Addiction Recovery Research:
What Have we Learned and what we need to know

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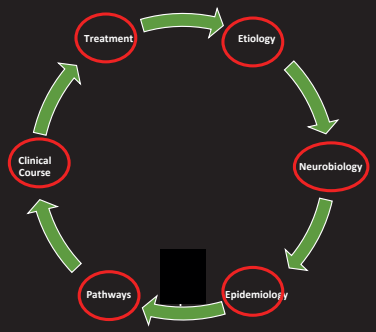
50 years of criminal justice, treatment, and public health, approaches

Past 50 yrs since declaration of "War on drugs" led to large-scale federal appropriations and a number of paradigm shifts…



Clinical Course of Addiction and Remission

Can we speed this up?

Emergency

Extinguish

Prevent

Rebuild

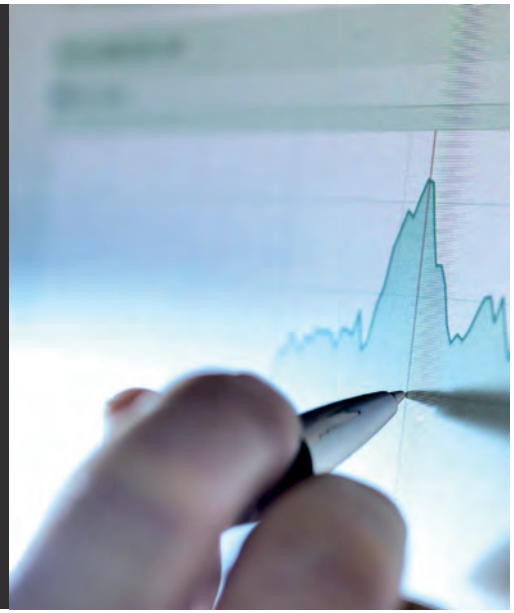
Recovery Capital

Individual
(coping, motivation, self-efficacy)

Social
(recovery-specific/family, friends)

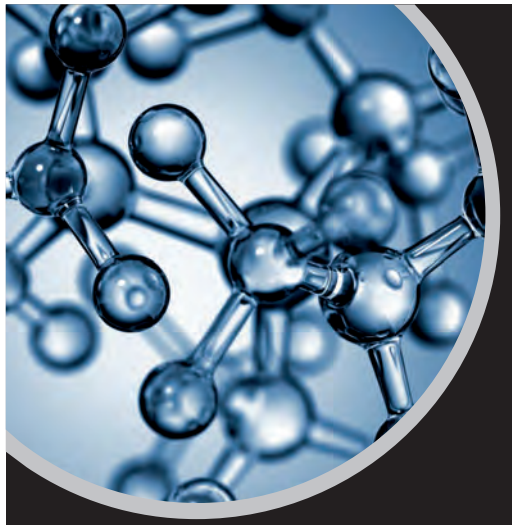
Financial
(income, resources)

Cultural
(identity, values)



Post-Acute Withdrawal Phenomena

- Sensitivity to stress
- Memory problems
- Sleep difficulties
- Emotional overreactions/numbness
- Cognitive challenges
- Physical coordination challenges



Challenges undermining change attempts…

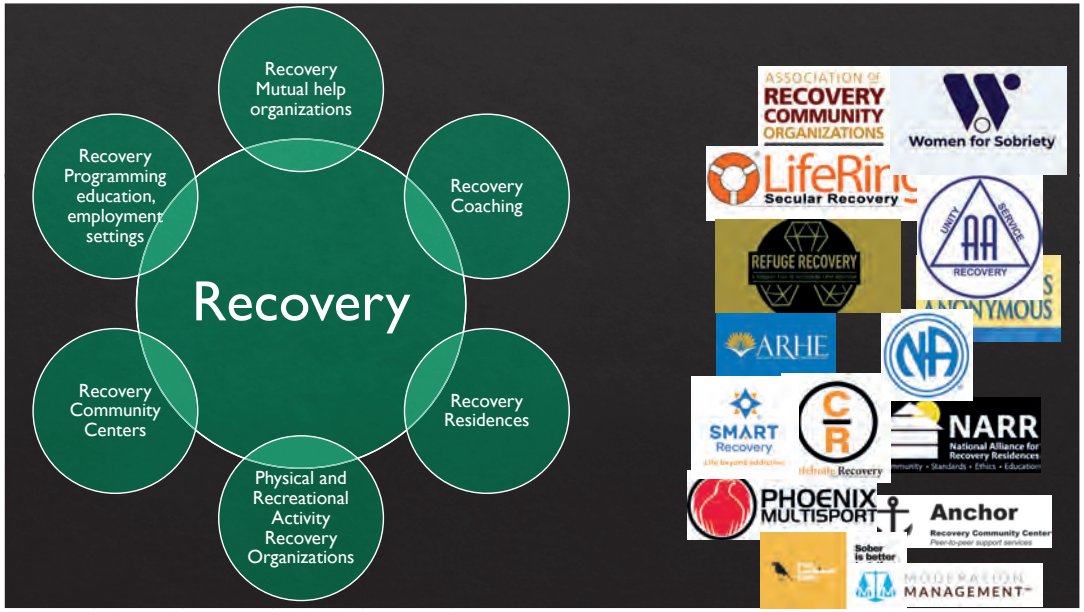
Increased sensitivity to stress

Decreased capacity to experience normal levels of reward

How Organisms Recover

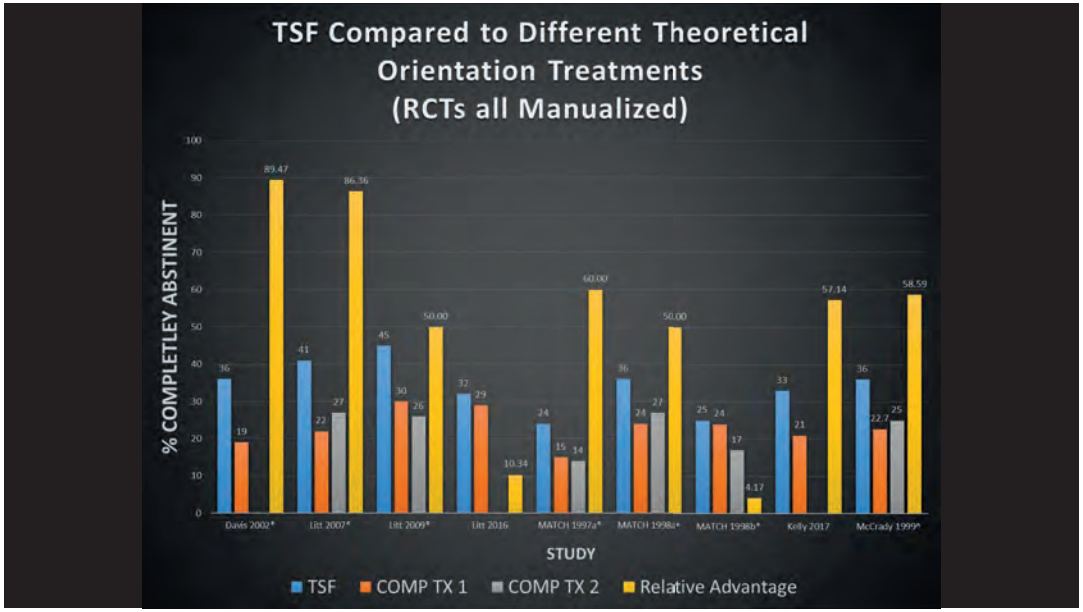
Photosynthesis

Psychosynthesis



Cochrane Systematic Review on AA/TSF (2020)

- Kelly, JF
- Humphreys, K
- Ferri, M



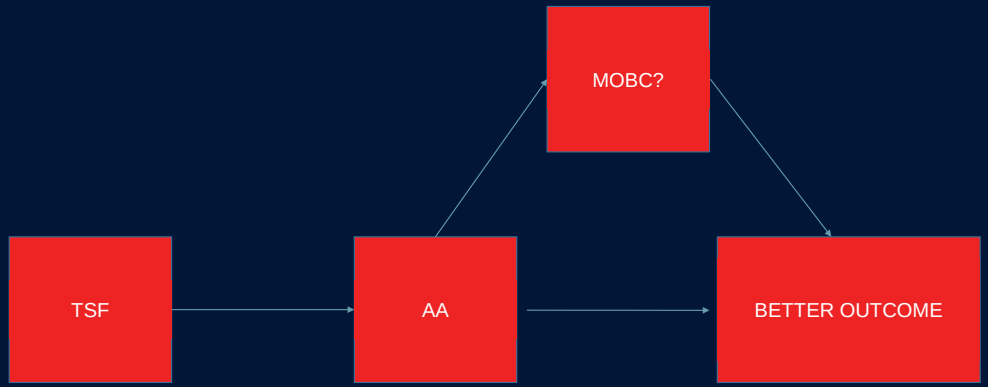
Economic Studies

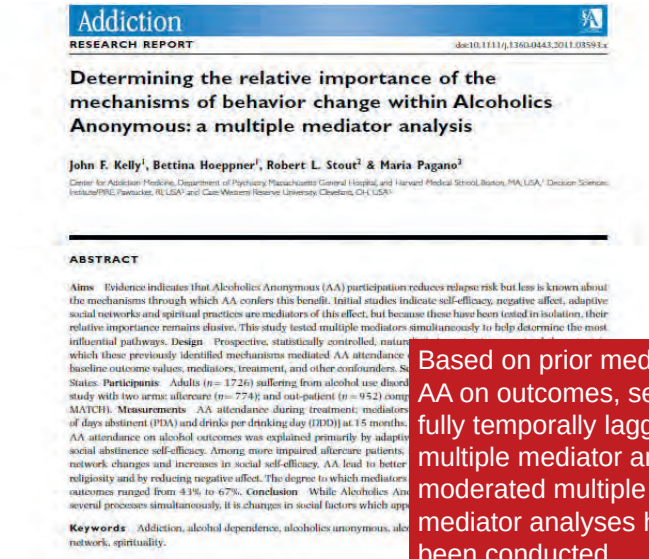
Healthcare Cost Savings

- 3/4 included studies in this category (n reports = 4/5; found sig. health care cost saving in favor of the AA/TSF condition.
- Economic analyses found benefits in favor of AA/TSF relative to outpatient treatment, and CBT interventions.
- Magnitude - large. In addition to sig. increased abstinence/remission, compared to CBT interventions

$10-15 Billion/yr savings in health care alone

Mechanisms of 12-step treatment and of 12-step mutual-help programs have been investigated and clarified…





Addiction

RESEARCH REPORT

doi:10.1111/j.1360-0443.2011.03593.x

Determining the relative importance of the mechanisms of behavior change within Alcoholics Anonymous: a multiple mediator analysis

John F. Kelly[1], Bettina Hoeppner[1], Robert L. Stout[2] & Maria Pagano[3]

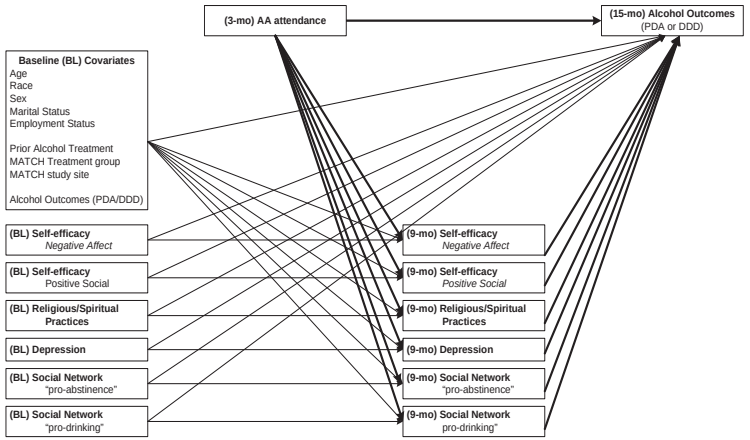
Center for Addiction Medicine, Department of Psychiatry Massachusetts General Hospital and Harvard Medical School, Boston, MA, USA,[1] Decision Sciences Institute/RWE, Pawtucket, RI, USA[2] and Case Western Reserve University, Cleveland, OH, USA[3]

ABSTRACT

Aims Evidence indicates that Alcoholics Anonymous (AA) participation reduces relapse risk but less is known about the mechanisms through which AA confers this benefit. Initial studies indicate self-efficacy, negative affect, adaptive social networks and spiritual practices are mediators of this effect, but because these have been tested in isolation, their relative importance remains elusive. This study tested multiple mediators simultaneously to help determine the most influential pathways. **Design** Prospective, statistically controlled, natur… which these previously identified mechanisms mediated AA attendance … baseline outcome values, mediators, treatment, and other confounders. St… States. **Participants** Adults (*n* = 1726) suffering from alcohol use disord… study with two arms: aftercare (*n* = 774); and out-patient (*n* = 952) comp… MATCH). **Measurements** AA attendance during treatment; mediators … of days abstinent (PDA) and drinks per drinking day (DDD)] at 15 months. … AA attendance on alcohol outcomes was explained primarily by adaptiv… social abstinence self-efficacy. Among more impaired aftercare patients, … network changes and increases in social self-efficacy. AA lead to better … religiosity and by reducing negative affect. The degree to which mediators … outcomes ranged from 43% to 67%. **Conclusion** While Alcoholics An… several processes simultaneously, it is changes in social factors which app…

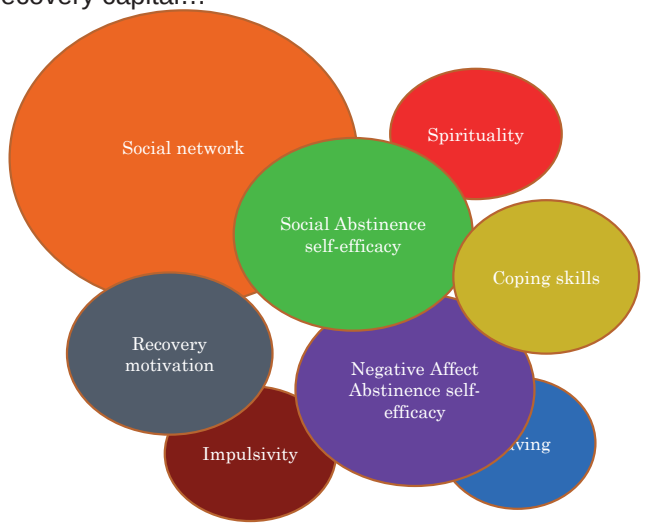
Keywords Addiction, alcohol dependence, alcoholics anonymous, ide… network, spirituality.

Based on prior mediators of AA on outcomes, several fully temporally lagged multiple mediator and moderated multiple mediator analyses have been conducted…



Source: Kelly, Hoeppner, Stout, Pagano (2012) , Determining the relative importance of the mechanisms of behavior change within Alcoholics Anonymous: A multiple mediator analysis. *Addiction 107(2):289-99*

Empirically-supported MOBCs through which AA confers benefit: AA mobilizes social and personal recovery capital…

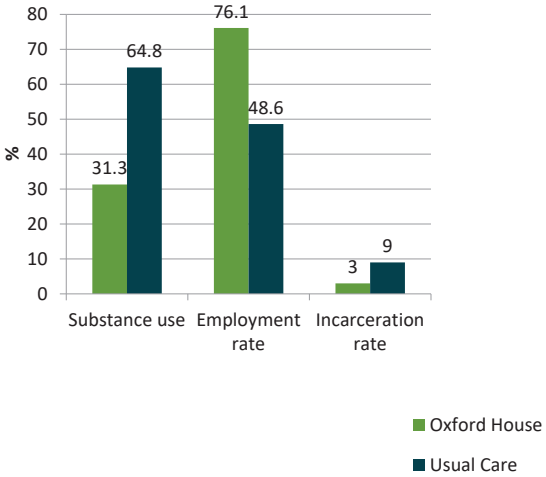


Kelly, 2022 (adapted from Kelly, 2017; Kelly, Magill, Stout, 2009)

Oxford House vs. Usual Care

Recovery Residences had –

- half as many using substances across 2 yrs
- 50% more employed
- 1/3 re-incarceration rate



Cost-benefit analysis of the Oxford House Model

Evaluation and Program Planning

Benefits and costs associated with mutual-help community-based recovery homes: The Oxford House model

- **Sample**: 129 adults leaving substance use treatment between 2002 and 2005
- **Design**: Cost-benefit analysis using RCT data
- **Intervention**: Oxford House vs. usual continuing care
- **Follow-up**: 2 years
- **Outcome**: Substance use, monthly income, incarceration rates

Mean per-person societal benefits and costs


One-Stop Shopping for Recovery: An Investigation of Participant Characteristics and Benefits Derived From U.S. Recovery Community Centers

ALCOHOLISM CLINICAL & EXPERIMENTAL RESEARCH

WILEY

ALCOHOLISM

CLINICAL & EXPERIMENTAL RESEARCH

ISBRA

SERVICES PROVIDED

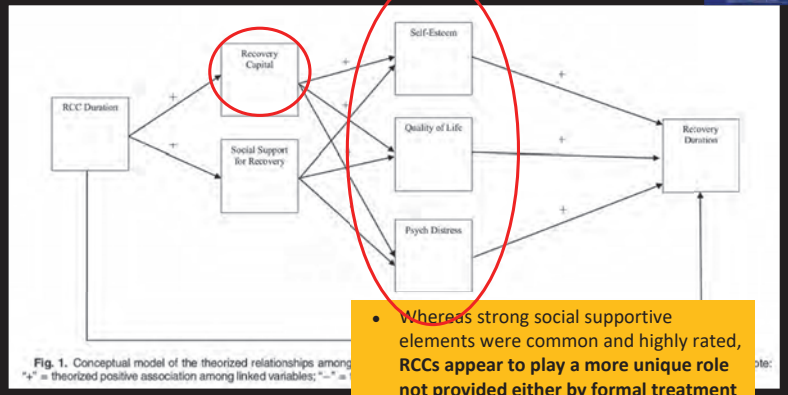


Fig. 1. Conceptual model of the theorized relationships among

- Whereas strong social supportive elements were common and highly rated, **RCCs appear to play a more unique role not provided either by formal treatment or by MHOs** in facilitating the acquisition of recovery capital and thereby enhancing functioning and quality of life.

Connecting the Dots

Toward a Recovery-Oriented System of Care (ROSC)

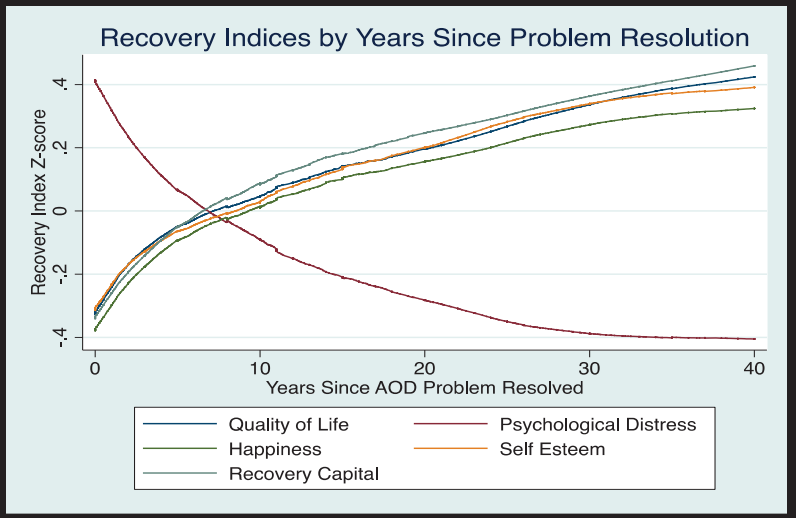
A ROSC is a coordinated network of treatment and community-based services and supports that is person-centered and builds on the strengths and resiliencies of individuals, families, and communities to help achieve remission and improved health, wellness, and quality of life for those with or at risk of alcohol and drug problems

Recovery Milestones

- Initial 0-3m
- Early 4-12m
- Sustained 1-5yrs
- Stable 5+yrs

What do we know about recovery milestones and trajectories?

40-Year Time Frame of Recovery Trajectories



National Recovery Study (NRS) N=2,002

Kelly et al, 2018; *Beyond Abstinence; Alcoholism: Clinical Experimental Research*

Changes in Recovery Capital and Quality of life Among Different Primary Substance Groups in first 5 yrs of Recovery

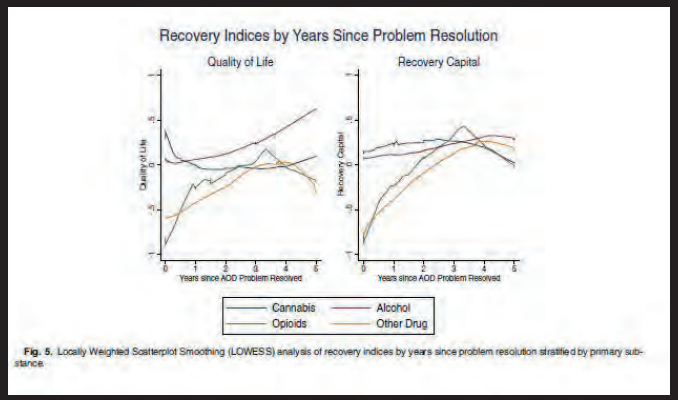
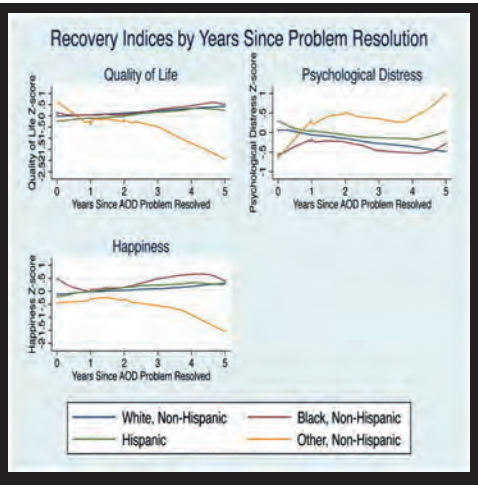


Fig. 5. Locally Weighted Scatterplot Smoothing (LOWESS) analysis of recovery indices by years since problem resolution stratified by primary substance.

Kelly et al, 2018; *Beyond Abstinence; Alcoholism: Clinical Experimental Research*

Changes in Quality of life, Distress, Happiness Among Different Racial/Ethnic Groups in first 5 yrs of Recovery



Spirituality/religion and recovery x race/ethnicity

- To what degree are you are spiritual or religious person?
- In terms of resolving your alcohol/drug problem, to what degree did spirituality help? Religion help?

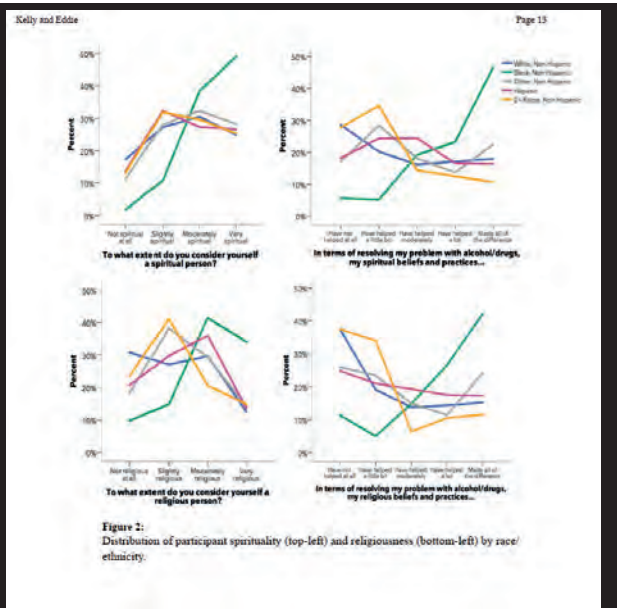


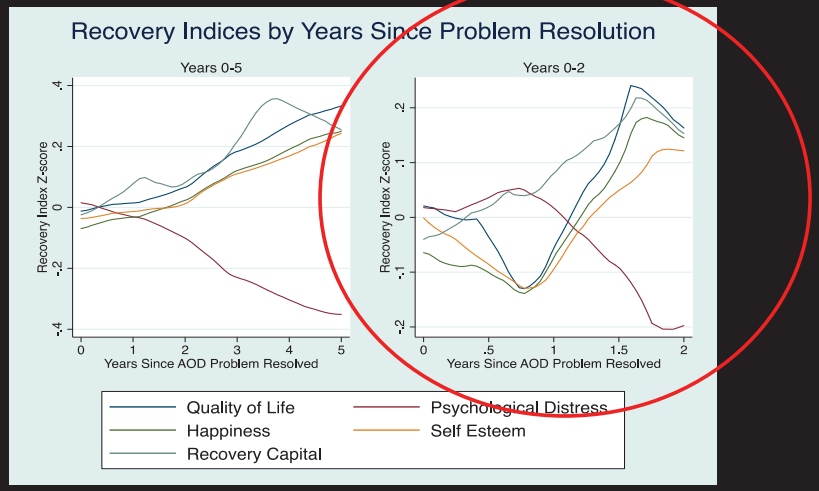
Figure 2:
Distribution of participant spirituality (top-left) and religiousness (bottom-left) by race/ethnicity.

Kelly and Eddie (2020)

Sexual Minority vs Heterosexual Status and Changes in Functional and Well-Being Indices - 40 yr. temporal horizon

Haik et al 2022

2-yr Year Temporal Horizon of Recovery Trajectories



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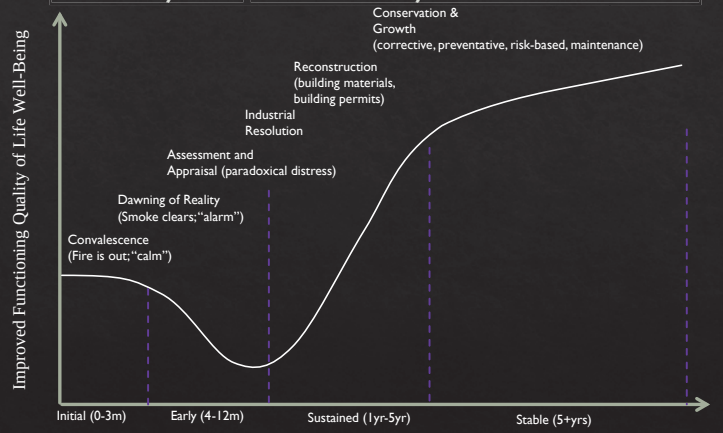
Recovery Curve

Preliminary Data-Based Recovery Milestones and Tasks…



Based on Kelly et al, 2018; *Beyond Abstinence; Alcoholism: Clinical Experimental Research*

Thank you for your attention!

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HARVARD MEDICAL SCHOOL TEACHING HOSPITAL

"23 Million Americans in Recovery" – President Joe Biden 2022 State of the Union

RECOVERY RESEARCH INSTITUTE
10-Year Anniversary
Enhancing Recovery Through Science

National Center
Youth
Treatment
And Recovery