A Stages of Change Approach for Treating Behavioral Health Conditions

Judith Prochaska, PhD, MPH
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Professor of Medicine

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MS CHPR Faculty Director

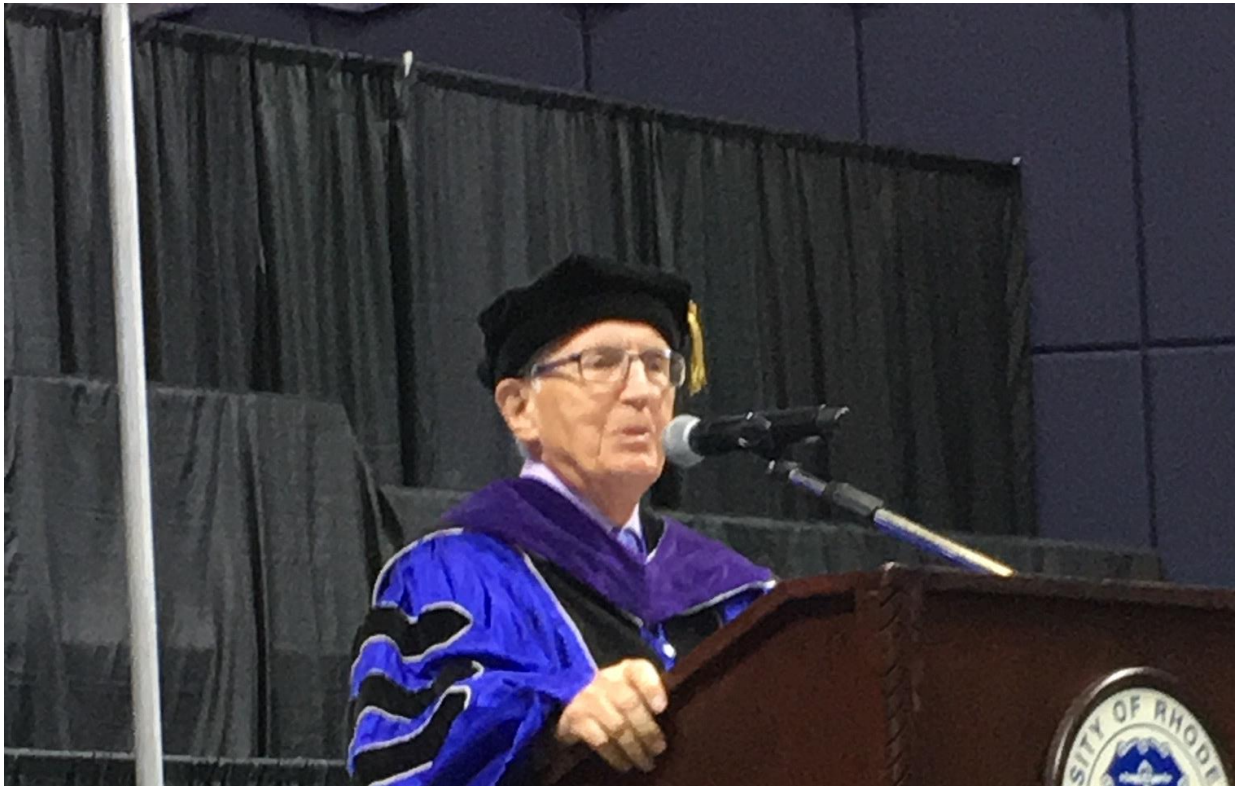
Stanford University

SCC Director of Tobacco Treatment Services


3rd Floor


STANFORD

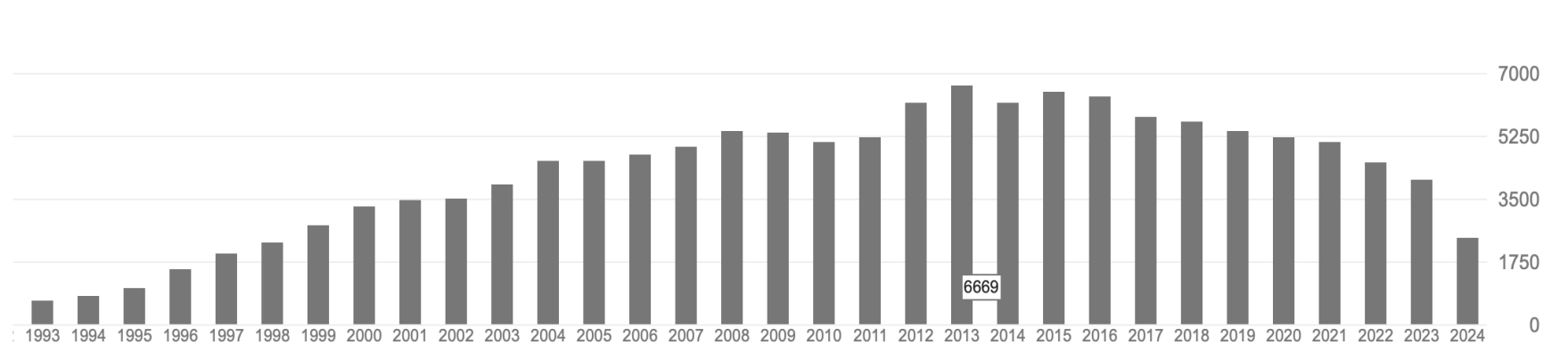
Wayne State University 1962 Freshman Football Team



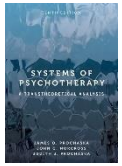
Developers of the Transtheoretical Model of Behavior Change | (aka Stages of Change Model)

James O.Prochaska
University of Rhode Island
Verified email at uri.edu
Cited by 140795

Citations	140795
h-index	129
i10-index	328



TITLE	CITED BY	YEAR
Stages and processes of self-change of smoking: toward an integrative model of change. JO Prochaska, CC DiClemente Journal of consulting and clinical psychology 51 (3), 390	18411 *	1983
In search of how people change: applications to addictive behaviors. JO Prochaska, CC DiClemente, JC Norcross American Psychological Association	15590	1997
The transtheoretical model of health behavior change JO Prochaska, WF Velicer American journal of health promotion 12 (1), 38-48	14578	1997
Transtheoretical therapy: Toward a more integrative model of change. JO Prochaska, CC DiClemente Psychotherapy: theory, research & practice 19 (3), 276	7462	1982
The transtheoretical approach: Crossing traditional boundaries of therapy JO Prochaska, CC DiClemente (No Title)	3961	1984
Stages of change and decisional balance for 12 problem behaviors. JO Prochaska, WF Velicer, JS Rossi, MG Goldstein, BH Marcus, ... Health psychology 13 (1), 39	3872	1994
The process of smoking cessation: an analysis of precontemplation, contemplation, and preparation stages of change. CC DiClemente, JO Prochaska, SK Fairhurst, WF Velicer, MM Velasquez, ... Journal of consulting and clinical psychology 59 (2), 295	3666	1991
Systems of psychotherapy: A transtheoretical analysis JO Prochaska, JC Norcross Oxford University Press	3620	2018
Changing for good JO Prochaska Avon Books, Inc	3445	1994
Stages of change in the modification of problem behaviors JO Prochaska Progress in behavior modification 28	2873	1992



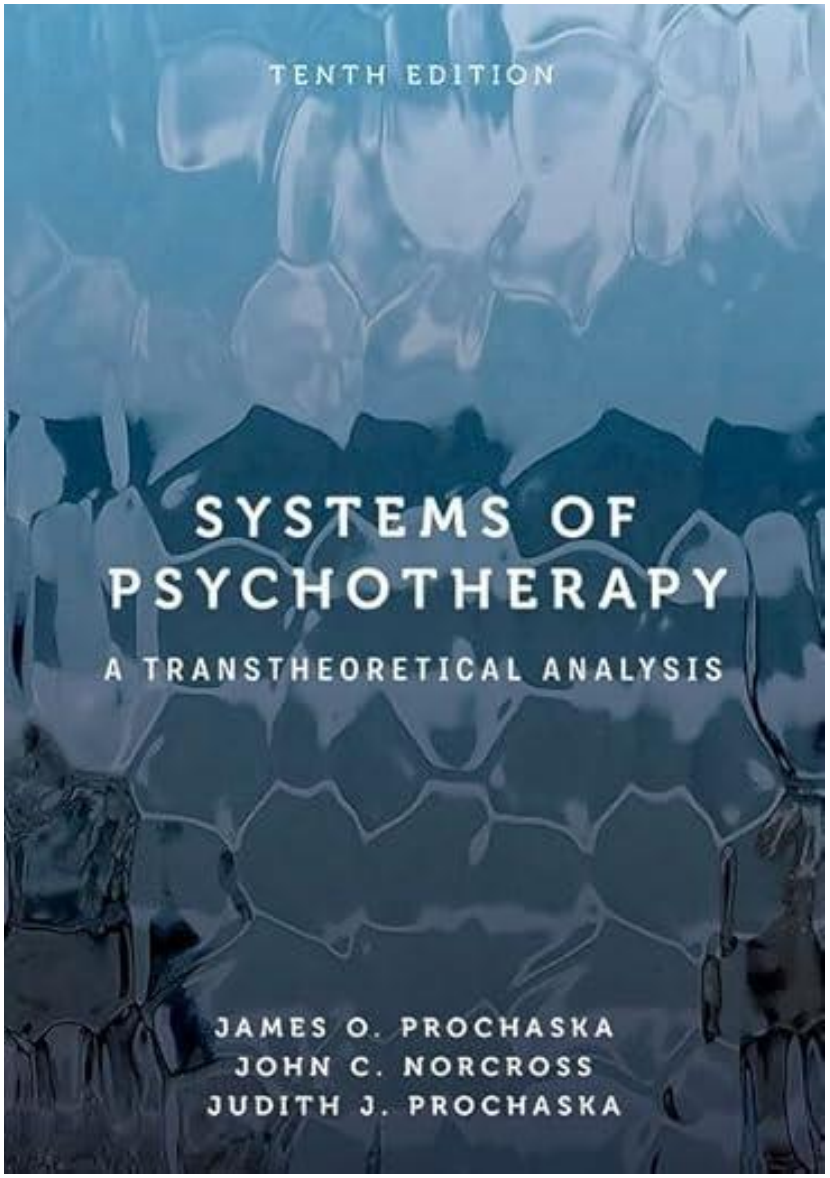
Using the Stages of Change to Overcome the Top Threats to Your Health and Happiness

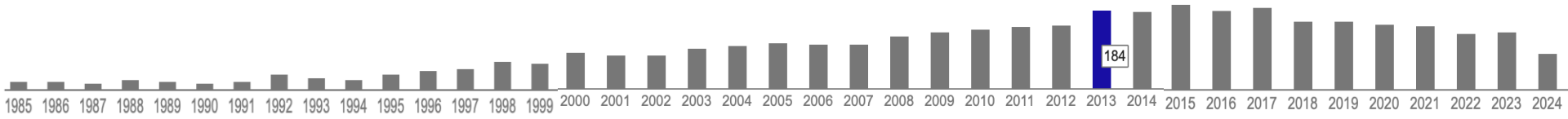
CHANGING TO THRIVE

JAMES O. PROCHASKA, PhD
CO-AUTHOR OF *CHANGING FOR GOOD* and THE GROUNDBREAKING STAGES OF CHANGE MODEL

JANICE M. PROCHASKA, PhD
CO-FOUNDER OF PRO-CHANGE BEHAVIOR SYSTEMS, INC.

3620 citations
from 1985-2024





A Stages of Change Approach for Treating Behavioral Health Conditions

38.2 Million Adults Had AMI (with or without SMI) but Not SUD

20.4 Million Adults Had SUD and AMI (with or without SMI)

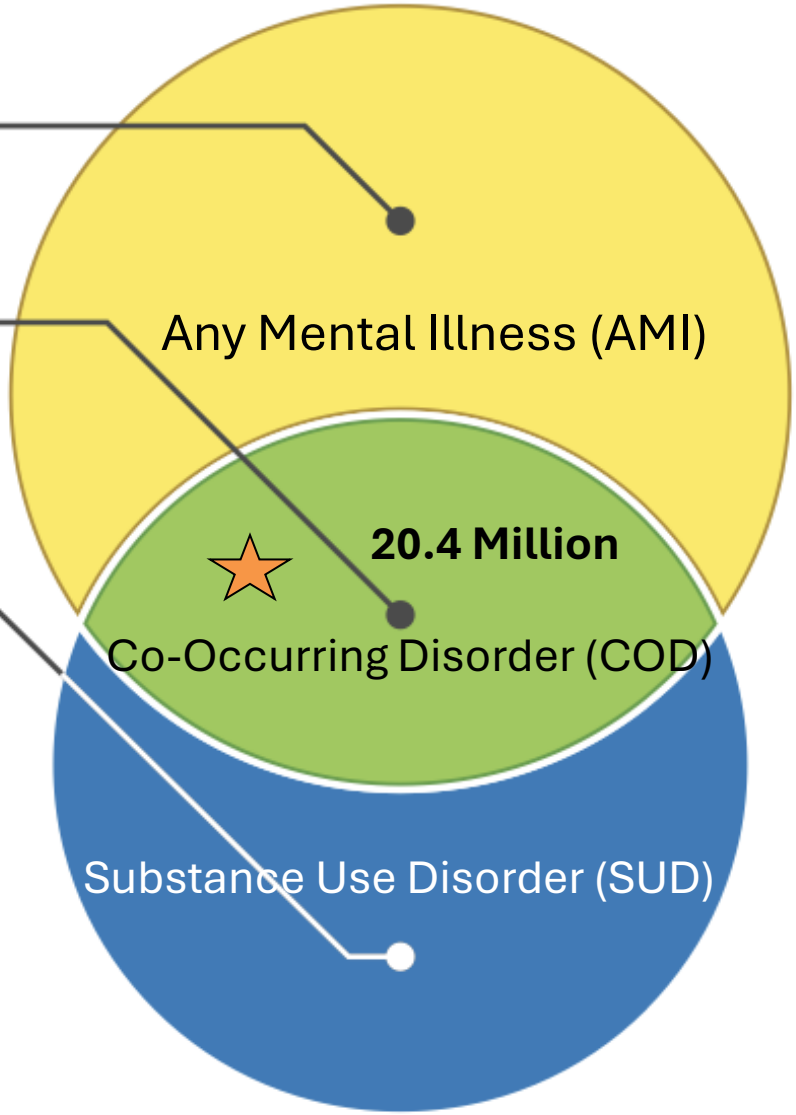
25.8 Million Adults Had SUD but Not AMI

58.7 Million Adults Had AMI (with or without SMI)

35%

46.3 Million Adults Had SUD

44%



24% SUD

84.5 Million Adults Had Either AMI (with or without SMI) or SUD

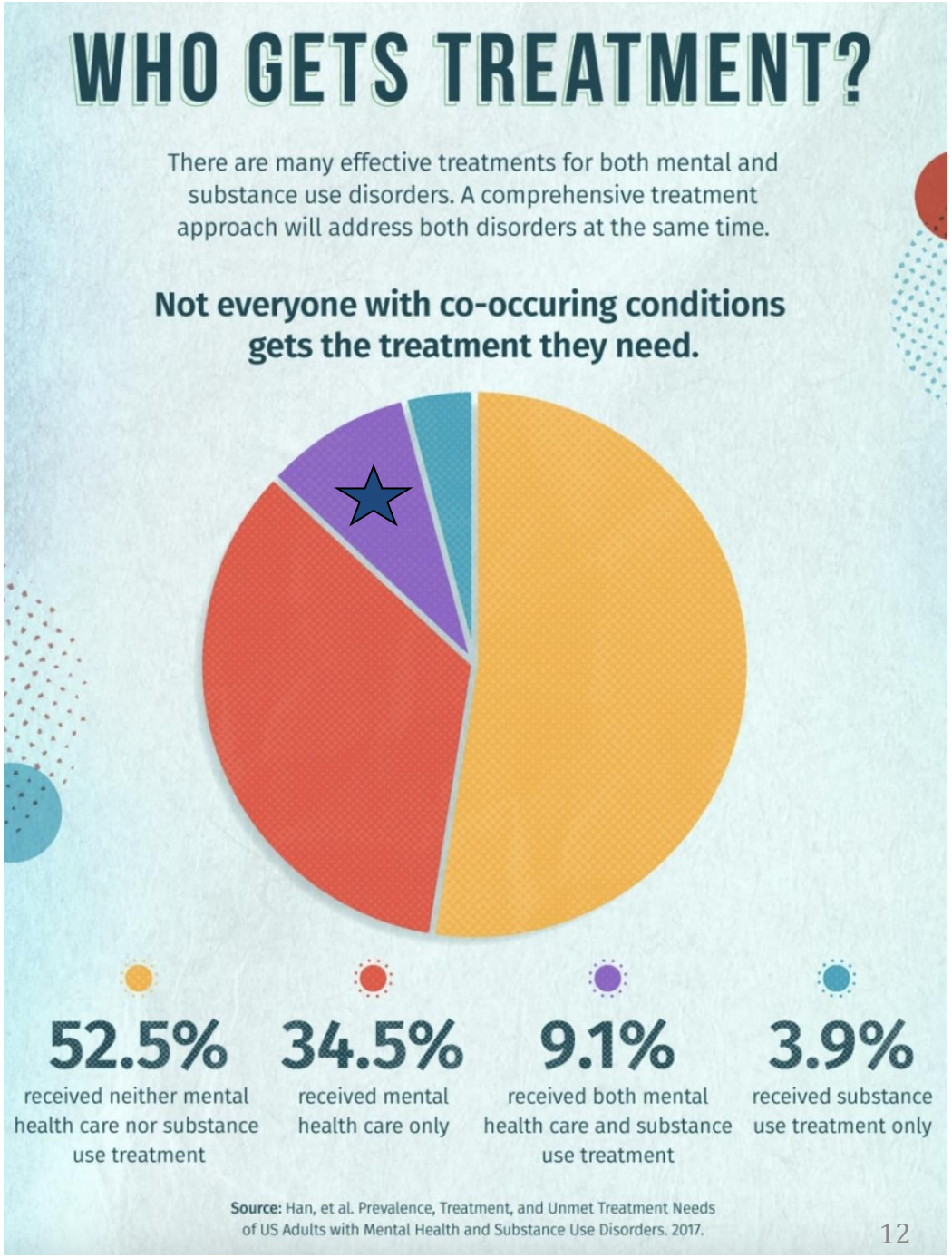
BEHAVIORAL HEALTH

Fewer than
1 in 10 people
with co-occurring disorders receive treatment for both mental health & substance use

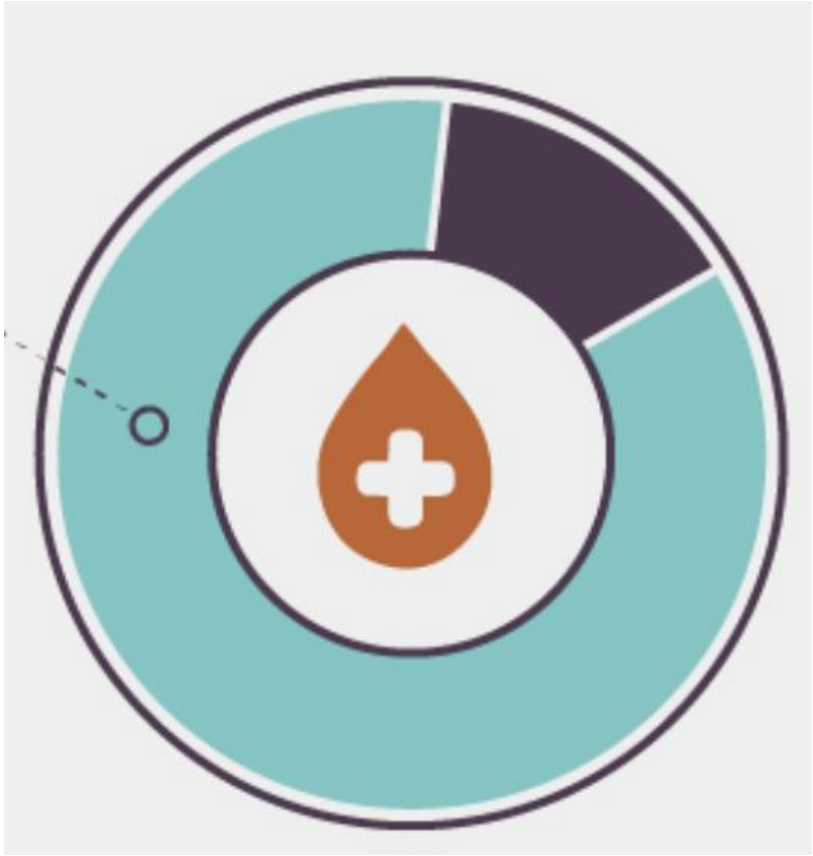
38% were not ready to stop using substances

24% did not know where to go for mental health treatment

21% did not know where to go for addictions treatment or said no program had the treatment type



By contrast, **85%** of the 38 million adults in the US with diabetes receive treatment




NO ENTRY
Please use
other door

Help Wherever You Turn

Pro-active Outreach

Comprehensive Assessments

Person-Centered Counseling

Stage-Tailored Interventions

Coordination with Referrals

Photo credit: WLOS Staff

"No wrong door" means people needing treatment for mental illness and/or substance use will be identified, assessed, and receive treatment, either directly or through appropriate referral, no matter where they seek services.

Living Healthier, Happier and Longer Lives

James O. Prochaska, Ph.D.
Director and Professor Emeritus
Cancer Prevention Research Center
University of Rhode Island
Founder Pro-Change Behavior Systems, Inc.

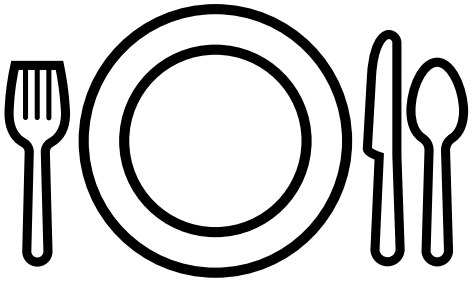
What **5 Behaviors** Account for the Majority of Chronic Diseases, Disabilities, Lost Productivity, and Premature Deaths?

US Deaths per Year

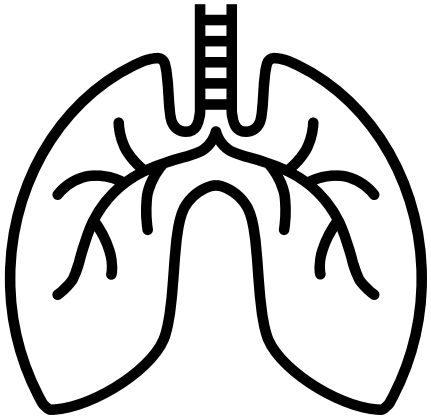
• Smoking	480,000
• Unhealthy Eating	400,000*
• Alcohol & Drugs	210,000
• Inadequate Exercise	110,000
• Stress/Distress	120,000

Why are these Behaviors so Critical for Health?

They Represent Fundamental Functions of Life

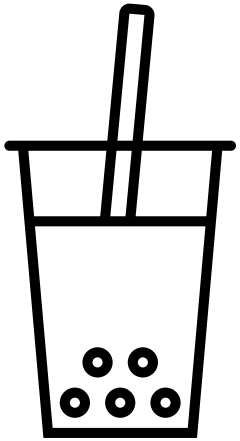


Eating



Breathing

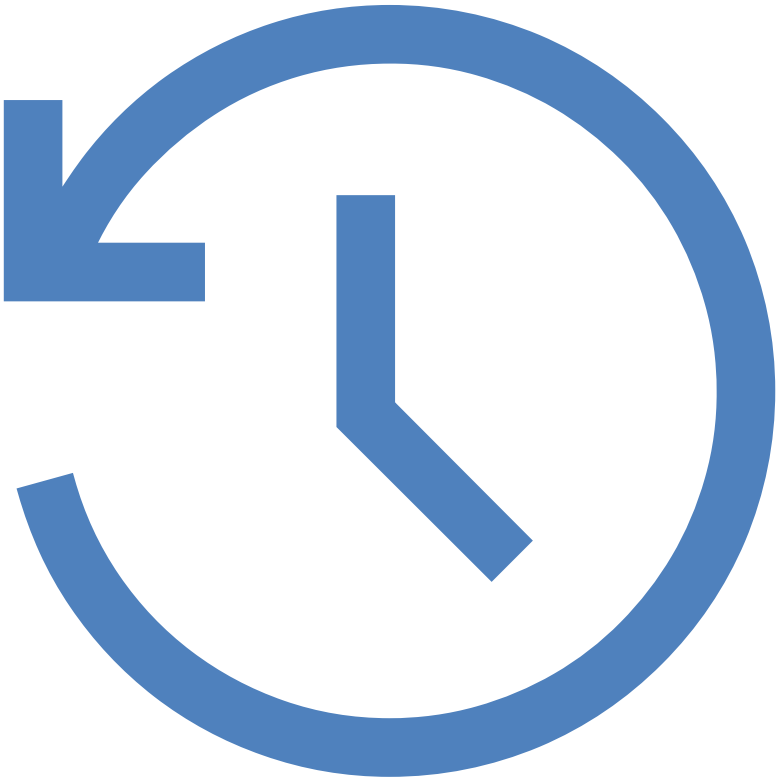
Moving



Drinking

Feeling

What is the best predictor of future behavior?



Past Behavior!

What is the best predictor of future behavior change?

Is it…

- Will Power
- Reasons to Change
- Confidence/Self-efficacy
- Internal Motivation
- Social Support
- External Pressures
- Time
- Bottoming out

Key Question:

What is your mental model of behavior?

Is it when people take action?

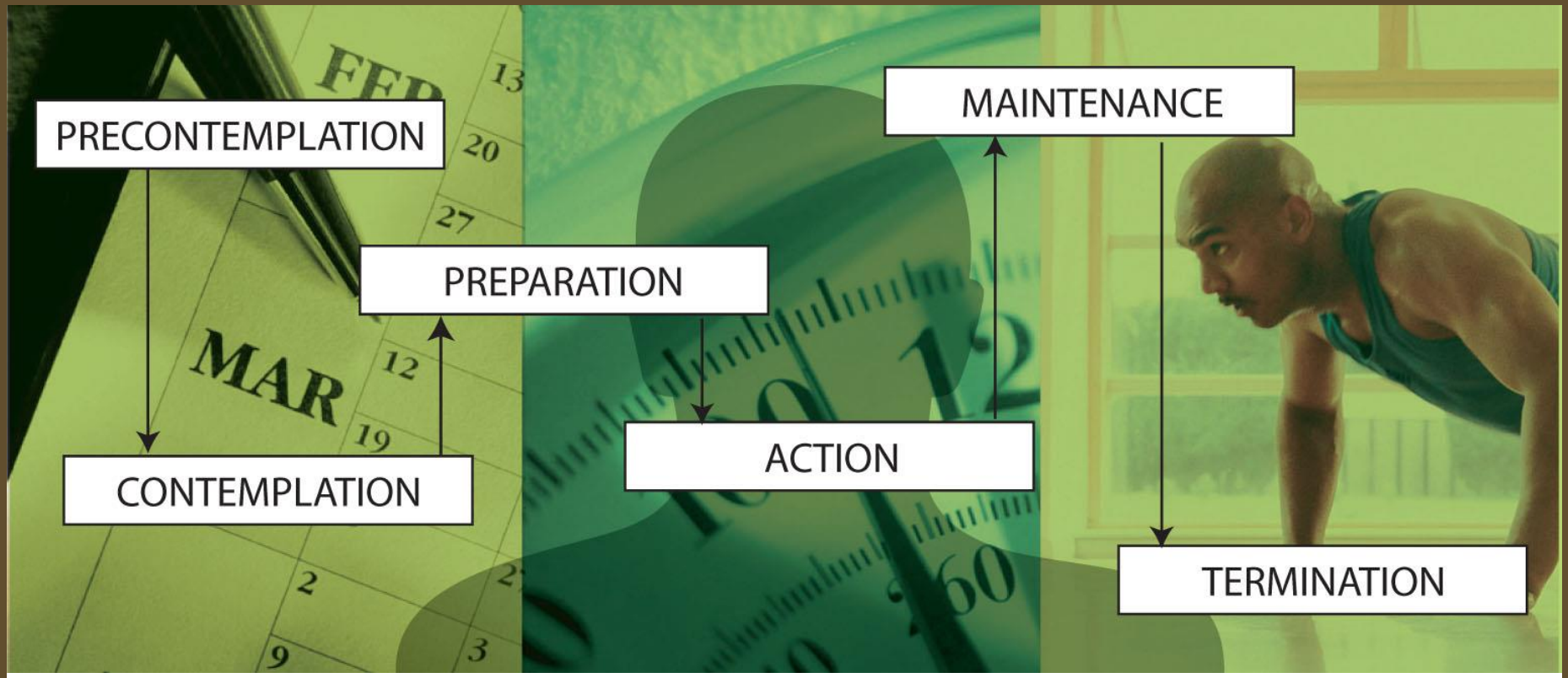
To quit… smoking, abusing substances, unhealthy eating, being sedentary, poor stress management

Consider…

shifting your approach from an Action Model to a Stages of Change Model

The Stages of Change Model:

where change equals progress from one stage to the next

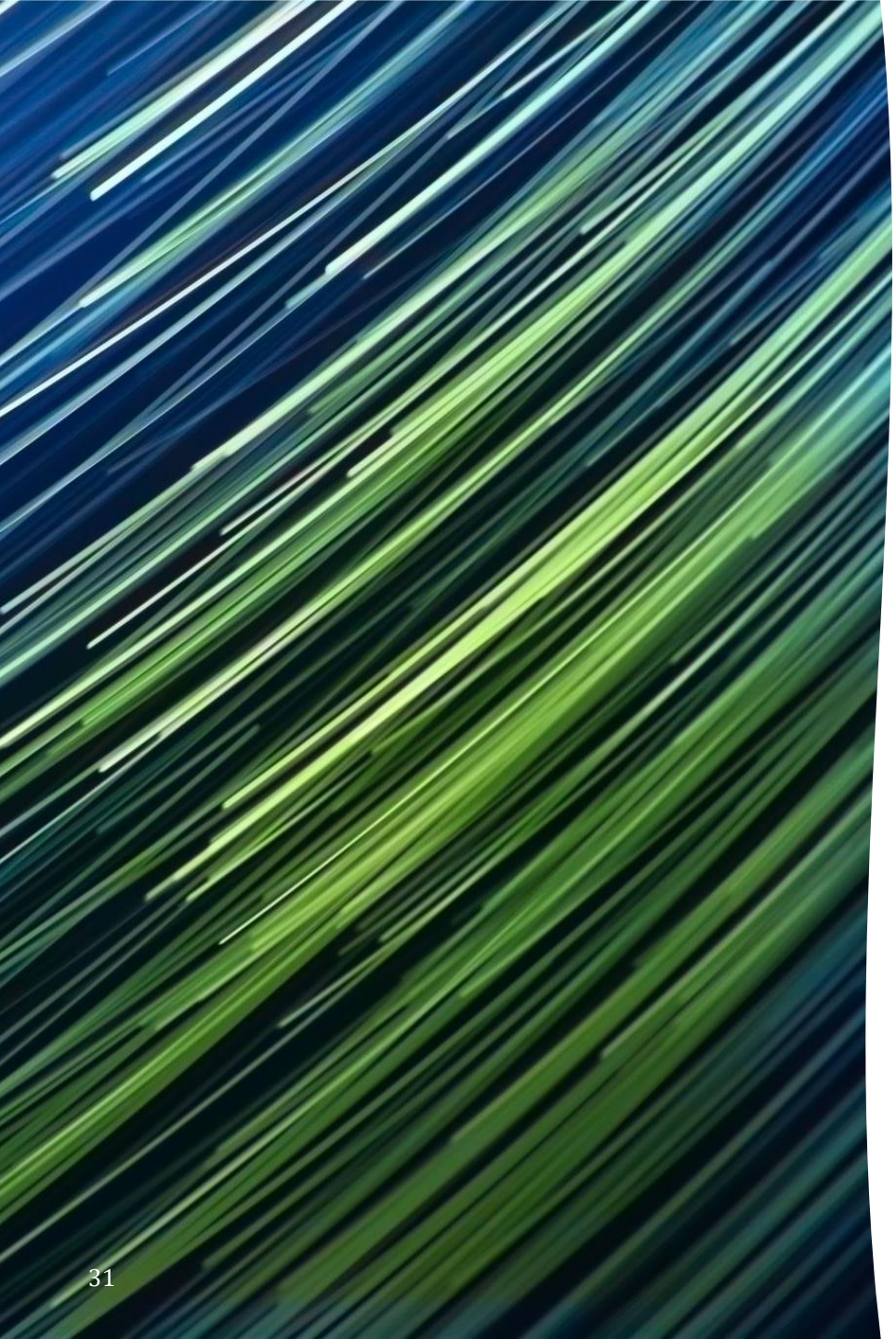


Stages of Change

Precontemplation:

<u>Not Ready</u>

Have no intention to start taking action in the next 6 months



Characteristics of Precontemplation

- Don’t know
- Demoralized
- Denial

Contemplation

<u>Getting Ready</u>

Intend to start in the next 6 months

Characteristics of Contemplation

Doubt

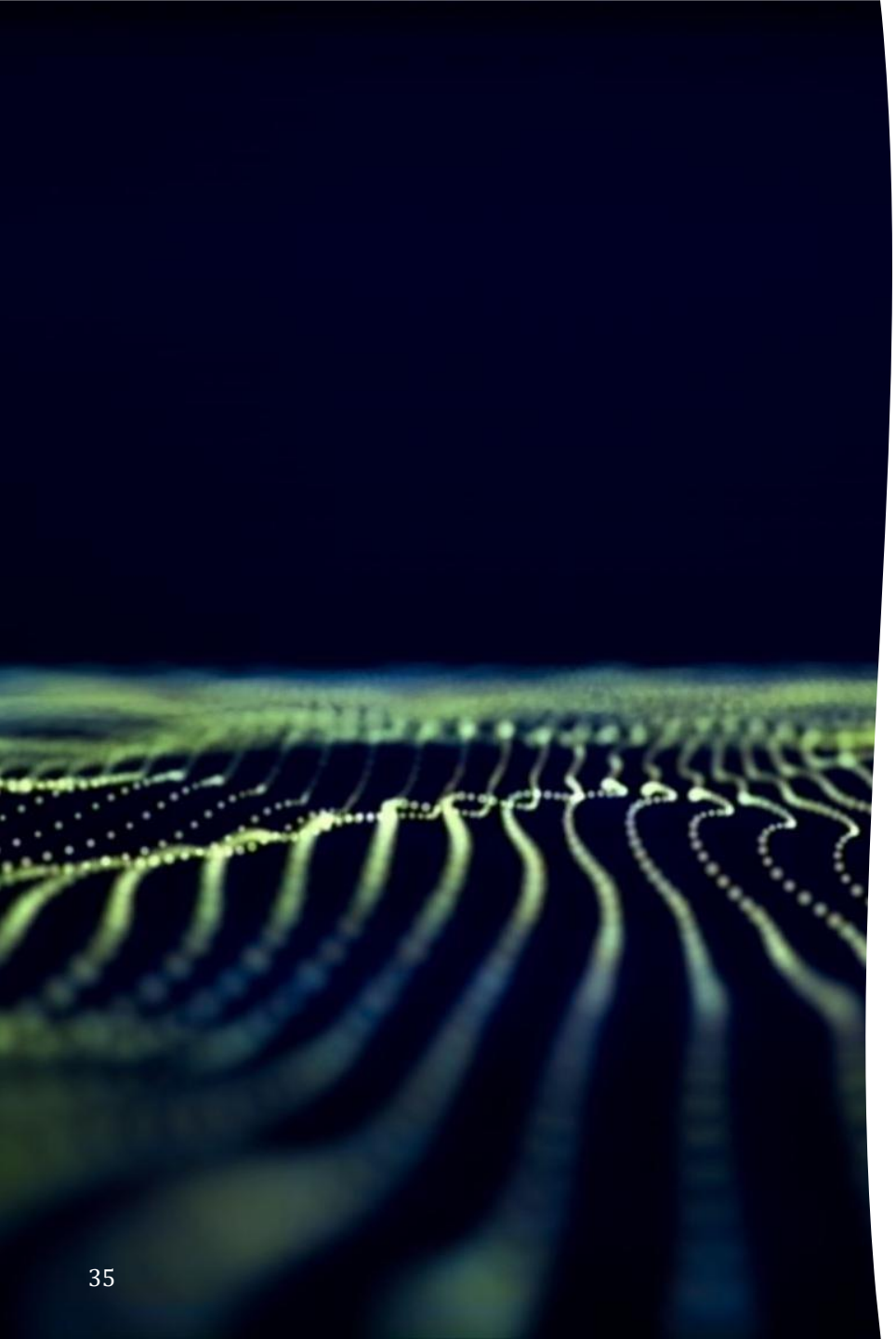
Delay

Preparation

<u>Ready</u>

Practicing the behavior

Intend to start in the next 30 days



Characteristics of Preparation

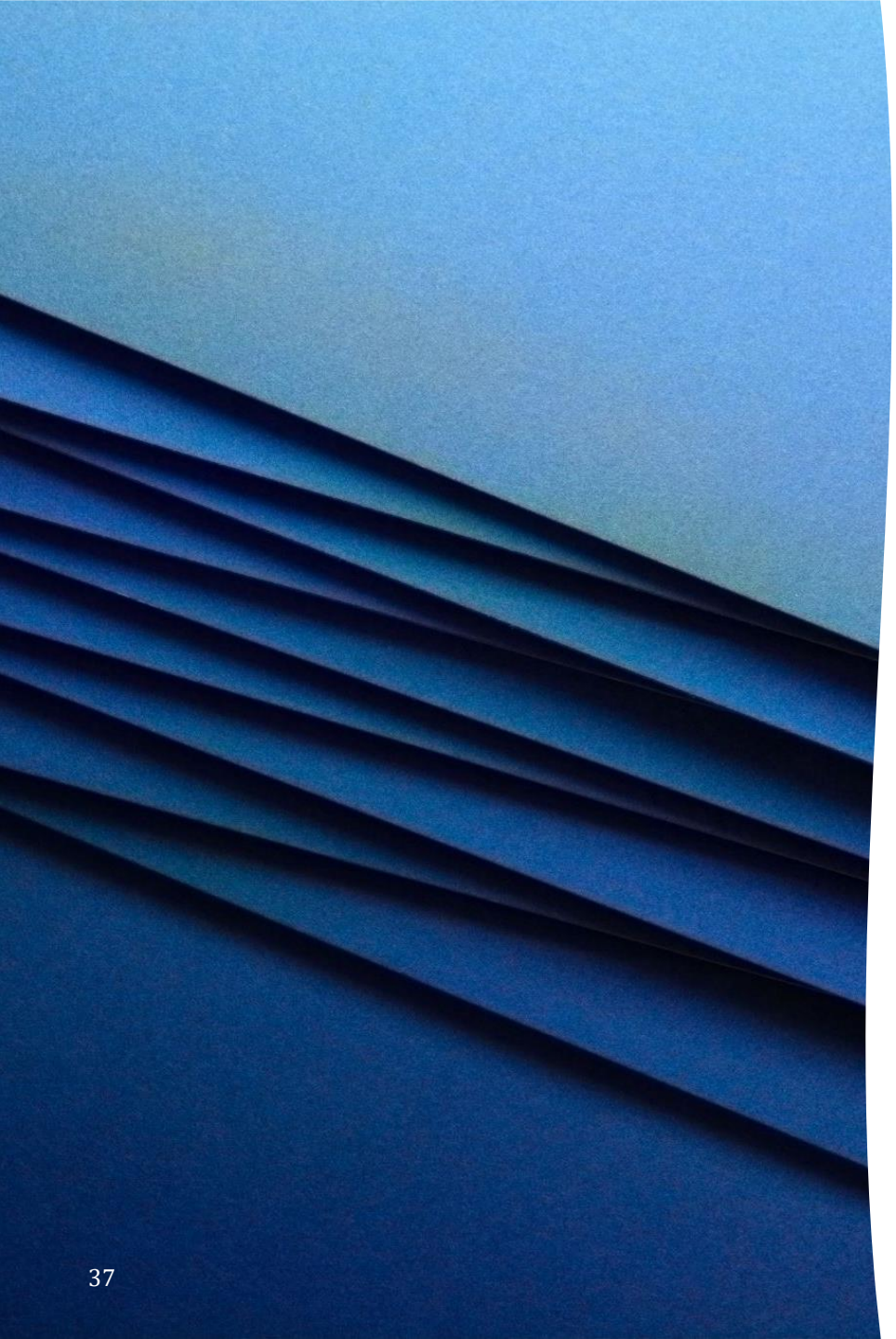
Decision

Dread

Action

<u>Recently Started to Change Overt Behavior</u>

Consistently for less than 6 months



Action Characteristics

Demanding

Drivers

Maintenance

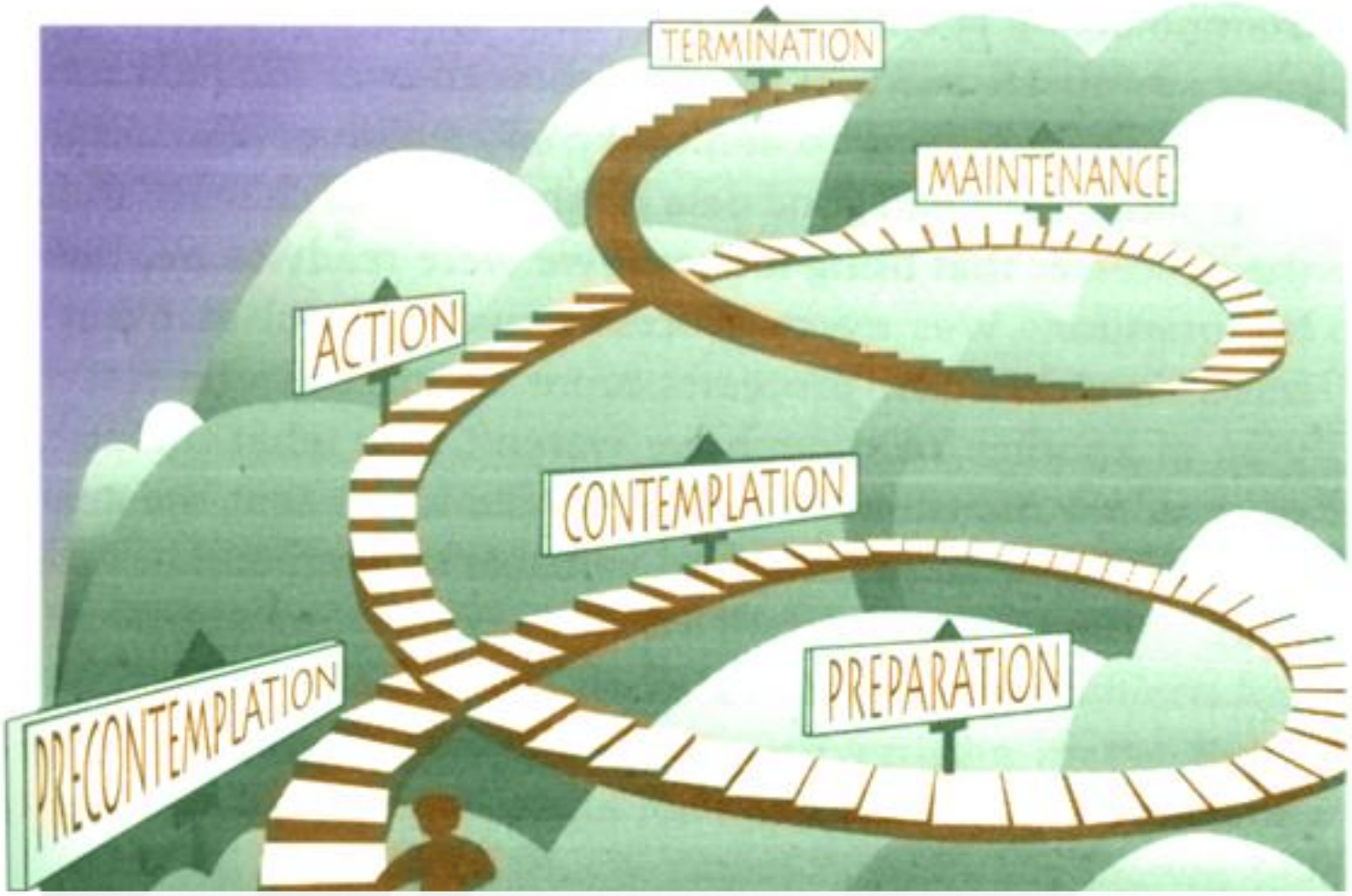
<u>Has Overtly Changed Behavior</u>

Consistently for 6 months or more

Maintenance Characteristics

Determined

Distress


TERMINATION
MAINTENANCE
ACTION
CONTEMPLATION
PRECONTEMPLATION
PREPARATION

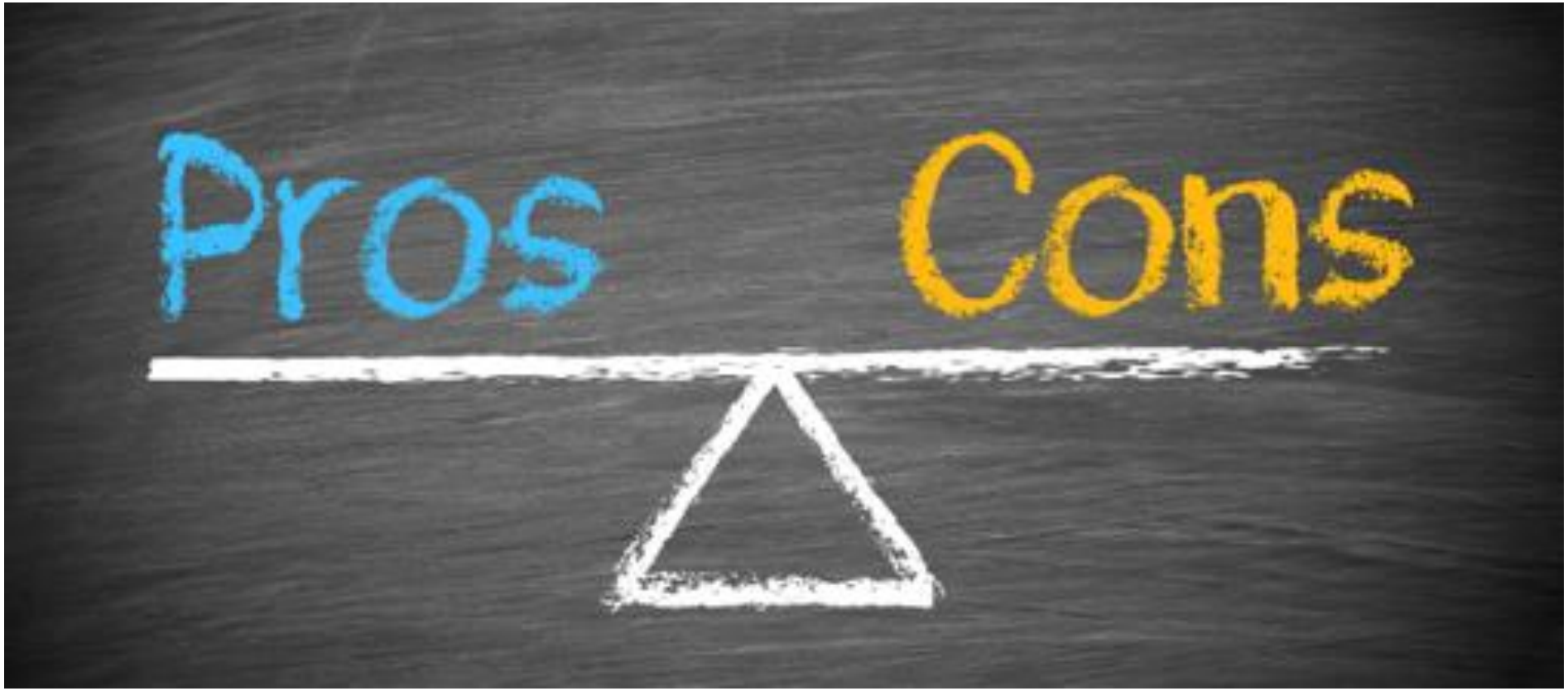
Recycling

Characteristics of Recycling

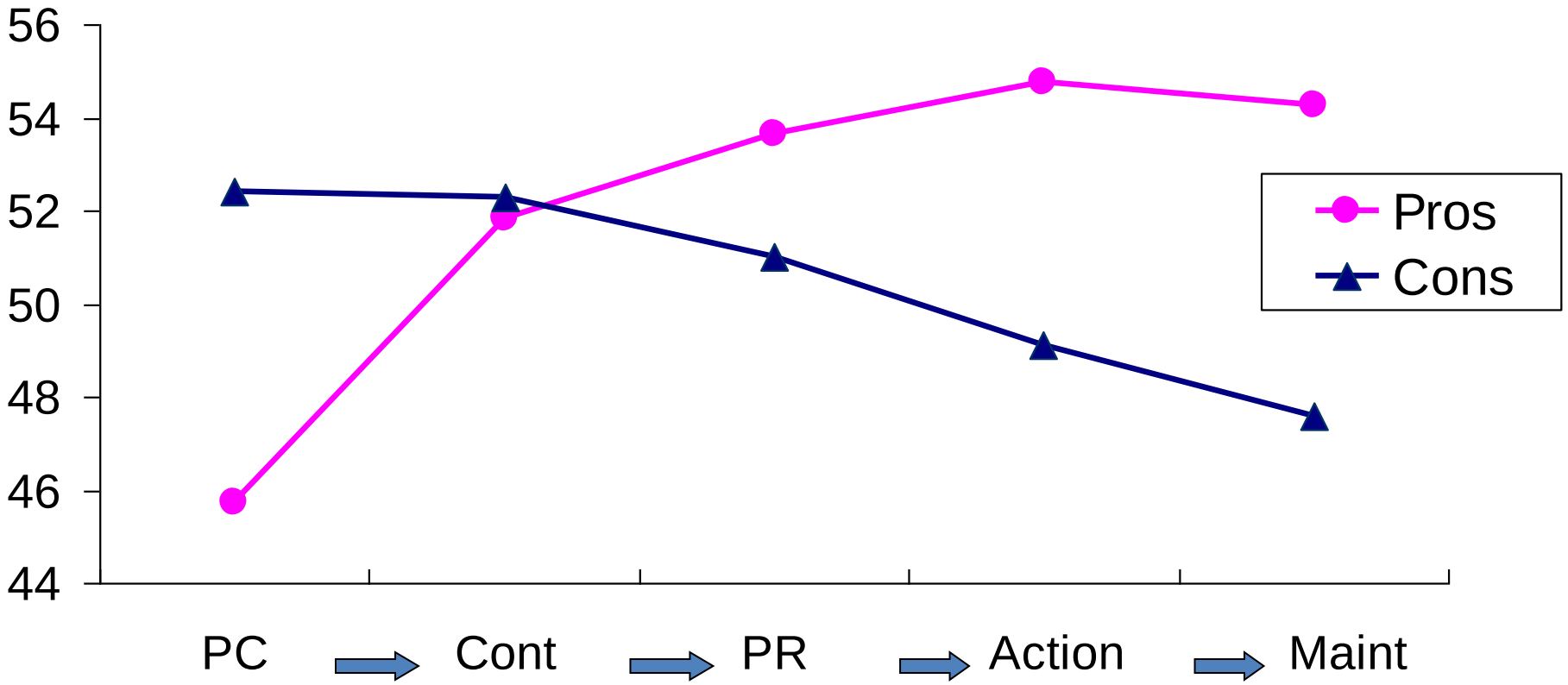
Redeeming

Yourself

Decisional Balance

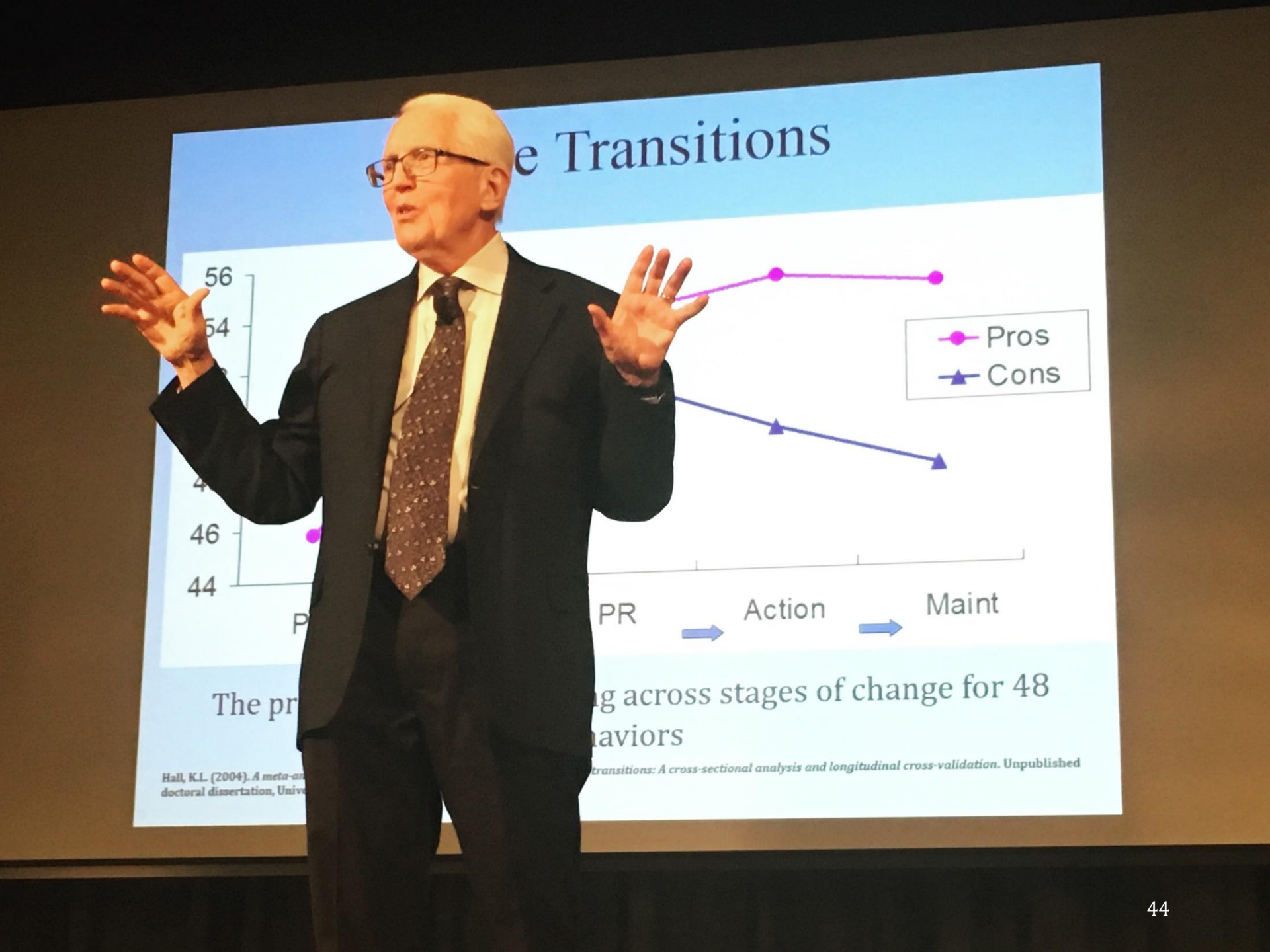


Stage Transitions



Pros & cons of changing across stages of change for 48 behaviors

Hall KL, Rossi JS. Meta-analytic examination of the strong and weak principles across 48 health behaviors. Prev Med. 2008 Mar;46(3):266-74


e Transitions
56
54
46
44
Pros
Cons
PR
Action
Maint
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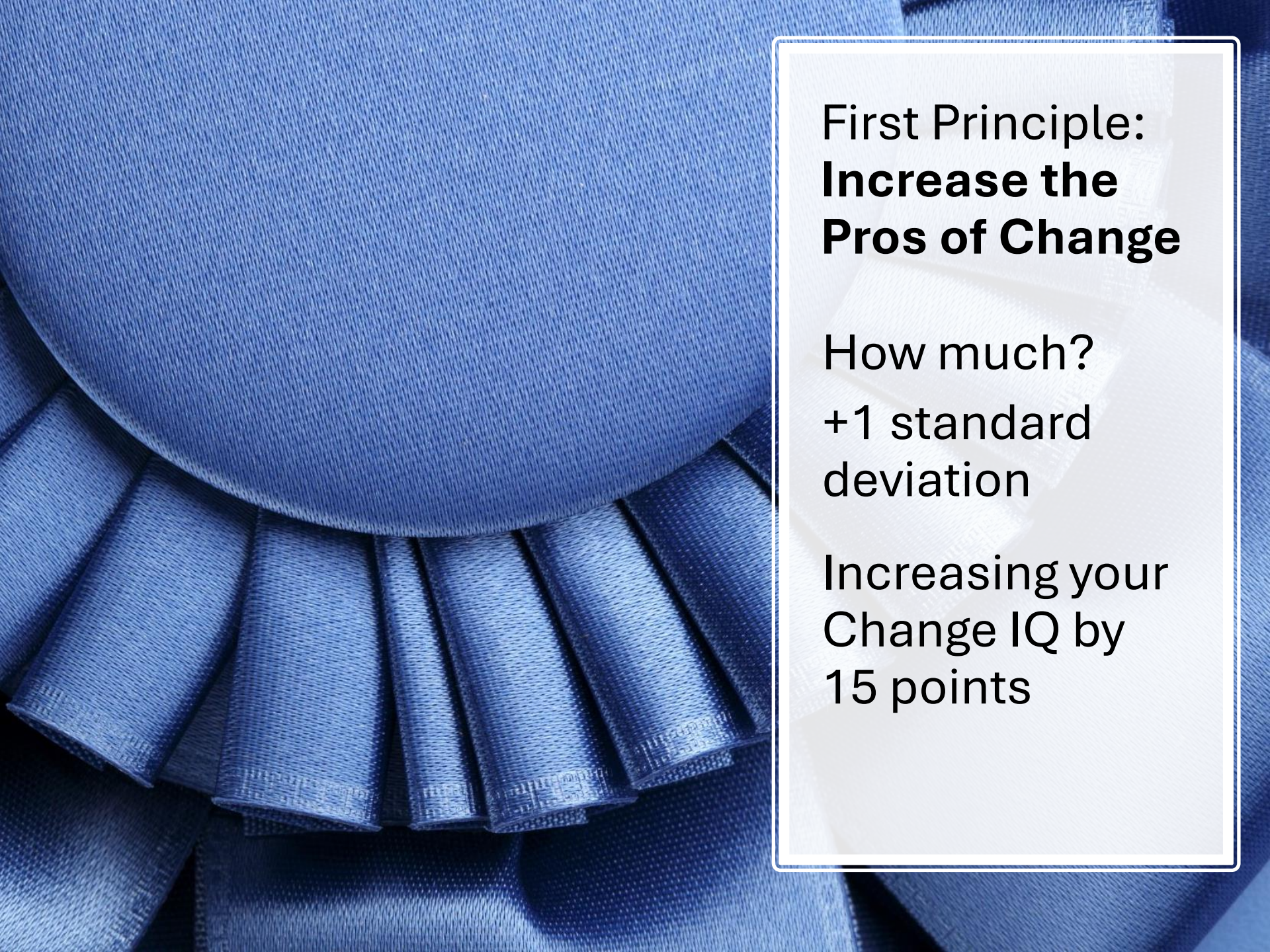
transitions: A cross-sectional analysis and longitudinal cross-validation. Unpublished

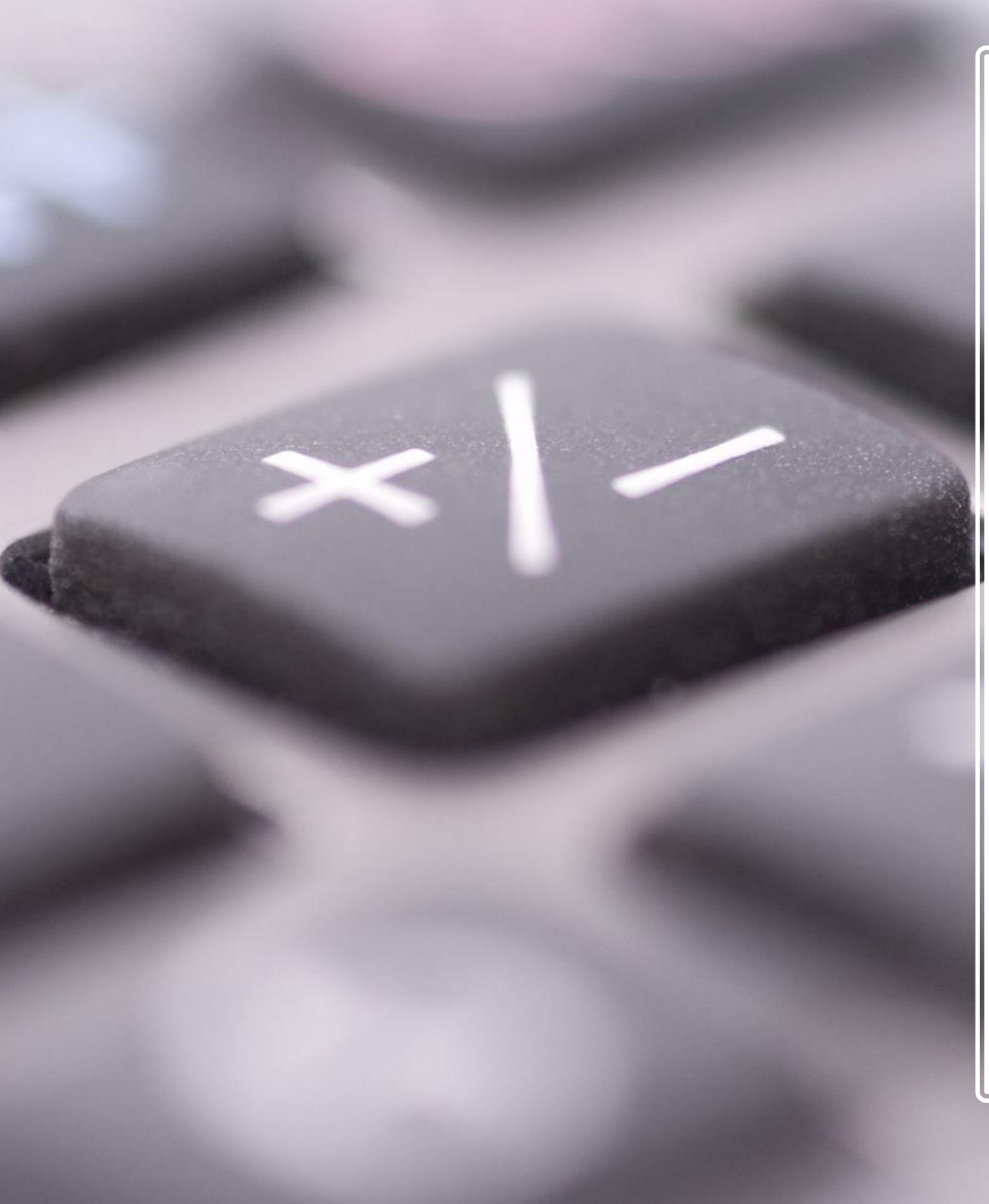


First Principle:
Increase the Pros of Change

How much?

+1 standard deviation

Increasing your Change IQ by 15 points

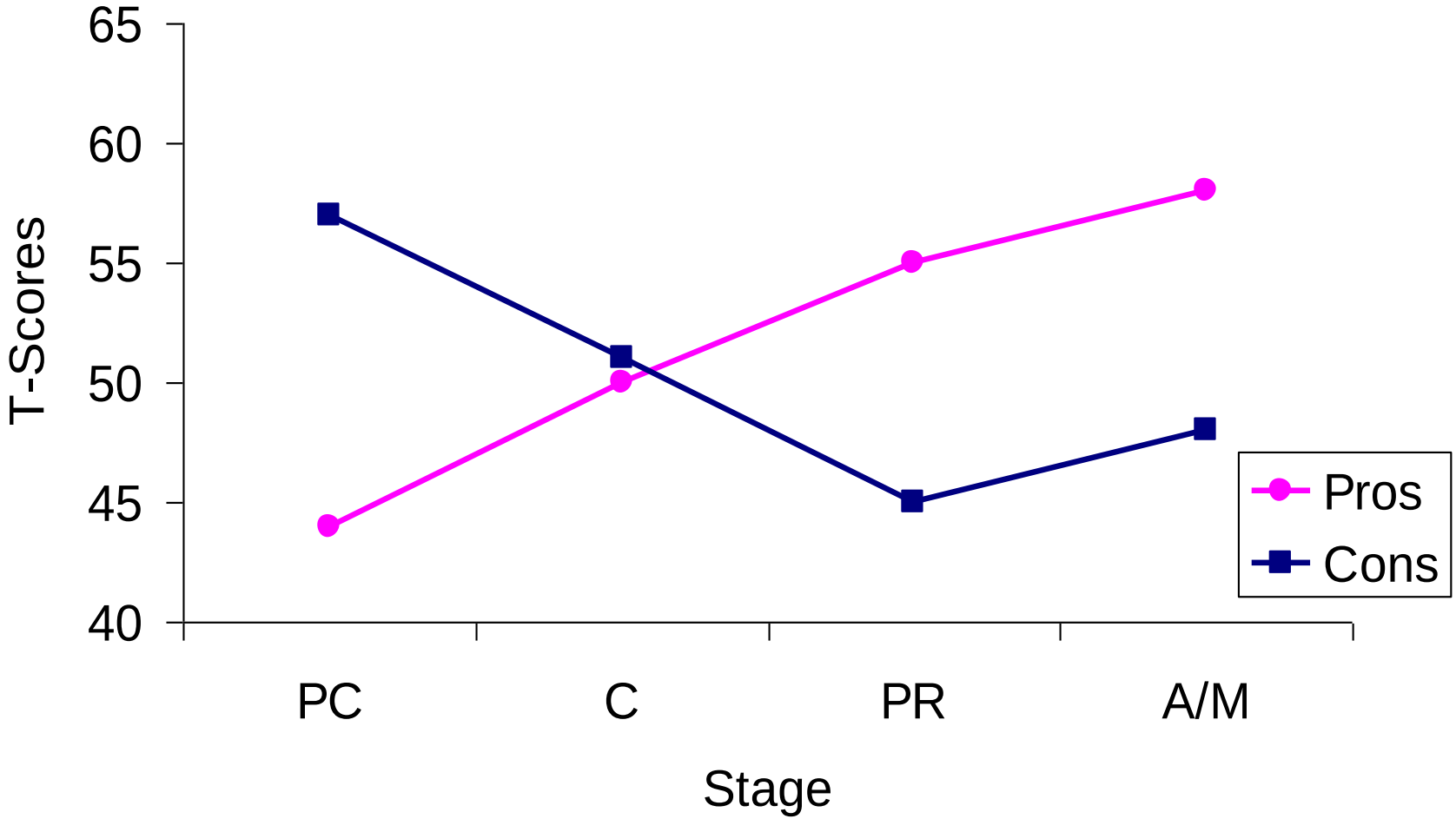


Second Principle:
Decrease the Cons

How much?
- ½ standard deviation

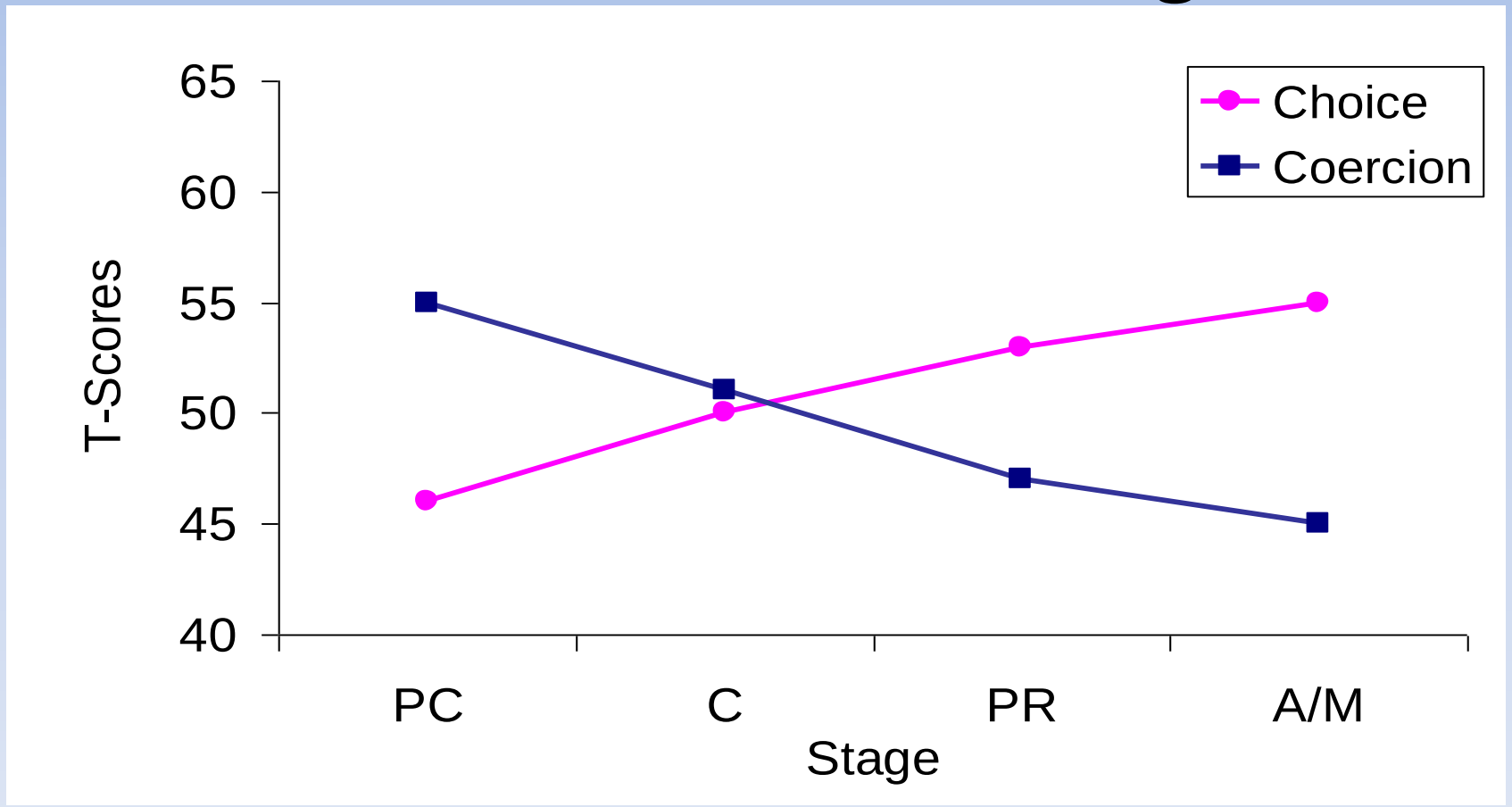
Emphasize the Pros twice as much as the Cons

Decisional Balance of Drug Addiction Treatment Across Stage



Tsoh, Janice. (1995). Stages of change, dropouts and outcome in substance abuse treatment. Dissertation University of Rhode Island.

Perceived Coercion & Choice Over Participating In Drug Addiction Treatment Across Stage



Tsoh, Janice. (1995). Stages of change, dropouts and outcome in substance abuse treatment. Dissertation University of Rhode Island.

When social controls are used, programs need to help transform social controls into self controls.

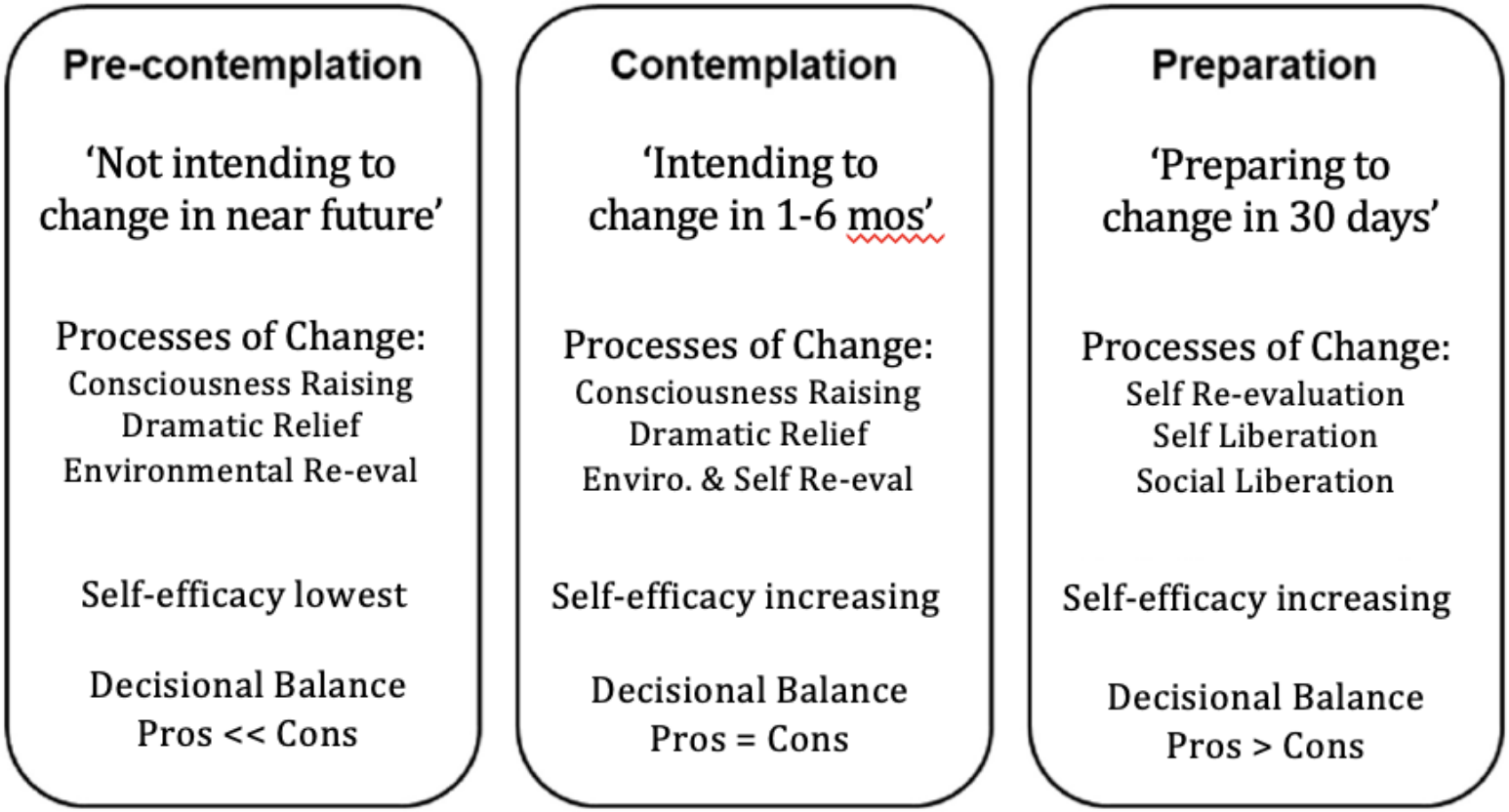
Stages, Pros & Cons, & Processes of Change

Pre-contemplation	Contemplation	Preparation	Action	Maintenance
'Not intending to change in near future'	'Intending to change in 1-6 mos'	'Preparing to change in 30 days'	'Actively changing'	'Changed for 6+ mos'
Processes of Change: Consciousness Raising Dramatic Relief Environmental Re-eval	Processes of Change: Consciousness Raising Dramatic Relief Enviro. & Self Re-eval	Processes of Change: Self Re-evaluation Self Liberation Social Liberation	Processes of Change: Reinforcement Mgmt Helping Relationships Counter Conditioning Stimulus Control	Processes of Change: Reinforcement Mgmt Helping Relationships Counter Conditioning Stimulus Control
Self-efficacy lowest	Self-efficacy increasing	Self-efficacy increasing	Self-efficacy rapid incr.	Self-efficacy peaks
Decisional Balance Pros << Cons	Decisional Balance Pros = Cons	Decisional Balance Pros > Cons	Decisional Balance Pros >> Cons	Decisional Balance Pros >>> Cons

Use of Mass Media, Motivational Interviewing techniques & other Methods

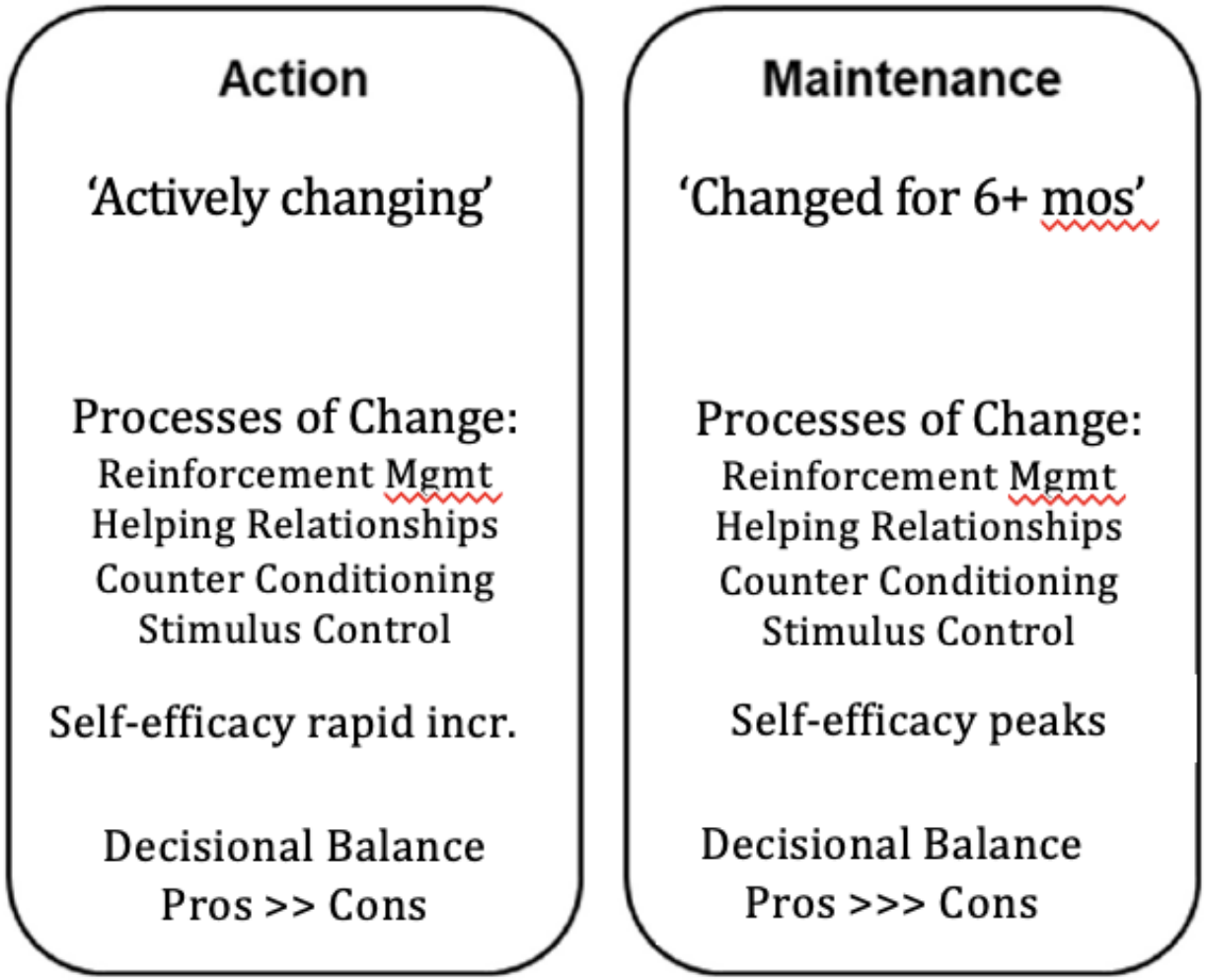
Skill Building, Social Support through Small Groups, and other Methods

Stages, Pros & Cons, & Processes of Change



Use of Mass Media, Motivational Interviewing techniques & other Methods

Stages, Pros & Cons, & Processes of Change



Skill Building, Social Support through Small Groups, and other Methods

How do People with Co-occurring Disorders do with Quitting Smoking with TTM (stage-based) Interventions?

Proactive Smoking Cessation in Patients in Treatment for Depression: Abstinence at 18 Months

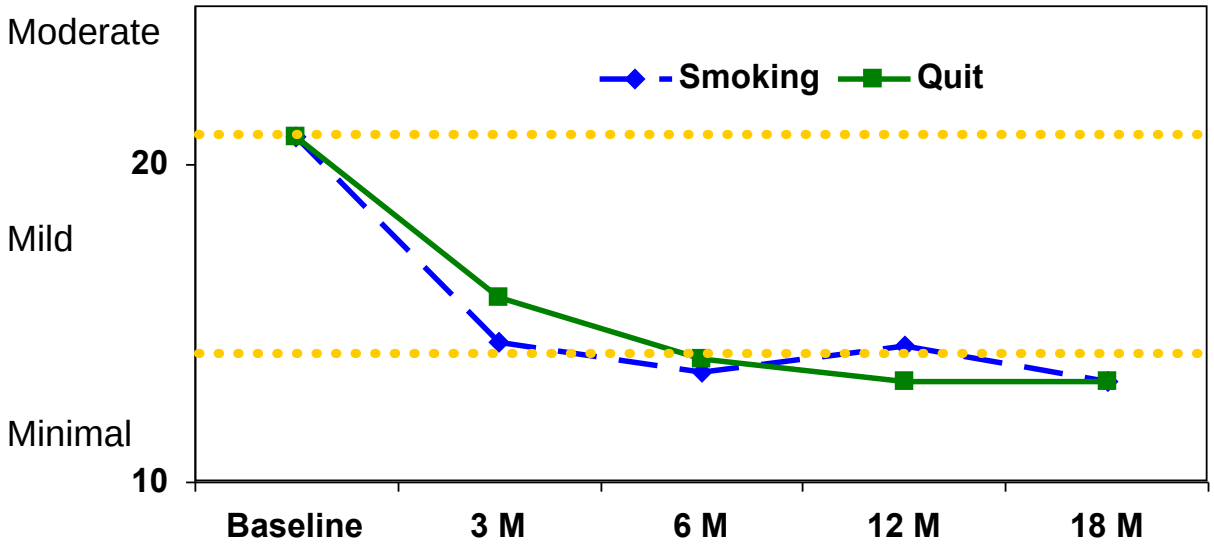
Tailored Intervention+	Assessment Only
24.6%	19.1%

Hall, S. M., Tsoh, J. V., Prochaska, J. J., Eisendrath, S., Humfleet, G. L., Gorecki, J. A. et al. (2006). Treatment for Cigarette Smoking Among Depressed Mental Health Outpatients: A Randomized Clinical Trial. *American Journal of Public Health, 96,* 1808-1814.

DEPRESSION & QUITTING SMOKING

- No increase in suicidality: Quit: 0% v Smoking: 1-4%
- No increase in hospitalization: Quit: 0-1% v Smoking: 2-3%
- Comparable improvement in emotional problems
- No difference in use of THC, stimulants, opiates
- Less alcohol use among those who quit smoking

Randomized Trial with N=322 adults with clinical depression



Prochaska JJ et al. 2008, AJPH

Proactive Smoking Cessation with Patients Hospitalized for Serious Mental Illness: Abstinence at 18 Months

Tailored	Assessment
20%	8%

Prochaska, J.J., Hall, S., Delucchi, K., & Hall, S.M. (2014). Efficacy of initiating tobacco dependence treatment in inpatient psychiatry: A randomized controlled trial. *American Journal of Public Health, 104(8),* 1557-1565.

Efficacy of Initiating Tobacco Dependence Treatment in Inpatient Psychiatry: A Randomized Controlled Trial

Judith J. Prochaska, PhD, MPH, Stephen E. Hall, MD, Kevin Delucchi, PhD, and Sharon M. Hall, PhD

Objectives. We evaluated the efficacy of a motivational tobacco cessation treatment combined with nicotine replacement relative to usual care initiated in inpatient psychiatry.

Methods. We randomized participants (n = 224; 79% recruitment rate) recruited from a locked acute psychiatry unit with a 100% smoking ban to intervention or usual care. Prior to hospitalization, participants averaged 19 (SD = 12) cigarettes per day; only 16% intended to quit smoking in the next 30 days.

Results. Verified smoking 7-day point prevalence abstinence was significantly higher for intervention than usual care at month 3 (13.9% vs 3.2%), 6 (14.4% vs 6.5%), 12 (19.4% vs 10.9%), and 18 (20.0% vs 7.7%; odds ratio [OR] = 3.15; 95% confidence interval [CI] = 1.22, 8.14; *P* = .018; retention > 80%). Psychiatric measures did not predict abstinence; measures of motivation and tobacco dependence did. The usual care group had a significantly greater likelihood than the intervention group of psychiatric rehospitalization (adjusted OR = 1.92; 95% CI = 1.06, 3.49).

Conclusions. The findings support initiation of motivationally tailored tobacco cessation treatment during acute psychiatric hospitalization. Psychiatric severity did not moderate treatment efficacy, and cessation treatment appeared to decrease rehospitalization risk, perhaps by providing broader therapeutic benefit. (*Am J Public Health.* Published online ahead of print August 15, 2013: e1–e9. doi:10.2105/AJPH.2013.301403)

Tobacco use among persons with mental illness is 2 to 4 times as great as among the general US population, with costly and deadly consequences.[1–3] Persons with serious mental illness have an average life expectancy 25 years shorter than in the general population; the chief causes of death are chronic tobacco-related diseases such as cardiovascular disease, lung disease, and cancer.[4] Annually, 200 000 of the 435 000 deaths in the United States attributed to smoking are believed to be among individuals with mental illness or addictive disorders.[5]

Despite the significant health effects, smoking remains ignored or—even worse—encouraged in mental health settings.[6,7] A minority of patients with mental illness report that a mental health provider has advised them to quit smoking, and some report active discouragement of quitting.[8,9] Staff at some psychiatric hospitals still smoke with patients, rationalized as effective for building clinician–client rapport.[10]

Since 1993, US hospitals have banned tobacco use under mandate of the Joint Commission on the Accreditation of Healthcare Organizations.[11] In response to outcries from patient advocacy groups, however, the commission permitted an exception for inpatient psychiatry; similar policy exemptions have been granted to psychiatric facilities in Europe and Australia.[12–14] Nearly 20 years later, more than half of state inpatient psychiatry units in the United States permit smoking, and half sell cigarettes to patients.[15] Even among hospitals that ban tobacco use, ces
treatment are rare.[15,16] V
almost all patients return
a smoke-free psychiatric
within minutes of hospita
grated treatments are ne

Nearly 8800 studies i
ment clinical practice gui
extensive literature docu
initiating treatment of tol
hospital settings with ger

patients.[18] Yet fewer than 2 dozen randomized clinical trials have treated smoking in persons with current mental illness,[19] and the only published randomized trial examining inpatient psychiatry for initiating tobacco treatment was conducted with adolescents. The intervention group increased in motivation to quit, but the treatment effect on abstinence was not significant.[20] The American Psychiatric Association identifies psychiatric hospitalizations as an ideal opportunity to treat tobacco dependence.[21] Hospital-based tobacco treatment tri-

increase following treatment of tobacco use. Tobacco treatment trials with smokers with clinical depression, posttraumatic stress disorder, and schizophrenia, however, have demonstrated no adverse effect of treating tobacco dependence or of quitting smoking on mental health recovery.[24–29]

Research has not examined the impact of treating tobacco dependence during an acute psychiatric hospitalization on mental health recovery. Patients for whom inpatient psychiatric care is deemed necessary typically present

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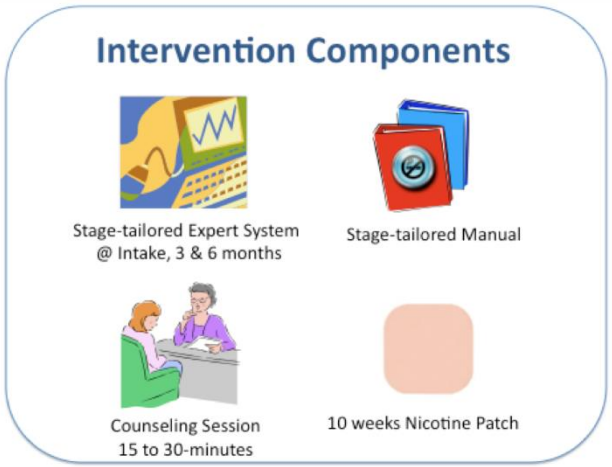
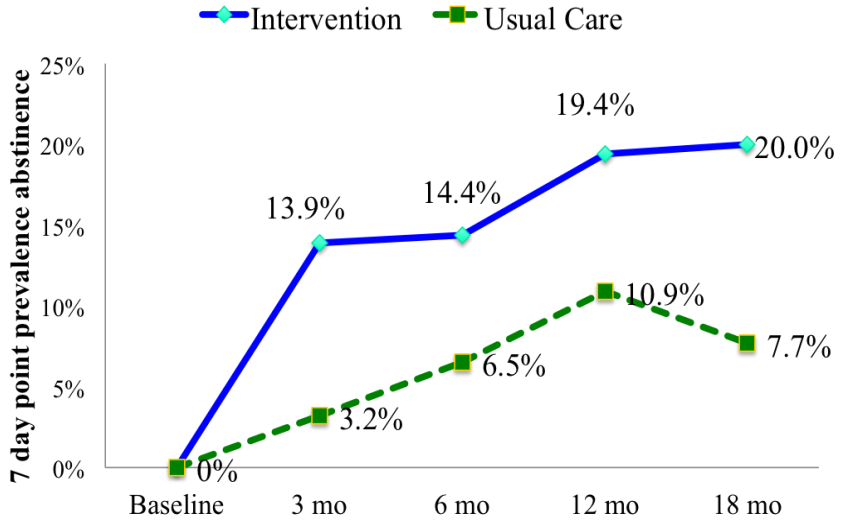




OR=3.15, p=0.018 for condition in a GEE-based logistic regression

234 rehospitalizations:
140 (UC) vs. 94 (Tx), p=0.036

Incremental cost-effectiveness ratio: **$428 per QALY**

APHA PRESS

	Private	Public
	LPPI	SFGH
N	224	100
Recruitment Rate	79%	71%
Age in years	40 (14)	40 (11)
Female	40%	35%
Ethnicity		
White	63%	**44%**
African American	9%	**27%**
Hispanic	5%	**9%**
Asian American	7%	**11%**
Multiethnic/other	16%	**9%**
Education in years	14 (3)	13 (3)
Income <$20,000	60%	**81%**
Homeless	5%	**39%**
Private/self-pay	53%	**1%**

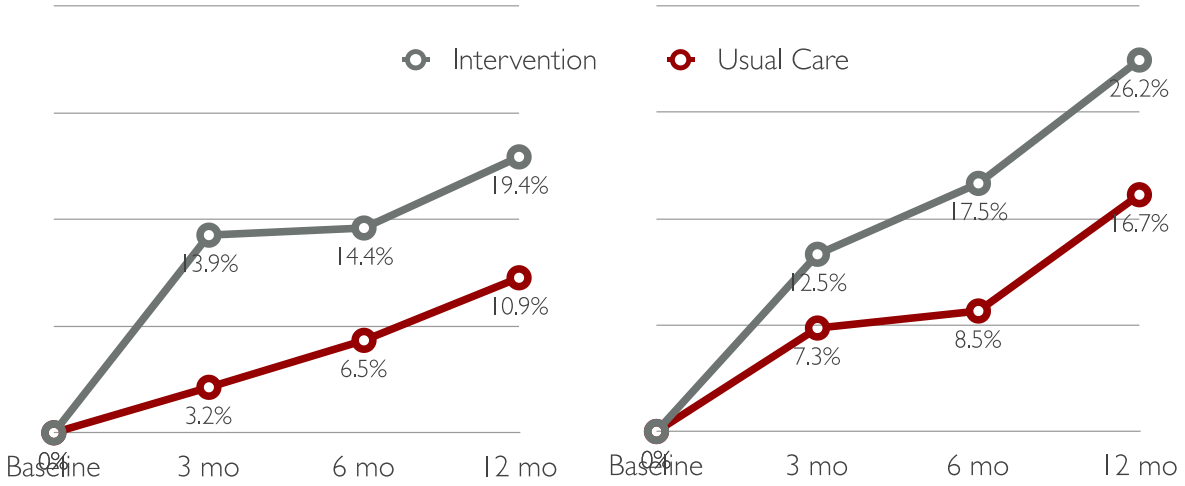
Nicotine & Tobacco Research, 2015, 1012–1021
doi:10.1093/ntr/ntv034
Original investigation

Original investigation

Treating Tobacco Dependence at the Intersection of Diversity, Poverty, and Mental Illness: A Randomized Feasibility and Replication Trial

Norval J. Hickman III PhD, MPH[1], Kevin L. Delucchi PhD[2], Judith J. Prochaska PhD, MPH[3]

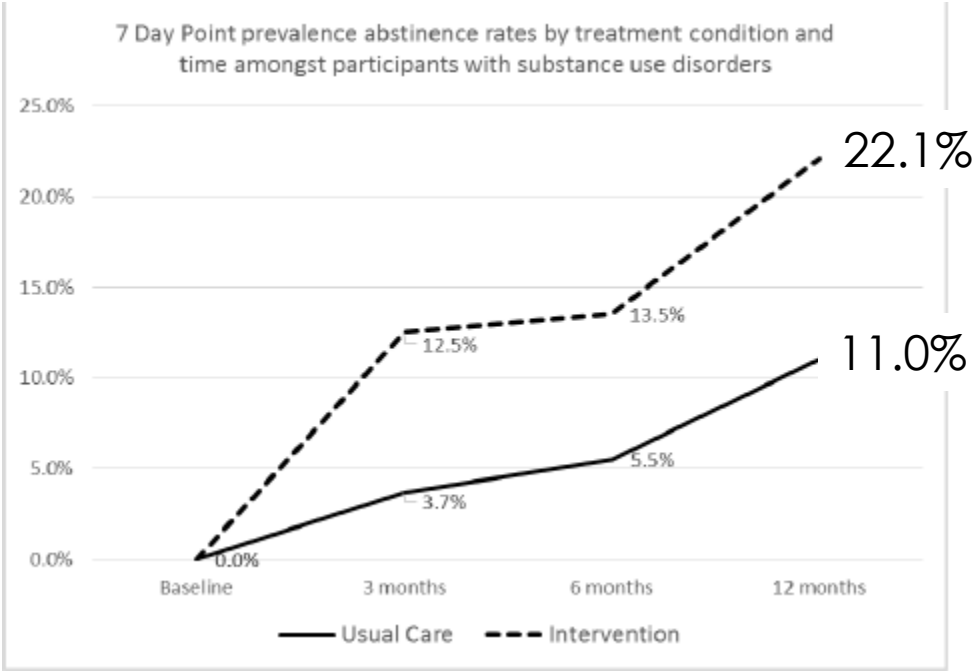
QUIT OUTCOMES: Private & Public Hospitals



Prochaska et al. 2014 AJPH; Hickman et al. 2015 NTR

DUALLY-DIAGNOSED (N=216)

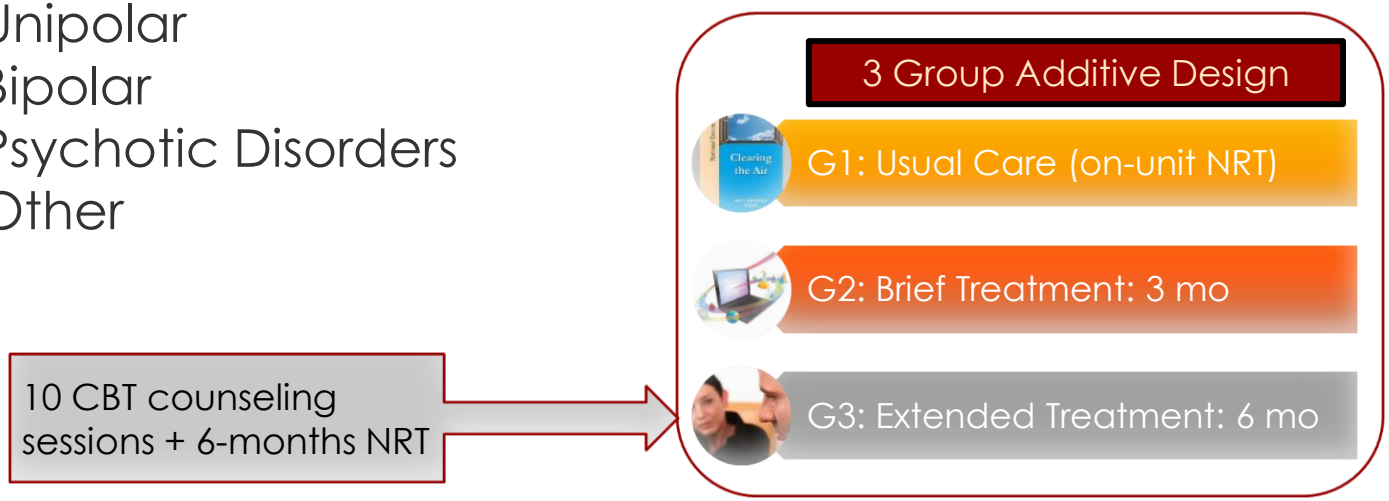
- Significant difference in smoking status by treatment group:
  - **12-month tobacco abstinence:** 22% TX group vs. 11% UC group (RR=2.01, 95% CI 1.05-3.83)
  - GEE model of treatment effect over time OR=2.30;
    95% CI=1.08-4.90



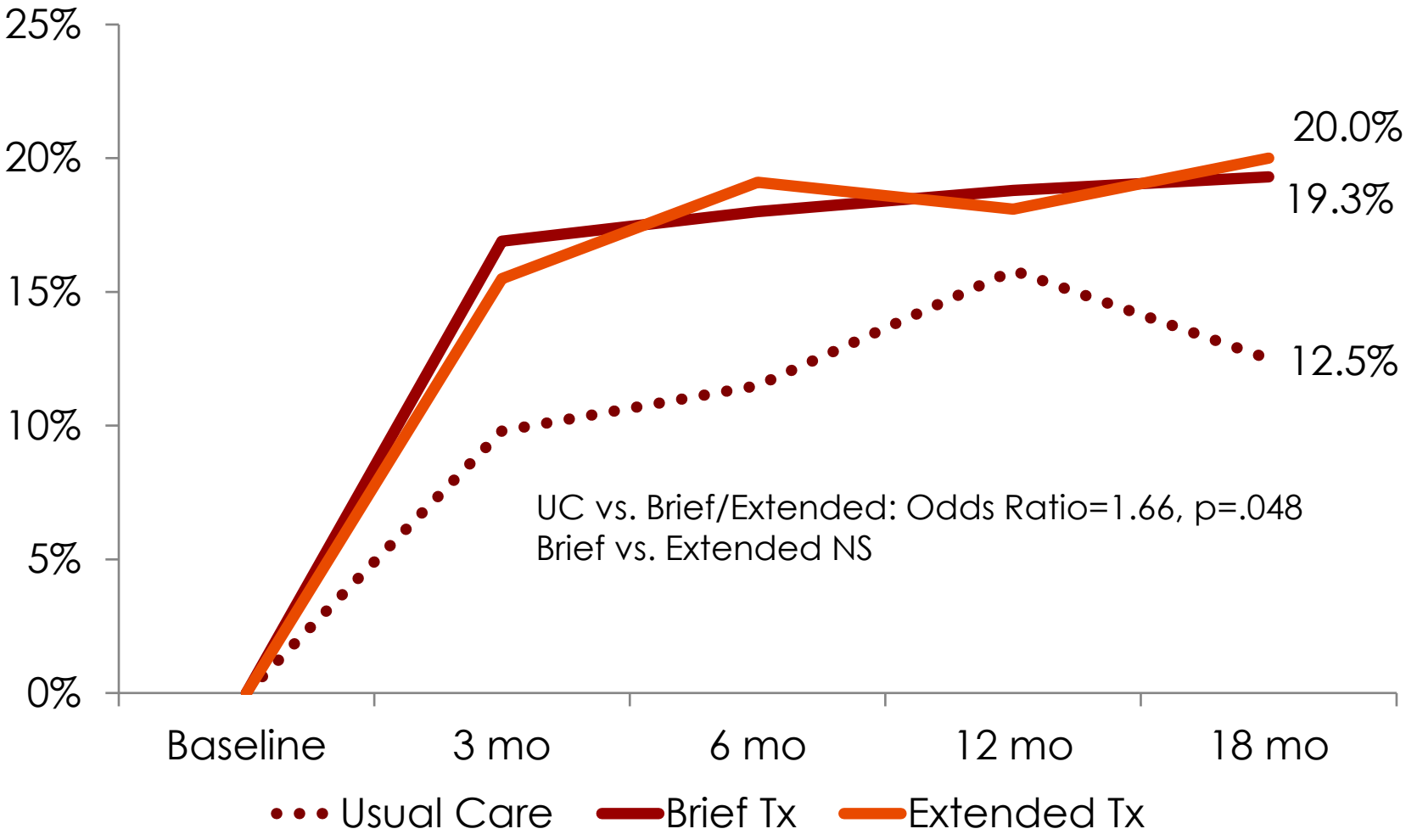
Das, Hickman, & Prochaska (2017) J Addiction Med

STAR Study (N=956)

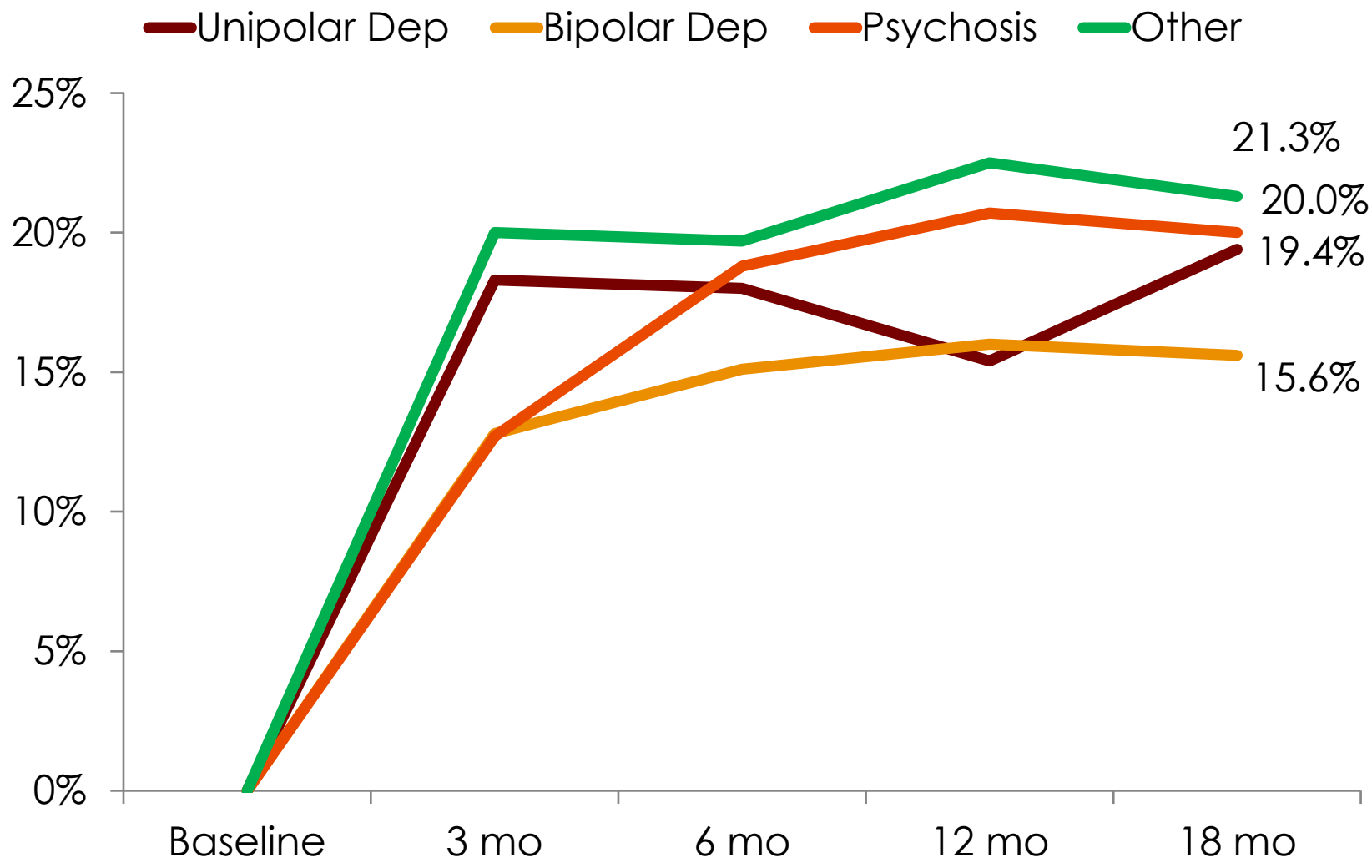
- Would 6-mo extended counseling + combination NRT (patch + gum/lozenge) be of interest and outperform our brief treatment?
- Would quit rates differ by diagnosis?
  - Unipolar
  - Bipolar
  - Psychotic Disorders
  - Other



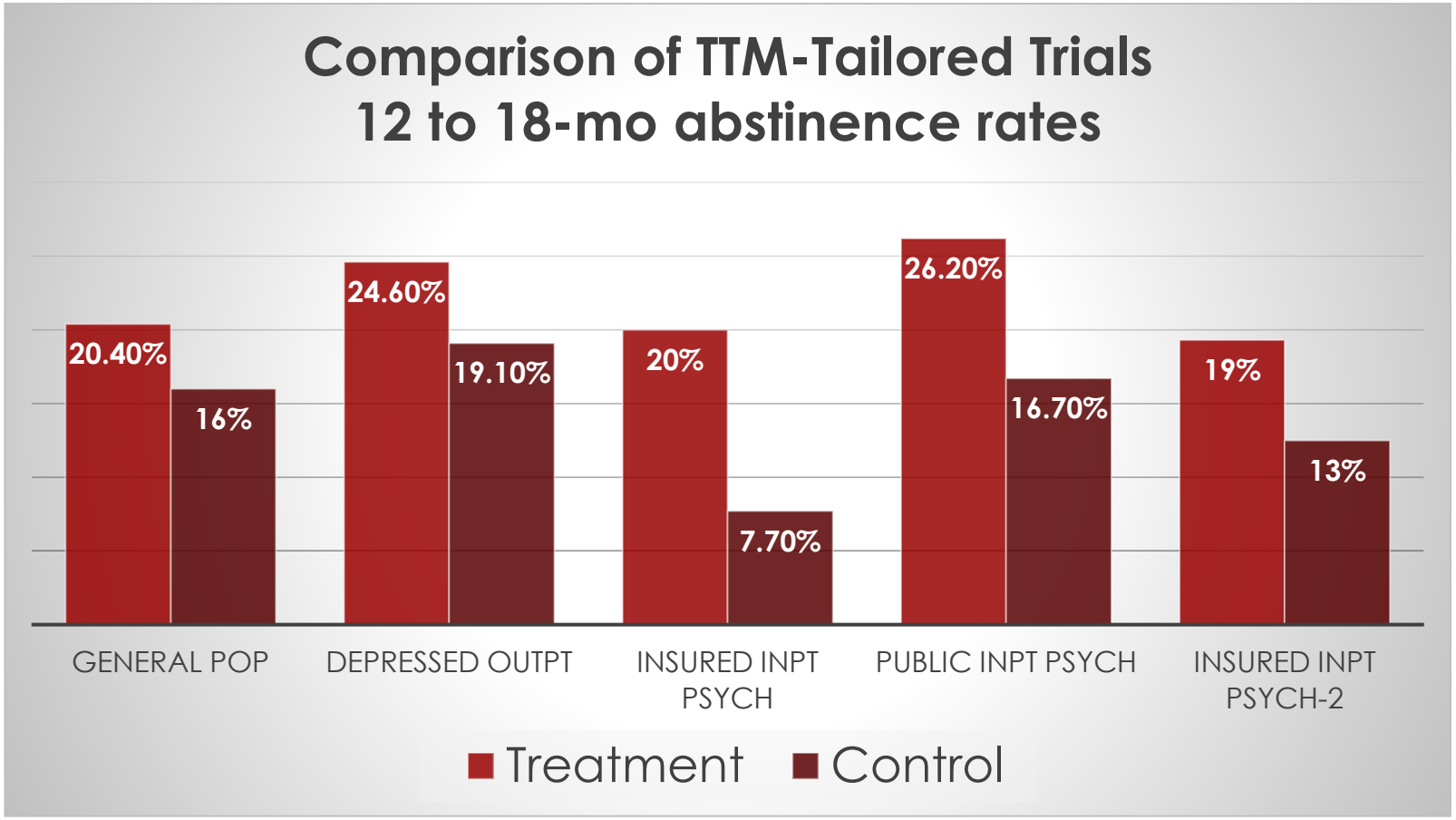
ABSTINENCE over TIME by CONDITION



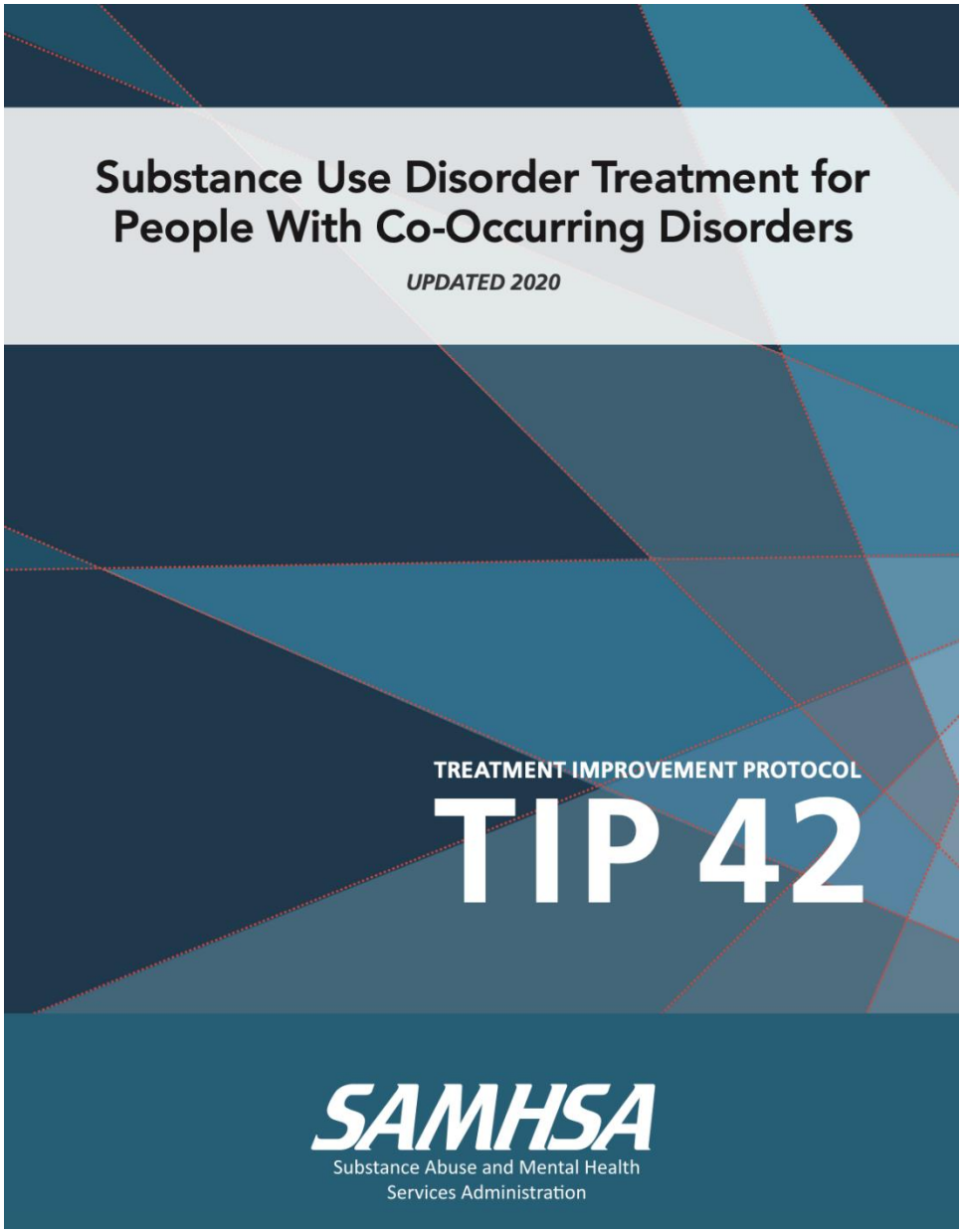
ABSTINENCE OVER TIME by DIAGNOSIS



Replication of Treatment Effects



Hall (2006) AJPH; Prochaska (2014) AJPH; Hickman (2015) NTR


Substance Use Disorder Treatment for People With Co-Occurring Disorders
UPDATED 2020
TREATMENT IMPROVEMENT PROTOCOL
TIP 42
SAMHSA
Substance Abuse and Mental Health Services Administration

Three models for delivering care for co-occurring disorders:

Photo credit: WLOS Staff

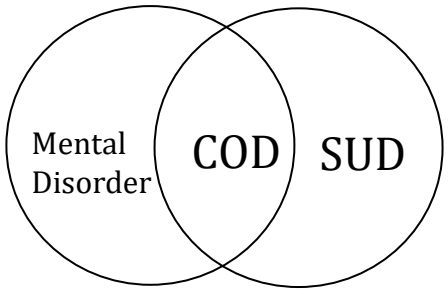
- Coordinated
- Co-located
- Fully integrated

With ***integrated care****, more complete recovery is possible*

- Reduced or discontinued substance use
- Improvement in psychiatric symptoms and functioning
- Increased chance for successful treatment and recovery for both disorders
- Improved quality of life
- Decreased hospitalization
- Reduced medication interactions
- Increased housing stability
- Fewer arrests

https://www.samhsa.gov/co-occurring-disorders

Starts with Assessment



Assessment is more than just administering questionnaires; it includes exploring clients' risk of harm to self and others, trauma history, strengths and supports, cultural needs, and readiness for change.

When performed correctly, a full assessment should help build rapport between the counselor and the client and foster shared decision making for treatment or other services.

https://store.samhsa.gov/sites/default/files/pep20-02-01-004.pdf

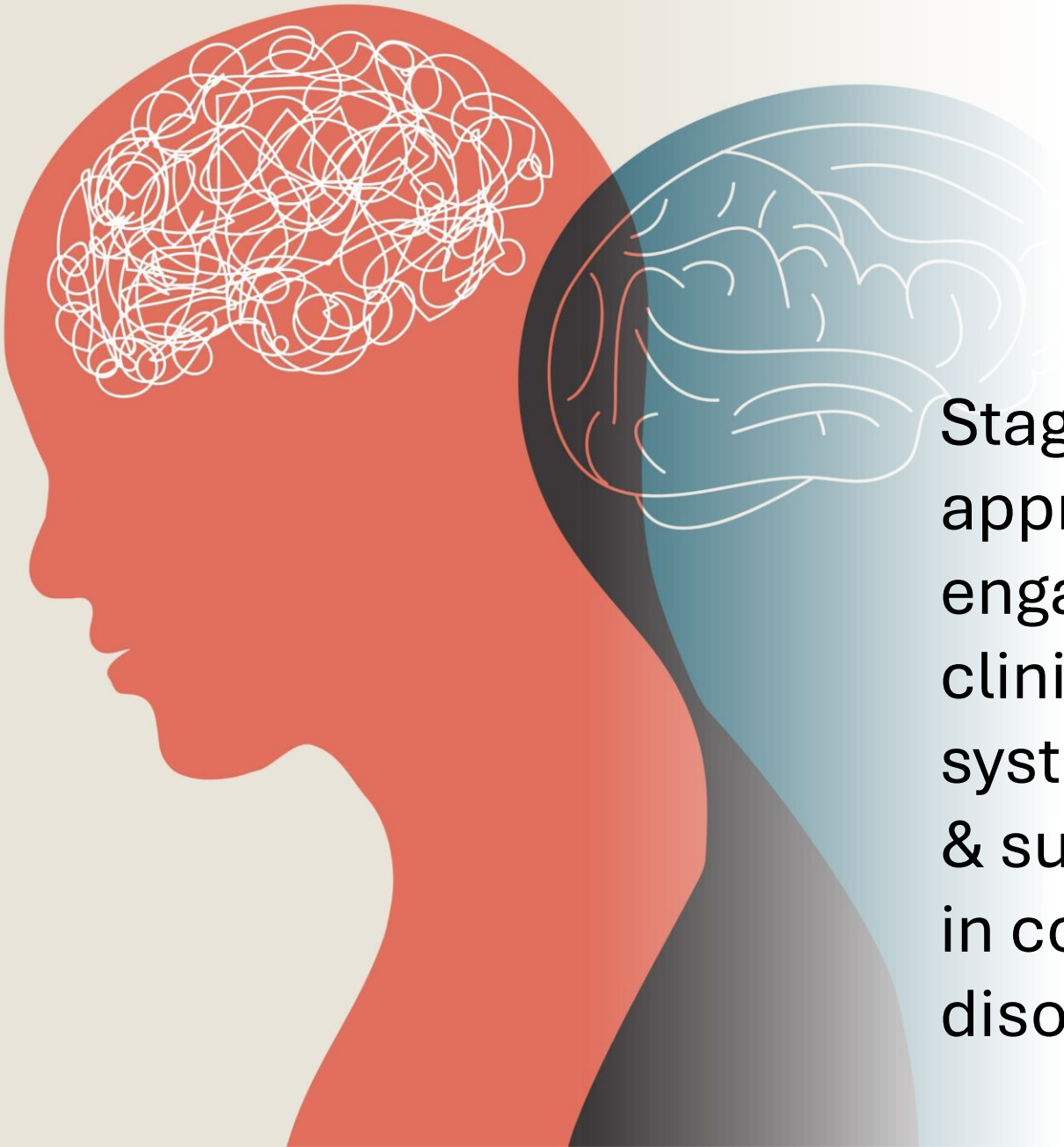
Stage of Change Tools

The Stages of Change Readiness and Treatment Eagerness Scale (https://casaa.unm.edu/inst/socratesv8.pdf): This scale is available in two formats: one for alcohol use and one for drug use.

The University of Rhode Island Change Assessment Scale (https://habitslab.umbc.edu/urica/): Multiple short- and long-form versions of this measure are available, including for alcohol use, drug use, and initiating psychotherapy.

EXHIBIT 8.6. Examples of Advanced Competencies for Treatment of People With CODs

- Understand the transtheoretical model and how client motivation and readiness to change affect behavior.
- Learn to enhance motivation via motivational interviewing and motivational enhancement therapy skills.
- Be aware of the relapse prevention model and integrating relapse prevention skills into treatments.



Stage-tailored approaches can engage clients, clinicians, & systems to treat & support change in co-occurring disorders