Understanding and Addressing Addiction

4/24/24

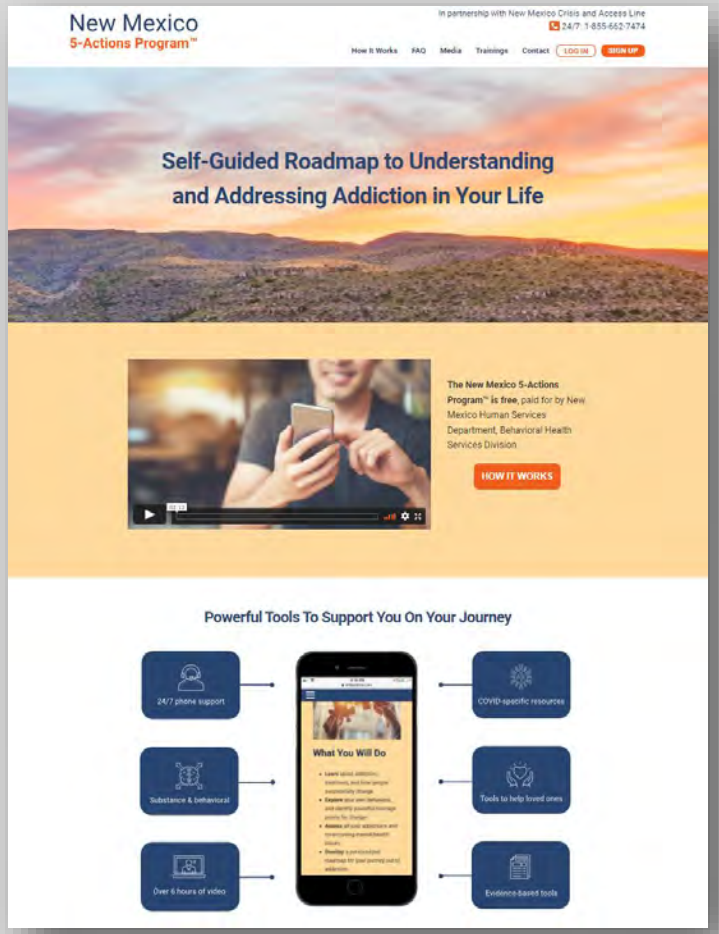
John Fitzgerald, PhD, LPC, CAS
Clinical Instructor, Department of Psychiatry, OHSU
Adjunct Faculty, Systems Science Graduate Program, PSU
Principal, Digital Therapeutics Group, LLC

Agenda:

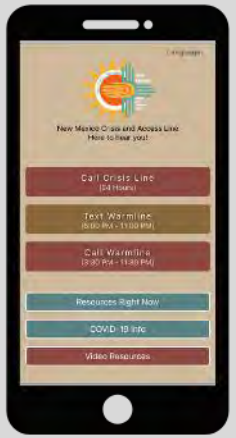
- Discuss key risk factors driving addiction and why addressing them is critical for good outcomes
- Review consequences of addiction and motivation for change
- Offer key leverage points for intervention that lead to positive outcomes

New Mexico 5-Actions Program Program

- **Self-guided roadmap** to understanding and addressing addiction (substance and behavioral)
- **Launched November 2020** in New Mexico, 2022 in Alaska
- **Mobile-friendly online platform,** free for all who sign up to use the program
- **Over 125+ videos**, screening tools, and links to resources
- **24/7 phone support** from trained clinicians and peer support (NMCAL)



New Mexico Crisis and Access Line

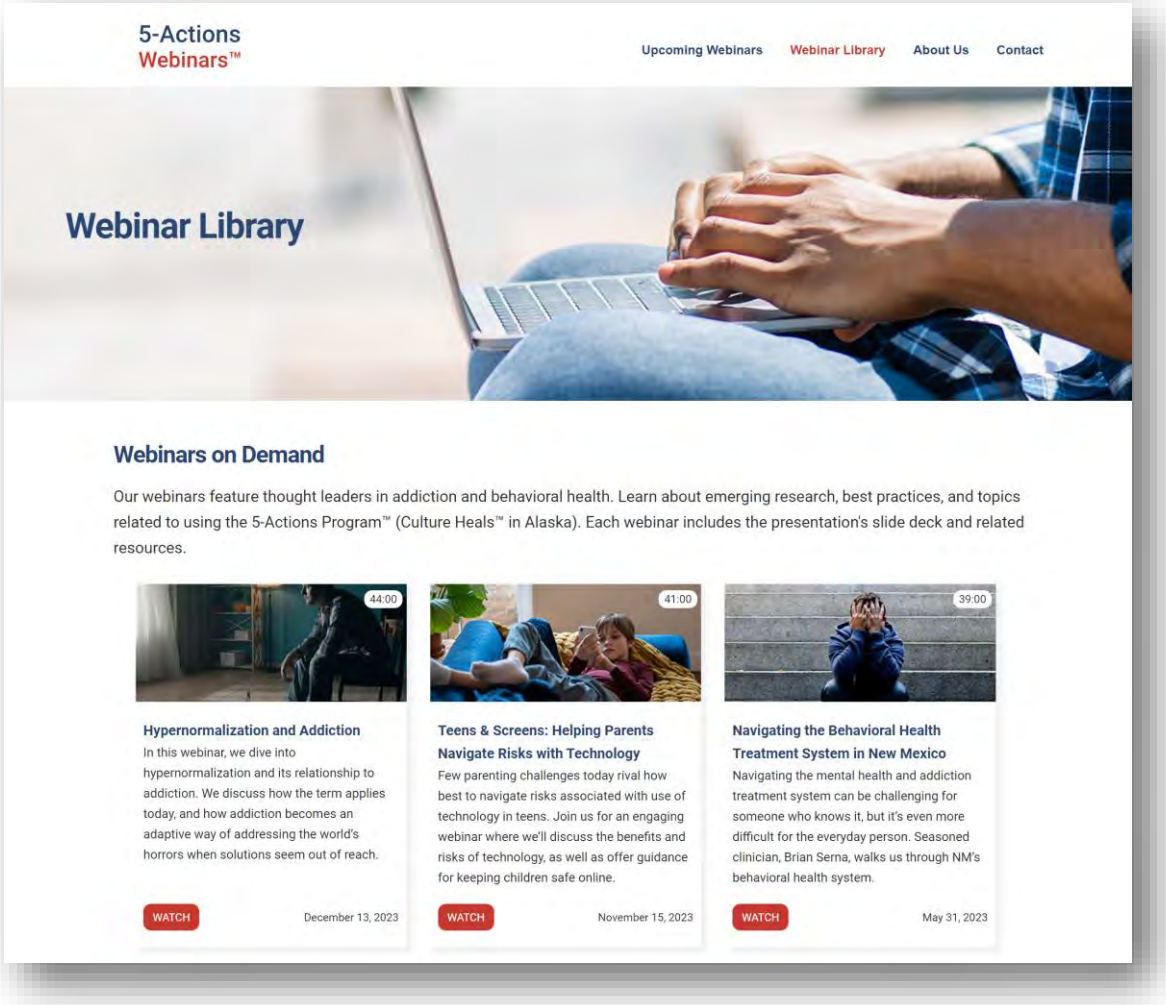


www.nm5actions.com

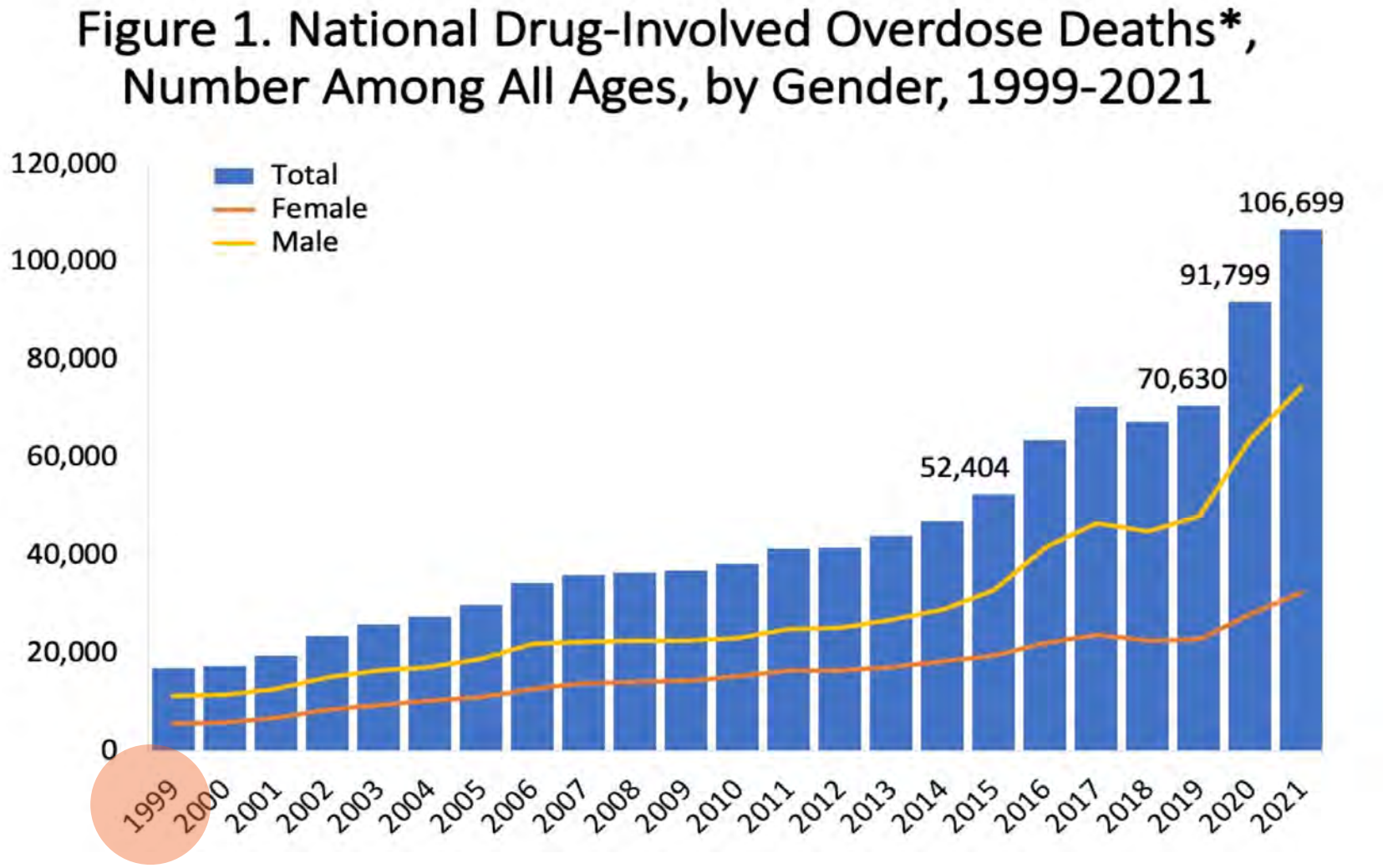
Live Webinars!

- **Webinars** address timely topics on addiction and mental health challenges
- **One-hour format** in which we do our best to optimize your time
- **Guest experts** from the community with lived experience and working as professionals
- **Community discussion** where you can ask questions and connect with speakers

https://**5actionswebinars**.com/



Everyone has a story to tell…



Provisional Drug Overdose Deaths:

7/2023

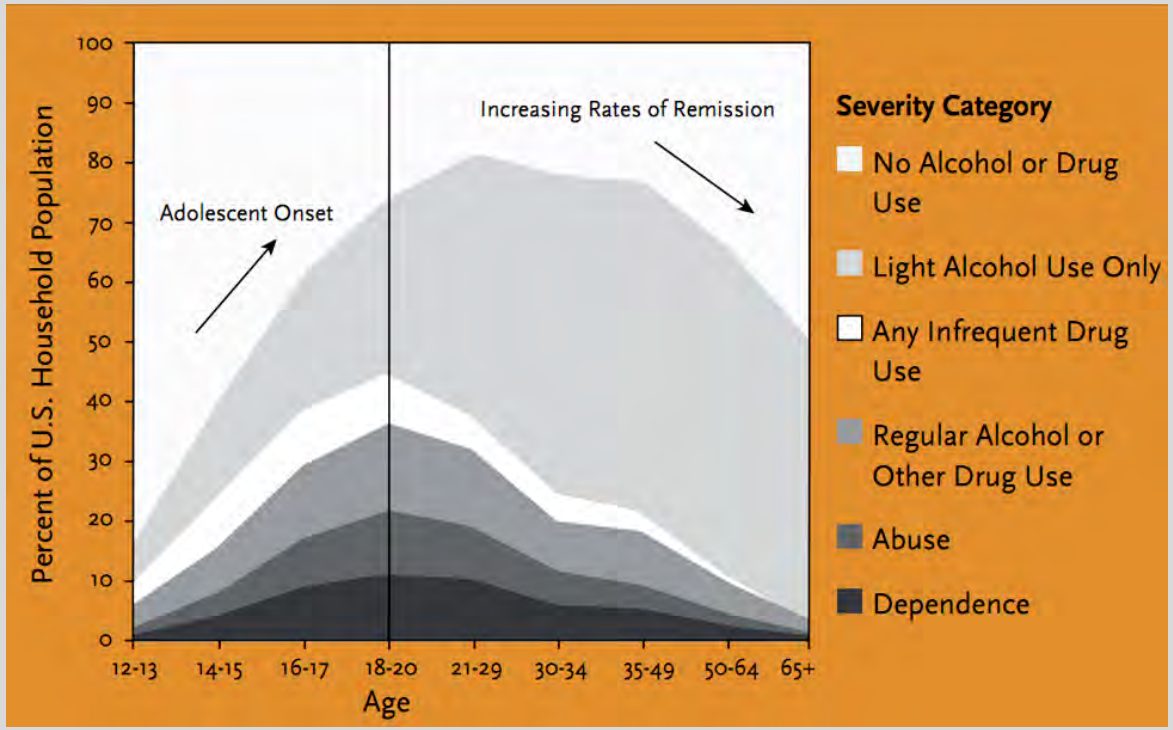
111,964

Source: NIDA

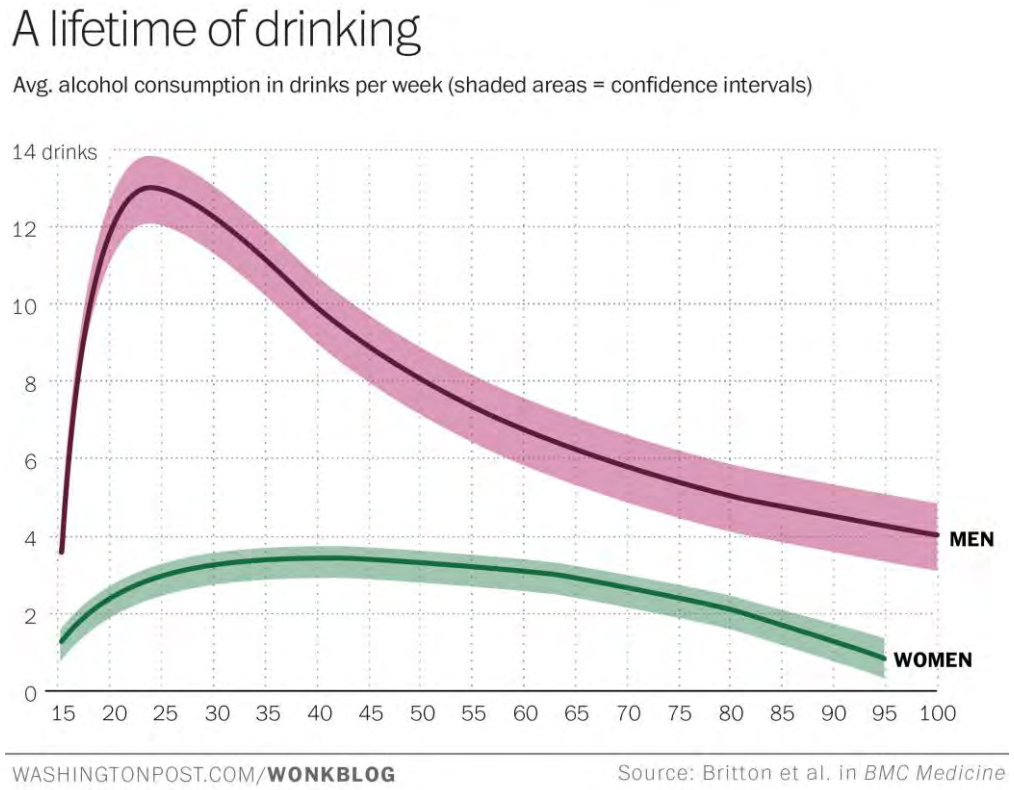
Big Takeaways from the Past 25 Years

- Paths into addiction for most begin in early teen years and become **adaptative responses** to multiple risk factors for which other solutions are limited or not available.
- Most who struggle with addiction struggle with **multiple addictions and mental health challenges** that lead to a spectrum of consequences.
- Our current treatment system is challenged to meet the needs of those who suffer, even though we have **effective treatments**.

Substance Use Disorders Begin in Adolescence and Last for Decades

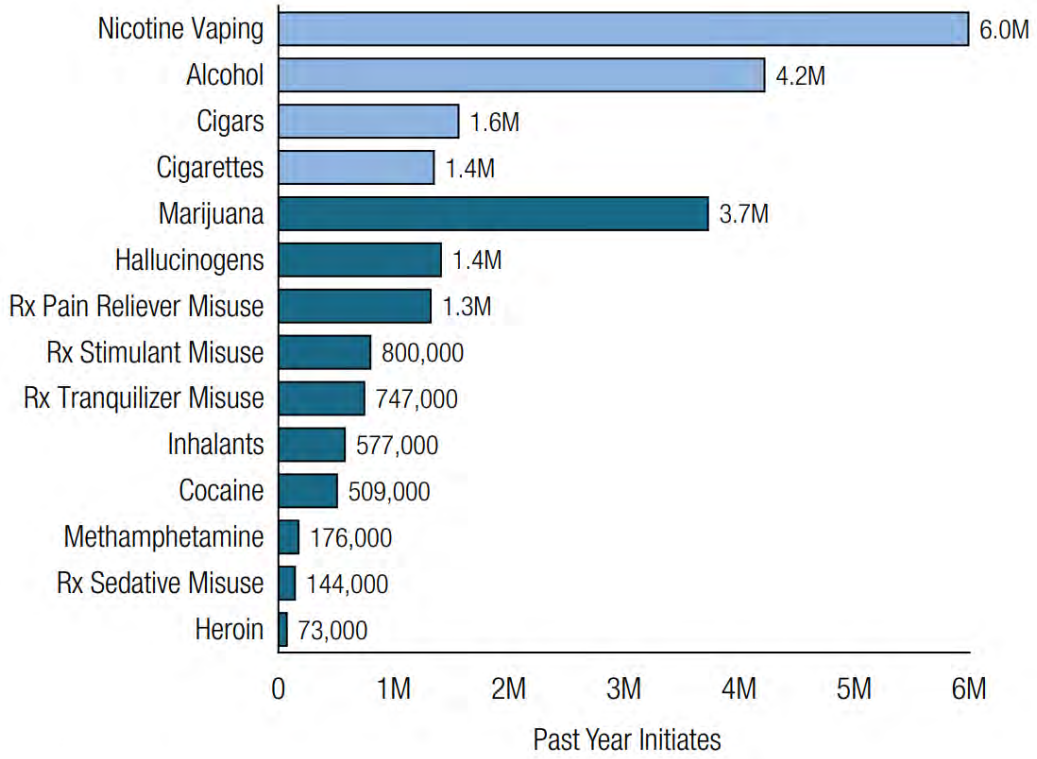


OAS, 2002, Dennis & Scott, 2007



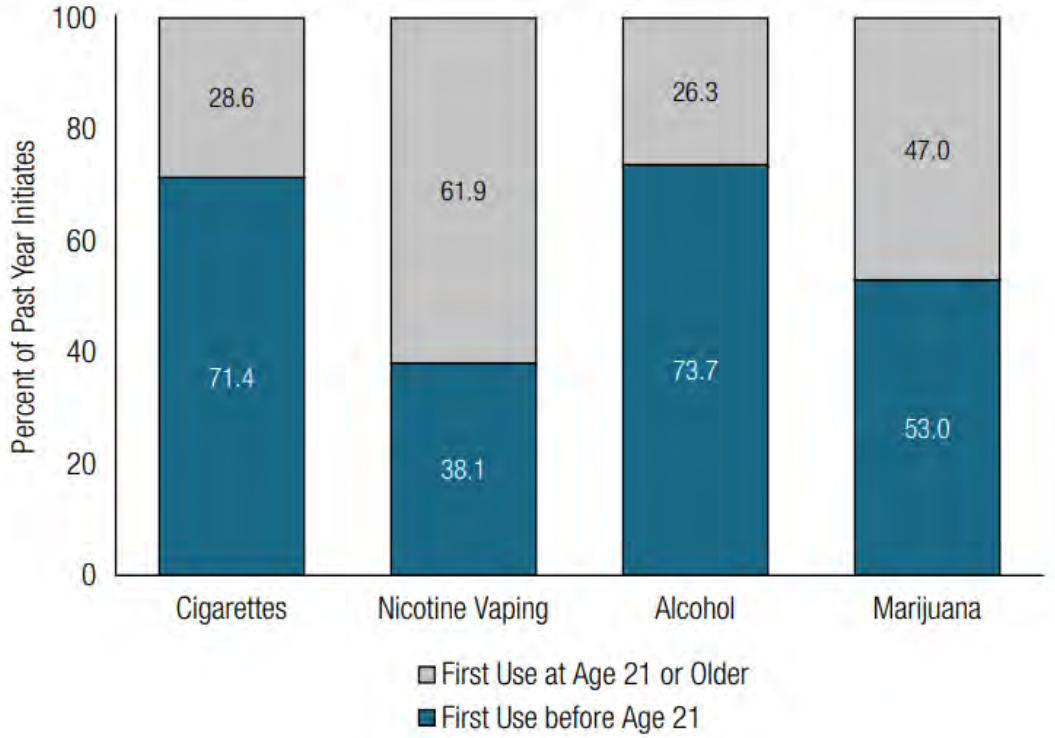
Initiating Use of Substances

Figure 26. Past Year Initiates of Substances: Among People Aged 12 or Older; 2022



Rx = prescription.

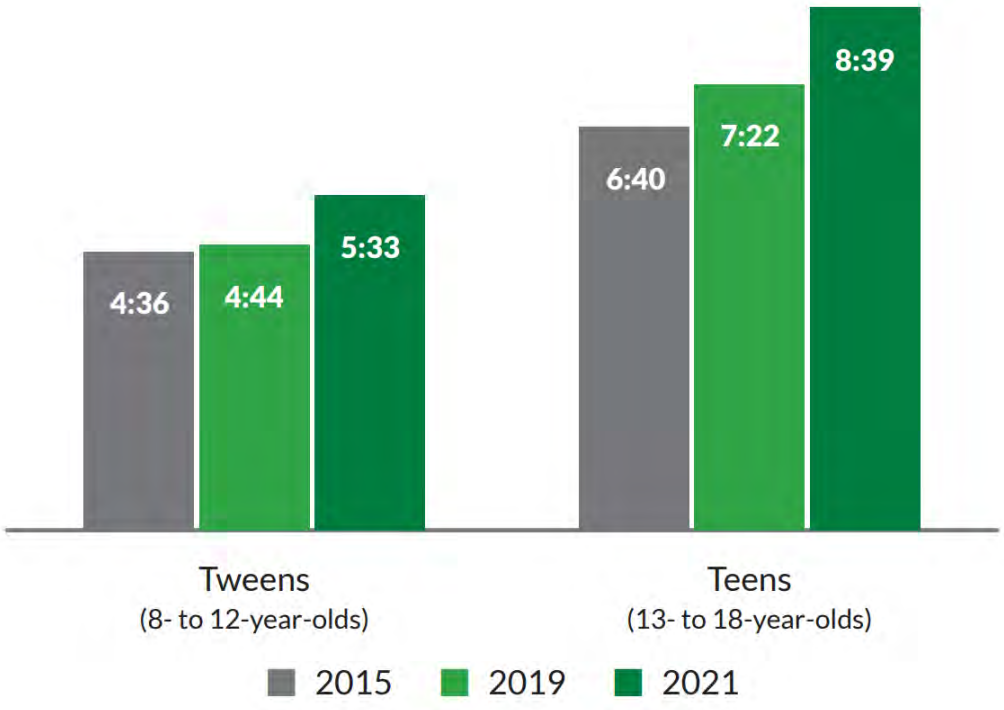
Figure 28. Initiation of Use before Age 21 and at Age 21 or Older: Among People Aged 12 or Older Who Were Past Year Initiates of the Substance; 2022



Source: NSDUH 2022

Tweens/Teens Time Online

Total entertainment screen use among tweens and teens, per day, 2015 to 2021



Total screen time use, by age and demographic, 2021

Average daily screen use among ...	Gender		Race/Ethnicity		
	Boys	Girls	White	Black	Hispanic/ Latino
8- to 12-year-olds	6:11[a]	4:55[b]	4:29[a]	6:26[b]	7:00[b]
13- to 18-year-olds	9:16[a]	8:02[b]	7:49[a]	9:50[b]	10:02[b]

Source:
https://www.commonsensemedia.org/sites/default/files/research/report/8-18-census-integrated-report-final-web_0.pdf

Pathways to Addiction: Genes and Environment

Substances & Behaviors	Heritability Estimates
Nicotine	33-71%
Alcohol	48-66%
Marijuana	51-59%
Cocaine	42-79%
Opioid	23-54%
Gambling	49%

Source: Agrawal, A. et al. (2012)

www.brucekalexander.com

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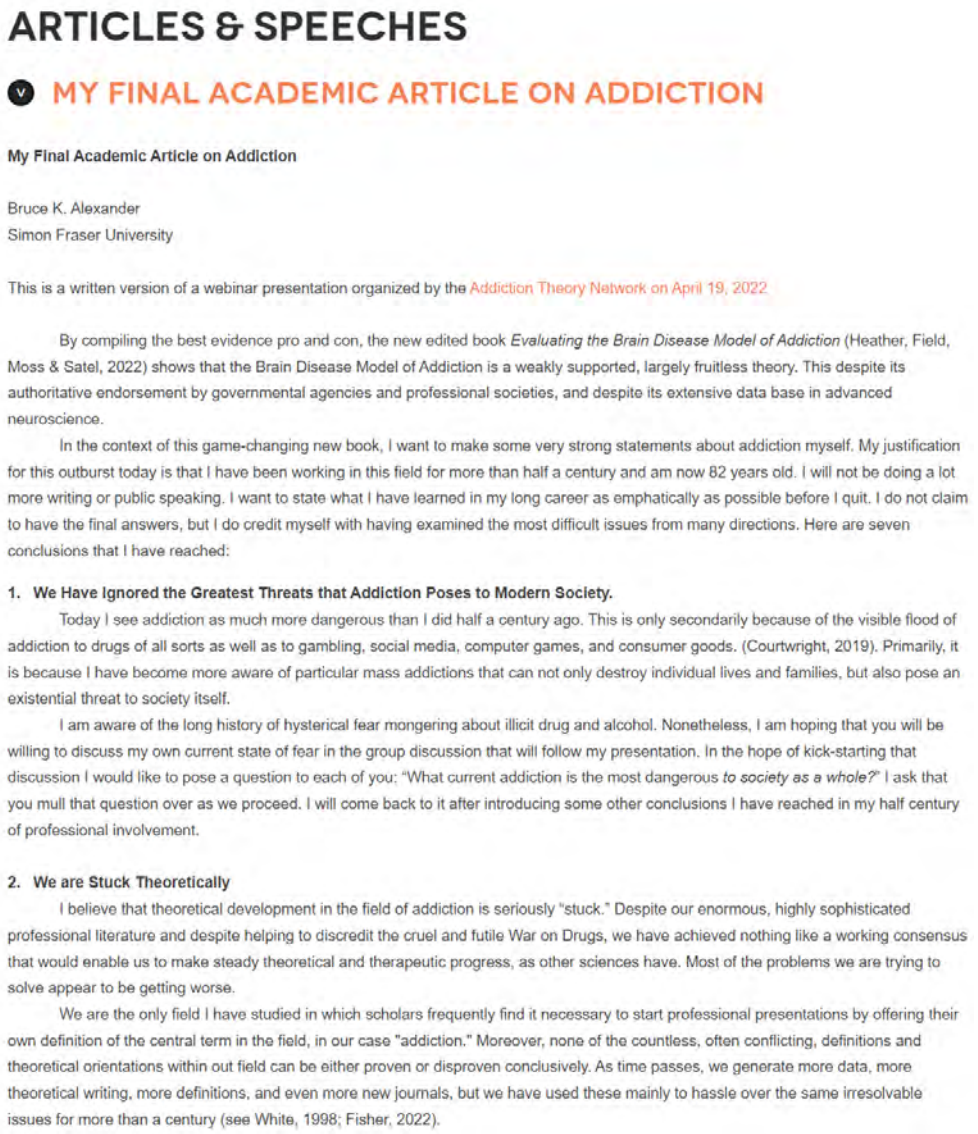


ARTICLES & SPEECHES

MY FINAL ACADEMIC ARTICLE ON ADDICTION

My Final Academic Article on Addiction

Bruce K. Alexander
Simon Fraser University

This is a written version of a webinar presentation organized by the Addiction Theory Network on April 19, 2022.

By compiling the best evidence pro and con, the new edited book *Evaluating the Brain Disease Model of Addiction* (Heather, Field, Moss & Satel, 2022) shows that the Brain Disease Model of Addiction is a weakly supported, largely fruitless theory. This despite its authoritative endorsement by governmental agencies and professional societies, and despite its extensive data base in advanced neuroscience.

In the context of this game-changing new book, I want to make some very strong statements about addiction myself. My justification for this outburst today is that I have been working in this field for more than half a century and am now 82 years old. I will not be doing a lot more writing or public speaking. I want to state what I have learned in my long career as emphatically as possible before I quit. I do not claim to have the final answers, but I do credit myself with having examined the most difficult issues from many directions. Here are seven conclusions that I have reached:

1. **We Have Ignored the Greatest Threats that Addiction Poses to Modern Society.**

Today I see addiction as much more dangerous than I did half a century ago. This is only secondarily because of the visible flood of addiction to drugs of all sorts as well as to gambling, social media, computer games, and consumer goods. (Courtwright, 2019). Primarily, it is because I have become more aware of particular mass addictions that can not only destroy individual lives and families, but also pose an existential threat to society itself.

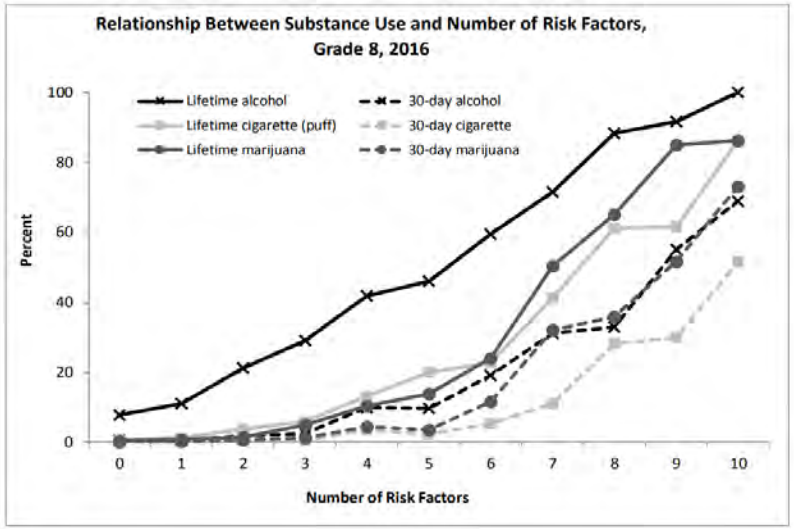
I am aware of the long history of hysterical fear mongering about illicit drug and alcohol. Nonetheless, I am hoping that you will be willing to discuss my own current state of fear in the group discussion that will follow my presentation. In the hope of kick-starting that discussion I would like to pose a question to each of you: "What current addiction is the most dangerous *to society as a whole?*" I ask that you mull that question over as we proceed. I will come back to it after introducing some other conclusions I have reached in my half century of professional involvement.

2. **We are Stuck Theoretically**

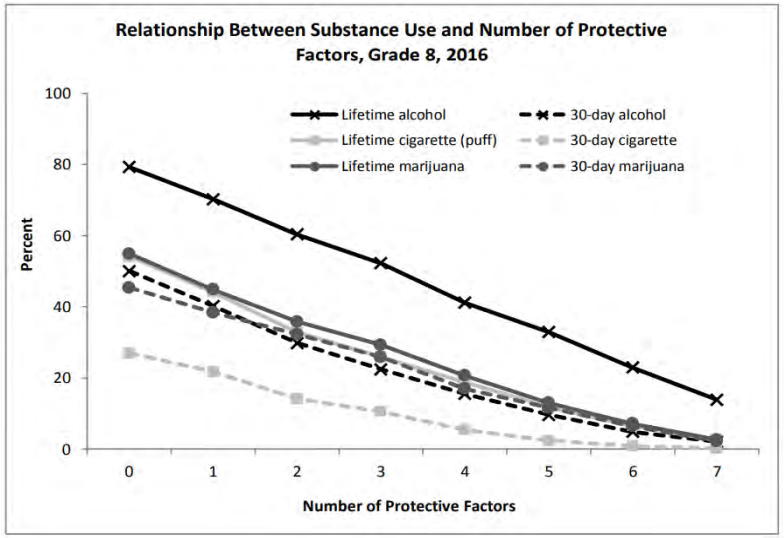
I believe that theoretical development in the field of addiction is seriously "stuck." Despite our enormous, highly sophisticated professional literature and despite helping to discredit the cruel and futile War on Drugs, we have achieved nothing like a working consensus that would enable us to make steady theoretical and therapeutic progress, as other sciences have. Most of the problems we are trying to solve appear to be getting worse.

We are the only field I have studied in which scholars frequently find it necessary to start professional presentations by offering their own definition of the central term in the field, in our case "addiction." Moreover, none of the countless, often conflicting, definitions and theoretical orientations within out field can be either proven or disproven conclusively. As time passes, we generate more data, more theoretical writing, more definitions, and even more new journals, but we have used these mainly to hassle over the same irresolvable issues for more than a century (see White, 1998; Fisher, 2022).

Risk and Protective Factors



Domain	Risk Factor
Community	Laws and norms favorable toward drug use
	Perceived availability of drugs
School	Academic failure
	Low commitment to school
Peer-Individual	Perceived risk of drug use
	Early initiation of drug use [S]
	Favorable attitudes toward drug use
	Friends' use of drugs [S]
Family	Poor family management [S]
	Parental attitudes favorable towards drug use [S]



Domain	Protective Factor
Community	Opportunities for prosocial involvement [S]
	Rewards for prosocial involvement [E]
School	Opportunities for prosocial involvement [S]
	Rewards for prosocial involvement
Peer-Individual	Social skills [S]
	Belief in the moral order [S]
	Interaction with prosocial peers [S]
	Prosocial involvement [E]
Family	Opportunities for prosocial involvement
	Rewards for prosocial involvement [E]

Roots of Addictive Disorders

Insecure Attachment

ACEs

Trauma

~2 Years

Childhood

Individualized Response

Attachment

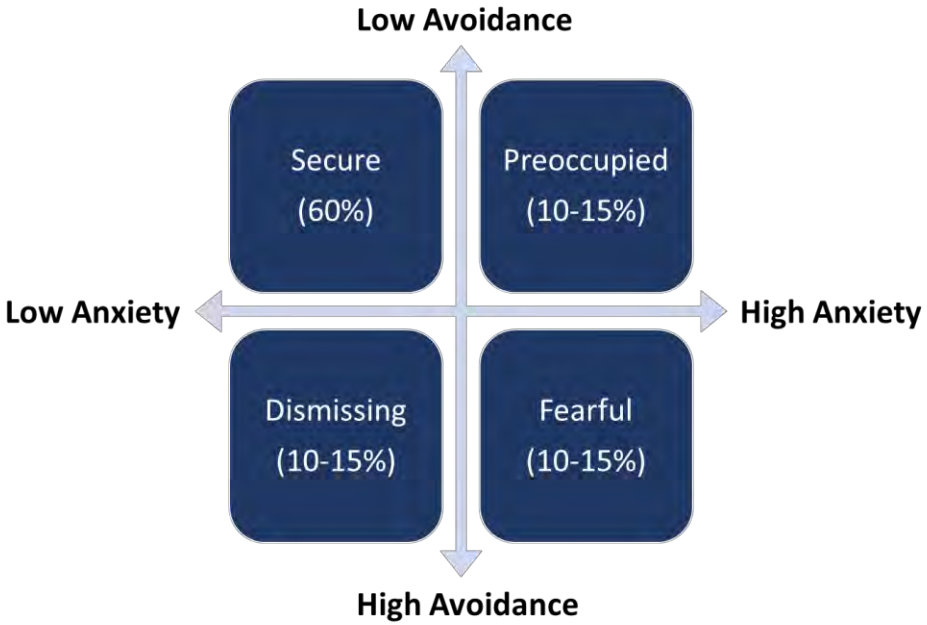
- Relational template
- Cradle to grave
- ~2-years of age

Attachment Style

The Five Primary Conditions that Promote Secure Attachment

INFANT EXPERIENCE	CAREGIVER BEHAVIOR	DEVELOPMENTAL BENEFITS
• Felt Safety	• Protection	• Safety • All Developmental Lines
• Feeling Seen and Known	• Attunement: ◦ to behavior ◦ to inner states ◦ to developmental range	• Self Esteem • Self Development • Metacognition
• Felt Comfort	• Soothing, Reassurance	• Emotion Regulation
• Feeling Valued	• Expressed Delight	• Self Esteem • Metacognitive Development
• Felt Support for Best Self	• Unconditional Support and Encouragement	• Self Development

Brown & Elliott, 2016

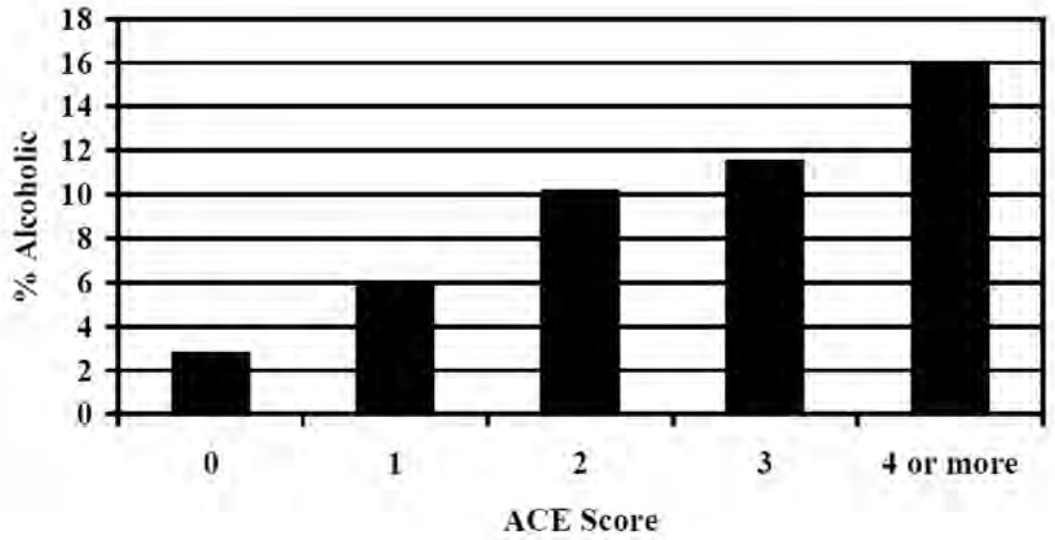


Adverse Childhood Experience (ACE) Study

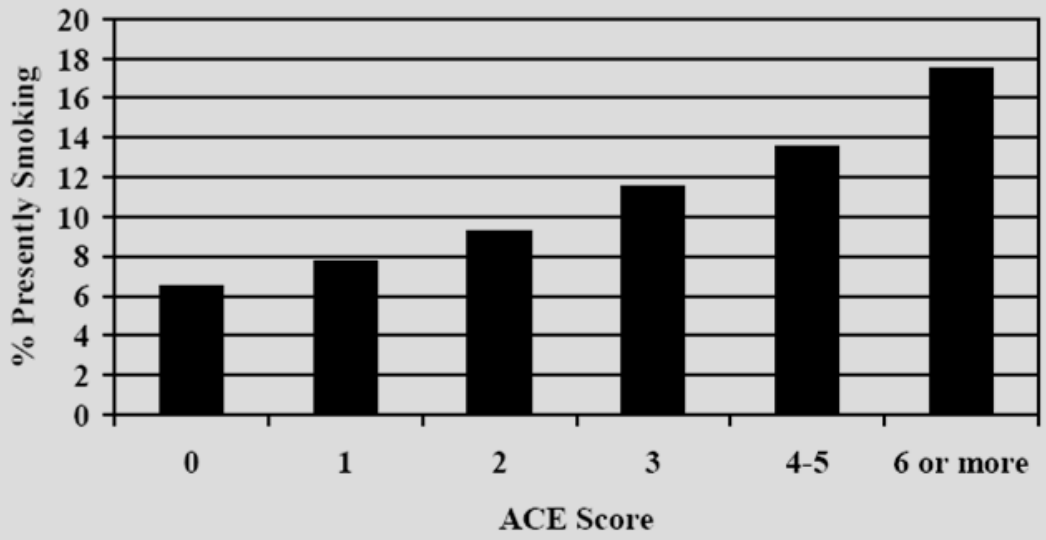
Abuse	Household
1. Psychological (by parents)	6. Substance Abuse
2. Physical (by parents)	7. Mental Illness
3. Sexual (anyone)	8. Parental Separation/Divorce
4. Emotional neglect	9. Battered Mother
5. Physical neglect	10. Criminal Behavior

67.3% Reported 1 or More ACEs

ACE Score & **Alcoholism**



ACE Score & **Smoking**



Source: https://attachmentdisorderhealing.com/wp-content/uploads/2014/02/Felitti-VJ-Origins-of-Addiction-Evidence-fr-ACE-Study-2003.pdf

ACEs and Problematic Screen Use

Raney et al. BMC Public Health (2023) 23:1213
https://doi.org/10.1186/s12889-023-16111-x

BMC Public Health

RESEARCH Open Access

Associations between adverse childhood experiences and early adolescent problematic screen use in the United States

Julia H. Raney[1*], Abubakr. A Al-shoaibi[1], Kyle T. Ganson[2], Alexander Testa[3], Dylan B. Jackson[4], Gurbinder Singh[1], Omar M. Sajjad[5] and Jason M. Nagata[1]

Abstract

Background Problematic screen use, defined as an inability to control use despite private, social, and professional life consequences, is increasingly common among adolescents and can have significant mental and physical health consequences. Adverse Childhood Experiences (ACEs) are important risk factors in the development of addictive behaviors and may play an important role in the development of problematic screen use.

Methods Prospective data from the Adolescent Brain Cognitive Development Study (Baseline and Year 2; 2018–2020; N = 9,673, participants who did not use screens were excluded) were analyzed in 2023. Generalized logistic mixed effects models were used to determine associations with ACEs and the presence of problematic use among adolescents who used screens based on cutoff scores. Secondary analyses used generalized linear mixed effects models to determine associations between ACEs and adolescent-reported problematic use scores of video games (Video Game Addiction Questionnaire), social media (Social Media Addiction Questionnaire), and mobile phones (Mobile Phone Involvement Questionnaire). Analyses were adjusted for potential confounders including age, sex, race/ethnicity, highest parent education, household income, adolescent anxiety, depression, and attention-deficit symptoms, study site, and participants who were twins.

Results The 9,673 screen-using adolescents ages 11–12 years old (mean age 12.0) were racially and ethnically diverse (52.9% White, 17.4% Latino/Hispanic, 19.4% Black, 5.8% Asian, 3.7% Native American, 0.9% Other). Problematic screen use rates among adolescents were identified to be 7.0% (video game), 3.5% (social media), and 21.8% (mobile phone). ACEs were associated with higher problematic video game and mobile phone use in both unadjusted and adjusted models, though problematic social media use was associated with mobile screen use in the unadjusted model only. Adolescents exposed to 4 or more ACEs experienced 3.1 times higher odds of reported problematic video game use and 1.6 times higher odds of problematic mobile phone use compared to peers with no ACEs.

Conclusions Given the significant associations between adolescent ACE exposure and rates of problematic video and mobile phone screen use among adolescents who use screens, public health programming for trauma-exposed

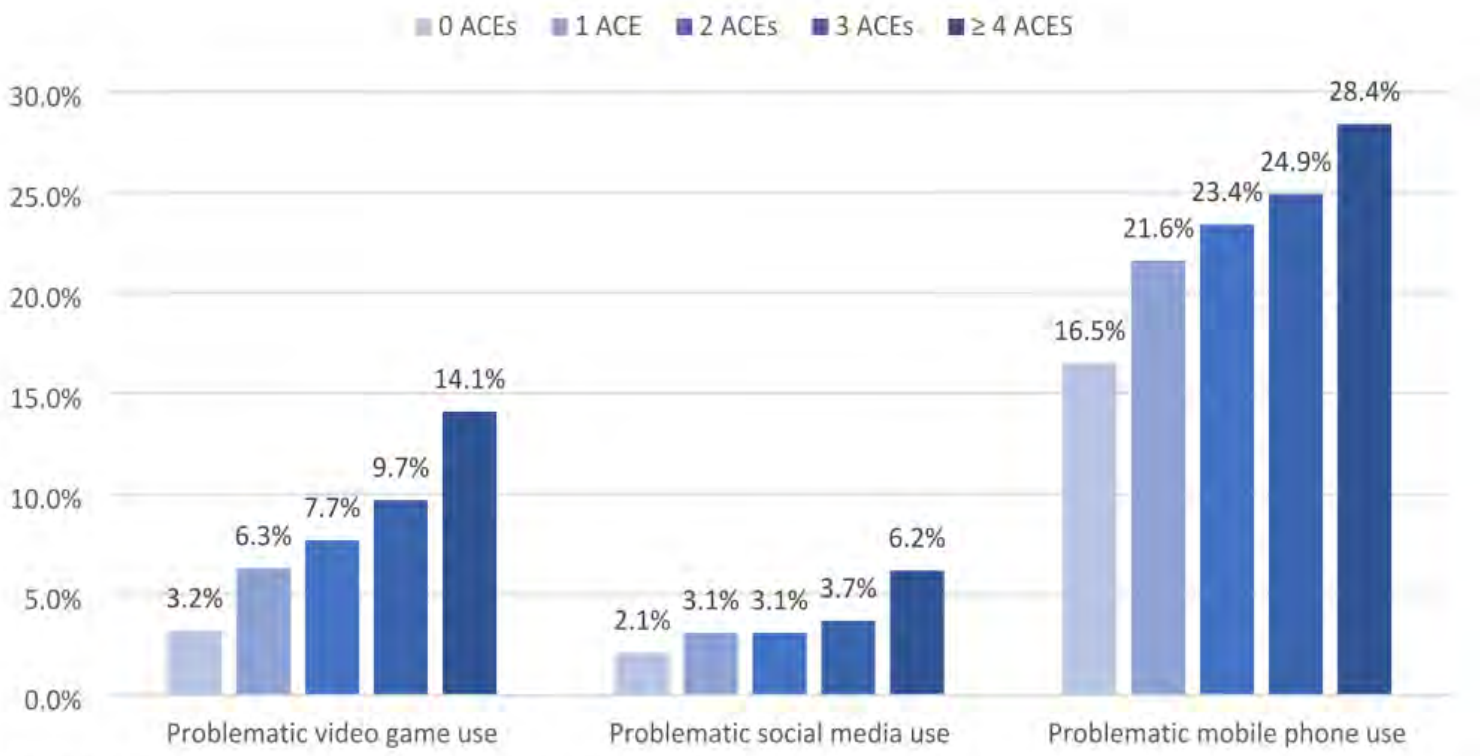


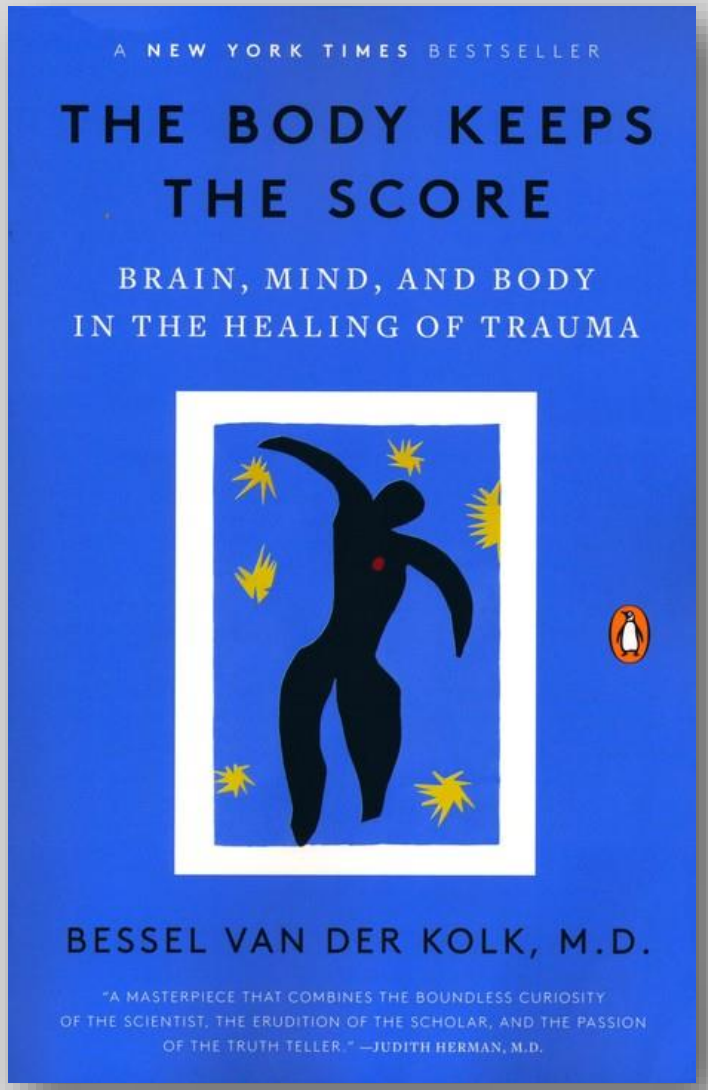
Fig. 1 Problematic screen use (video game, social media, mobile phone)* by reported ACE score. *Problematic use characterized by binary cutoffs where mean score ≥ 4

TED Talk: What Makes a Good Life?

Good relationships keep us happy and healthier. Period.

Dr. Robert Waldinger

Traumatic Roots to Addiction



"Trauma, whether it is the result of something done to you or something you yourself have done, almost always makes it **difficult to engage in intimate relationships**. After you experience something so unspeakable, how do you learn to trust yourself or anyone else again? Or conversely, how can you surrender to an intimate relationship after you have been brutally violated?"

Dr. Bessel Van der Kolk

Types of Traumatic Stress

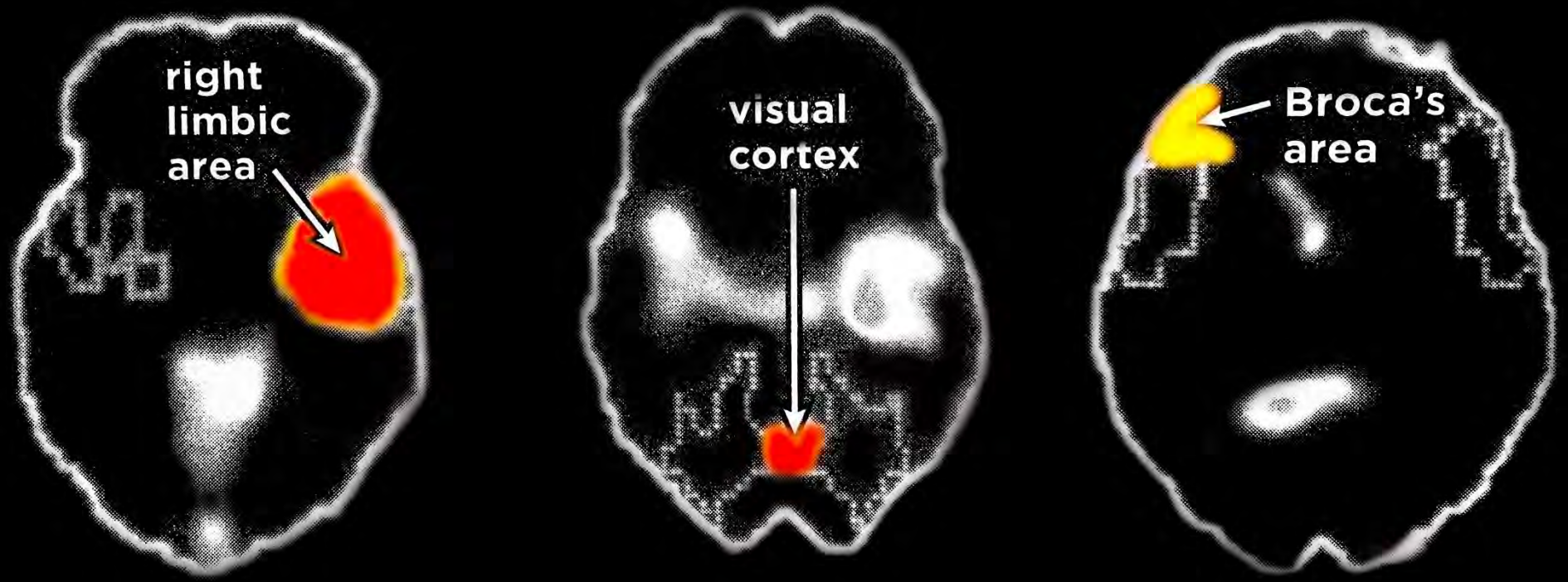
- Community Violence
- Complex Trauma
- Domestic Violence
- Early Childhood Trauma
- Medical Trauma
- Natural Disasters
- Neglect
- Physical Abuse
- Refugee Abuse
- School Violence
- Sexual Abuse
- Terrorism
- Traumatic Grief

Source: National Child Traumatic Stress Network

"Being traumatized means continuing to **organize your life as if the trauma were still going on** – unchanged and immutable – as every new encounter or event is contaminated by the past. After trauma, the world is experienced with a **different nervous system**. The survivor's energy now becomes focused on suppressing inner chaos, at the expense of spontaneous involvement in their lives."

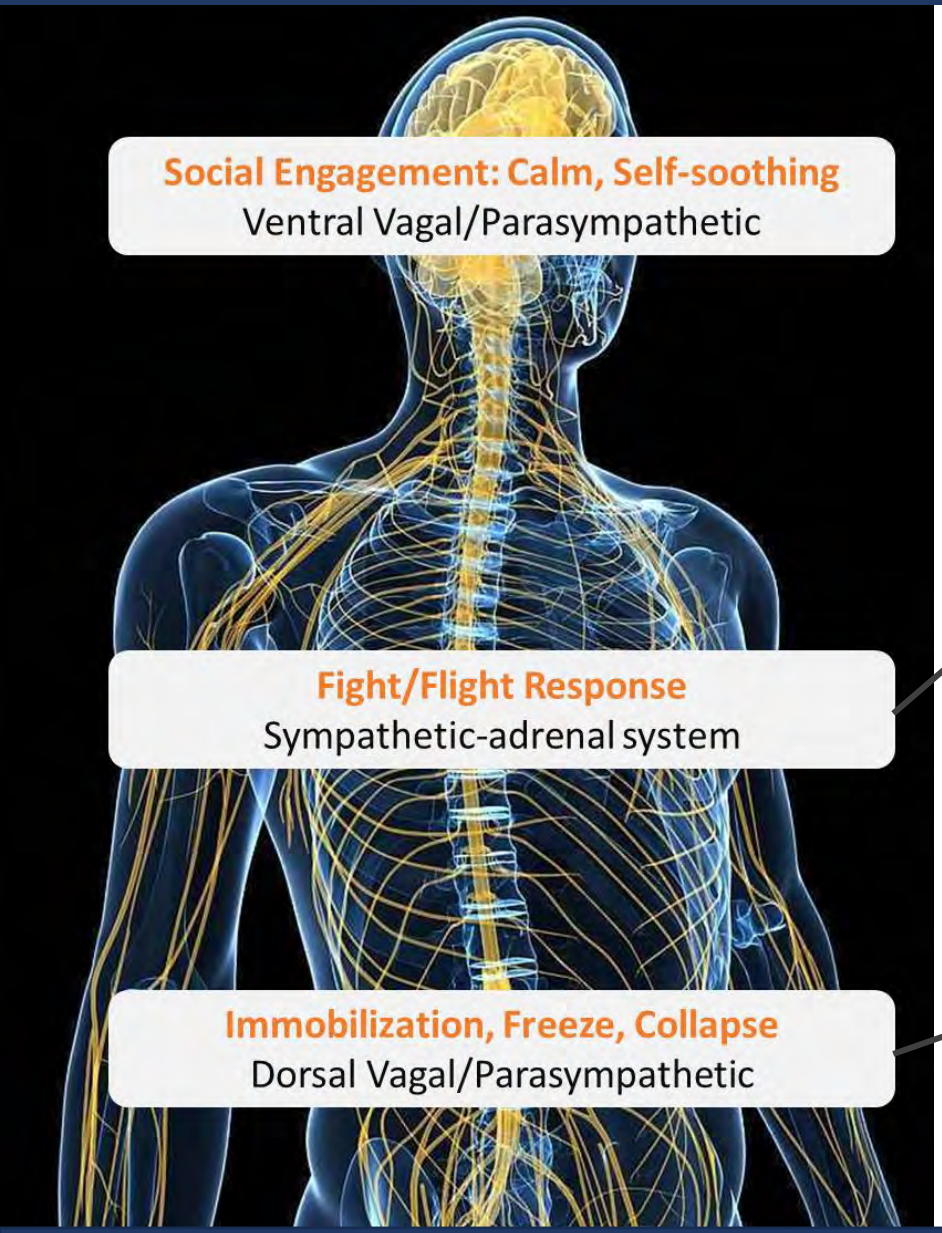
Dr. Bessel Van der Kolk
The Body Keeps the Score

Trauma on the Brain

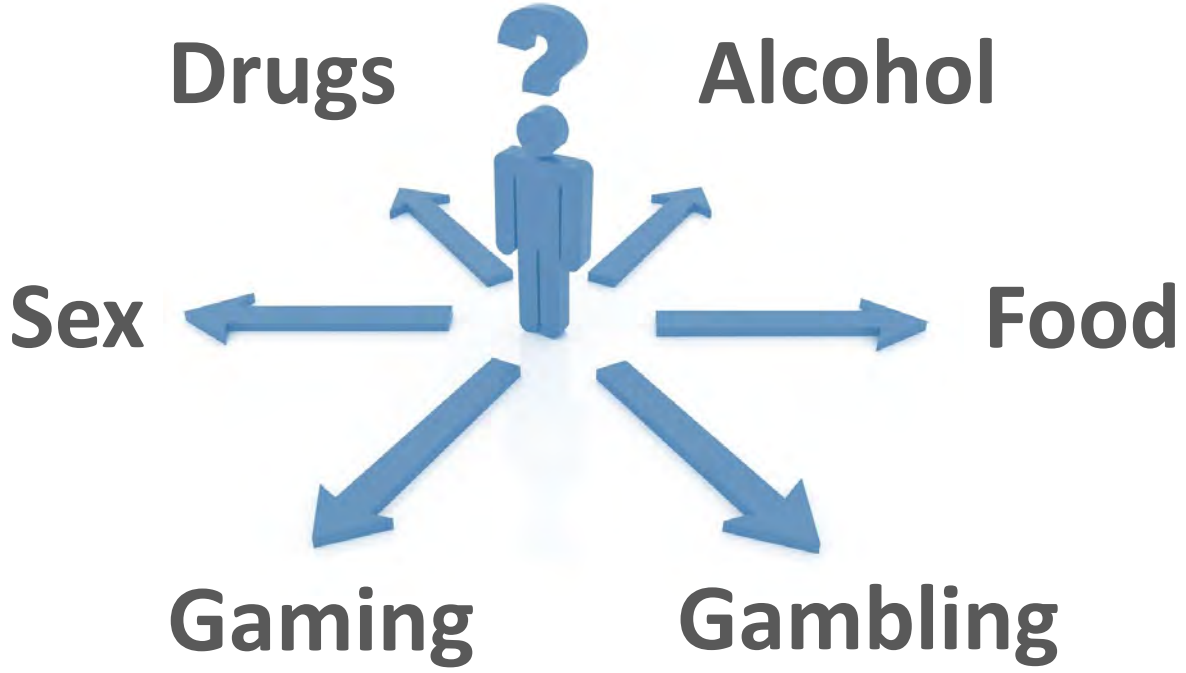


Source: The Body Keeps the Score, Bessel van der Kolk (2015)

Fight, Flight, Freeze



Multiple Addictions: Substance and Behavioral



Multiple Addictions: Substance and Behavioral

SEX	FOOD	GAMBLING	ALCOHOL	ILLICIT DRUGS	LICIT DRUGS
Fantasy sex	Pizza	Internet	Undistilled	Marijuana	Nicotine
Seductive role	Chocolate	Video keno	Beer	Cocaine	Bath salts
Anonymous	Chips	Horse & Dog	Wine	Heroin	Inhalants
Prostitution	Cookie	Stocks	Sake	PCP	Rx Drugs
Trading sex	Ice Cream	Dice games	Chicha	MDMA	Snuff
Voyeurism	French Fries	Casino games	Distilled	Amphetamine	eCigarettes
Exhibitionism	Cheeseburger	Sports cards	Rum	LSD	Coffee
Intrusive sex	Non-diet Soda	Games of skill	Vodka	K2/Spice	Cough syrup
Pain exchange	Cake	Bingo	Whiskey	Club drugs	Mushrooms
Object sex	Cheese	Sports	Brandy	Rx Drugs	Diet pills
Minor sex	Bacon	Lottery	Powdered	Steroids	Marijuana

National Survey on Drug Use and Health (NSDUH)

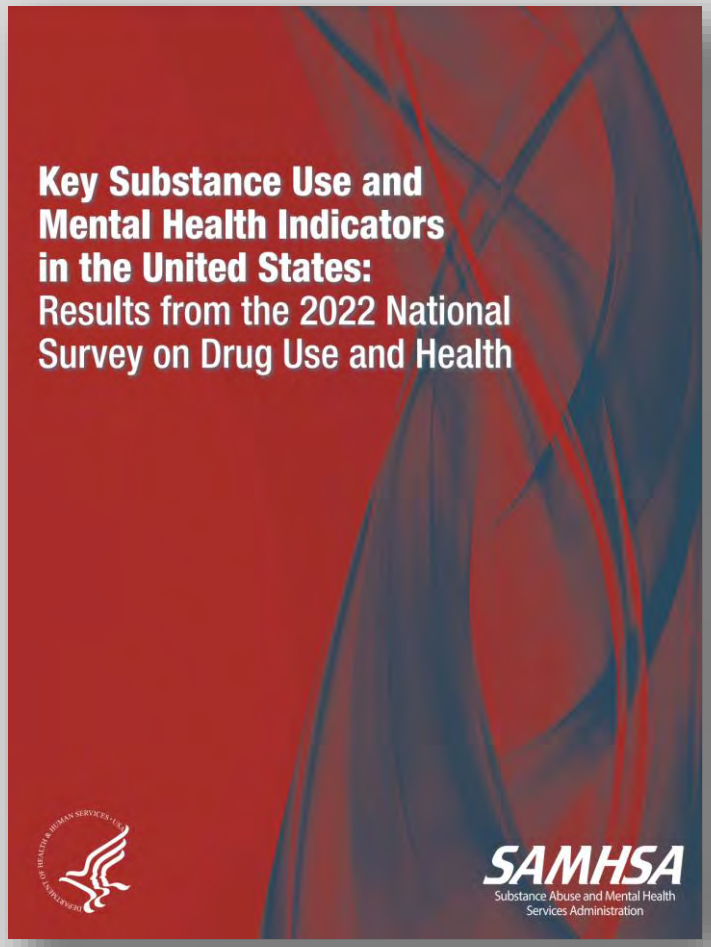
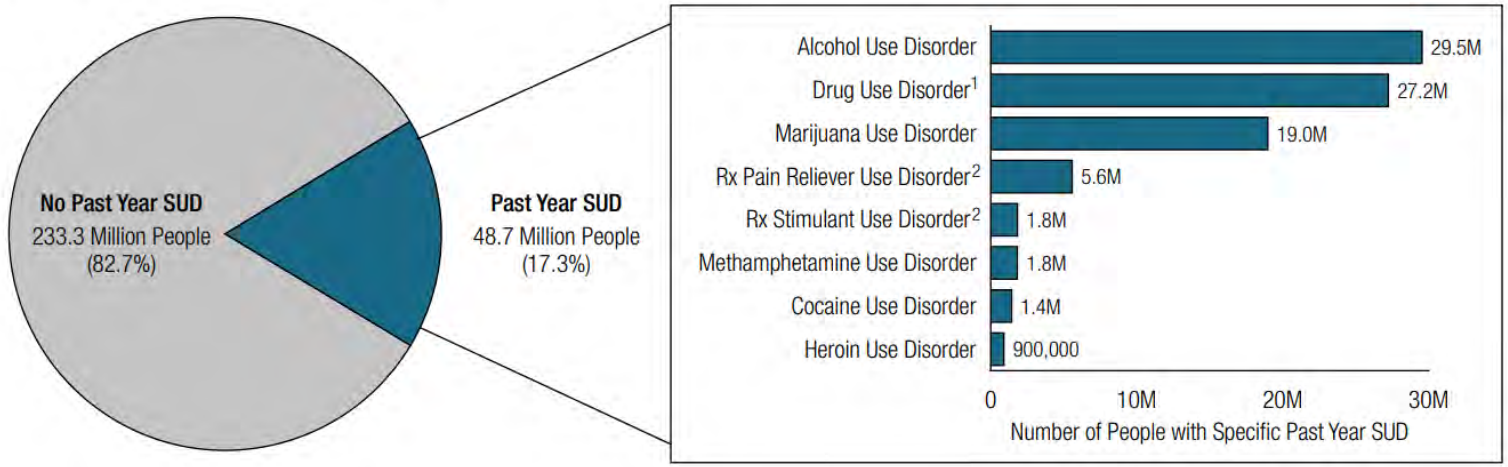


Figure 31. Past Year Substance Use Disorder (SUD): Among People Aged 12 or Older; 2022



Substance Use Disorder Severity

Figure 36. Substance Use Disorder Severity Level for Specific Substances in the Past Year: Among People Aged 12 or Older with a Specific Substance Use Disorder; 2022

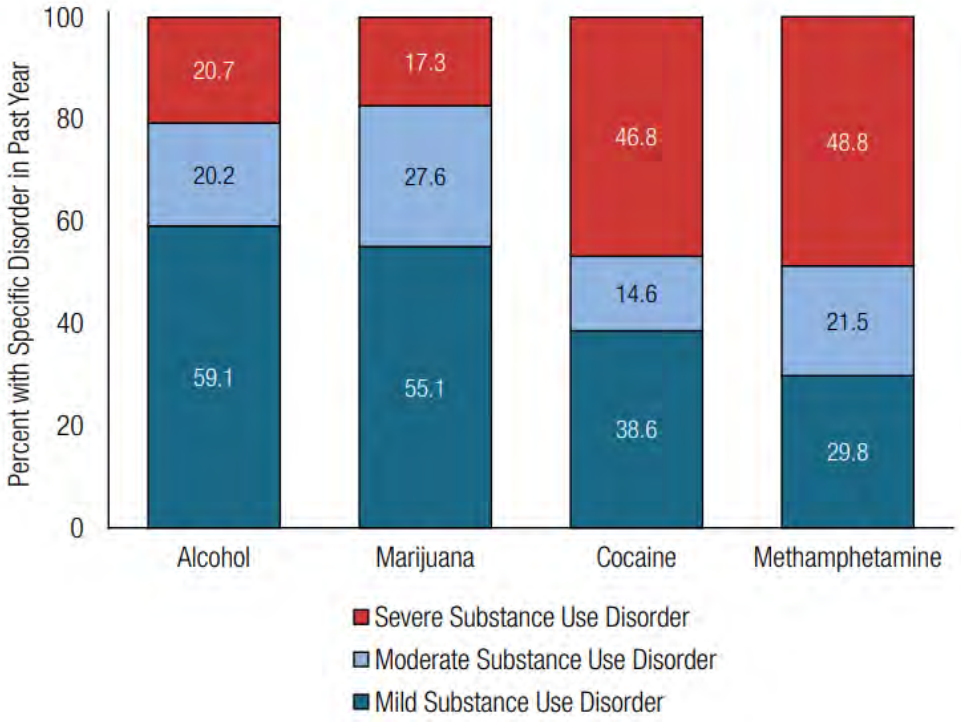
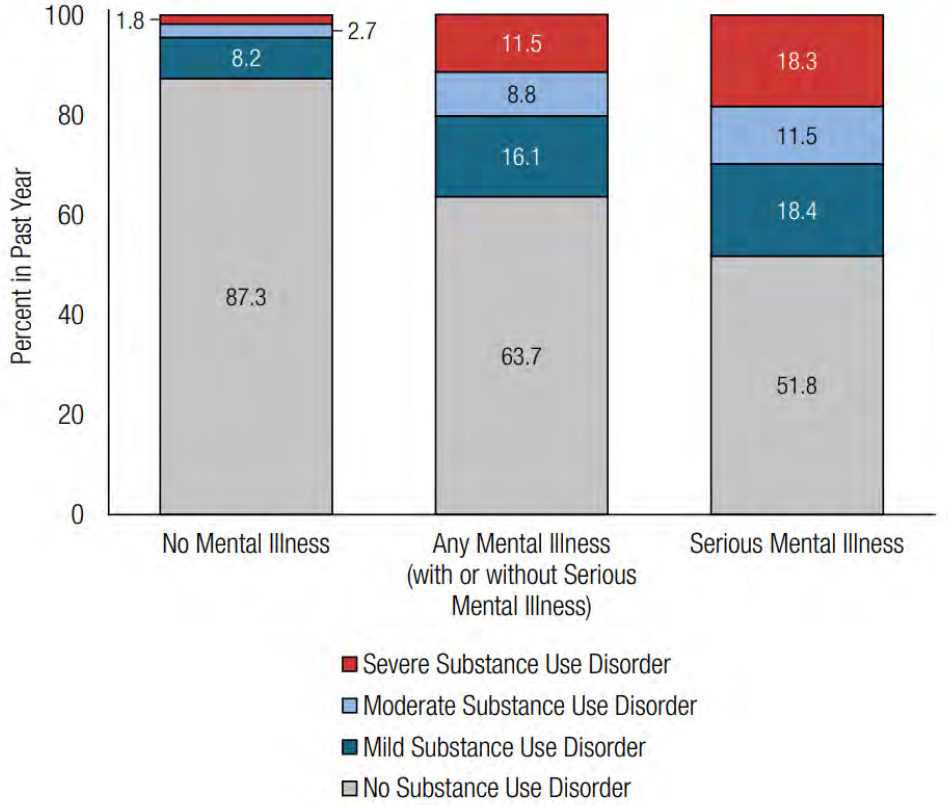


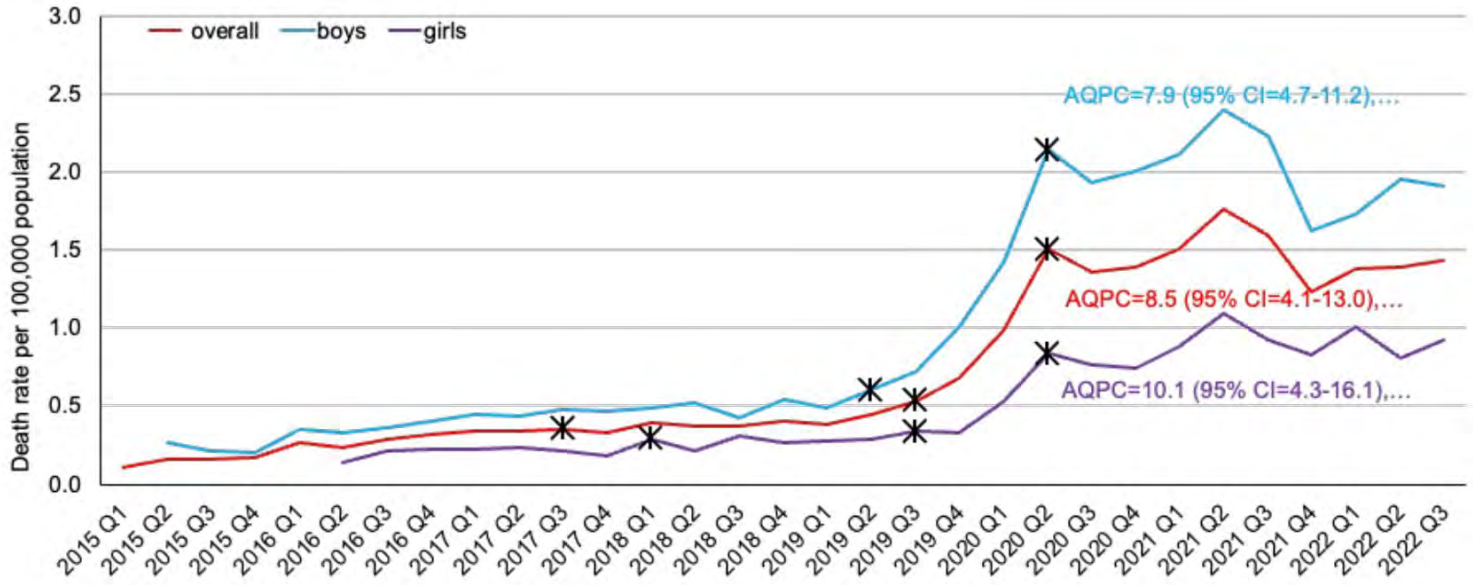
Figure 46. Substance Use Disorder Severity Level in the Past Year: Among Adults Aged 18 or Older; by Past Year Mental Illness Status, 2022



Source: NSDUH 2022

Consequences of Addiction

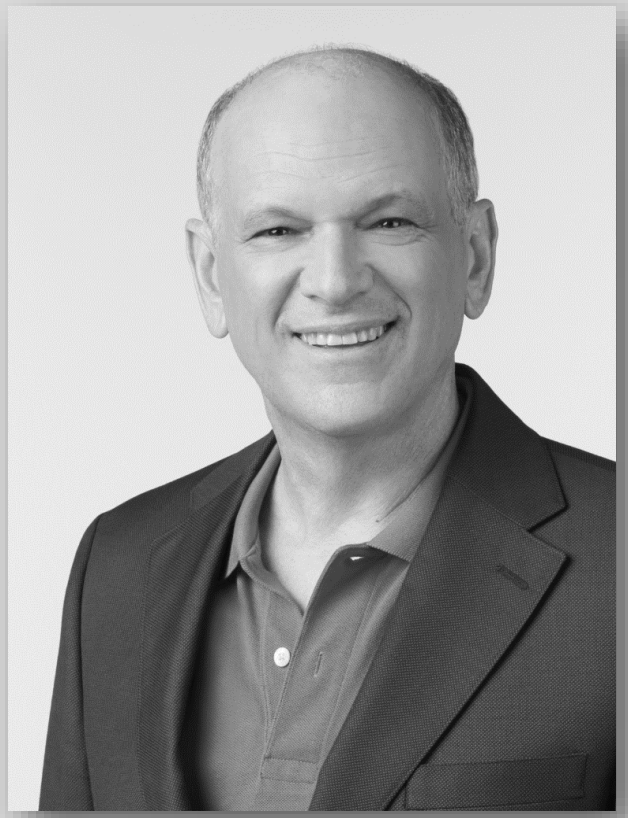
UNINTENTIONAL FENTANYL-CATEGORY-INVOLVED OVERDOSE DEATH RATES AMONG US YOUTH AGED 15-19 REMAIN ELEVATED



Data sources: National Vital Statistics System multiple-cause-of-death 2015-2021 final and 2022 provisional data and the U.S. census monthly data.

*: Joinpoints identified indicate significant changes in nonlinear trends using Bayesian Information Criterion. AQPC=average quarter percentage change during 2015 Q1-2022 Q3 (overall), 2015 Q2-2022 Q3 (boys), and 2016 Q2-2022 Q3 (girls). ICD-10 cause of death code: synthetic opioids other than methadone (T40.4, primarily fentanyl and analogs).

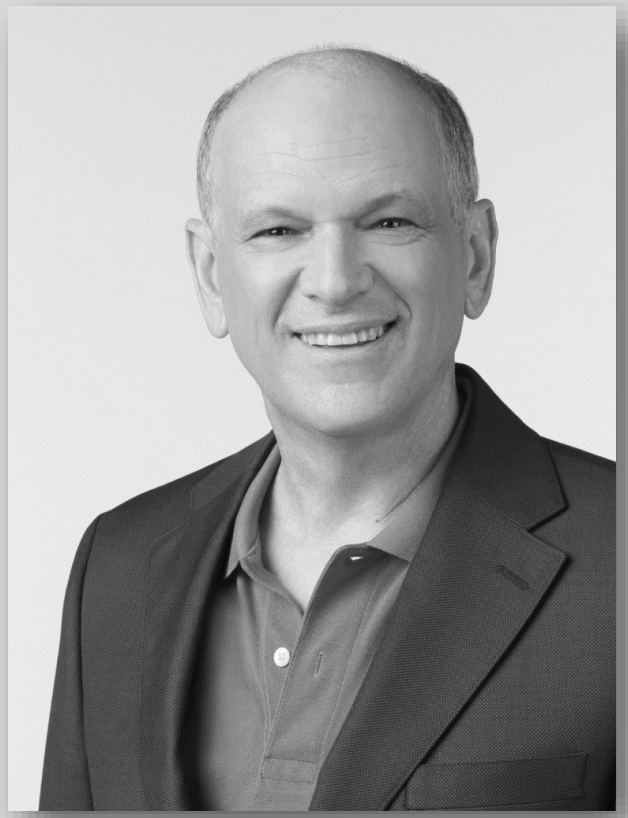
Consequences of Addiction



Eric Nestler, MD, PhD

Nestler Laboratory
Nash Family Professor of Neuroscience
Director, The Friedman Brain Institute
Icahn School of Medicine at Mount Sinai

Consequences of Addiction



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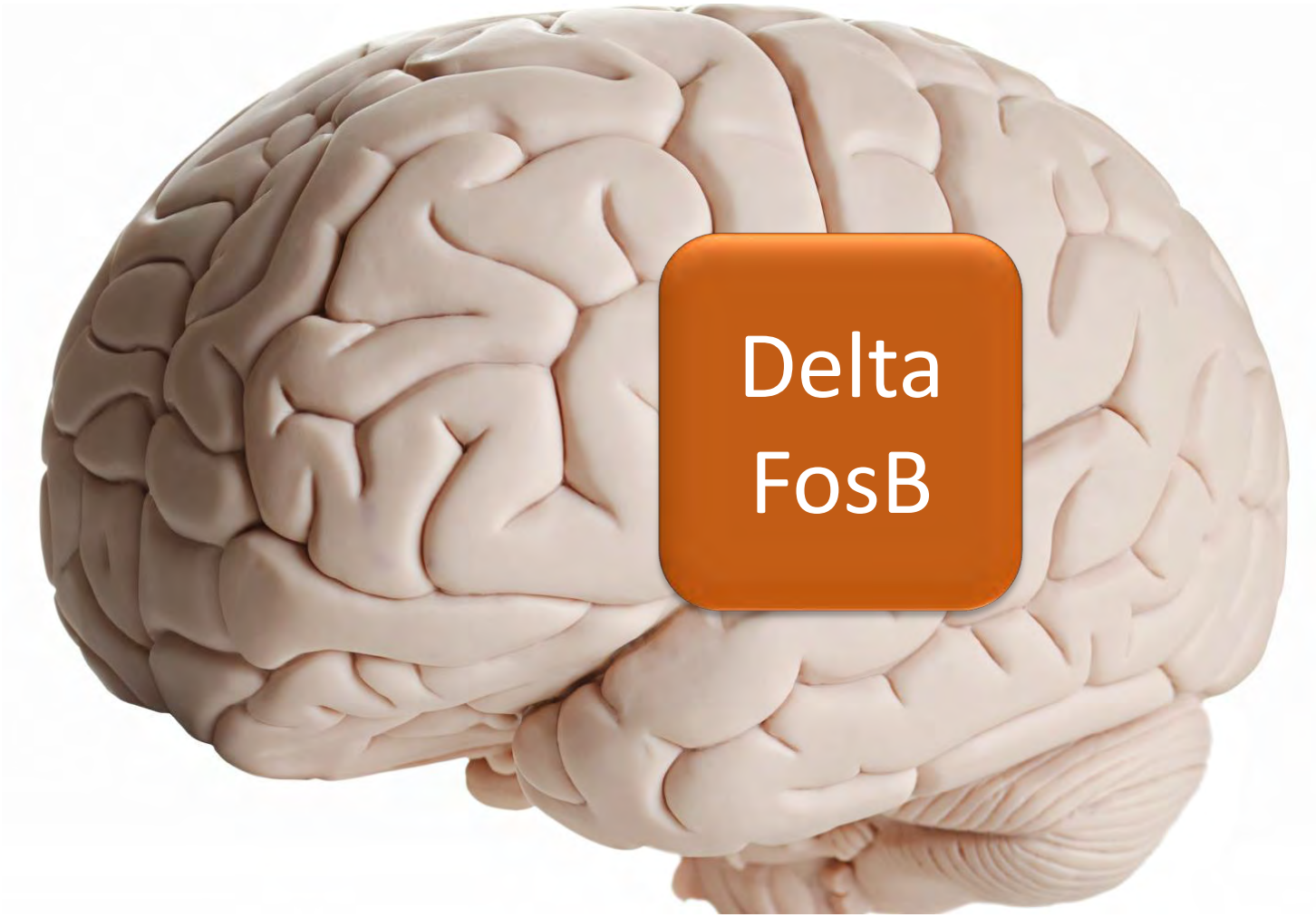
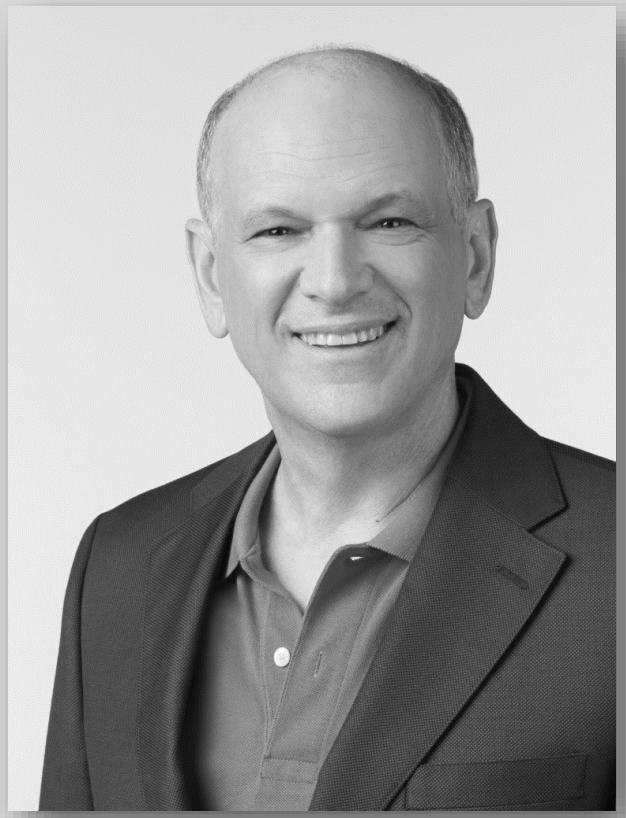


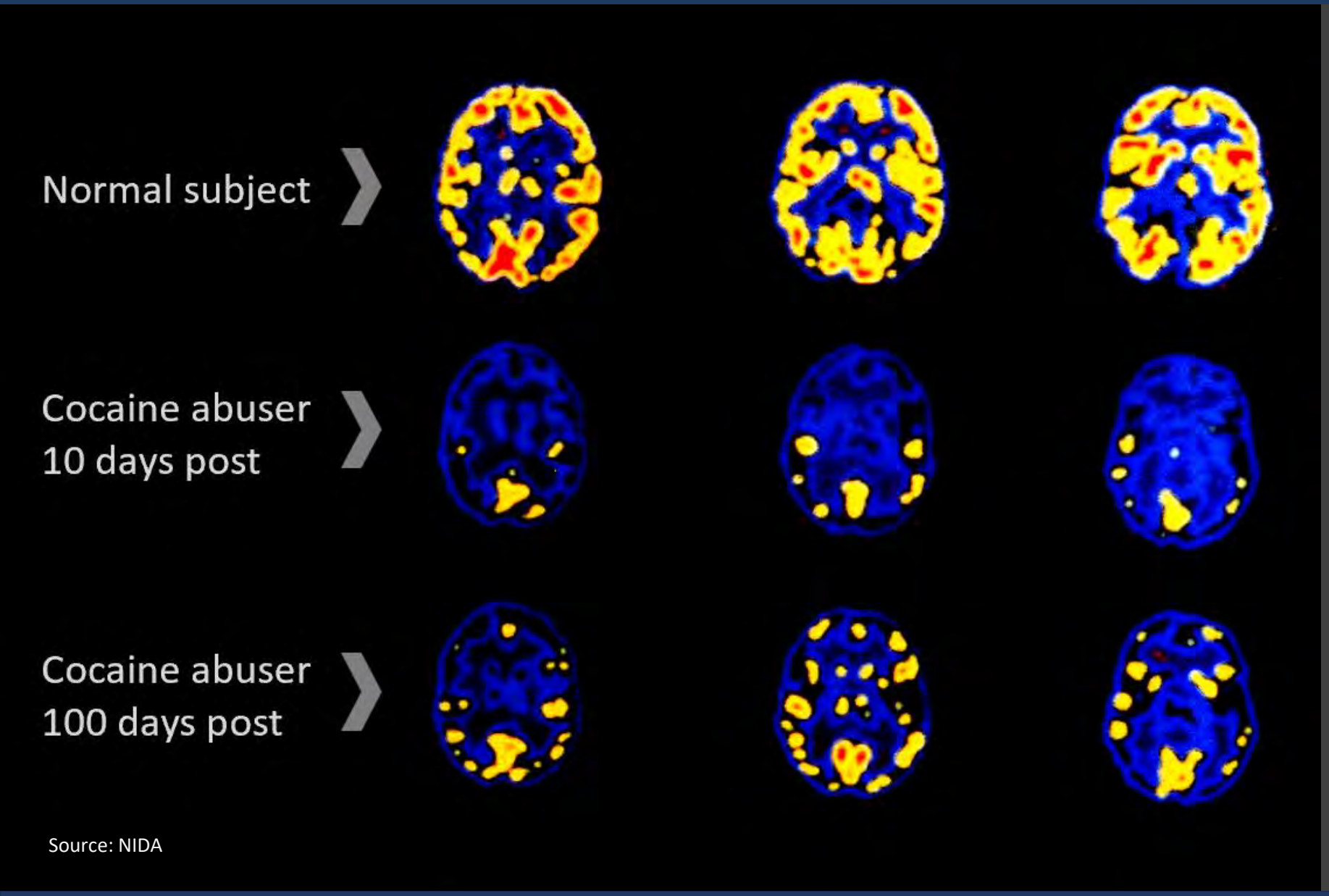
Consequences of Addiction



Eric Nestler, MD, PhD
Nestler Laboratory
Nash Family Professor of Neuroscience
Director, The Friedman Brain Institute
Icahn School of Medicine at Mount Sinai

- **Multiple switches** in the brain responsible for addiction
- Brain changes occur for **both** substances and behaviors
- Addiction and mental health disorders are **integrated** in the brain – treatments need to be integrated!
- Environment (SDOH) **matters** - epigenetics

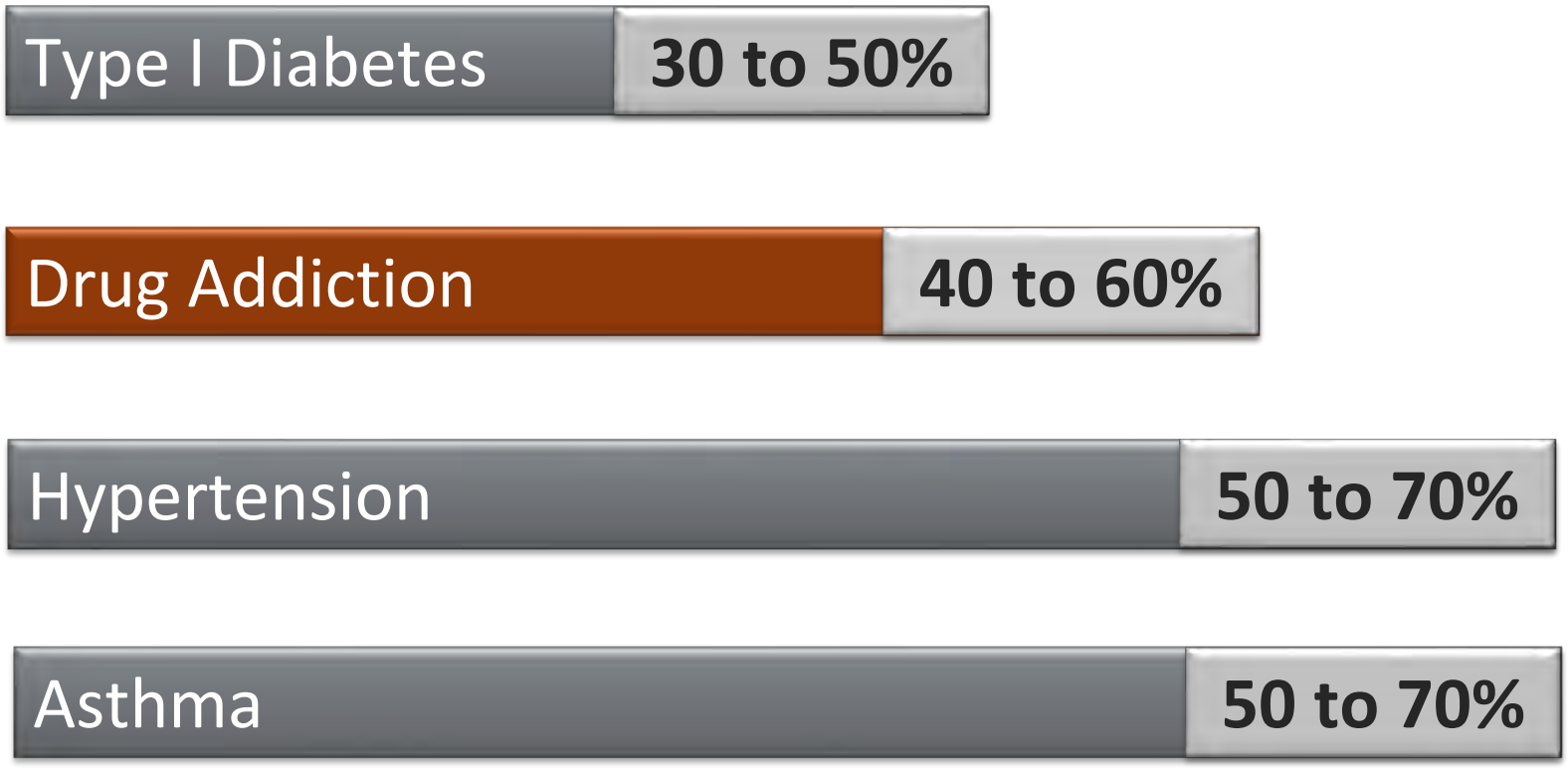
Cocaine Abuse and Brain Glucose Metabolism



Source: NIDA

Most treatment programs 30-90 days

Percentage Who Relapse



Source: McLellan, AT, et al., Drug Dependence, A Chronic Medical Condition, JAMA, October 4, 2000, Vol 284, No. 13

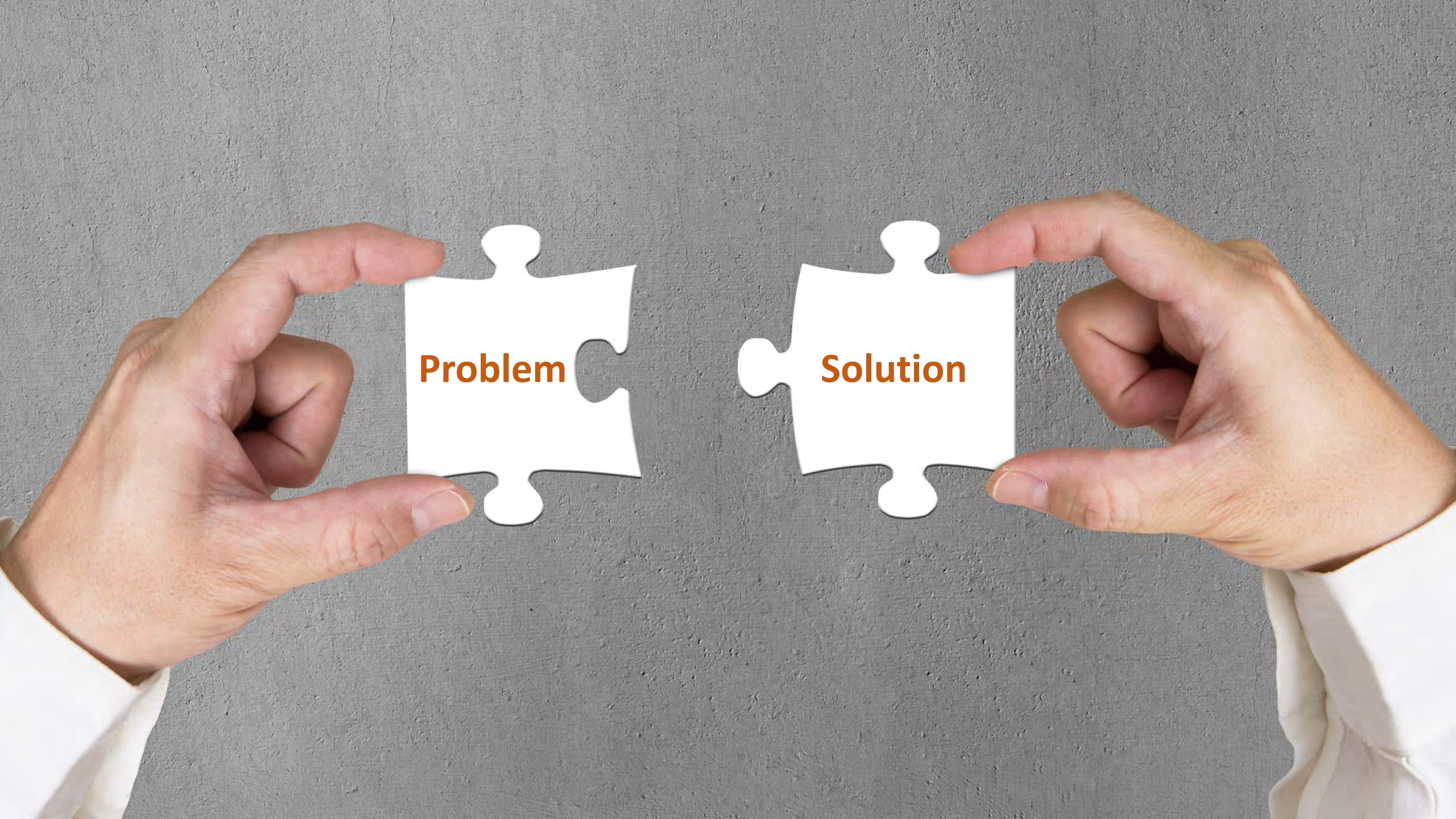
Acute care for a chronic problem leads to poor outcomes.

Rethinking Addiction

Tobacco
Alcohol
Illicit Drugs
Eating
Gambling
Internet
Love
Sex
Exercise
Work
Shopping

Based on data analyzed from 83 different studies, they estimated that in any given year, it's likely that **47% of the U.S. population suffers from "maladaptive signs of an addictive disorder."** The authors of the review go on to suggest that because the universe of addiction is so broad and includes almost half of all adults, maybe we should think about addictions more as ***lifestyle problems***.

Sussman, Lisha & Griffiths - 2011


Problem
Solution

Challenges with our Present Treatment System

- Attends to a small minority in need
- Provides acute care for a chronic problem
- Limited focus on addressing the underlying drivers
- Fragmented delivery of care
- Limited use of effective medications
- Focuses on pathologies at the expense of character strengths and virtues
- Promotes evidence-based (specific) practices at the expense of implementing a common-factors (contextual) approach to care
- Limited use of innovative and emerging interventions: DTx, psychedelics, TMS

Very Few Adolescents Receive Treatment

8.7% (2.2 million) adolescents aged 12 to 17 had a SUD in the past year, USA 2022.

- **0.5% (n=8,000) sought treatment**
- 2.0% (n=34,000) did not seek treatment but thought they should get it
- **97.5% (1.7 million) did not seek treatment or think they should get it.**

Source: NIDA, Director's Report, 2/6/24

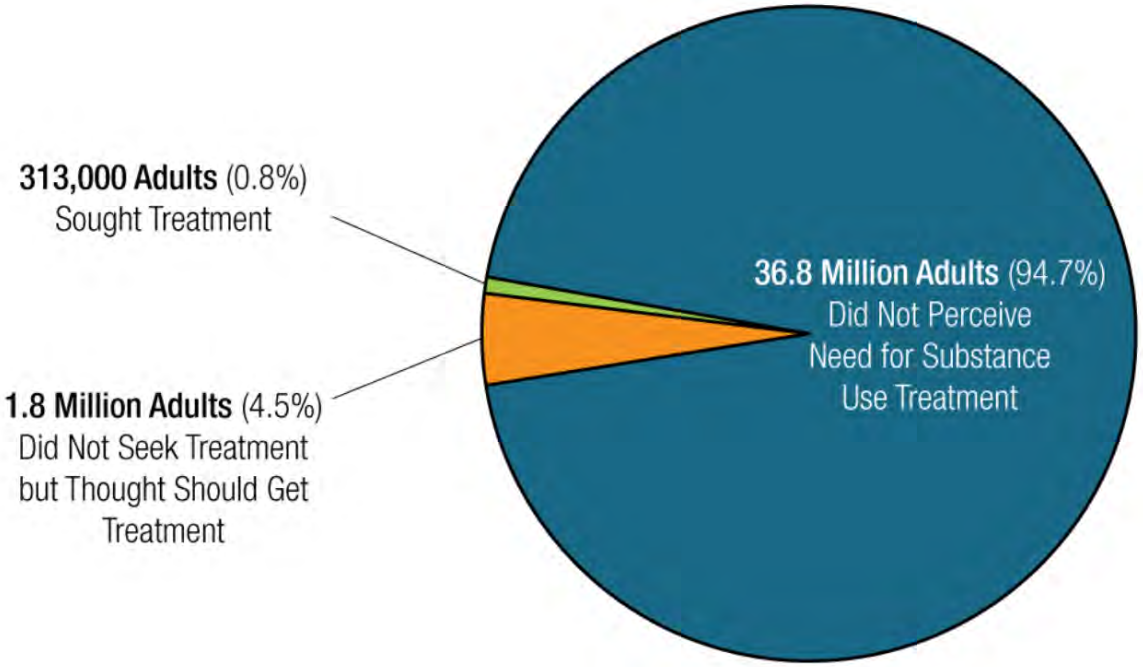
Limited Treatments for Adolescents

Psychosocial treatments: motivational, cognitive behavioral, family-oriented therapies and contingency management (CM) are efficacious, but effect sizes are small to modest

Medications: Few clinical trials have evaluated FDA approved medications for SUD

- For OUD, buprenorphine was approved by FDA for 16 years of age or older and has evidence of benefit in adolescents with more severe SUD. Naltrexone (oral or XR) merits further investigation.

Most perceive they do not need treatment



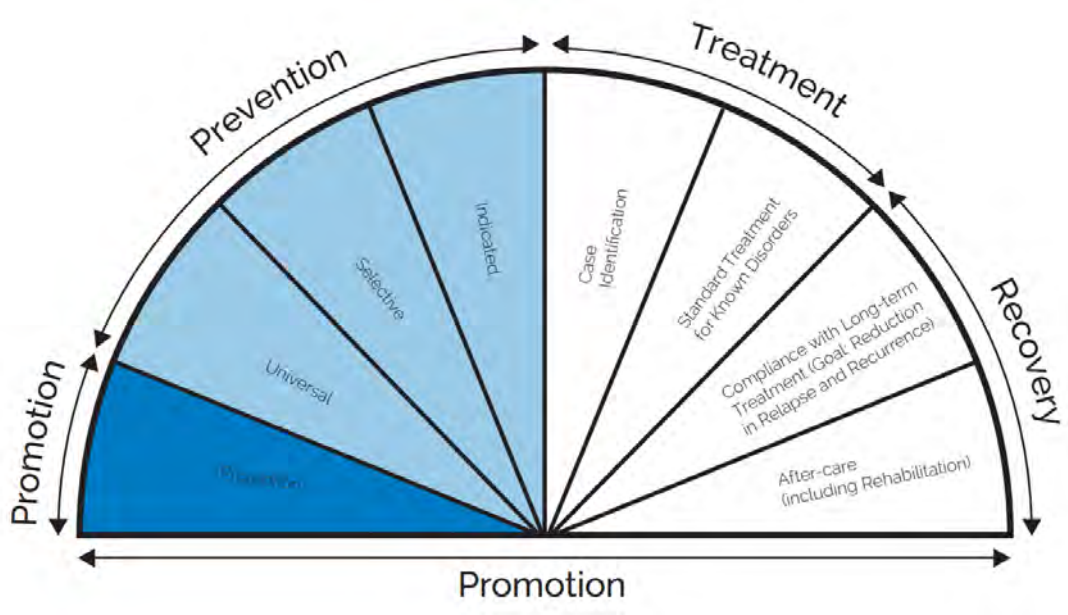
39.7 Million Adults with a Substance Use Disorder Who Did Not Receive Substance Use Treatment

Source: NSDUH 2022

Addiction is largely a **motivational problem.**

Meeting the Needs of Those Who Suffer

1. Understand that addiction exists on a spectrum (pre-addiction to severe)
2. Reduce barriers to access care (technology plays important role)
3. Assess symptoms and needs (diagnoses not always necessary)
4. Educate on symptoms and treatments
5. Encourage self-guided care and expert treatment when necessary



Source: SAMHSA.gov/prevention

What predicts good therapy outcomes?

The Contextual Model

(Wampold & Imel, 2015)

Initial Therapeutic Bond

Three Change Pathways

1. Real (Healing) Relationship
2. Aligned Expectations
3. Intervention Actions

Positive Outcomes

- Better Quality of Life
- Symptom Reduction

Pathway 1: Real (Healing) Relationship

Key Ingredient: Empathy

Pathway 2: Expectations (Problem-Solution Alignment)

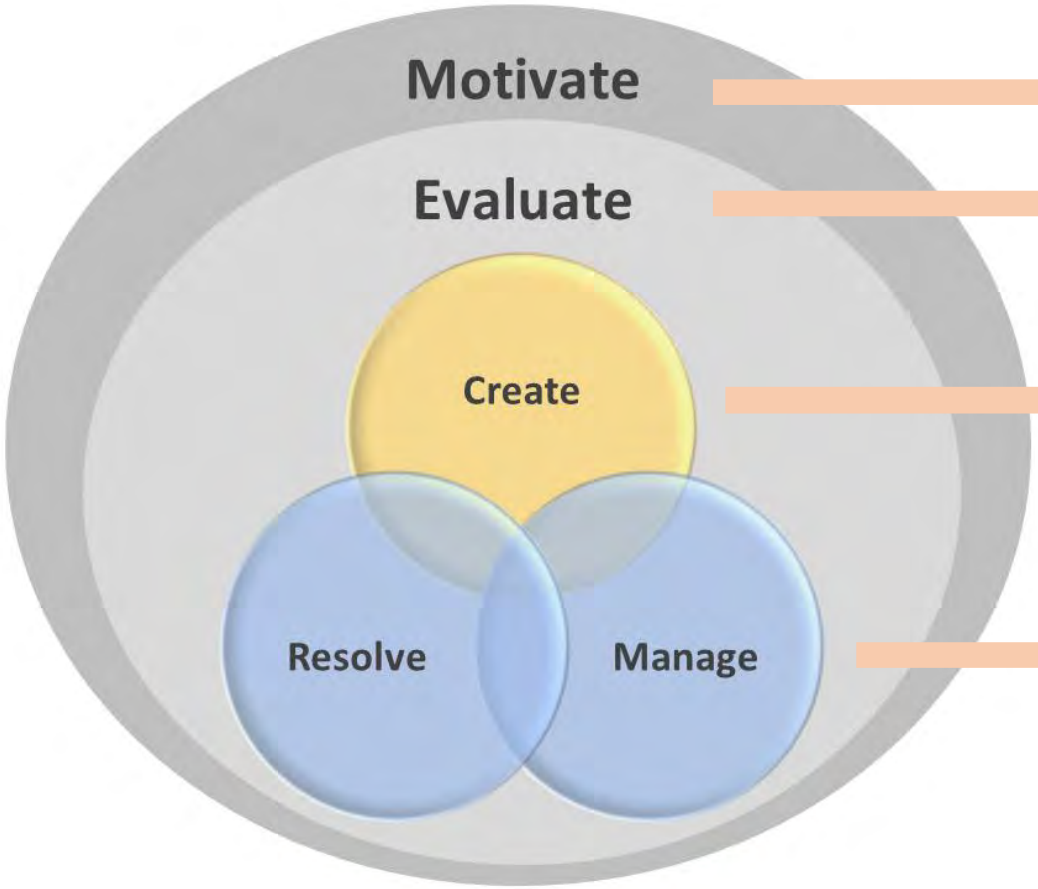
Problem =

Pathway 2: Expectations (Problem-Solution Alignment)

Problem =

Pathway 3: Tasks/Goals/Intervention Actions

The 5-Actions™



Motivate Change

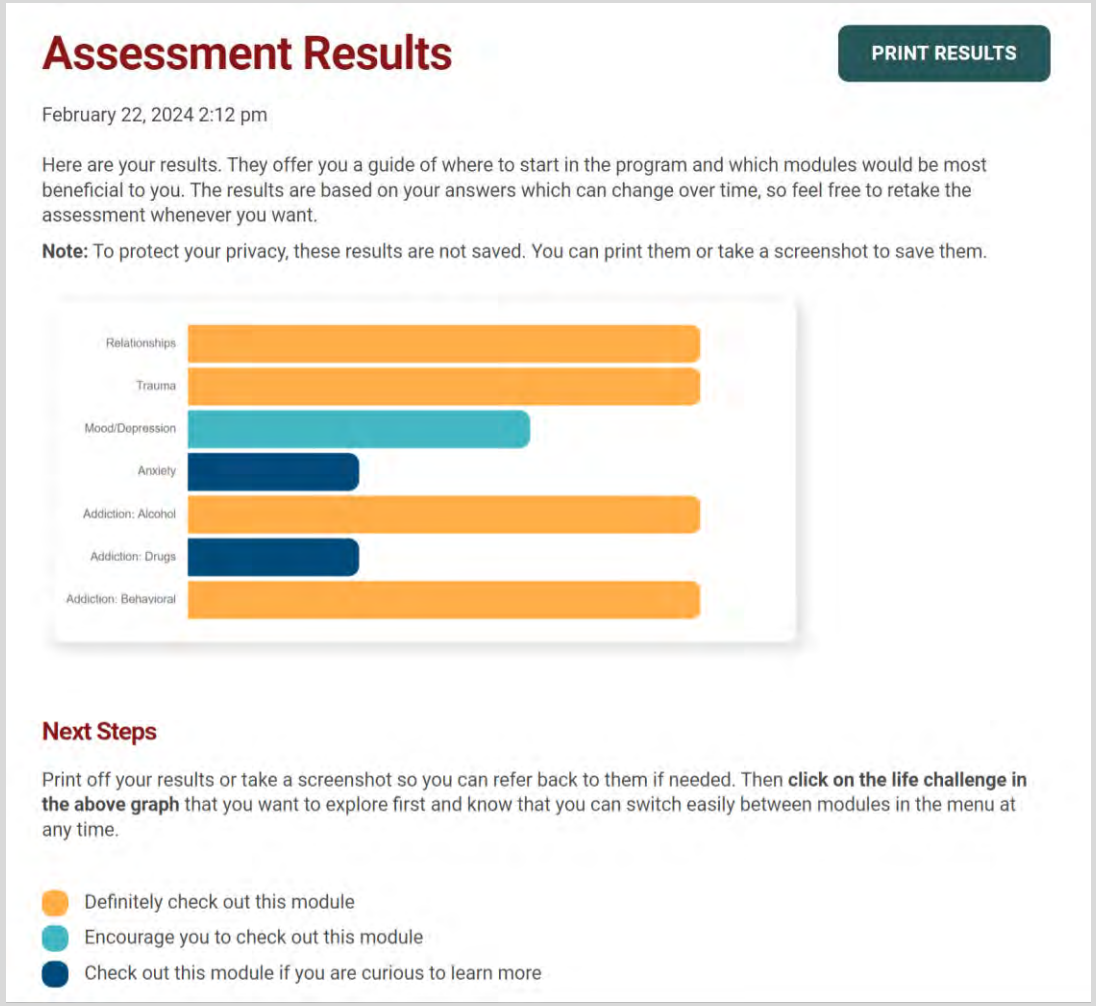
Multiple Addictions and Mental Health Challenges

Create: Better Quality of Life

Resolve/Manage: Symptom Reduction
Right Intervention, Right Time, Right Place, Right Dose

Note: 5-Actions™ applies whether in treatment or not

Identify Key Leverage Points for Change



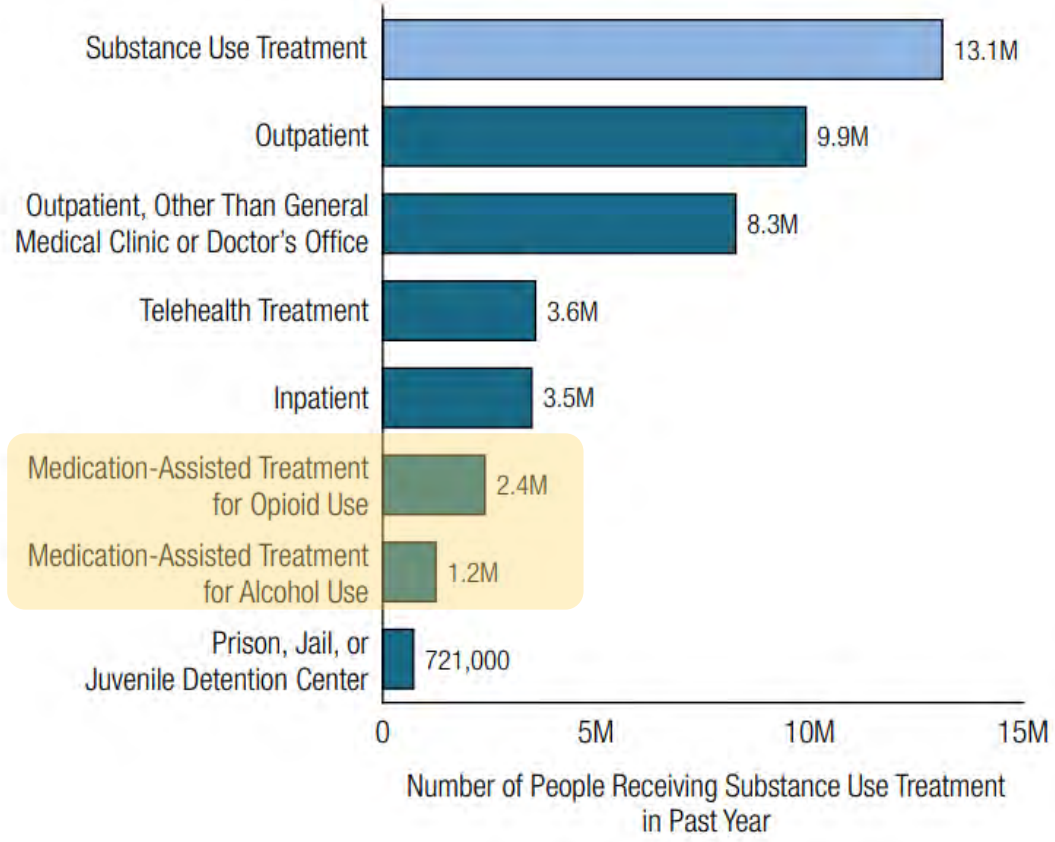
Key Leverage Points

- Acute Issues First
- Insecure Attachment
- Untreated Trauma
- Untreated Mental Health
- Engage the Sacred

Address Acute Issues First

- Suicidal/Homicidal Ideation
- Immediate Risk of Drug Overdose
- Substance Use Requiring Detoxification
- Domestic/Interpersonal Violence
- Hypomanic/Manic/Psychotic Symptoms
- Eating Disorders
- Dissociation
- Cutting/Self-Harm
- Safety Issues
- Medical Emergencies
- Other Acute Risks

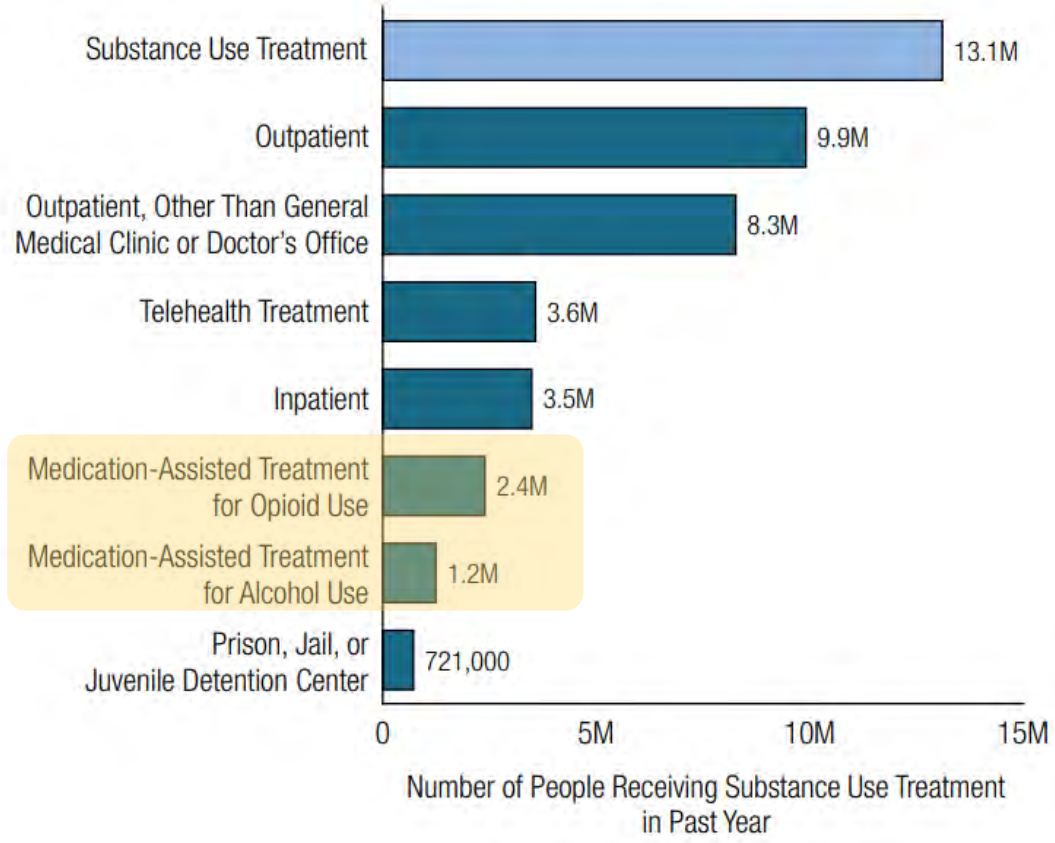
Figure 55. Types and Locations of Substance Use Treatment in the Past Year: Among People Aged 12 or Older; 2022



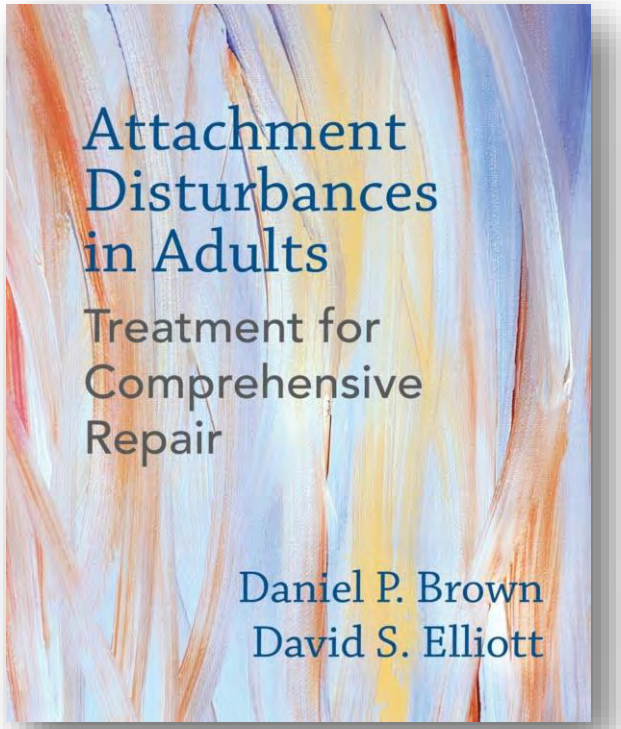
Address Acute Issues First

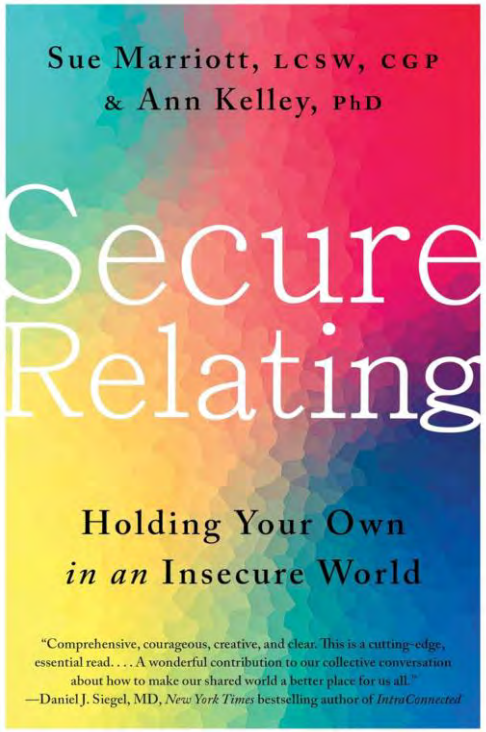
New Mexico Crisis and Access Line

Figure 55. Types and Locations of Substance Use Treatment in the Past Year: Among People Aged 12 or Older; 2022



Insecure Attachment: What can you do?



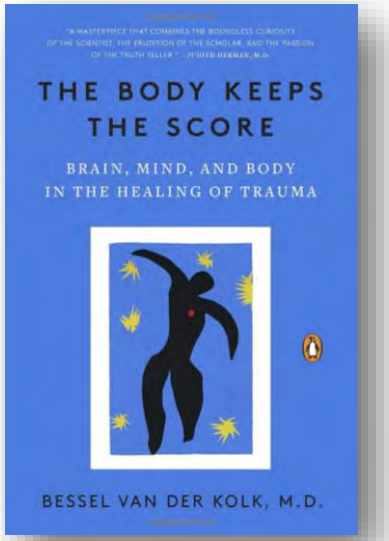


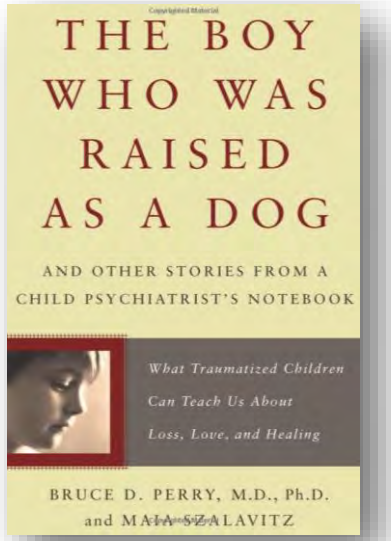
Experiences of Close Relationships Assessment:
https://openpsychometrics.org/tests/ECR.php

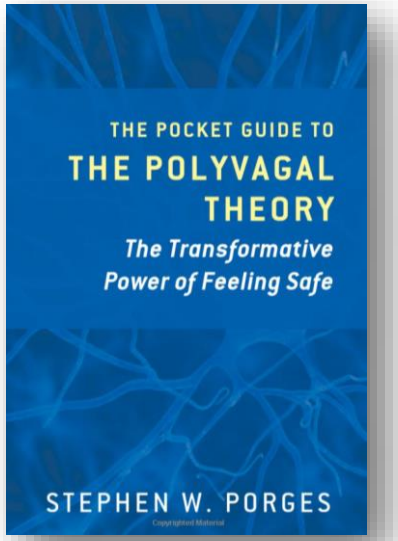
1. **Assess your attachment style** using the Experiences of Close Relationships assessment and by understanding the different styles
2. **If insecure** learn about attachment styles and treatment (YouTube: David Elliott, PhD and Dan Brown, PhD)
3. **Engage in interventions** to earn secure attachment, namely Integrative Attachment Therapy

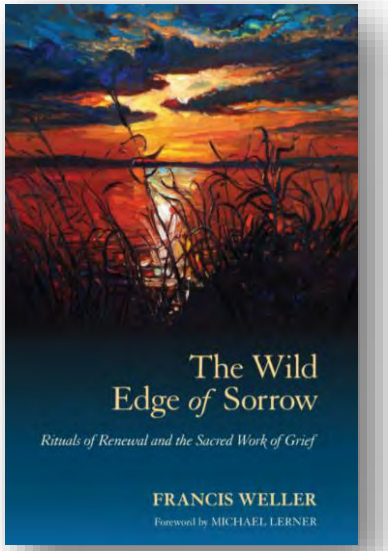
www.integrativeattachmenttherapy.com

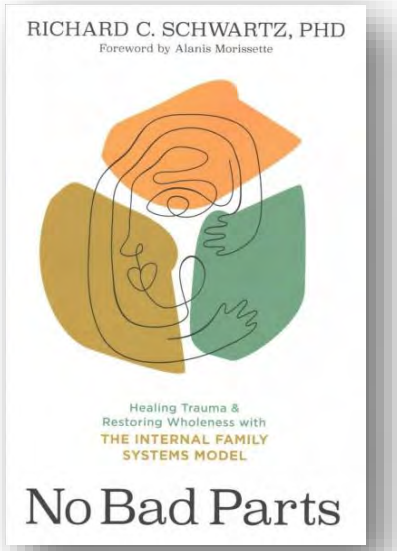
Trauma: What can you do?

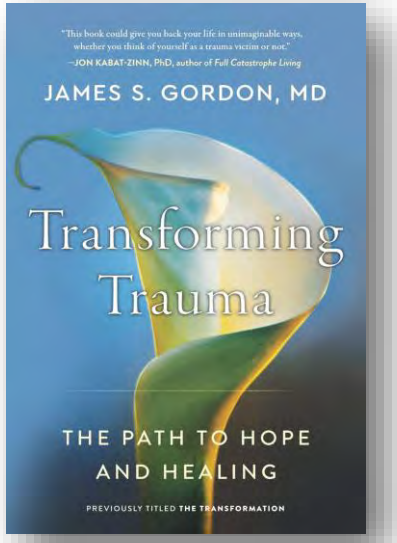












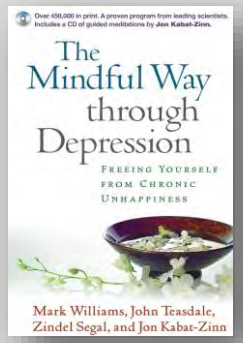
1. **Learn about trauma** by reading books, watching videos, and paying attention to your body
2. **Seek professional help** from a licensed clinician that has experience with trauma – use contextual model as a guide
3. **Engage in interventions** that are a good fit for you, and assess outcomes to ensure you are progressing

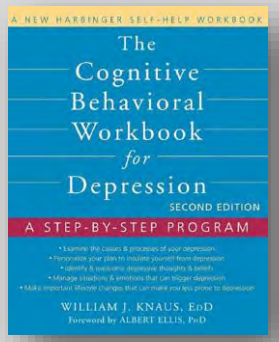
Healing ACEs and Trauma

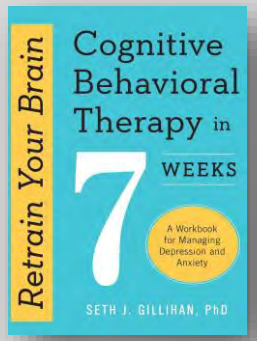
Guiding Principles

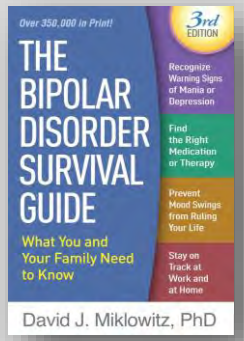
- Healing relationships
- Education
- Careful dance of reducing/stopping addiction while learning to be present and mindful in the body
- Safety, boundaries, and resources
- Top-down (cognitive) and bottom-up (somatic) interventions
- No one best trauma treatment

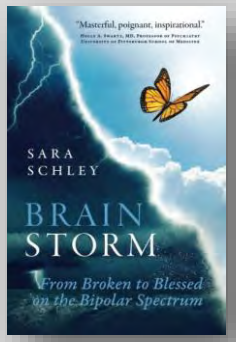
Mood/Depression and Anxiety: What can you do?

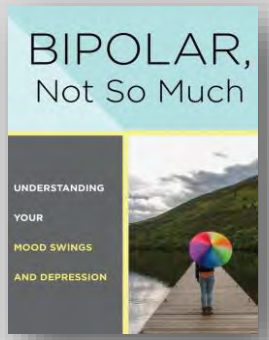


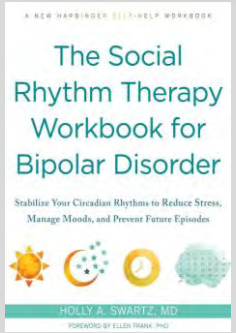


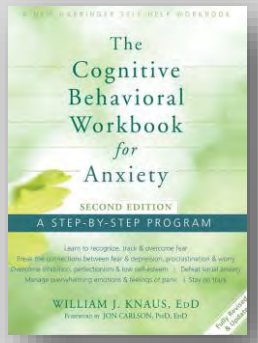


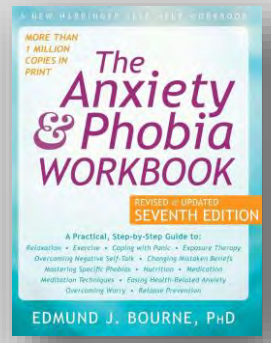


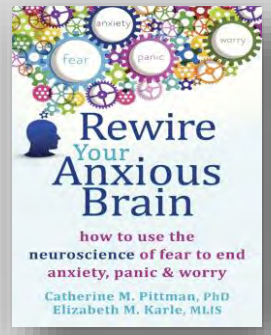


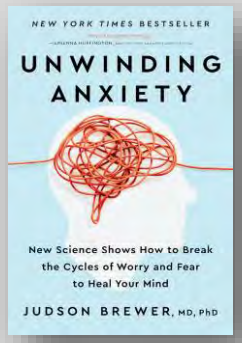










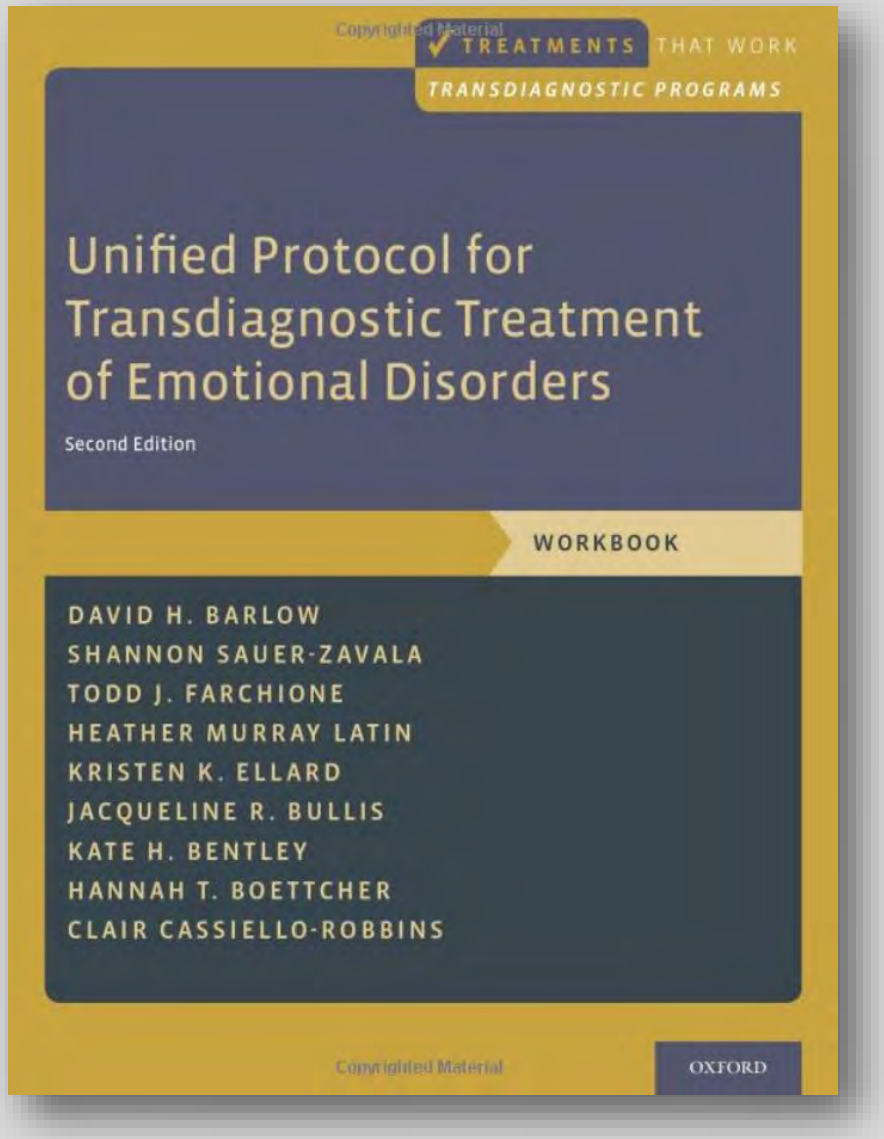


1. **Determine what type of depression and/or anxiety you have:** Use validated assessment tools, learn about types, see a professional

2. **Learn about treatments:** Engage in lowest risk interventions first (self-guided/therapist), proceed to higher risk as needed (with care of therapist)

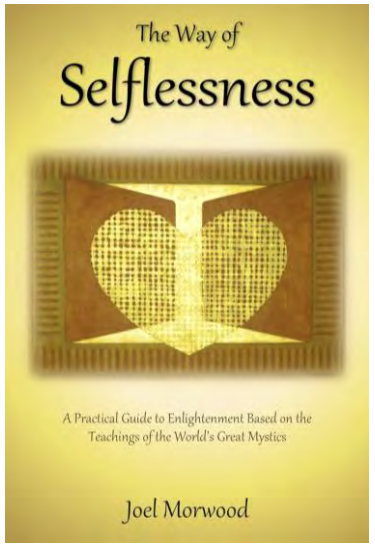
3. **Measure outcomes:** Use validated measures (PHQ-9/GAD-7) to assess progress, make changes as necessary

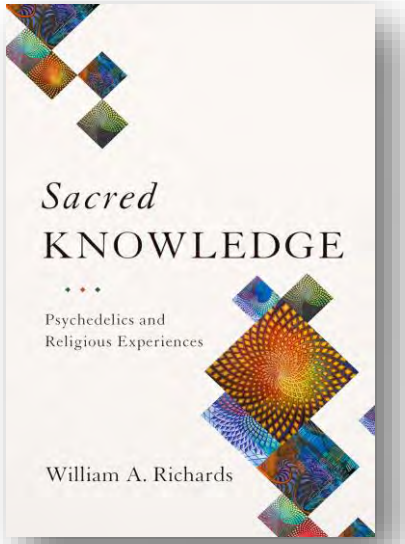
Building a Healthier Relationship with Emotions

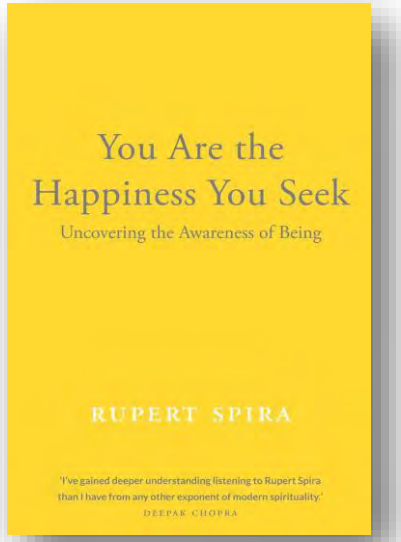


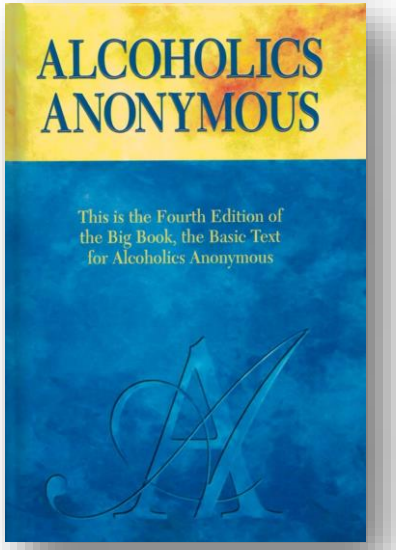
- Panic Disorder
- Generalized Anxiety Disorder
- Social Anxiety Disorder
- Obsessive-Compulsive Disorder
- Posttraumatic Stress Disorder
- Depression (Major/Persistent Depressive Disorder)
- Borderline Personality Disorder
- Eating Disorders
- Self-Destructive Behavior

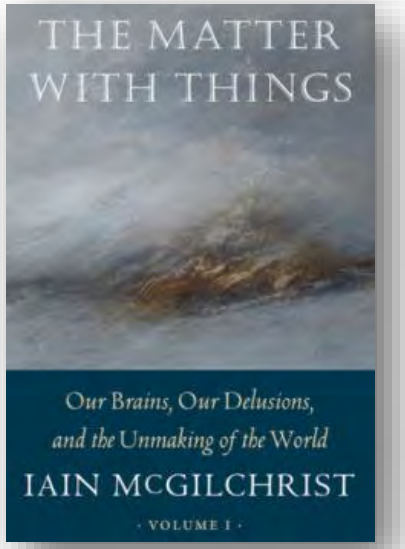
Engage the Sacred: What can you do?

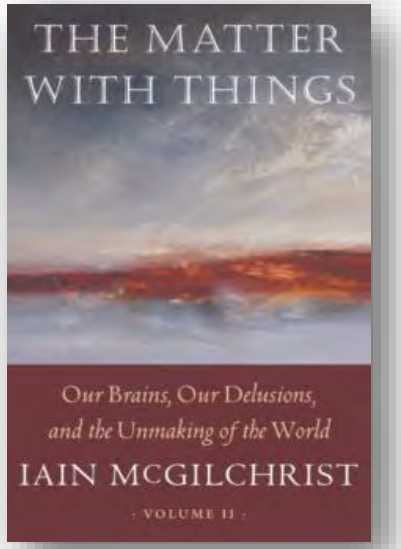












1. **Expand awareness of your true nature:** Engage in meditative practices, read mystical texts, spend time in nature, participate in spiritual communities
2. **Be consistent in practices:** Find what works for you and stick with it
3. **Get a teacher:** Like good therapists who can help you with addiction, good spiritual teachers can be invaluable

Questions & Discussion

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