

* Recycling and Recovery: Finding Value in Unsuccessful Attempts to Change

Carlo C. DiClemente Ph.D. ABPP

Emeritus Professor of Psychology

www.umbc.edu/psych/habits

www.homevisitingtraining.umbc.edu

www.umbc.edu/psyc/habits

- * I have no conflicts of interest in the material I am presenting
- * I would like to acknowledge the contributions of many colleagues and students at the University of Houston and University of Maryland Baltimore County for their help and support for the research in this presentation
- * I am grateful for the many years of collaboration shared with my colleague and friend James Prochaska who passed away recently
- * I am very pleased to remember and honor Richard Saitz, a colleague and friend who made wonderful contributions to the field especially in his work on SBIRT and stigma.

* Acknowledgements and Disclosures

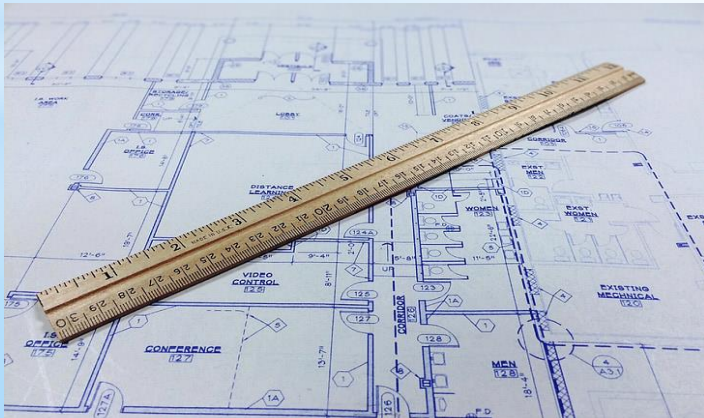
*SAMHSA's View of Recovery

- “A process of change through which individuals improve their health and wellness, live self-directed lives, and strive to reach their full potential.”
- Recovery is built on access to evidence-based clinical treatments and recovery support services for all populations
- Recovery often requires repeated attempts

*Not just putting a Band-Aid on a wound and waiting for the wound to heal
or just stopping using a substance or
just going to treatment. It is a journey of change*



- * Blueprints for a building or a bridge show how to construct the structure and the specifications and steps in that process
- * When something goes wrong investigators look at the problem in light of the specifications identified in the blueprint to see if the cause is due to
 - * materials used, execution of construction, vulnerability of design, lack of upkeep, or external causes.
- * The Transtheoretical Model offers a blueprint for looking at the entire process of intentional behavior change
- * This blueprint contains a structure and specifications for making a successful change and for understanding what may be going wrong in unsuccessful attempts to change



* A Blueprint for Understanding the Process of Change

A Client Focused Model of Intentional Behavior Change

STAGES OF CHANGE

**PRECONTEMPLATION → CONTEMPLATION → PREPARATION →
ACTION → MAINTENANCE**

PROCESSES OF CHANGE

COGNITIVE/EXPERIENTIAL

**Consciousness Raising
Self-Revaluation
Environmental Reevaluation
Emotional Arousal/Dramatic Relief
Social Liberation**

BEHAVIORAL

**Self-Liberation
Counter-conditioning
Stimulus Control
Reinforcement Management
Helping Relationships**

CONTEXT OF CHANGE

- 1. Current Life Situation –current concerns, symptoms, housing, stresses**
- 2. Beliefs and Attitudes – religious, political, familial, cultural**
- 3. Interpersonal Dyadic Relationships –significant others**
- 4. Social Systems –family – work –legal - societal**
- 5. Enduring Personal Characteristics –personality characteristics – identity – chronic MH conditions**

MARKERS OF CHANGE

Decisional Balance

Self-Efficacy/Temptation

**HEALTH PROMOTION &
DISEASE PREVENTION**

REQUIRE

**BEHAVIOR
CHANGE**

CANCER PREVENTION

INITIATION

HEALTH PROMOTION

**SAFETY & INJURY
PREVENTION**

MODIFICATION

MENTAL HEALTH

SUBSTANCE USE DISORDERS

CESSATION

*How Do People Change?

*People change voluntarily only when...

*They become interested and concerned about the need for change

*They become convinced that the change is in their best interest or will benefit them more than it will cost them

*They organize a plan of action that they are committed to implementing

*They take the actions that are necessary to make the change and sustain the change

* Stage of Change Labels and Tasks

* STAGE

* Precontemplation

- * Not interested

* Contemplation

- * Considering

* Preparation

- * Preparing

* Action

- * Initial change

* Maintenance

- * Sustained change

* TASK

- * Interested, concerned and willing to consider

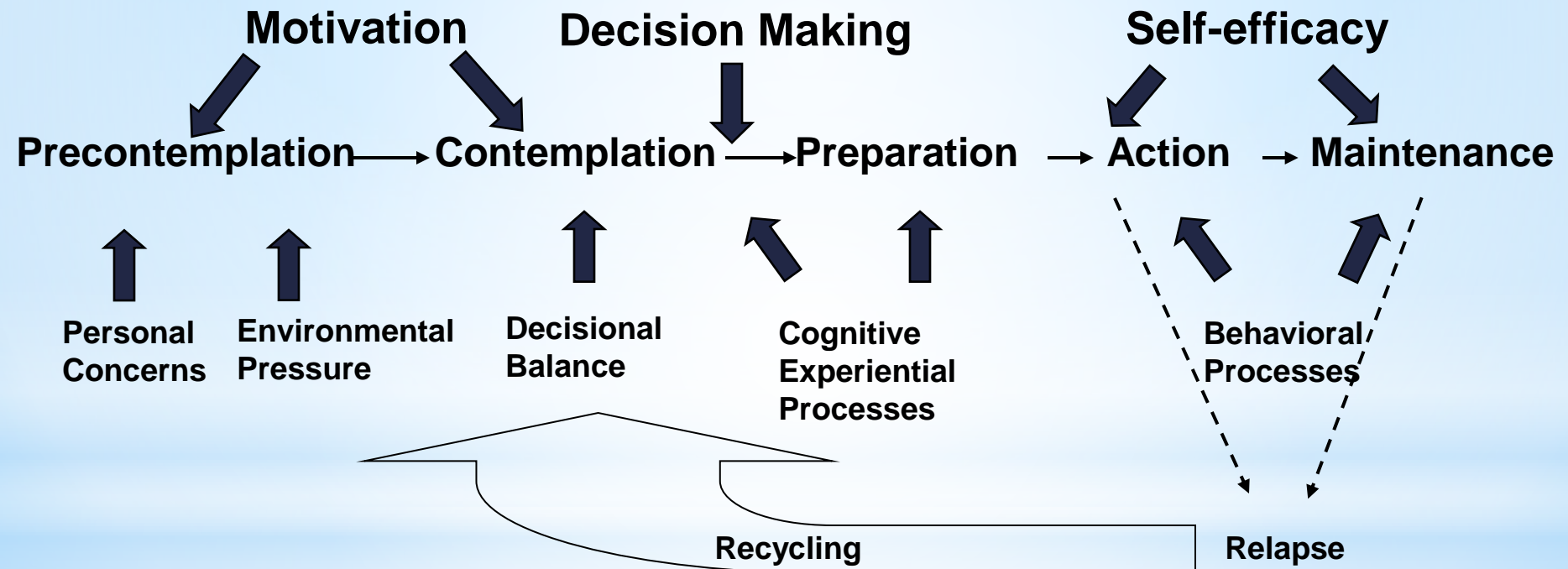
- * Risk-reward analysis and decision making

- * Commitment and creating a plan that is effective/acceptable

- * Implementing plan and revising as needed

- * Consolidating change into lifestyle

Movement Through the Stages of Change: The Process is Multidimensional



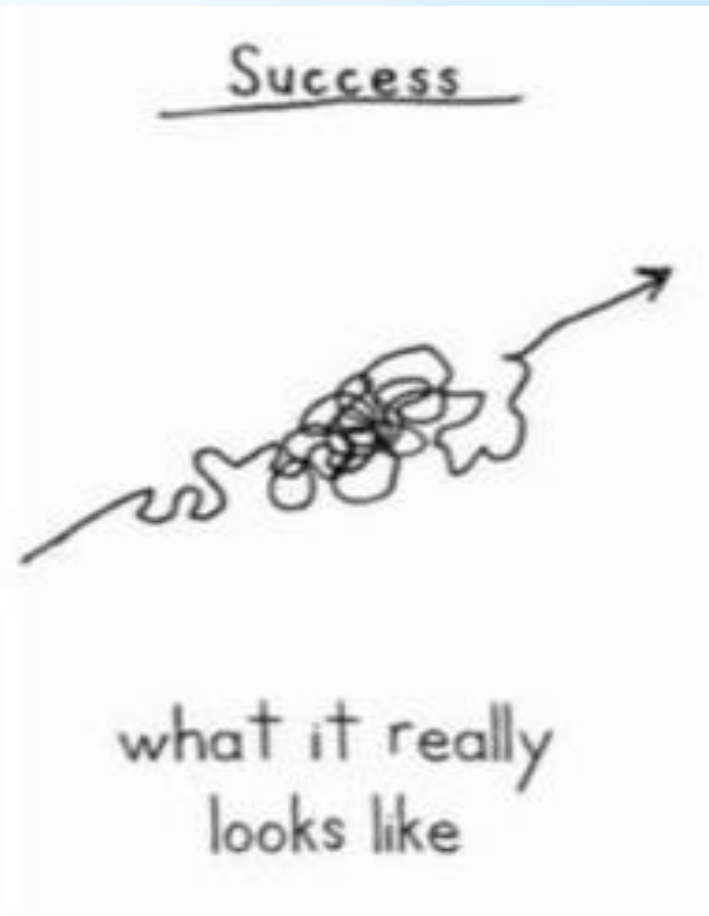
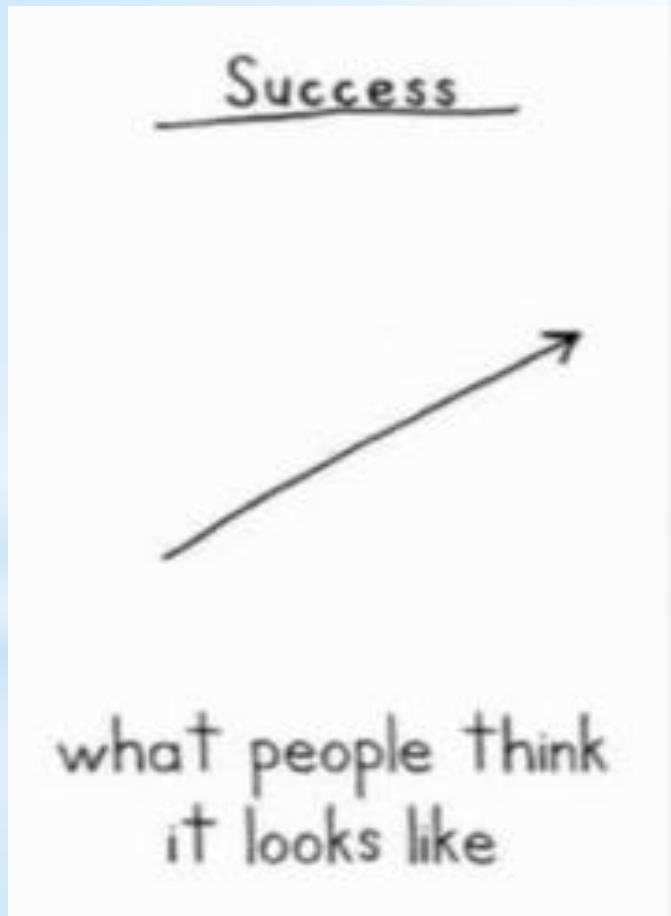
What is necessary to help or hinder completion of the tasks of each of the stages and to engage the processes of change needed to complete the tasks?

*Relapse and Recycling

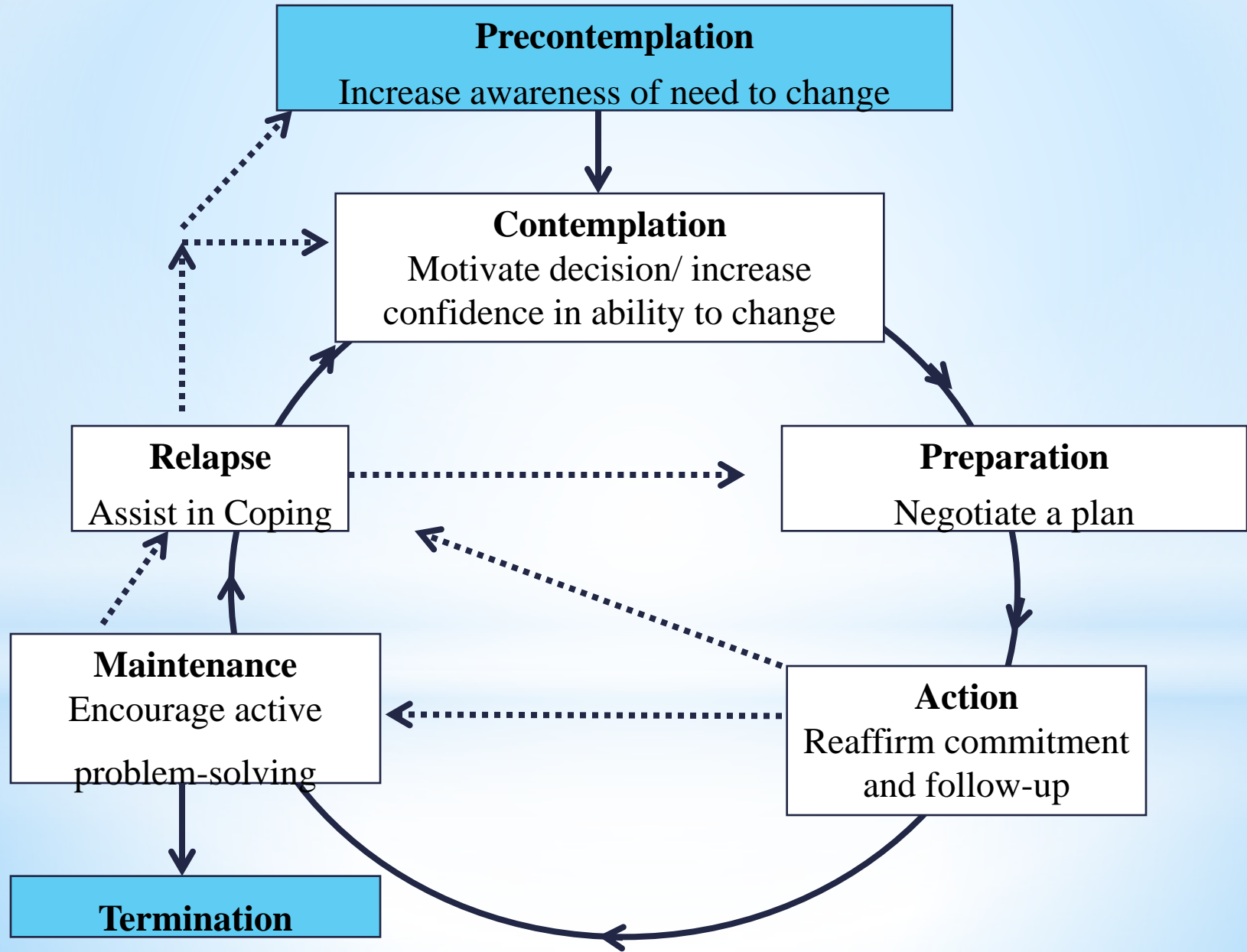


- * Movement through the stages is not inexorably linear: consists of stasis (getting stuck), progression and regression, slips/lapses; relapse and recycling
- * Relapse is **not** a stage of change
- * Recycling through the process is a reality
- * Need a learning perspective: **Successive approximation learning not one trial**

*Change \neq Linear Process: Relapse & Recycling



Stages of Change Model



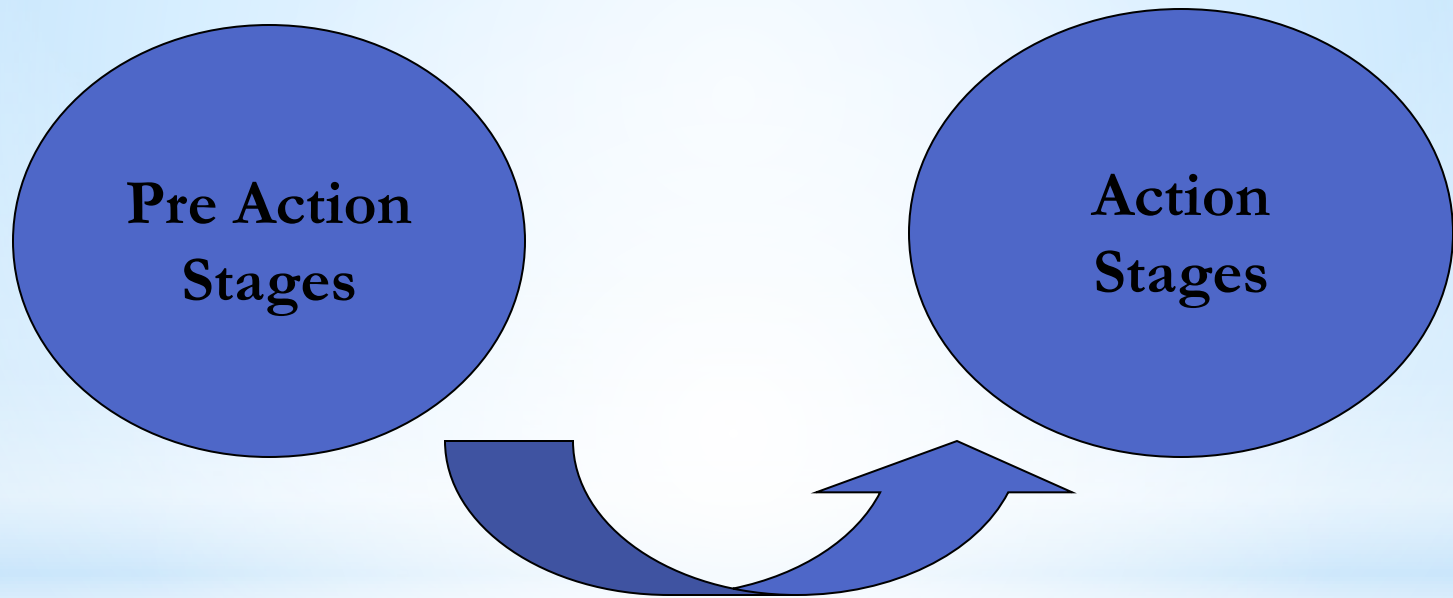
* Stages and tasks have been used to assess where someone is in making an intentional behavior change and how can we help them on this journey of change

* Today we will look at them as a blueprint for analyzing where clients have been in their journey of prior unsuccessful attempts to change and what they can learn

*** Using Stages as a Template**

* Clear Difference Between Pre-Action and Action Stages

The Key Link



What do individuals have to do in Pre-Action Stages to be successful in making the leap to Action Stages? What do they have to do in the Action stages to sustain success?

* Why Can't Individuals get it right the first time?

- * Learning how to manage and overcome obstacles and accomplish stage tasks takes time, energy, and focus
- * Many ways recovery and sustained change can become compromised
- * IT'S A COMPLICATED PROCESS
- * RECOVERY AND BUILDING A NEW PATTERN OF BEHAVIOR IS MORE MARATHON THAN SPRINT
- * There are also critical factors that make it hard to change
 - * With addiction the key three mechanisms are
 - * neuroadaptation, impaired self-regulation and importance/salience
 - * With all lifestyle behavior changes
 - * complicating personal, social, and environmental factors, weakened self-control, and entropy (reverting back and losing energy and focus)

* **Mechanisms Contributing to a Well-Maintained Addiction**

* A small set of mechanisms contribute to maintenance of addiction and challenge completing stage tasks adequately to sustain recovery

* **Neurobiological Adaptation** - brain and biological adaptations to frequent exposure to addictive behaviors hijacking some functions (a brain disease)

* **Reduced/Impaired Self-Regulation** - The sense of loss of control and compromised self-regulation despite consequences - hallmarks of addictions (a behavioral control disease)

* **Salience and Narrowing of Behavioral Repertoire** - The addictive behavior becoming so valued a reinforcer that the behavior becomes more ubiquitous and potent in life undermining value of other behaviors (a crisis of values/spiritual disease)

* Cyclical Model for Successfully Sustained Change

Addressing addiction mechanisms

- * Overcoming habit and neuroadaptation
- * Find support for impaired self-regulation (scaffolding)
- * Begin building a new meaningful life that includes new behaviors and absence of former risk behaviors

* Keys to successful recycling

- * Persistent efforts
- * Repeated attempts that
- * Learn from past attempts
- * Never Give Up
- * “Stick and Stay”



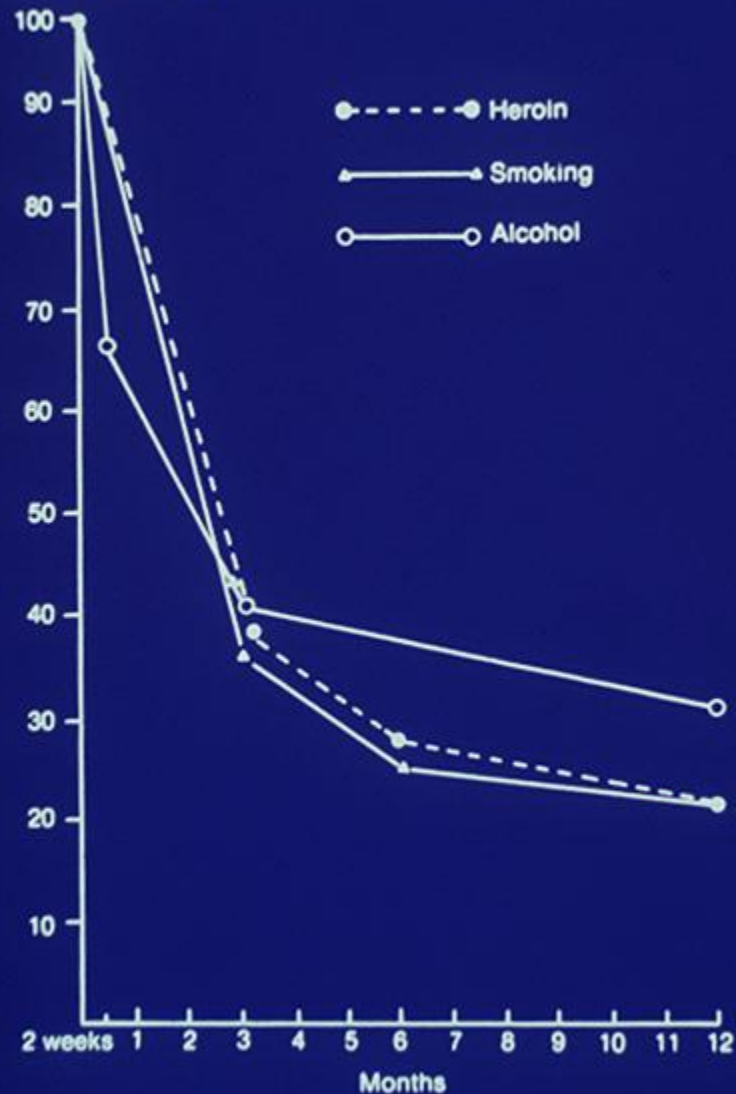
*The Role of Unsuccessful Attempts to Change in Recovery and Behavior Change

If it happens so often, there must be a purpose
and some meaning or function of
Relapse and Recycling in Recovery

Project Match:
OP abstinent
One year 24%

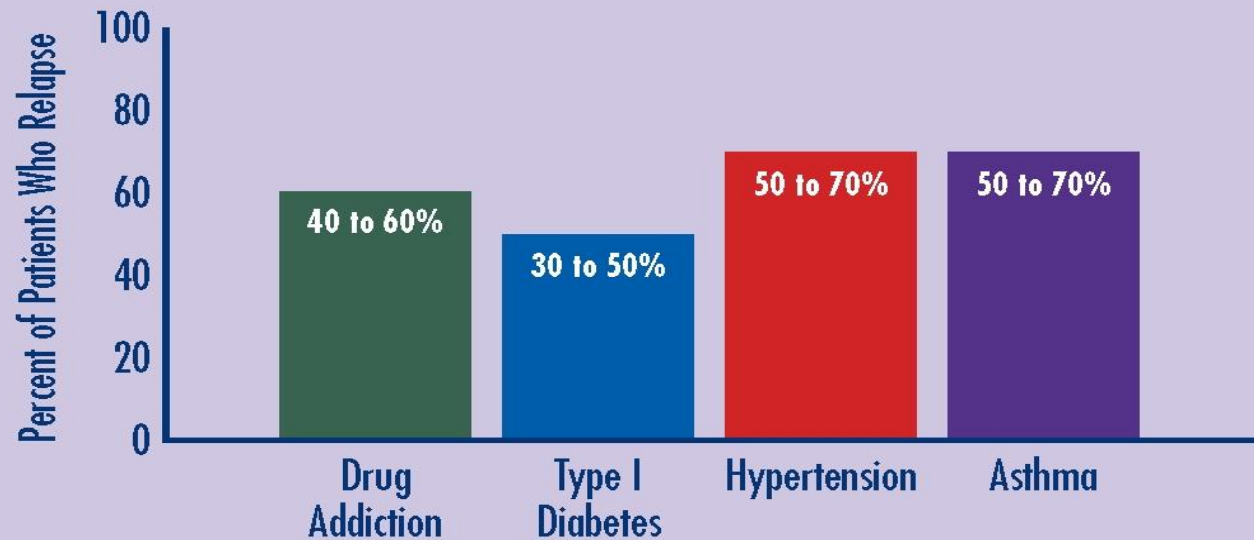
Relapse Replication
Study: Abstinent
12 months 18%

Relapse rate over time for heroin, smoking,
and alcohol



COMBINE Study:
One or more
heavy drinking days
At FU 80%

COMPARISON OF RELAPSE RATES BETWEEN DRUG ADDICTION AND OTHER CHRONIC ILLNESSES



Relapse rates for drug-addicted patients are compared with those suffering from diabetes, hypertension, and asthma. Relapse is common and similar across these illnesses (as is adherence to medication). Thus, drug addiction should be treated like any other chronic illness, with relapse serving as a trigger for renewed intervention.

Source: McLellan et al., JAMA, 2000.

*Relapse & Recycling

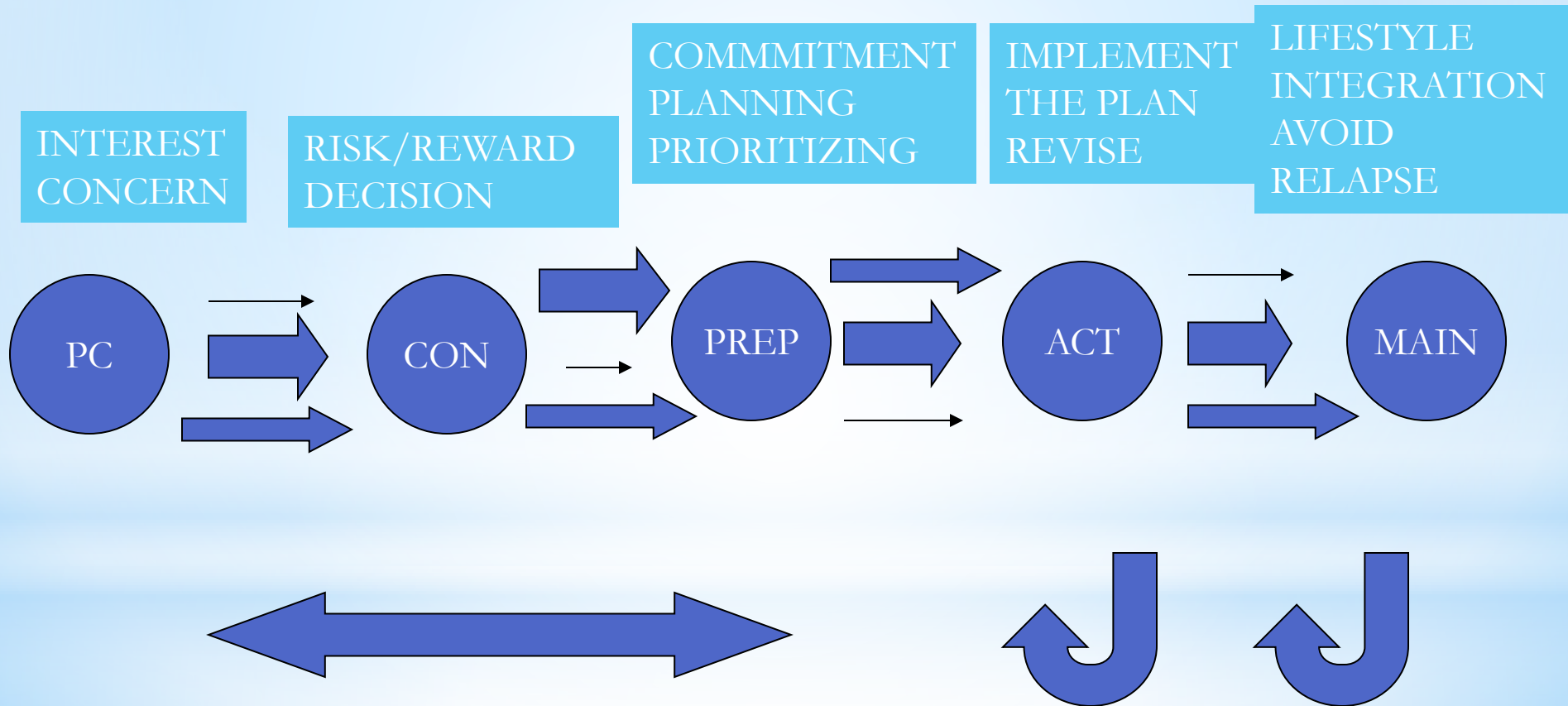
- * Relapse shouldn't be seen as a problem of substance abuse or addictions—Relapse & Recycling are a **natural part of the process** of behavior change.
- * Relapse in mental health conditions involves some biological processes but can also be seen through this lens if it involves noncompliance with behavioral activities
- Most successful changers make **repeated efforts** to get it right - part of a learning process to correct for prior inadequate completion of stage tasks.



* Recycling and Recovery

- * What is a “relapse”?
 - * Variable – numbers, drug tests, consequences are inadequate
 - * Abstinent only outcome or Relapse?
 - * Best defined as when the individual **gives up** on the attempt to change
 - * Not a total failure but a learning opportunity
- * Individuals who give up on this change attempt **return to a pre-action stage**
- * To achieve recovery must **try again** to successfully move through the stages
- * Role of recycling is to learn how to **adequately accomplish** the tasks and engage the mechanisms needed for recovery

*TASK COMPLETION AND MOVEMENT BETWEEN STAGES



- * Although few follow a completely linear path or journey through the stages of change
- * Stage tasks build on one another and support one another
- * If some elements are weak or not well done, the entire enterprise can fail
- * *Solid decisions are built on significant interest and concern and lead to stronger commitment and effective plans that are implemented and revised and finally become sustained and part of a lifestyle*

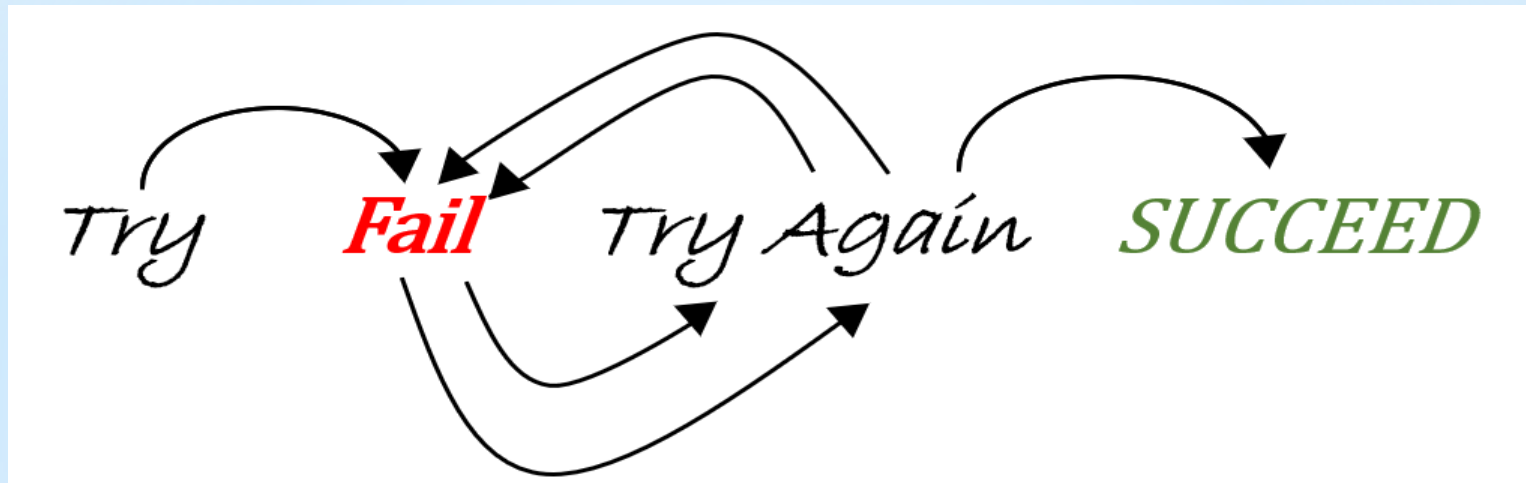


* **Stage tasks build on
one another**

Change and recovery that can be sustained and maintained must be built on

- * Significant interest and concern that leads to
- * Decision making that yields a strong and secure decision that underpins
- * A Firm decision & commitment to make a viable and effective plan that
- * Includes the how and when the action begins and how to deal with threats
- * Sticks with the change and revises the plan when needed that
- * Is sustained through difficulties and unexpected events and slips and struggles

*** Making a Successful Change**



**“If at first you don’t succeed, try, try, try again.”*

Multiple unsuccessful attempts, however, may mean problems in context or co-occurring conditions must be addressed or a failure to learn from flaws and errors in the change process

~ William Edward
Hickson

*Black Boxes and Investigating Failure

- * In health care there is a culture of evasion: failure is an anomaly, an unfortunate event, doing the best we could, just happened, cannot explain it
- * In the airline Industry there is a “system where failure is *data rich*” and where “mistakes are not stigmatized, but regarded as learning opportunities” (Syed, p. 25)
 - * Two black boxes; one for the electronic systems on board and the other the cockpit voice recorder
 - * Independent objective investigation. Results available to everyone. Share results with all pilots

- * George M. - “Never, Never, Never give up”
- * Jane R. “Never stop trying, If one thing does not work, try something else”
- * However, we must learn from failures and not simply do the same thing over and over again expecting different results
- * “Instead of dwelling on past failures, it’s more productive to learn from your past, treating past recovery attempts as a **rich library of experiences to shape your future**”
- * (Anne M.. Fletcher, 2001, p.70)

*** One Clear Message from
People in Recovery**

* Blame Gets in the Way of Successful Recycling

- * Who is responsible? Why did it happen? Who or what is to blame?
- * Blame undermines accurate reporting, acknowledging errors, learning about ourselves and undermines information critical to be successful
- * Blame and finger pointing (the program did not work; you did not work the program) is not helpful

- *Self-Stigma is often worse than social stigma
- *Self-compassion may be particularly powerful in mitigating self-stigma and shame
- *Self Compassion
 - *Mindfulness (non judgmental, accept present reality)
 - *Common humanity (all are human, make mistakes, suffer and at times fail)
 - *Self-kindness (treating oneself with kindness and respect in face of pain and failure)

*Addressing Stigma

* Keys to Successful Recycling

- * Blame and guilt undermine motivation for change
 - * Self Compassion is needed
- * Support re-engagement in the process of change
 - * Persistent efforts
 - * Repeated attempts
 - * After learning as much as possible from prior attempts, helping individuals take the *next step* - Matching strategy to stage of change.
 - * Talk to the person in an encouraging way and focus on resilience and past success to increase their motivation to give it another shot.
 - * Working Smarter not Just harder



- * It is stigmatizing, blaming, and contributes to a fatalistic/failure identity
- * It is hard to define and confusing to measure
- * Problematic to use with chronic conditions

* Recycling on the Road to Recovery

- * A setback in sustaining change, a mistake that can be corrected, an opportunity to learn
- * Long-term multidimensional perspective
- * Getting Well and Getting Better

* Let's retire the term “Relapse”



- * Many individuals get stuck in the pre-action stages and never make it to action
- * However, even these individuals have considered change
- * They need to work on and get pre-action tasks done well
- * However, if the failure is in the flight, the entire process of change needs to be examined



* Failure to get off the launching pad
versus failure in the flight

- * People coming to Smart Recovery and other treatment and mutual support programs are not “change” virgins
- * Before seeking help, most have tried to change their substance use and other behaviors many times.
- * Often, they have not followed through with a Bonafide attempt. They thought about it, made a decision and never found the commitment or implemented a plan or took action
- * This is **not a relapse**
- * Remember that no one can relapse or have an unsuccessful attempt to change **unless they have had some success no matter how limited**

* Learning from Unsuccessful Attempts to Change

- * If interest and concerns are driven by external events or people, the motivation is more extrinsic or externally driven
- * **Extrinsic motivation** can be helpful but relying solely on it can feel like the change is being done for others and more like imposed change
- * Without some **Intrinsic motivation** (doing this for my wellbeing) the change can be difficult to sustain and lead to lack of success
 - * intrinsic motivation seems to predict enhanced learning, performance, creativity, optimal development, and psychological wellness (Deci & Ryan, 2017)
 - * intrinsic motivation is associated with brain activities that are related to autonomy, mastery, and self-directed activities (Morris et al., 2022)
- * Check how both extrinsic and intrinsic motivators played a role in the change attempt and possibly the relapse

* What Can Go Wrong: Interest and Concern

- * Use Motivational Communication Strategies to Explore both extrinsic and intrinsic motivations for change
- * Extrinsic motives like avoiding consequences, threats, or benefits for others can be helpful to get consideration of change BUT pressure can evoke resistance
- * Promote choosing change rather than being forced to change
- * Concerns are related to consequences and impact on self and others
- * Interest is related to personal experiences and reasons for making a change
- * Examining values and personal benefits or reasons can access more intrinsic motivations
- * *Good Question: What is pushing you to make this change and what is pulling you to make this change? Is this different from prior attempts?*
- * **Provider strategies: Interest and concern**

- * Decision making involves both the pros and cons of the **current status quo** and the pro and cons of **making the change**
- * A good decision has important considerations both
 - * Cons of the current situation
 - * Benefits or Pros for the change
- * If the decision is based on weak decisional considerations, it will not be strong enough to build a strong commitment.
 - * Disregard of current consequences
 - * Under valuing the benefits of change
- * When the problems and pressures of beginning the change occur, weak decisions promote giving up early
- * The best client decisional considerations include both
 - * intrinsic, personal value driven ones
 - * meaningful, extrinsic ones

* What Can Go Wrong: Decision Making

- * Explore not only the pros and cons of the current behavior but the pros and cons of the potential change
- * Ask about importance of the decisional considerations not just the how many there are
- * Avoid exploring sustain talk and reasons not to change
- * Promote self and environmental reevaluation; Reexamining what you are doing, reasons, and choices
- * Explore important client values and hopes for the future
- * Link these to current status and help envision a future different from the past
- * Be careful of impulsive decisions that are not built on solid considerations and promote a rush to action

*** Provider strategies: Decision Making**

- * Commitment is the resolve and dedication to engage self control strength in service of implementing the behavior change
- * Strength of commitment is related to strength of decision making
- * Weak commitment leads to disorganized and easily discouraged attempts at behavior change
- * Self control is needed to decide and plan actions and manage emotions
- * Self control strength that is exhausted by stress and difficult life situations can undermine commitment
- * Bridging the “intention to behavior gap”:
 - * Procrastination and lack of commitment undermine
 - * Preparing, Planning and Implementing a change

*** What Can Go Wrong: Commitment**

- * Support strong commitment by focusing on the future and building a new life and identity that includes making the change.
- * Listening to the client for weak commitment language (wishing, hoping) from more substantial levels of commitment (determination, dedication, pledge, personal obligation)
- * Support and scaffolding of self control is critical to building and sustaining commitment
- * Remember impaired self regulation is an addiction mechanisms that undermines self-control strength
- * Help deal with contextual challenges to change in the life of the individual



* Provider strategies:
Commitment

- * Good planning involves setting goal and building viable plans for accomplishing goals
- * What makes for good goal setting are SMART Goals
 - * Specific, Measurable, Achievable, Realistic, and Timed
- * **Vague, unrealistic goals and lack of an implementation plan and timeframe leave one unprepared to make a behavior change**
- * Plans need to be *effective, acceptable, accessible, and realistic*
- * If the changer is not a collaborator in planning the plan is problematic
- * Low Self-Efficacy to perform planned behaviors & skills to implement the plan are critical
- * A change plan is different from a treatment plan

*** What Can Go Wrong: Planning**

- * Explore goals in past attempts and whether they are different from current goals
- * Sobriety and Recovery are often vague goals. Specificity is critical to create measurable outcomes
- * Assess skills to perform target behaviors and meet collateral goals: stop using heroin and avoid others who use
- * Build self-efficacy by focusing on past successes, relevant role models, decreasing anxiety and affirming strengths
- * Create a timeline: Procrastination is the enemy of preparation
- * A collaborative relationship built on trust and compassion about prior lack of success
- * Build a strong support system that is accessible
- * Offer Hope

*** Provider strategies: Planning**

- * Where the rubber hits the road: putting the plan in action
- * Was the timeline for the beginning of action realistic and implemented - not putting off till tomorrow
 - * How difficult were the first few hours or days? How were they managed? Were there early slips that led to giving up?
 - * Unanticipated withdrawal or initial difficulties in making the change
- * Disruption in the environment, family system, or other problems in the context
- * Overwhelmed by mental health and emotional issues
- * Weak self control and ability to implement the change plan
- * Lack of sufficient scaffolding and support for taking action and implementing plans
- * Lost focus on importance and reasons for goal

* **What Can Go Wrong: Action**

- * Get a detailed account of successes in terms of length of time, overcoming some obstacles, following through on important parts of the plan
- * Check if there was a viable plan and level of commitment:
 - * if unsuccessful attempt lasted a short time often the problem is in completing well tasks of earlier stages
- * Assess level of environmental and contextual influences affecting implementation of plan
- * If abandonment of change attempt happened early in first 3-6 months indicates problem in decision, planning, commitment?
- * if longer it is a problem of sustaining change and possibly not finding benefits, satisfaction, or meaning after the change
 - * life situations and lack of social capital

* **Provider strategies: Action**

- * On any attempt to change this behavior did the person ever get beyond 3 to 6 months and move into maintenance
- * If not, the problem seems to be one of sustaining action
- * Make sure you understand current stage for making another attempt to change
- * If there had been a significant period of change, what happened to undermine the significant success
 - * Loss of motivation (entropy)
 - * Significant events in the environment or relationships
 - * Mental health issues (anxiety, depression, impulsivity, stress)
 - * Lack of ongoing support
 - * Lack of finding meaningful alternatives and lifestyle
 - * Inadequate completion of pre-action tasks
 - * Were there danger signs that were ignored

* What Can Go Wrong: Maintenance

- * Support and affirm commitment and ability of client that allowed them to get into maintenance previously
- * Analyze the potential obstacles that hindered sustaining the change longer or making the change more permanent
- * Make sure there are short and long-term support systems that can be used for warning signs that compromise change
 - * including both mutual support, family & friends, and provider availability
- * Help find the meaning in the lifestyle after the change
- * Make sure to assess and intervene with mental health problems
- * Provide routine and emergency check-ins

*** Provider strategies: Maintenance**

* How Can We Promote Recycling and Recovery and Sustained Change?

- * More than what happened in the moment: triggers, coping, etc.
- * When debriefing a relapse or failure to sustain a behavior change:
 - * Examine whether there was personal, strong, and intrinsic interest and concern (not only spouse, family, court)
 - * Decision - how strong, good reasons, solid risk benefit analysis, supported by important values?
 - * How good was the plan (accessible, acceptable, feasible, effective)? Did you revise parts that were not working?
 - * Was your commitment sufficient to manage withdrawal and all the fall out from change?
 - * Did you find some valuable alternatives or reinforcements and supports? Were you ever able to make the new behavior your new normal

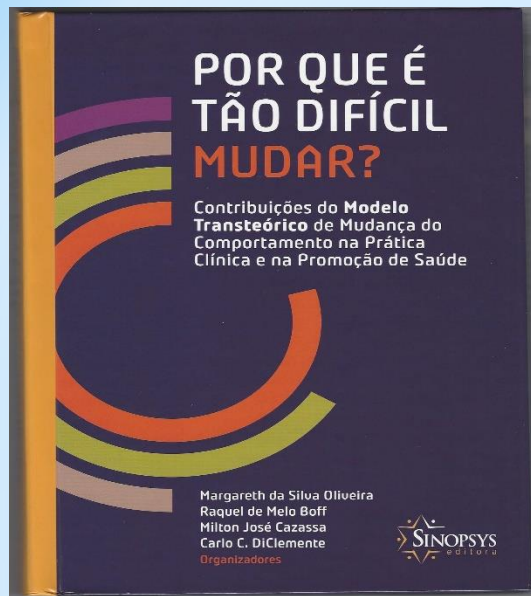
- * Hopefully this template or blueprint for examining past attempts can empower both provider and client to greater successful recycling
- * Recovery is a marathon not a sprint
 - * requires making many 5, 10 and 20 mile runs to successfully make the ultimate 26 miles
- * Failure is filled with important information
- * Having the courage to examine lack of success and broadening our scope to examine the entire change process offers a way to
 - * learn from the past and improve the change process and outcomes of the next attempt
- * We all need to develop the capacity to be comfortable and effective in dealing with lack of success in order to promote successful recycling and recovery

* Learning from Unsuccessssful Attempts to Change

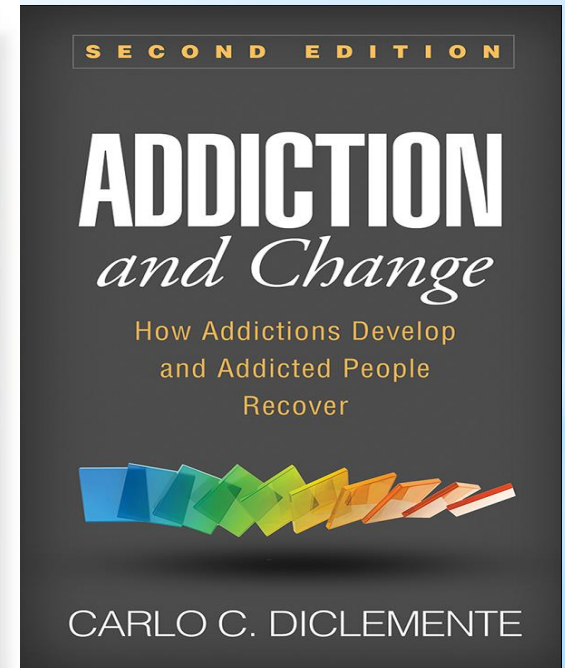
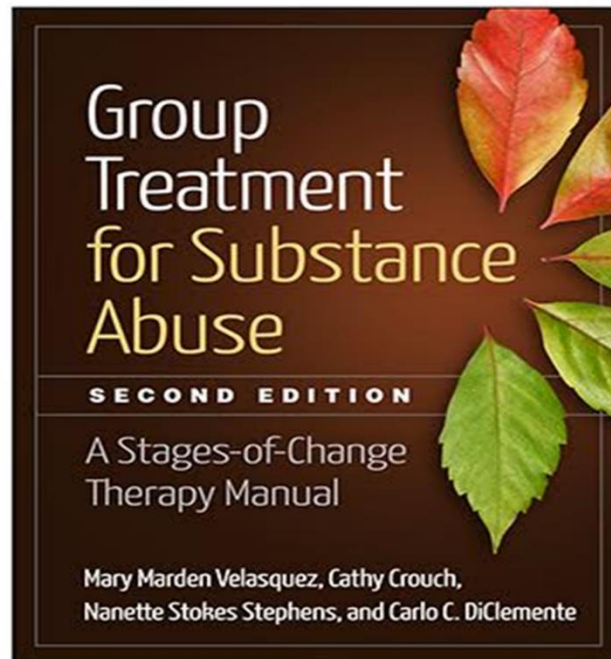
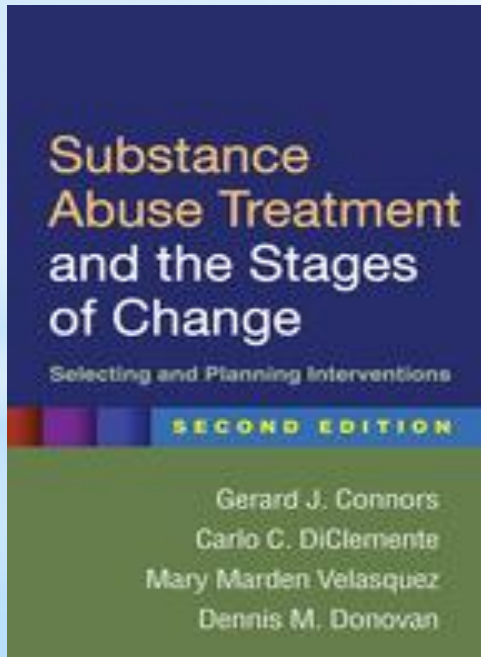
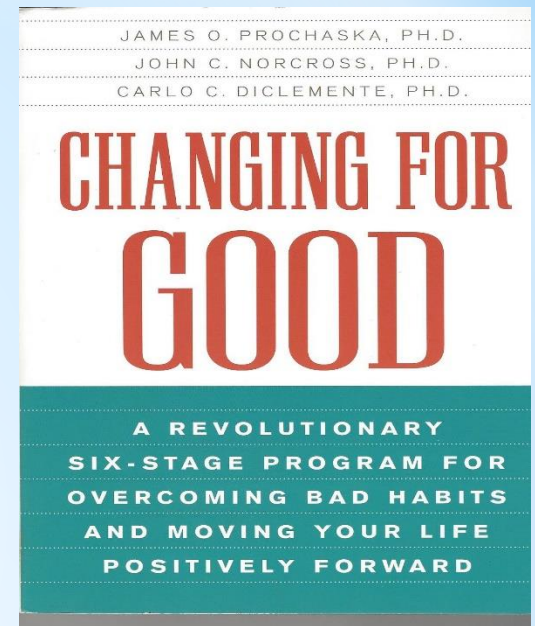
A photograph of a dark blue basketball jersey, likely Michael Jordan's, with white text printed on it. The text is arranged in a motivational quote. The jersey is shown from a slightly low angle, with the collar and sleeves visible. The background is a light blue sky.

I've failed
over and over
and that
is why
I succeed.

Michael Jordan



Questions?



References

- Carbonari, J. P., & DiClemente, C. C. (2000). Using Transtheoretical model profiles to differentiate levels of alcohol abstinence success. *Journal of Consulting and Clinical Psychology*, 68(5), 810-817.
- Connors, G., Donovan, D., & DiClemente, CC. (2013) *Substance Abuse Treatment and the Stages of Change* (Second Edition). New York: Guilford Press.
- Connors, G. J., Longabaugh, R., & Miller, W. R. (1996). Looking forward and back to relapse: Implications for research and practice. *Addiction*, 91, S191–S196.
- Dawson, D. A., Goldstein, R. B., & Grant, B. F. (2007). Rates and correlates of relapse among individuals in remission from DSM-IV alcohol dependence: A 3-year follow-up. *Alcoholism: Clinical & Experimental Research*, 31(12), 2036-2045.
- DiClemente, C. C., Holmgren, M. A., & Rounsaville, D. (2020). Relapse prevention and recycling in addiction. In B. Johnson (Ed.), *Addiction Medicine: Science and Practice*, New York: Springer.
- DiClemente, C.C. (2005) Conceptual Models and Applied Research: The Ongoing Contribution of the Transtheoretical Model. *Journal of Addictions Nursing*, 16, 5-12.
- DiClemente, C. C. (2007). Mechanisms, determinants and process of change in the modification of drinking behavior. *Alcoholism: Clinical and Experimental Research*, 31(S3), 13S-20S.
- DiClemente, C.C. (2018). *Addiction & Change: How Addictions Develop and Addicted People Recover*. (Second Edition) New York, NY: The Guilford Press.
- DiClemente, C.C. (2006) Natural Change and the Troublesome Use of Substances. IN W.R. Miller & K.M. Carroll (Eds.) *Rethinking Substance Abuse: What the science shows and what we should do about it*. New York: Guilford Press.
- DiClemente, C.C., Crisafulli, M.A. Relapse on the Road to Recovery: Learning the Lessons of Failure on the Way to Successful Behavior Change. *J Health Services Psychol* 48, 59 68 (2022). <https://doi.org/10.1007/s42843-022-00058-5>

References (continued)

- DiClemente, C.C. & Crisafulli, M (2016) Counting Drinks Needs a Broader View of Alcohol Relapse and Change. *Alcoholism Clinical and Experimental Research*, 41, 2, 266-269
- DiClemente, C.C., & Velasquez, M. (2002). Motivational interviewing and the stages of change. In W.R. Miller & S. Rollnick (Eds.), *Motivational interviewing* (2nd ed., pp. 201-216). New York, NY: Guilford Publications, Inc.
- DiClemente, C. C. (2007). Mechanisms, determinants and process of change in the modification of drinking behavior. *Alcoholism: Clinical and Experimental Research*, 31(S3), 13S-20S.
- Firestein, S (2016) Failure: Why Science is so Successful. Oxford University Press, NY.
- Hunt, W. A., Barnett, L. W., & Branch, L. G. (1971) Relapse rates in addiction programs. *Journal of Clinical Psychology*, 90, 586–600.
- Marlatt, G. A., & Gordon, J. R. (Eds.). (1985). Relapse prevention. New York: Guilford Press
- Maisto, S. A., Roos, C. R., Hallgren, K. A., Moskal, D., Wilson, A. D., & Witkiewitz, K. (2016). Do Alcohol Relapse Episodes During Treatment Predict Long-Term Outcomes? Investigating the Validity of Existing Definitions of Alcohol Use Disorder Relapse. *Alcoholism, clinical and experimental research*, 40(10), 2180–2189. doi:10.1111/acer.13173
- Miller, W. R., Zweben, A., DiClemente, C. C., & Rychtarik, R. G. (1992). *Motivational Enhancement Therapy manual: A clinical research guide for therapists*. Rockville, MD: NIAAA.
- Prochaska, J.O., Norcross, J.C. & DiClemente, C.C. (1994) *Changing for Good*. New York: Avon books.
- Shaw, M. A. & DiClemente, C.C. (2016) Relapse Vulnerability Measure of the Alcohol Abstinence Self-Efficacy Scale Predicting Time to first Drink and Amount of Drinking. *Journal of Studies on Alcohol and Drugs*. 77(3), 521-525. doi: 10.15288/jsad.2016.77.521
- Syed, M (2015). Black Box Thinking: Why Most People Never Learn from their Mistakes-but Some Do. Penguin, New York.
- Velasquez, M.M., Maurer, G.G., Crouch, C. & DiClemente, C.C. (2016). *Group Treatment for Substance Abuse: A Stages of Change Therapy Manual*. (Second Edition) New York: Guilford Press.
- Witkiewitz, K., & Marlatt, G. A. (2007). Modeling the complexity of post-treatment drinking: It's a rocky road to relapse. *Clinical Psychology Review*, 27(6), 724-738.