Self-Efficacy as a Mechanism of Behavior Change

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Self-efficacy – a theoretical definition

- **Belief** in one’s ability to achieve a goal or behavioral outcome

- It is not...
  - Motivation
  - Intention
  - An outcome expectation

Self-efficacy – operational definitions

- **Self report** – questionnaires that are tailored to a particular domain of functioning
  - Situational Confidence Questionnaire (Annis & Graham, 1988)
  - Alcohol Abstinence Self-Efficacy Scale (DiClemente et al 1994)
  - Drink Refusal Self-Efficacy Questionnaire (Ralston & Palfai, 2010)

- **Role-plays** – observational test of responses (and confidence in responses) to general and high-risk situations
  - Situational Competency Test (Chaney et al 1978)
  - Alcohol-Specific Role Play Test (Monti et al 1993)

The role of self-efficacy in the treatment of substance use disorders

Ronald M. Kadden a,⁎, Mark D. Litt a,b

1) Self-efficacy → Outcome
2) Intervention → Self-efficacy
3) Intervention → Self-efficacy → Outcome

Fig. 1. Causal pathways considered in this review.


Addictive Behaviors 36 (2011) 1120-1126

Contents lists available at ScienceDirect

Addictive Behaviors

ELSEVIER
b-path, what does self-efficacy predict?

- Time to first alcohol lapse after residential treatment – Ludwig et al 2013. ACER
- Alcohol use and consequences – Ehjret et al 2013. Addictive Behaviors
- Treatment retention – Kuuisto et al 2011. Addictive Disorders & Their Treatment
- Smoking cessation – Castro et al 2014. Drug Alcohol Dependence
- Many additional studies - Kadden and Litt 2011. Addictive Behaviors
What predicts self-efficacy?

**Intervention → Self-efficacy**

- Cognitive behavioral smoking intervention — Hooten et al. 2014. *Addictive Behaviors*
- Drink refusal training — Witkiewitz et al. 2012. *JCCP*
- Many additional studies - Kadden & Litt 2011. *Addictive Behaviors*

**Self-efficacy changes**

- Impulsivity - Mckellar et al. 2008. *JSAT*
- Neurocognitive impairment – Worley et al. 2014. *JCCP*
- Education; baseline severity - Ilgen et al. 2007. *JSAD*

**Target self-efficacy**

- Participation in AA – Mckellar et al. 2008. *JSAT*
- Engagement in skills training – Ilgen et al. 2007. *JSAD*
MOBC analyses of self-efficacy

Target self-efficacy

Intervention: self-efficacy → alcohol and other drug use outcomes

Self-efficacy changes

Individual differences: self-efficacy → alcohol and other drug outcomes

Alcohol use and related outcomes

Process measures: self-efficacy → alcohol and other drug outcomes

- Drink refusal training - Witkiewitz et al 2012. *JCCP*
- Telephone continuing care - Mensinger et al 2007. *JCCP*
- Ondansetron + CBT – Penberthy et al 2011. *ACER*
- MET – LaChance et al 2009. *PAB*
- Contingency management – Litt et al 2013. *Addictive Behaviors*

- Internalizing vs Externalizing – Schlauch et al 2012. *PAB*
- Expectancies – Connor et al 2014. *Addiction*
- Impulsivity - Gullo et al 2010. *ACER*
- Drinking identity – Foster et al 2014. *Addictive Behaviors*

- Parental monitoring – Watkins et al 2006. *J Adol Health*
Null and/or unexpected findings...

- Intervention reduces alcohol use and/or self-efficacy predicts outcomes; no mediation effects (Armitage et al 2014; Kulesza et al, 2013; Maisto et al 2000)

- Other-efficacy beliefs more predictive of post-treatment drinking than explicit measures of self-efficacy (Demmel et al 2006)

- CBT not differentially more effective in enhancing self-efficacy, as compared to psychoeducation groups (Burleson & Kaminer, 2005); contingency management (Litt et al 2008); and mindfulness-based relapse prevention (Witkiewitz et al, in preparation)
New approaches and future directions

- **Novel and modern statistical approaches**
  - Bootstrapping mediated effects – MacKinnon (2008)
  - Moderated multiple mediation models - Kelly & Hoeppner (2013)

- **Experimental designs that manipulate self-efficacy**
  - Increased smoking cessation, not mediated by self-reported self-efficacy - William Shadel (personal communication)

- **Ecological/contextual assessment designs**
  - Drink refusal self-efficacy is lower when assessed in a bar relative to a lecture hall - Monk & Heim (2013)
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