# **Self-Empowerment** from a Cognitive Science Perspective

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#### Addictions in the early 90s...

- Cocaine epidemic (crack) "Greatest threat to the United States"
- Patients labeled "drug addicts" and "alcoholics" (stigmatized)
- Stereotypes were everywhere; addiction was attributed to or associated with race, religion, social class, appearance, etc.
- DSM-IV (published January 1, 1994) diagnoses were *Substance* abuse and dependence (dichotomous, included legal problems)
- Each addiction (e.g., alcohol, nicotine, cocaine, heroin) was considered unique, different, and often stereotyped
- The aims of treatment were abstinence and relapse prevention...
- ...not **self-empowerment**

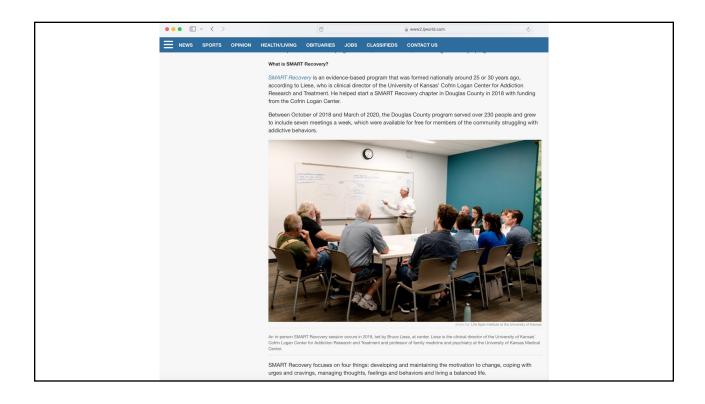
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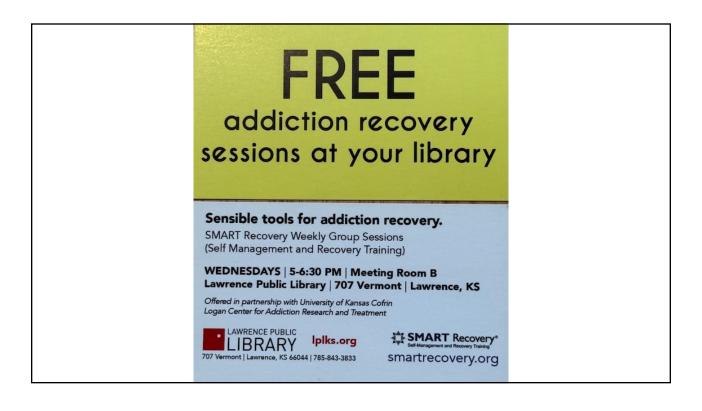


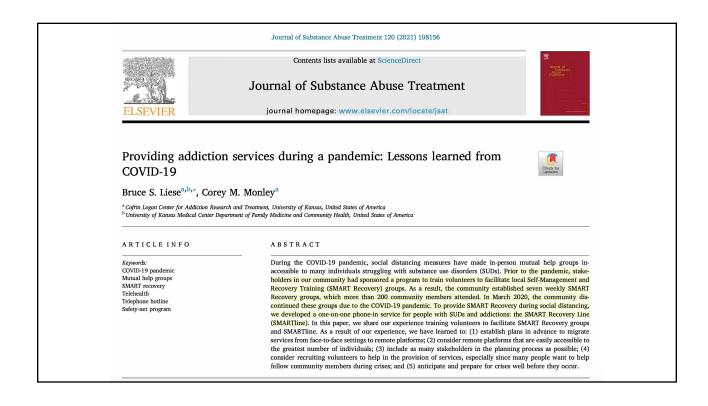
#### Addictions today: Good news, bad news

- **Bad news**: Opioid epidemic; alcohol and nicotine use continue to cause high morbidity and mortality rates; cannabis increasingly accessible
- **Good news**: Stereotypes fading; awareness of stigma (words & actions)
- DSM-5 craving added, legal problems removed, behavioral addiction recognized, diagnoses on a continuous scale (mild, moderate, severe)
- People with addictions need to determine their own goals
- Recognition of common mechanisms (especially cognitive processes) and consequences of use, highlighting relevance of <u>Cognitive Science</u>
- We realize there's more than preventing relapse: there's potential in recovery for personal growth, balance, thriving; i.e., **Self-Empowerment**

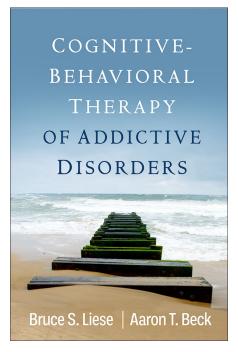








#### 2022



Liese & Beck (2022). *Cognitive-Behavioral Therapy* for Addictive Disorders. NY: Guilford Press.

#### What is CBT?

Or more accurately, what are the CBTs?

CBT is not a single approach to therapy;

CBT is comprised of many brands with more similarities than differences

- Cognitive Therapy (CT)
- Rational Emotive Behavior Therapy (REBT)
- Acceptance and Commitment Therapy (ACT)
- Behavioral Activation (BA)

- Dialectical Behavior Therapy (DBT)
- Cognitive Processing Therapy (CPT)
- Contingency Management (CM)
- Mindfulness-Based Cognitive Therapy (MBCT)
- Exposure and Response Prevention (ERP)

### **SMART Meeting Content and Process**

#### Content

<u>What</u> is to being discussed for the purpose of **selfempowering** goal-directed personal change

#### **Process**

<u>How</u> goal-directed personal change is facilitated in sessions (i.e., individual and group dynamics)

## **SMART Meeting Content and Process**

<u>Content</u> – **What**'s discussed in SMART Recovery meetings (e.g., four points, ABC model, values, etc.):

- Building and maintaining motivation
- Coping with urges
- Managing thoughts, feelings, behaviors
- Living a balanced life

#### **SMART Meeting Content and Process**

Process: How SMART Recovery meetings are facilitated:

- Structure: How meetings are organized
- Collaboration/alliance: How cohesive the group is and how committed individuals are to the group
- Conceptualization: How individual, group dynamics are understood
- Psychoeducation: How learning is facilitated
- Standardized techniques: How tools are chosen and integrated

Adapted from: Liese & Beck (2022). Cognitive-Behavioral Therapy for Addictive Disorders. NY: Guilford Press.

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Cross-talk. Diagram 1 illustrates the optimal pattern of successful cross-talk interaction.

All the participants are connected to each other, giving them many Diagram 1: Crosstalk opportunities to develop relationships.

The job of the facilitator is to guide the discussion so it doesn't stray off topic. You can do this by reminding people of the topic they agreed to or by directing the conversation back to the participant who initially raised the issue.

Star pattern: Facilitator at the center. This is a case of overfacilitating (Diagram 2). It happens when a facilitator is eager to help and is more focused on the topic substance than on managing the discussion.

In the star pattern, you are perceived as being the group leader because all communication passes through you. In this configuration, participants won't build relationships nor will they take initiative if you do all the talking. The meeting becomes, in effect, one-on-one therapy.

**Subgroup.** Diagram 3 shows how a subgroup can start Diagram 3: Subgroup an intense and exclusive discussion. Such exchanges can be valuable as they help with problem solving and can strengthen the bonds among participants; however, the other participants may feel excluded or that they have no right to speak up or change the subject.

You may need to intervene if such a discussion goes too long or if there are signs of impatience among others. Rather than break up the subgroup, you may be able to involve the other participants, by asking a question of a silent member,



Bob, I remember you had a similar experience once. Do you have anything to share



#### **Cognitive Science**

What is cognitive science? It's the study of mental processes. We focus on just a few here:

- Attention
- Executive functions
- Cognitive effort (ease vs. strain)
- Dual processes (e.g., System 1 and System 2 thinking)

## Attention: Types and Axes

- Intensity
  - Vigilance
  - Sustained attention
  - Alertness
- Selectivity
  - Focused attention
  - Divided attention

<u>Relevance</u>: One's focus of attention is a strong predictor of their subsequent thoughts, feelings, and behaviors

#### **Executive functions**

- Mental processes necessary for planning, regulating, organizing, adapting, self-managing, and making changes
- Executive functions are effortful
- At least three core functions:
  - Working memory not the same as short-term memory
  - <u>Cognitive flexibility</u> mental flexibility; open-mindedness; related to imagination, creativity
  - <u>Inhibitory control</u> cognitive/behavioral inhibition (self-control)

Diamond, A. (2012). Executive functions. *Annual Review of Psychology, 64*, 135-168.

#### Cognitive effort

- Executive functions require cognitive effort
- · Cognitive effort varies, depending on the load placed on it
- Simple functions place little load on individuals ease
- Complex functions place heavy loads on individuals strain
- Cognitive strain is experienced as work, effort, fatigue

People tend to make choices that minimize cognitive effort; we make snap judgments and rely on intuition (i.e., knowing without deliberation or careful consideration)

Kahneman, D. (2011). *Thinking Fast and Slow*. New York: Farrar, Straus and Giroux.

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### Consider this question

- A bat and ball together cost \$1.10. The bat costs \$1.00 more than the ball. How much does the ball cost?
- The System 1 (intuitive) answer is \$.10
- The correct answer is \$.05.
- This problem illustrates System 1 thinking and the principle of least effort
- Most people are confident in their \$.10 answer
- Unfortunately, overconfidence is pervasive

Kahneman (2011).

#### System 1 thinking

- Automatic, fast, effortless, involuntary, reflexive, intuitive
- · Generates impressions, feelings, judgments
- · Biased to believe and confirm, suppress doubt
- Focuses on existing evidence and ignores absent evidence
- Responds more strongly to losses than gains
- Seeks simple answers to complex questions
- When System 1 thoughts are reinforced, they become core beliefs

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#### System 2 thinking

- Effortful, deliberate, intentional, reflective, slow
- Activated when cognitive load too much for System 1
- Searches memory
- Associated with attention, concentration, agency, choice
- Works by asking and answering questions
- Not the same as intelligence; more related to rationality
- Many people assume that their System 2 is in charge
- Smart, rational, but lazy

Kahneman, D. (2011). *Thinking Fast and Slow*. New York: Farrar, Straus and Giroux.

#### SMART Recovery group facilitation

- SMART Recovery groups can be stunningly complex and challenging; facilitators face uncertainty in each group and with each member
- Facilitation requires attention and effort to continually assess what is and isn't important: What should we be talking about? Why aren't some group members participating? Are some group members talking too much? Where's Charlie tonight? Is he okay? What tool should I use? Am I a bad facilitator? Do they like me?
- Facilitators possess the same vulnerabilities and fallibilities as group members; we all operate under System 1 and System 2

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## Introducing cognitive science in SMART Recovery Groups

- Introduce Smart Recovery Group members to System 1 and System 2 thinking
- Help them understand that their problematic patterns are driven by System 1 thinking
- Explain that System 1 is essential to living safely and efficiently, but errors are inevitable
- Explain the centrality of System 2 thinking to change
- Emphasize that change is difficult, largely due to the effort required by System 2

## System 2 might be particularly helpful when group members...

- Say they want to change, but believe they can't
- Repeatedly describe problematic behaviors and relapses
- Continually anticipate barriers to change
- Don't work towards goals they say they want to accomplish
- Say they can't think of anything to work on
- Self-stigmatize

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## Summary and conclusions

- Life is complex and often difficult
- Addictions make life even more complex and difficult
- Empowerment is an alternative
- But it requires great attention and effort
- We underestimate the impact of System 1 in our every day lives
- We exaggerate how much we use System 2
- By effectively switching between System 1 and System 2, we feel self-empowered: "System 1 is great but now it's time for System 2."
- As facilitators, group members, and human beings, remember how much effort is necessary, in System 2, to be self-empowered