance at 12 step meetings

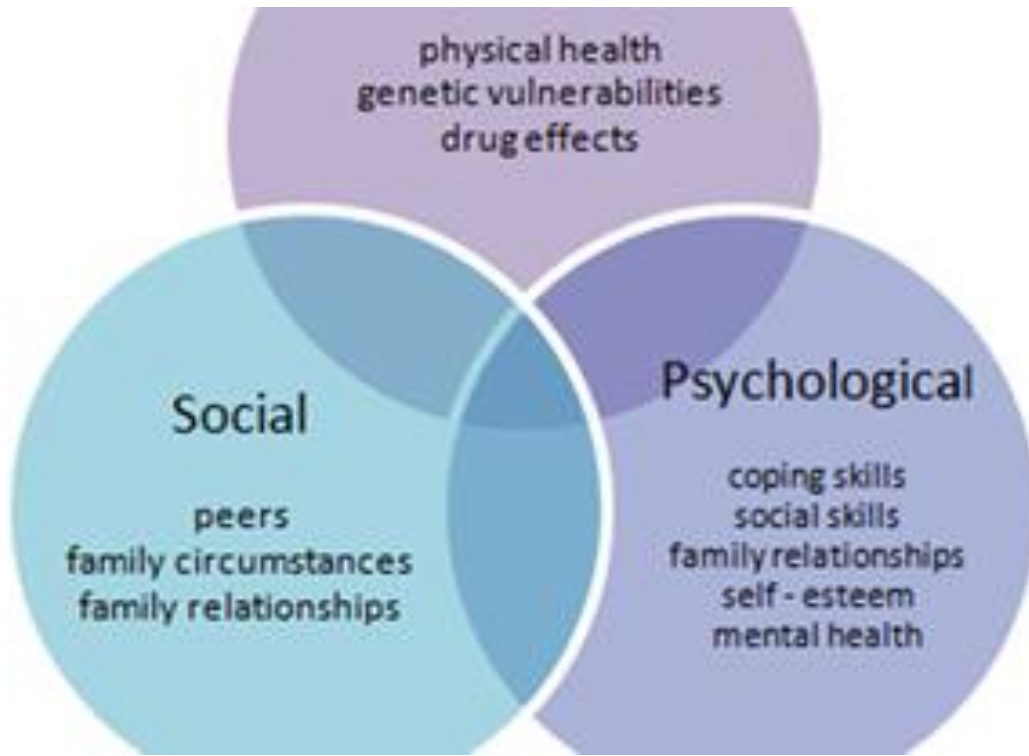
Focus on concepts of:

- Acceptance

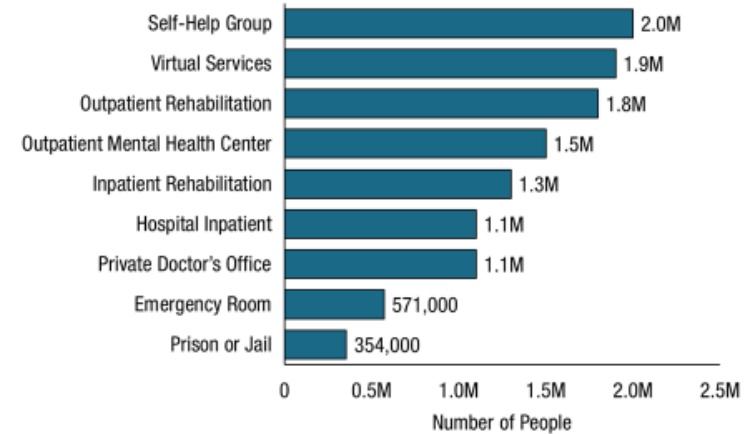
- Surrender

- Getting active





**Locations Where Substance Use Treatment in the Past Year Was Received: Among People Aged 12 or Older; 2021**



Note: Locations where people received substance use treatment are not mutually exclusive because respondents could report that they received treatment in more than one location in the past year.

# MUTUAL SUPPORT GROUPS

# ALCOHOLICS ANNONYMOUS



- 25 years of NIH facilitated research concluding AA and TSF to be effective and cost-effective interventions
- As good, or better results than “modern” interventions
- Project MATCH (TSF vs CBT vs MET)
  - TSF had 60-70% more subjects in full, sustained remission at 1y
  - TSF had 50% more completely abstinent at 3y
- AA has a causal impact on outcomes
- Lower health care costs

# ALCOHOLICS ANONYMOUS

# ALCOHOLICS ANONYMOUS: How does it help?



Change social networks in support of abstinence and recovery



Boost abstinence self-efficacy and recovery coping skills



Help maintain recovery motivation over time



Increase spirituality




Decrease depressive symptoms



Decrease cravings



Decrease impulsivity



## ALCOHOLICS ANONYMOUS: Why does it work?

Research suggests that AA's effects are most likely due to what Carl Jung termed, **“the protective wall of human community.”**



# MUTUAL SUPPORT GROUPS

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AA

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NA

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SMART RECOVERY

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RATIONAL RECOVERY

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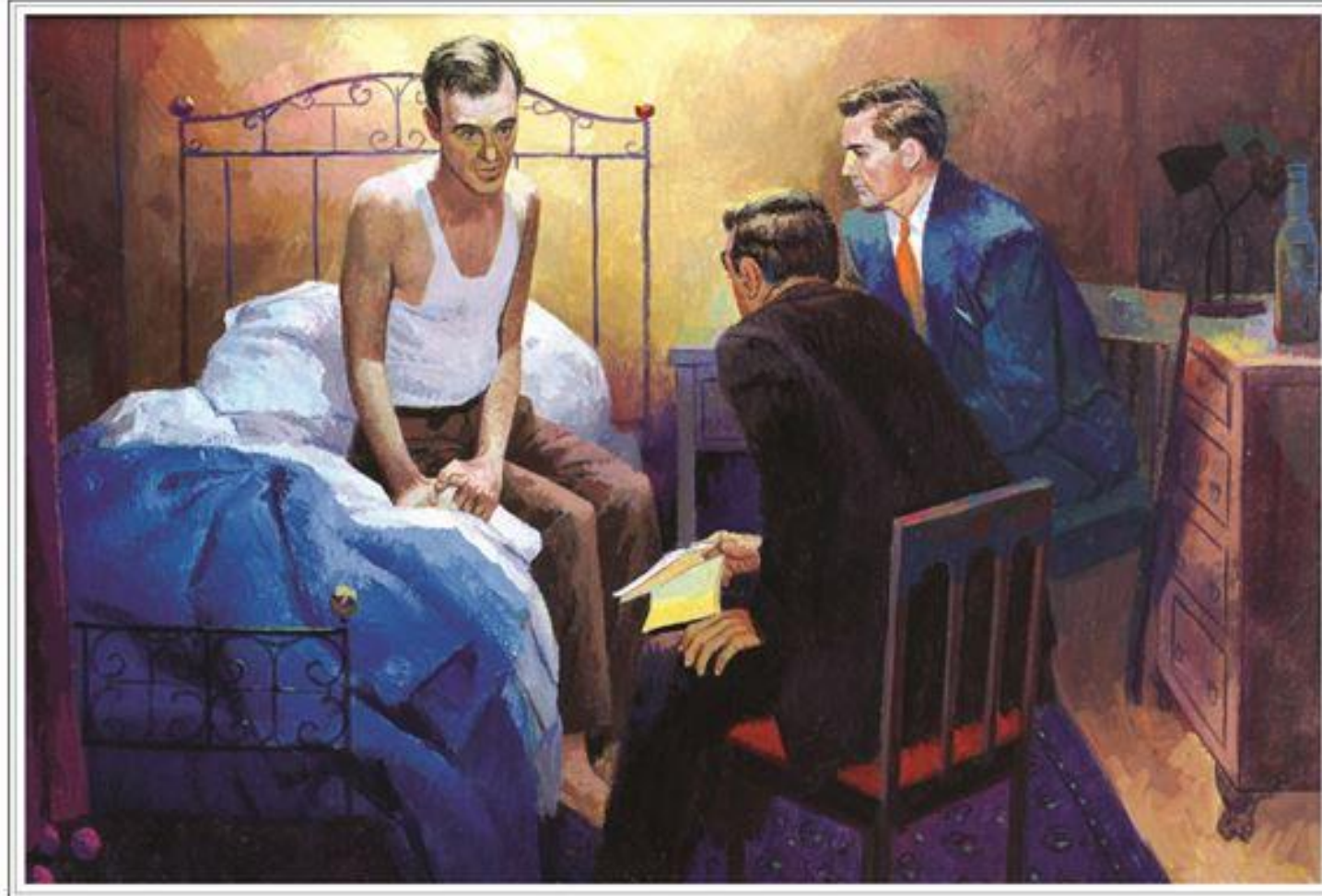
CELEBRATE RECOVERY

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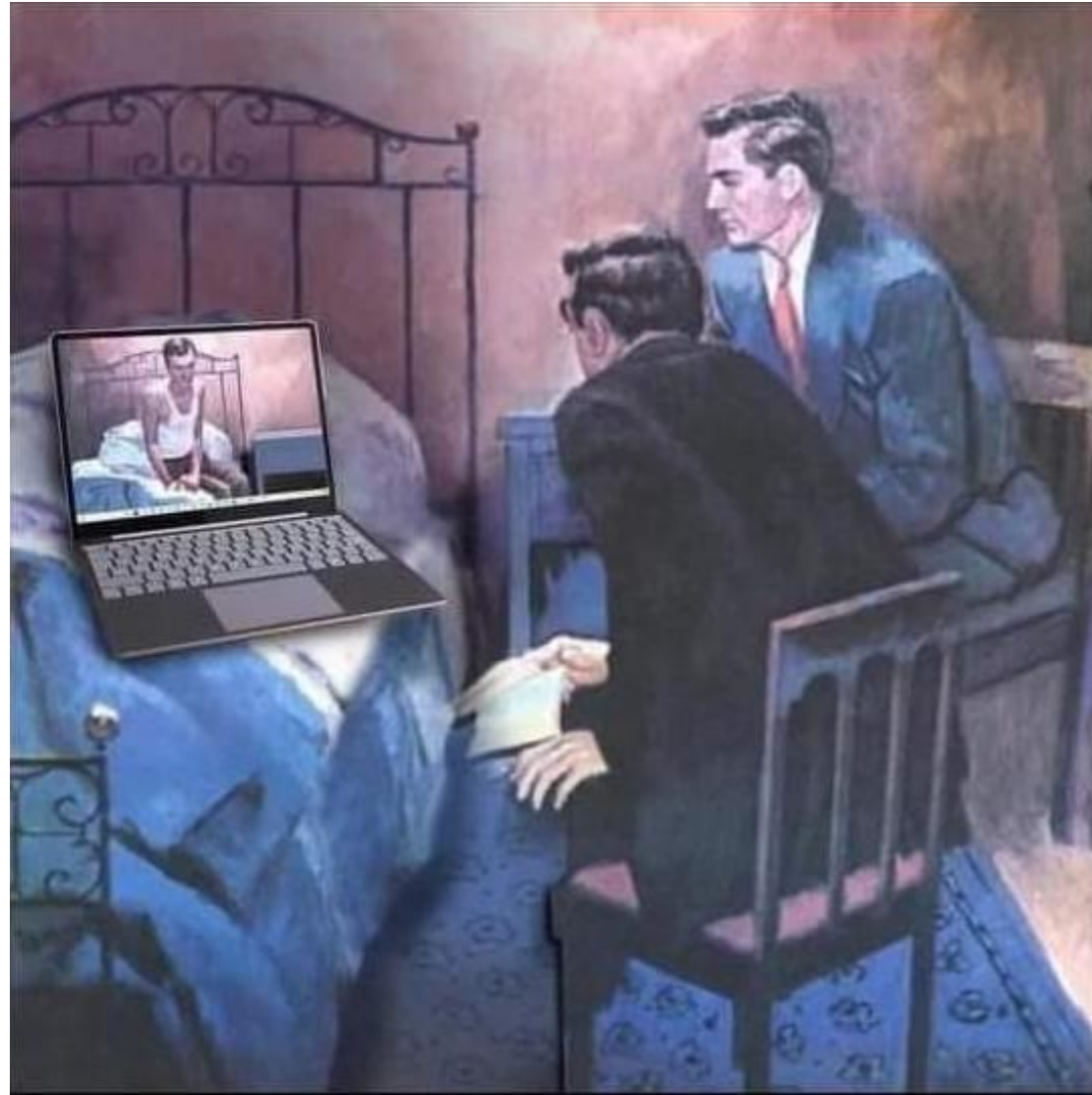
RECOVERY DHARMA

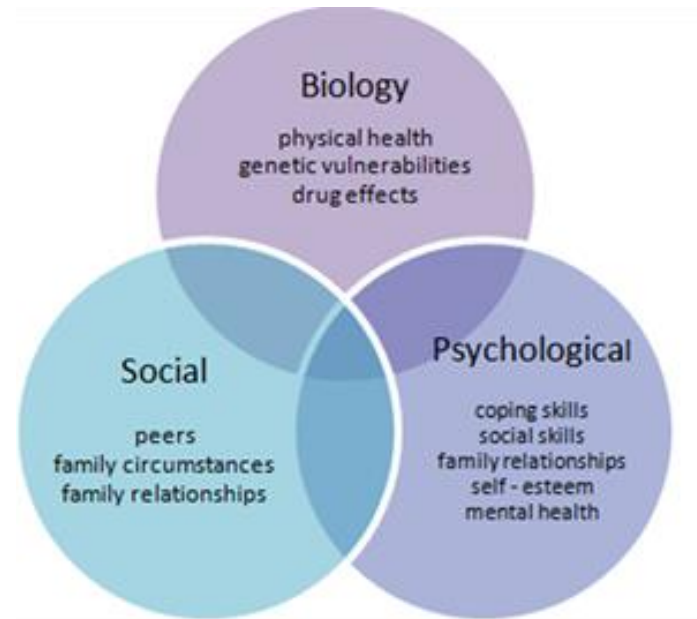
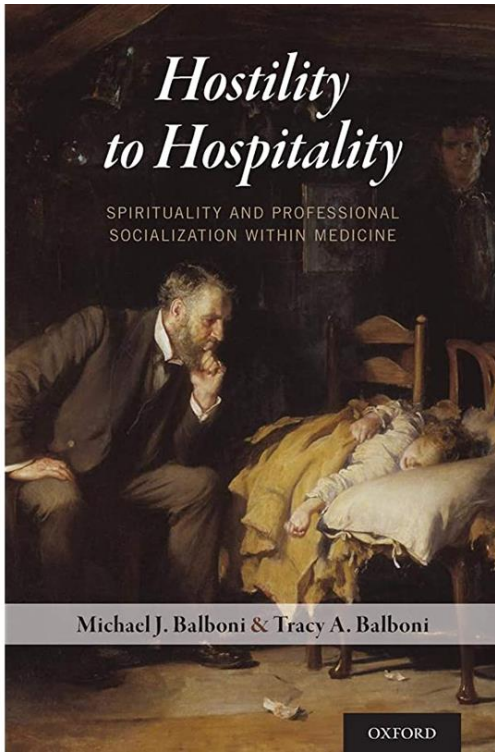
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Many Others...



"The Man on the Bed". This oil painting was created by Robert M. for the AA Grapevine and was reproduced as the center spread in the December, 1955 issue.





- **Spirituality:** Life centered in the person(s) and/or object(s) of one's chief love – however individually understood and pursued
- **Religion:** The individual and social structures that flow from and facilitate a chief love, including beliefs, practices, relationships, and organizations

# SPIRITUALITY



# FAITH COMMUNITIES



# SOCIAL FACTORS

- Work
- Transportation
- Pharmacy
- Dentist
- PCP
- Childcare
- Housing
- Education
- Food Security

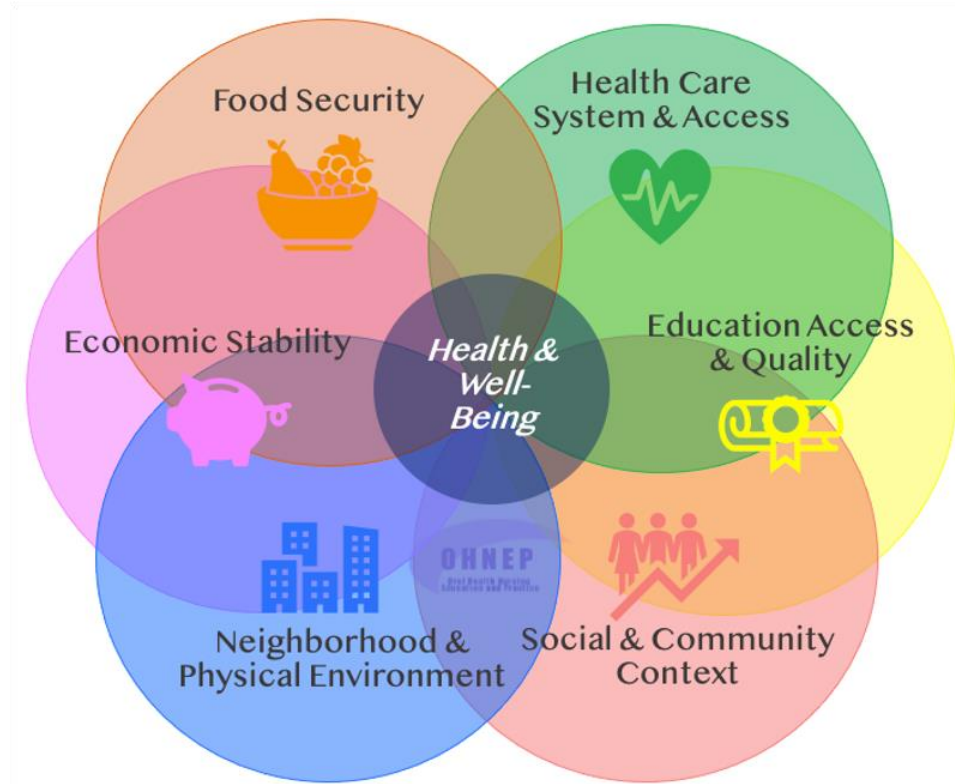


Image: <https://nursing.nyu.edu/w/ohnep/aboutOHNEP/SDOH>

# SAMHSA's Four Major Dimensions of Recovery

## POLICY RECOMMENDATIONS TO SUPPORT THOSE IN RECOVERY:



### HEALTH

- Expand access to primary health care and mental health and substance use treatment.
- Build resiliency.



### HOME

- Create affordable, safe, and stable housing options.



### PURPOSE

- Implement supportive employment programs.
- Expand collegiate recovery.
- Offer financial counseling and education.



### COMMUNITY

- Establish community outreach and support networks.
- Promote antidiscrimination and stigma-reduction efforts.
- Engage with faith communities.
- Ensure equity access.
- Implement criminal justice diversion programs.
- Provide family support services.

**NO MATTER WHO YOU ARE OR  
WHERE YOU ARE...THERE IS HOPE.**

# HEALTH = HOLISTIC

