





30 Years of Blending Research and Practice



WHEN YOU APPRECIATE WHAT'S
IN THE BOTTLE
YOU'LL ASK FOR GRANT'S.

With thanks to NIAAA, NIDA, BIA, CSAP,
USDoE/FIPSE, and the Pew Charitable Trusts



The University of New Mexico

**Center on Alcoholism,
Substance Abuse and Addictions**

Overall Career Research Theme

Improving the Quality of Treatment for
Addictive Behaviors by
Developing, Testing, and Disseminating
Evidence-Based Interventions

1. Self-Control Training

- Can problem drinkers learn to moderate their drinking?



Problem drinkers

Miller, Gribskov & Mortell (1981)

International Journal of the Addictions, 16:1247-54

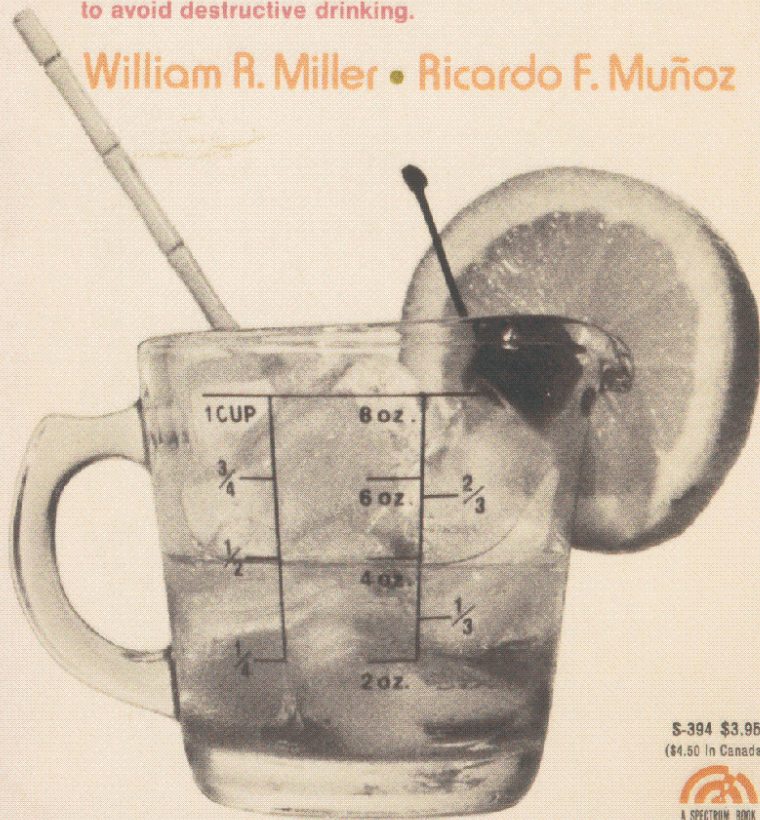


- Randomly assigned to 10 session outpatient behavioral self-control training or
- A control condition receiving
 - One session of advice that they should change their drinking on their own
 - "Bibliotherapy" - Self-help manual with behavioral self-control strategies
 - Self-monitoring cards to complete and return
 - Follow-up appointment in 10 weeks

HOW TO CONTROL YOUR DRINKING

For some people there can be an alternative to quitting. This book teaches you a step-by-step moderation method to avoid destructive drinking.

William R. Miller • Ricardo F. Muñoz



\$-394 \$3.95
(\$4.50 In Canada)



1976

Bibliotherapy

From Leading Researchers

CONTROLLING YOUR DRINKING

TOOLS TO MAKE MODERATION WORK FOR YOU

PROVEN
ALTERNATIVES
TO ALL OR NOTHING

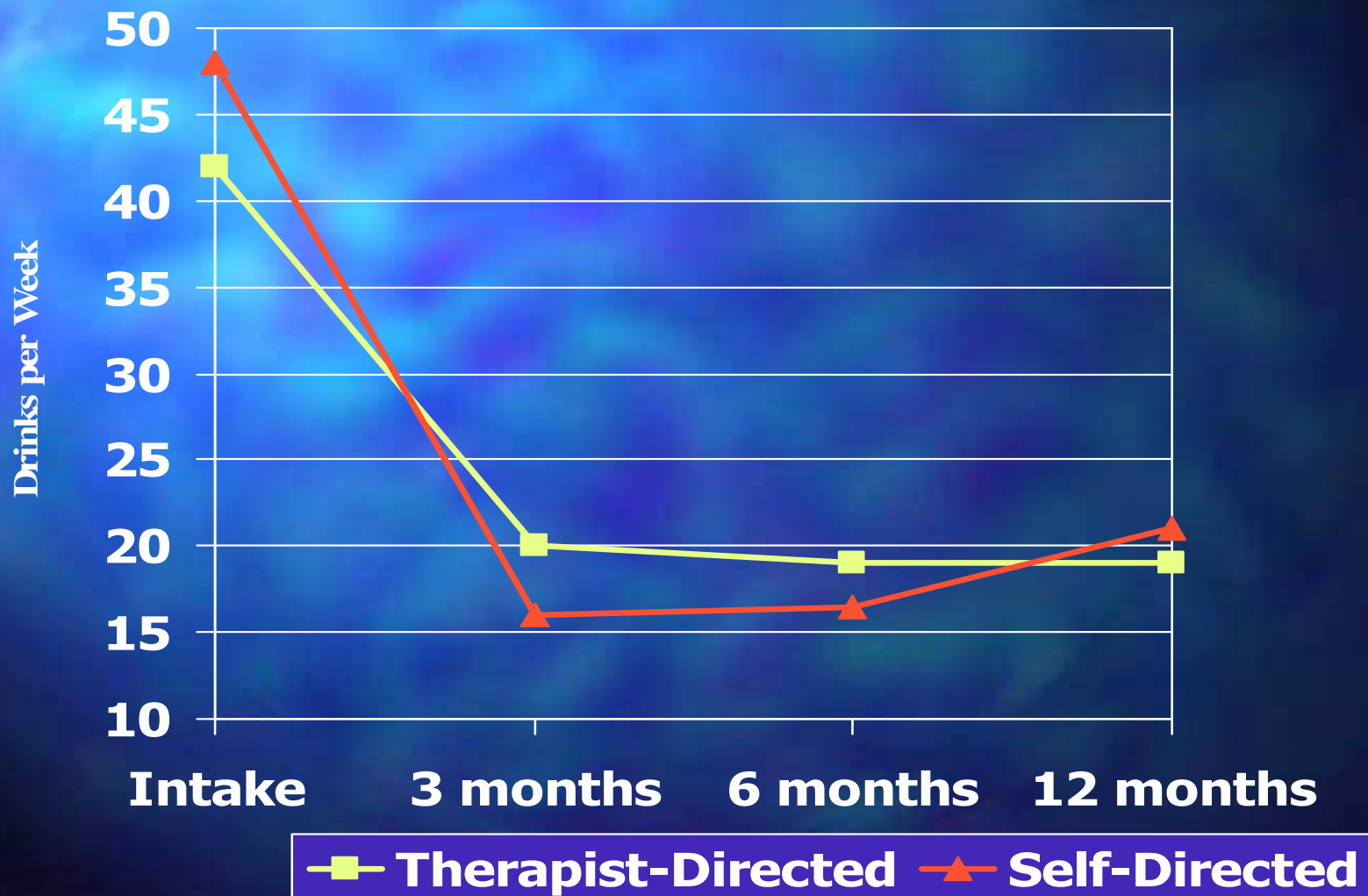
- Learn how much is too much for you.
- Set realistic goals.
- Change what, when, and where you drink.
- Refuse drinks without rejecting friends.



William R. Miller, PhD, and Ricardo F. Muñoz, PhD

2005

Drinking Outcomes



Replicated in New Mexico:



■ 1978

■ 1979

■ 1980





Was it just an artifact of time or self-monitoring?

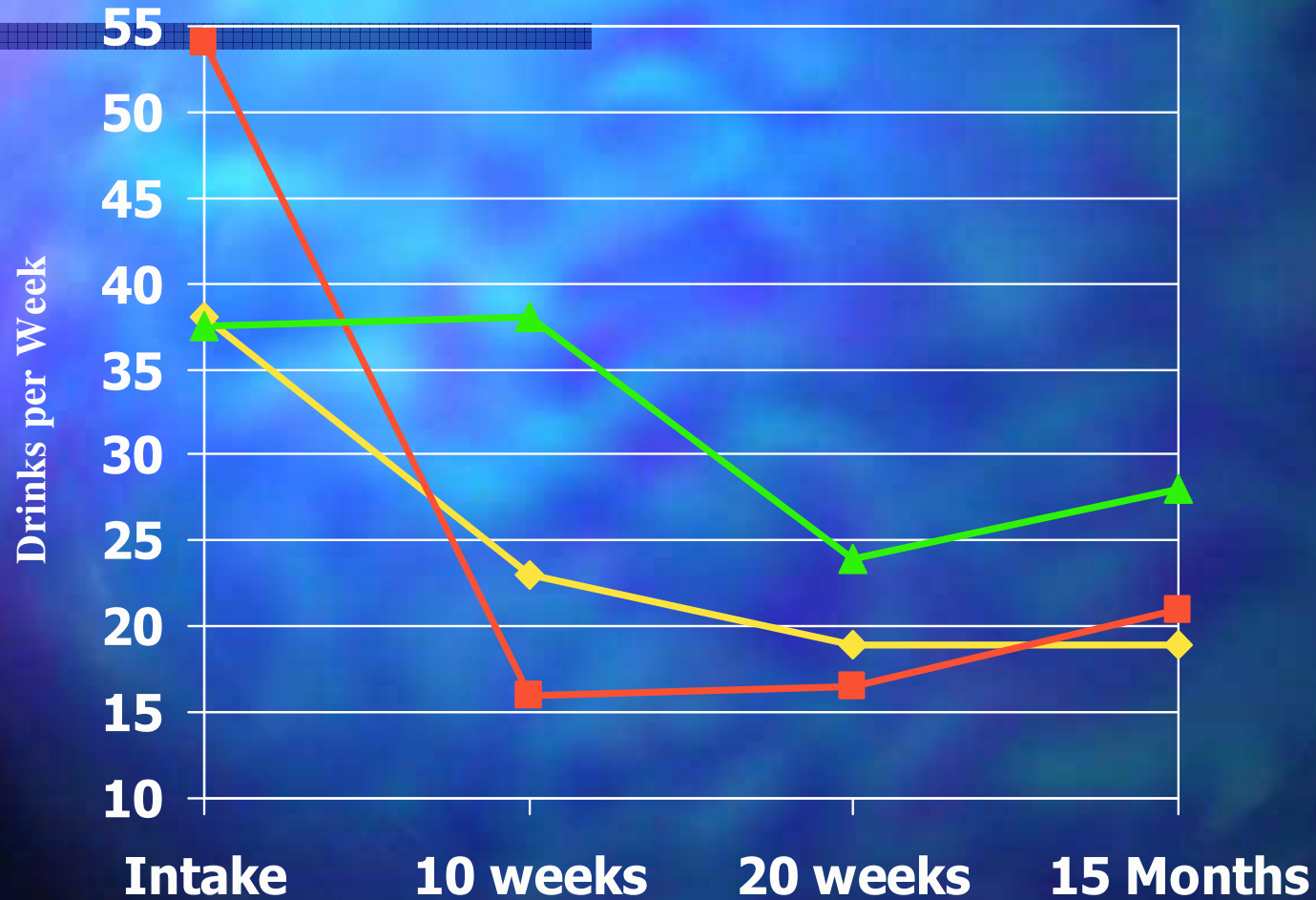
Harris & Miller, 1990

Psychology of Addictive Behaviors, 4, 82-90

Problem drinkers randomly assigned to:

- Immediate 10-week outpatient treatment
- Self-help advice (1 session) + bibliotherapy
- Waiting list (10 weeks) for outpatient treatment with self-monitoring
- Waiting list without self-monitoring

Drinking Outcomes



—◆— Therapist-Directed —■— Self-Directed —▲— Waiting List (2 groups)



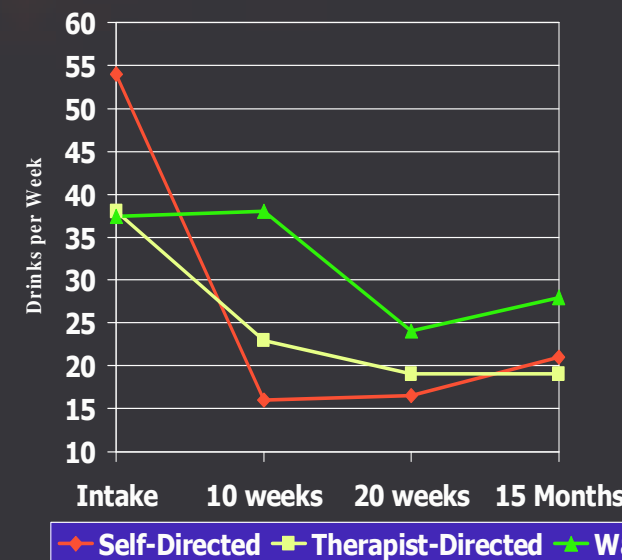
>30 controlled trials now show that brief interventions (usually 1-2 sessions) are significantly more effective than no intervention in reducing problem drinking

What do they have in common?

FRAMES: Common Components of Effective Brief Interventions

- **F**eedback of personal status
- **R**esponsibility and personal choice
- **A**dvice to change
- **M**enu of options for change
- **E**mpathic counseling style
- **S**elf-efficacy and optimism for change

Why didn't that waiting list group show any change?





2. What Works?

Summarizing Outcome
Research for Providers

Reviewing Alcohol Treatment Outcome Research

- 1980 Review of outcome by treatment modality
- 1986 Matching patients to treatments
Inpatient vs. outpatient treatment
Treating addictive behaviors (1st ed.)
- 1989 *Handbook of alcoholism treatment* (1st ed)
- 1991 Cost-effectiveness review (Holder)
- 1993 Outcome review of brief intervention (Bien)
- 1995 First *Mesa Grande* methodological review
- 1996 AA literature review (Tonigan)
- 2005 Latest update of *Mesa Grande* (Wilbourne)

Major Findings of Reviews

- Treatment methods vary widely in efficacy
- Brief interventions work well, often as well as longer interventions
- Inpatient = outpatient treatment in efficacy
- Cost of treatment inversely related to evidence of efficacy
- A.A. helps
- Evidence-based methods seldom used in standard practice

The Gap



Evidence-Based Treatments

- Brief Intervention
- CRA/CRAFT
- Behavioral Marital Therapy
- MI/MET
- Naltrexone
- Self-Control Training
- Social Skills Tr

Common Practice

- Confrontation
- Education
- Films
- General Counseling
- Group Therapy
- Mandated AA
- Milieu Therapy



3. Therapist Effects: Why do counselors' clients have such different outcomes with the same treatment?

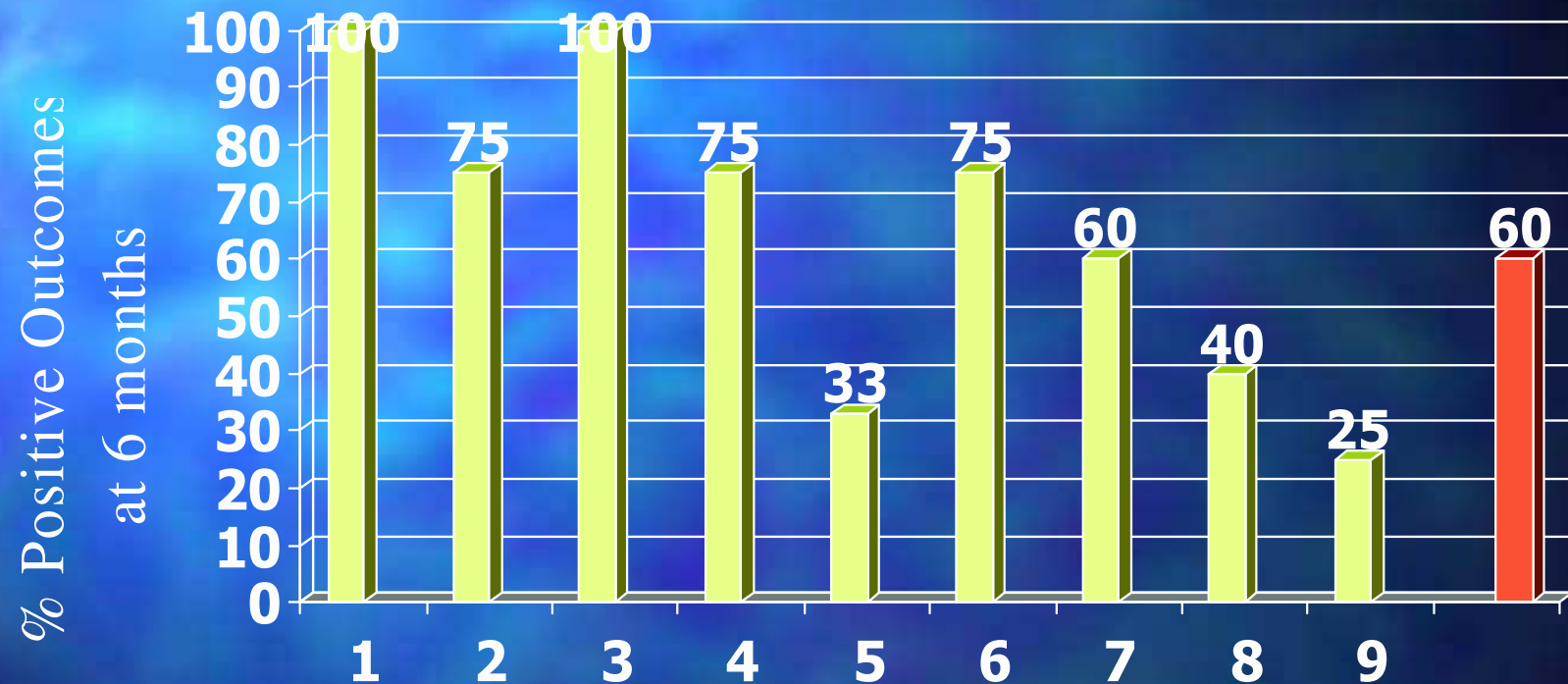


Miller, Taylor & West, 1980

Journal of Consulting and Clinical Psychology 48:590-601

- Problem drinkers were randomly assigned to bibliotherapy or to one of nine outpatient counselors, all delivering the same treatment: behavioral self-control training
- 3 supervisors rated counselors' levels of accurate empathy (Truax & Carkhuff scale)

Counselor Empathy and Client Outcomes



Therapist Empathy

Therapists Bibliotherapy

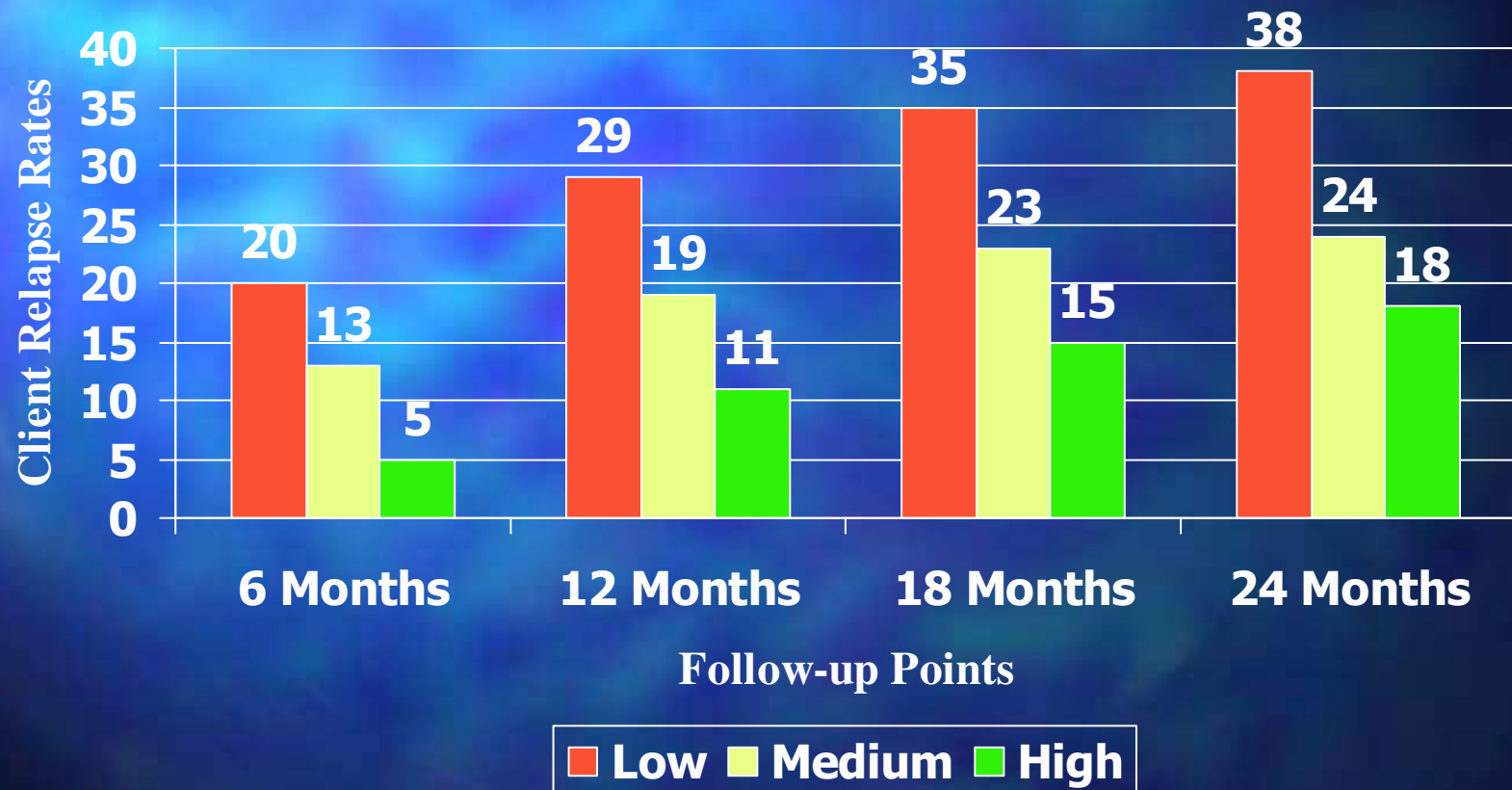
Correlation Between Counselor Empathy and Client Drinking at Follow-up (standard drinks per week)

Miller & Baca (1983) *Behavior Therapy* 14: 441-448

6 months	$r = .82$	$r^2 = .67$
12 months	$r = .71$	$r^2 = .50$
24 months	$r = .51$	$r^2 = .26$

Counselors' Interpersonal Skill (Rogers) and Clients' Drinking Relapse Rates

Valle (1981) *J Studies on Alcohol* 42: 783-790

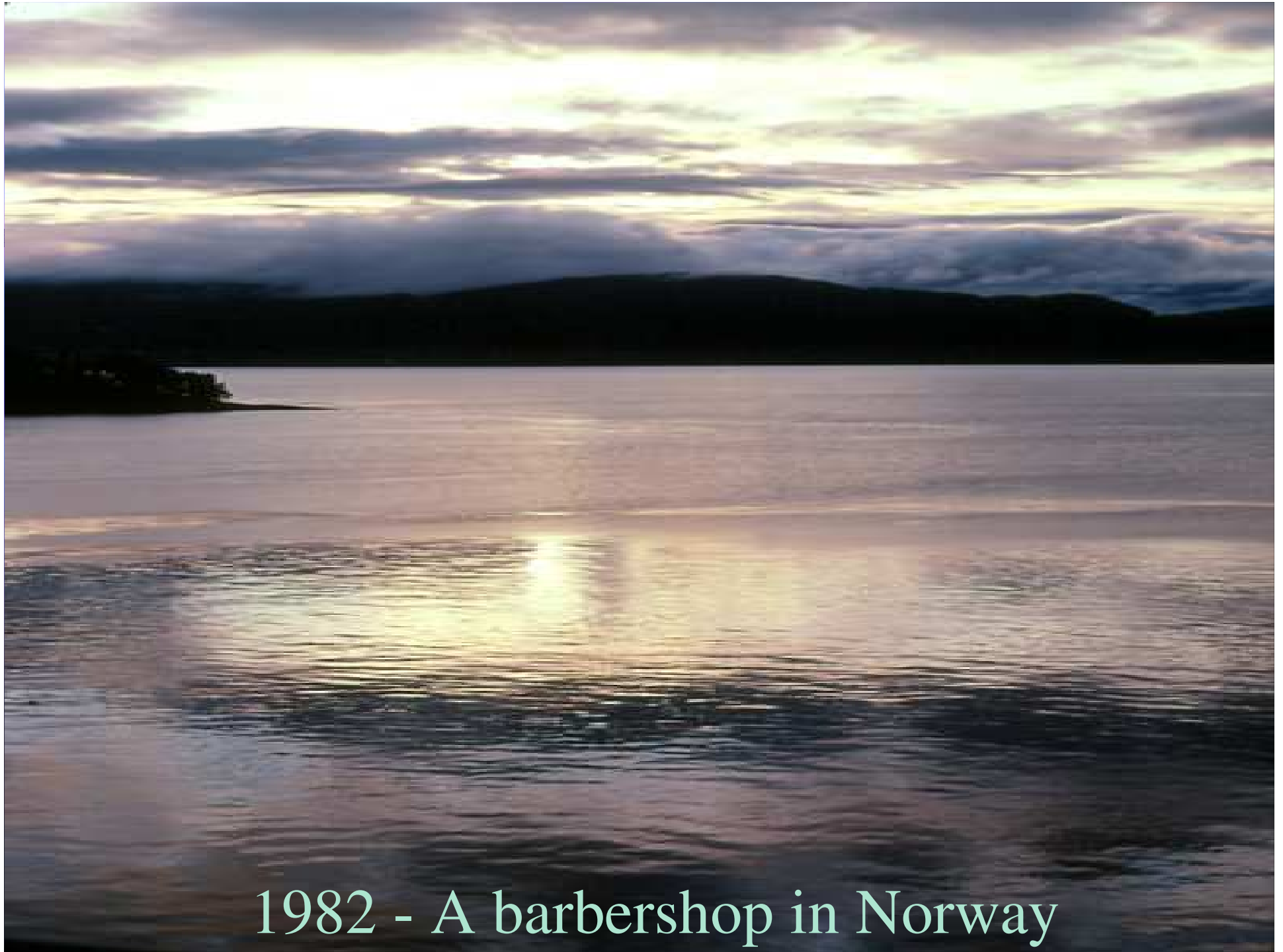




Screen for skill in accurate empathy when hiring substance abuse counselors?



4. Motivational Interviewing



1982 - A barbershop in Norway

A motivational interview should:

- Be used as a prelude to treatment
- Elicit the person's own arguments for change ("self-motivational statements")
- Avoid eliciting or reinforcing resistance ("counter-change statements")
 - [A counselor arguing for change is likely to elicit client counter-change arguments]
 - Ergo – confronting is not an optimal approach





The Drinker's Check-up (M.E.T.)

Drinker's Check-up

- Low threshold enrollment
- Thorough assessment of drinking and its effects in the person's life
- 1 session feedback of findings in MI style
- Treatment referral information

Results:

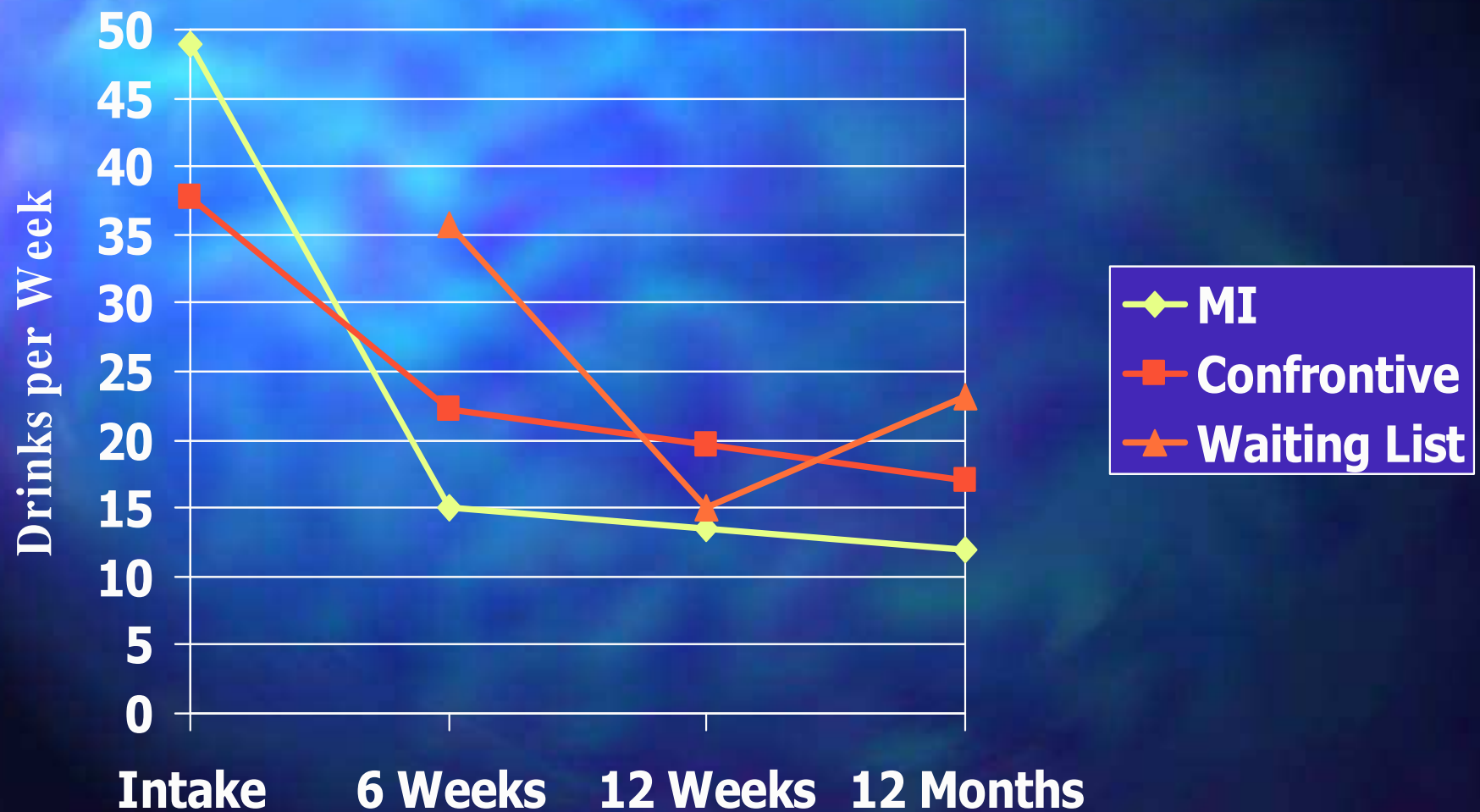
- Almost no one went to treatment
- Most significantly decreased their drinking

Comparing Counseling Styles

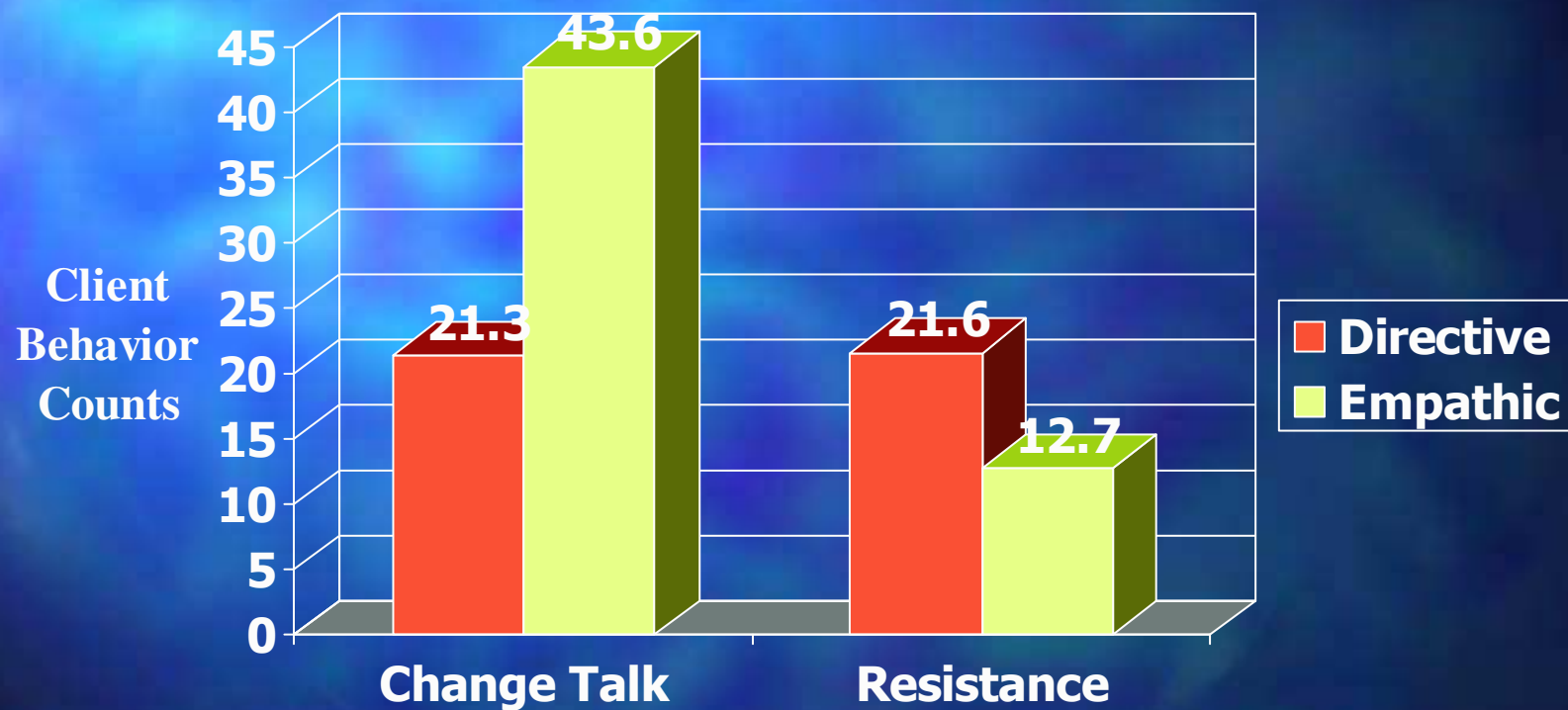
Miller, Benefield & Tonigan (1993) *JCCP* 61: 455-461

- Problem drinkers were randomly assigned to:
 - Counselor giving feedback about drinking in a directive/confrontive style
 - or
 - Counselor giving feedback about drinking in an empathic/eliciting style
- Same counselors delivered both styles

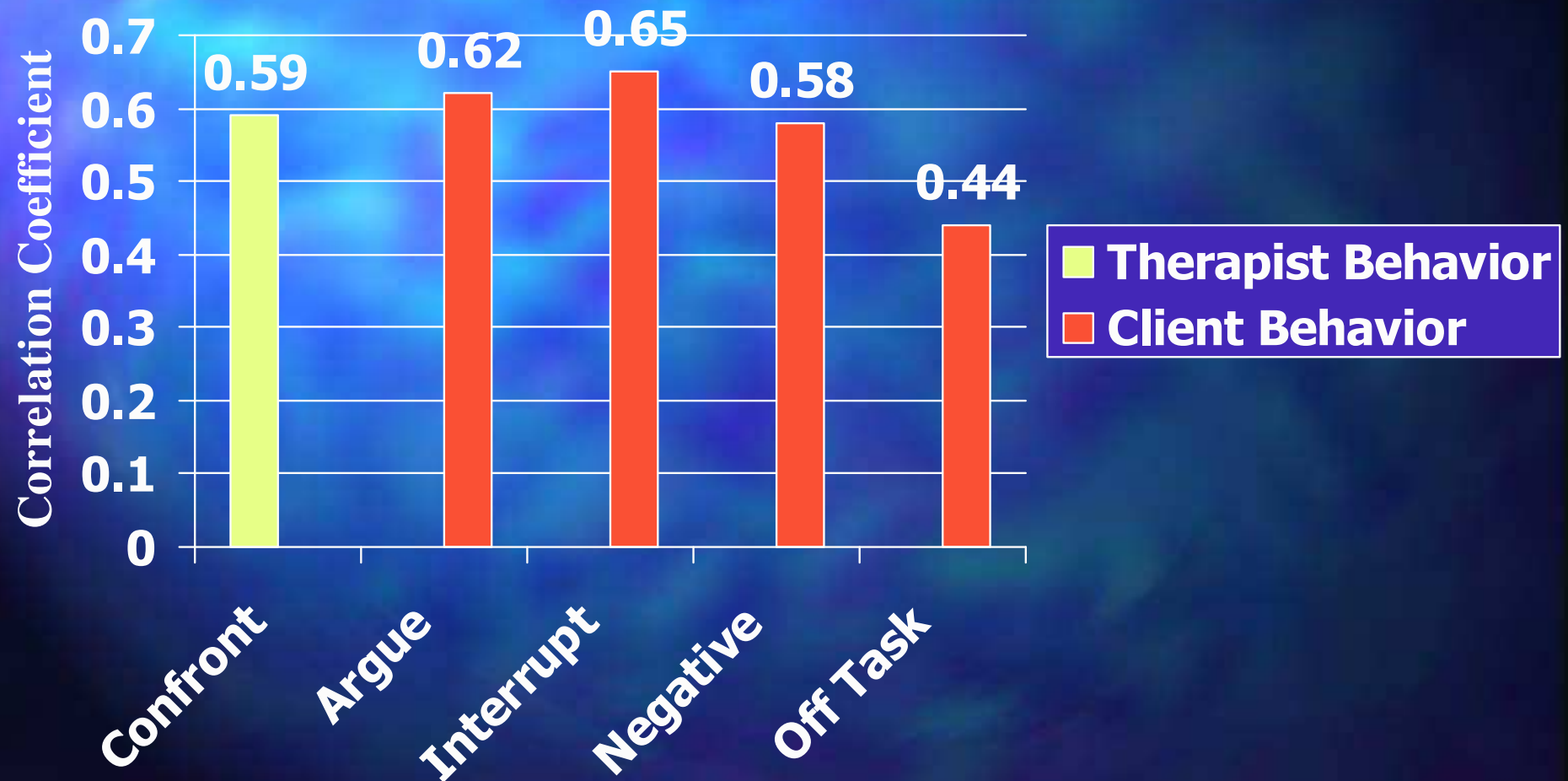
Again without additional treatment .



Counselor Style and Client Response



Predicting 12 Month Drinking from what counselors *actually* did in session



MI as a Prelude to Treatment

3 randomized clinical trials of treatment as usual with or without MI session at intake

- VA outpatient adult treatment

- Bien et al (1993) *Behavioural & Cognitive Psychotherapy* 21: 347-356

- Private residential adult treatment

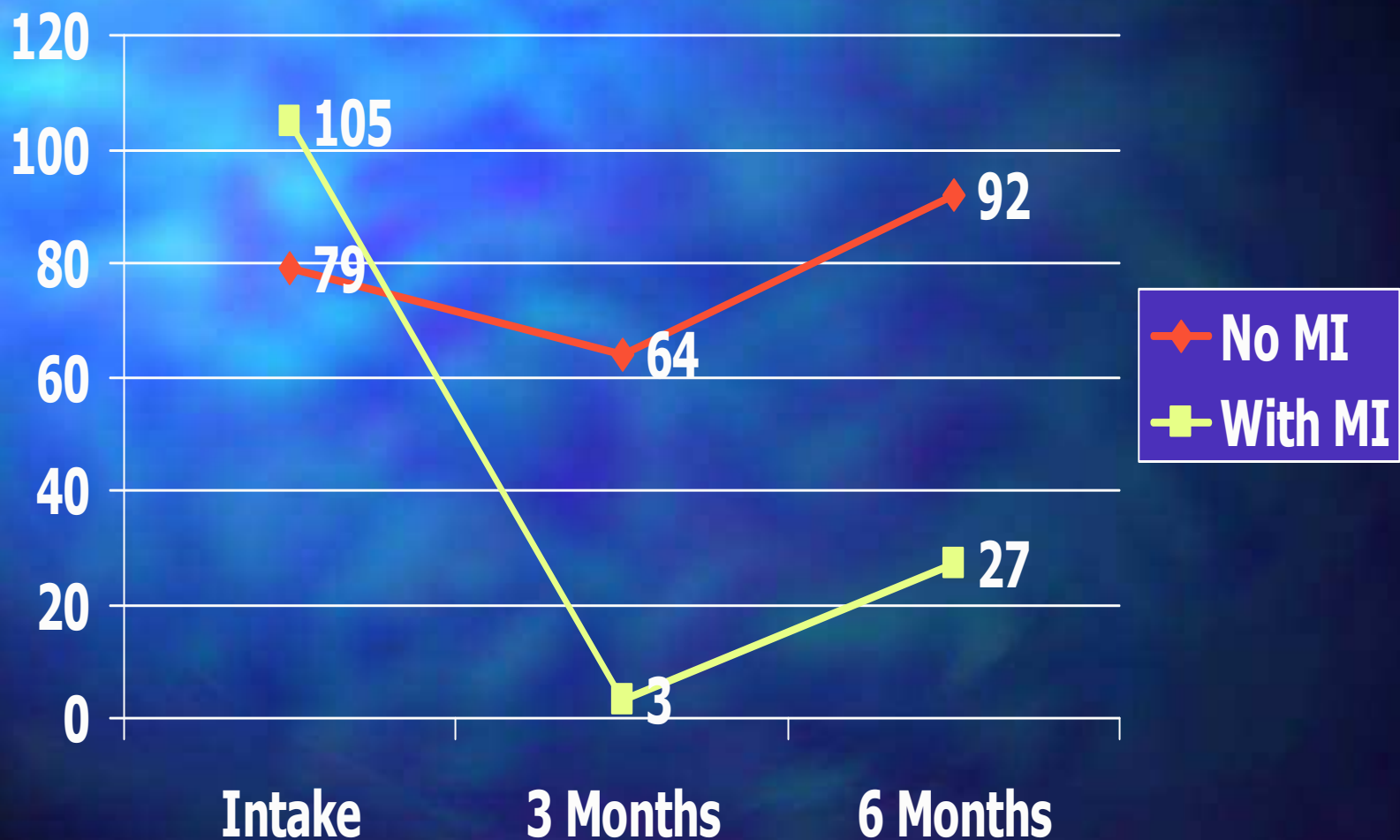
- Brown & Miller (1993) *Psychology of Addictive Behaviors*, 7:211-218

- Public outpatient adolescent treatment

- Aubrey (1998) Ph.D. dissertation, University of New Mexico

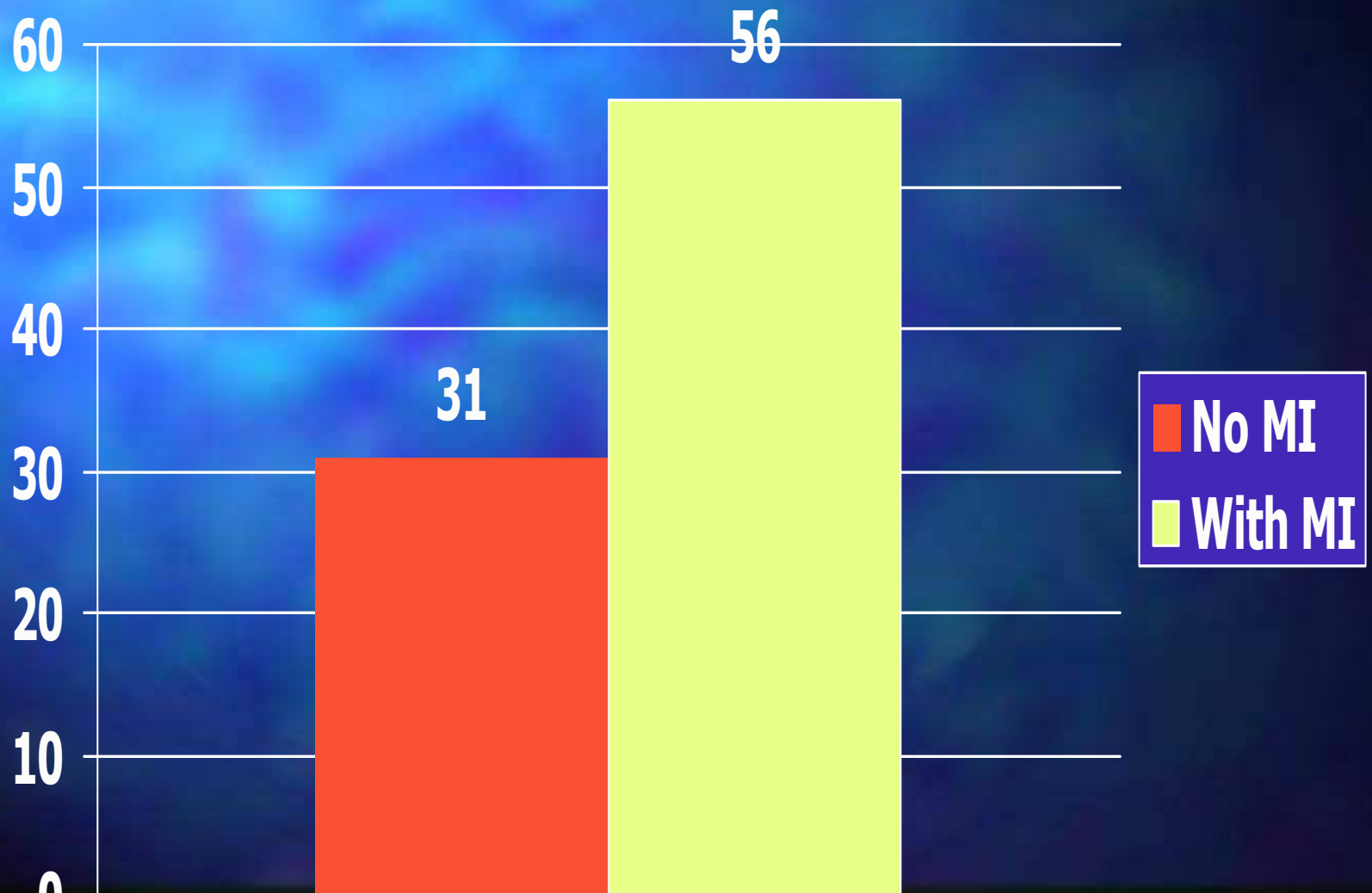
VA Adult Outpatient Treatment

Standard Drinks per Week



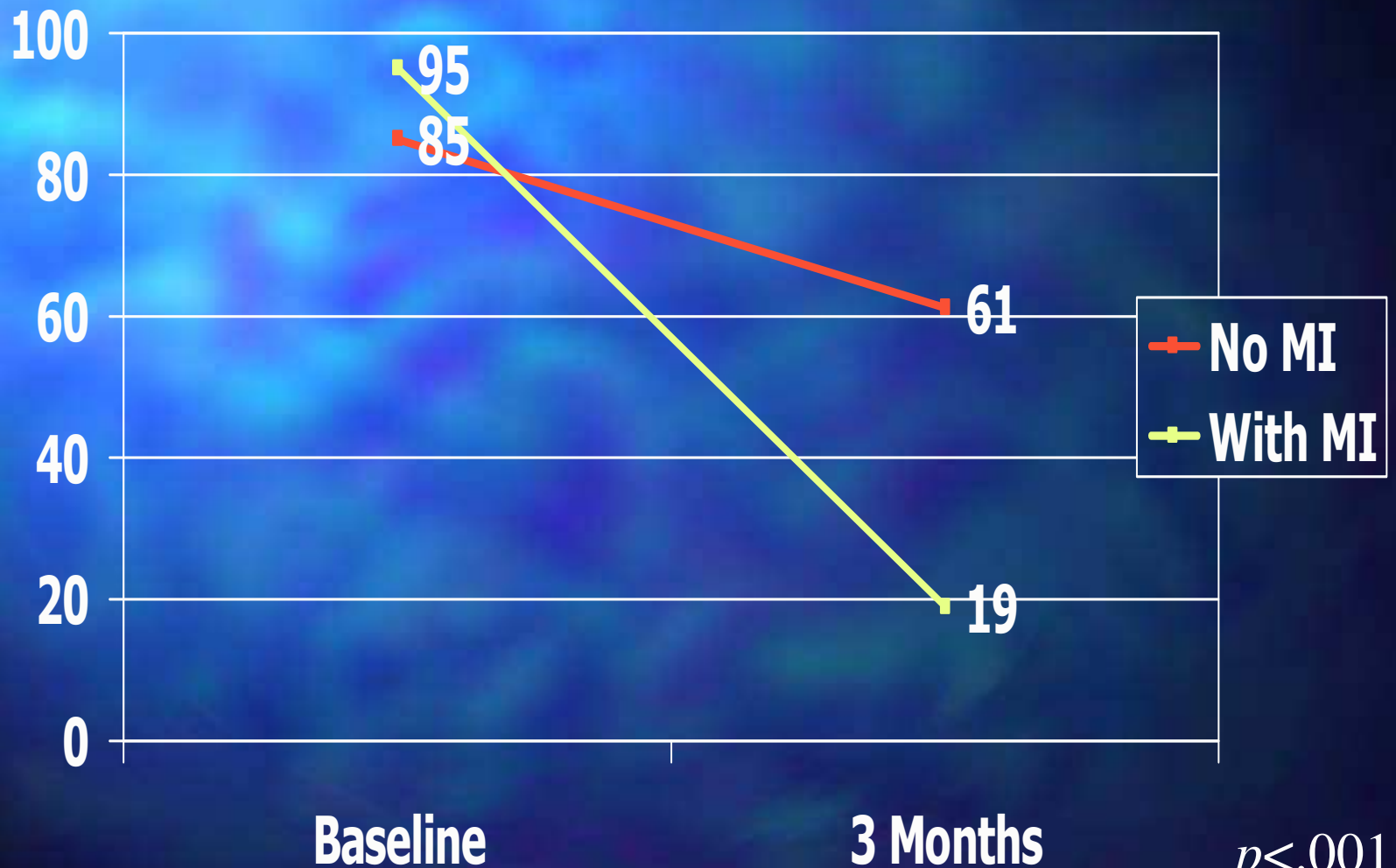
VA Adult Outpatient Treatment

3-Month Post-Treatment Abstinence Rate



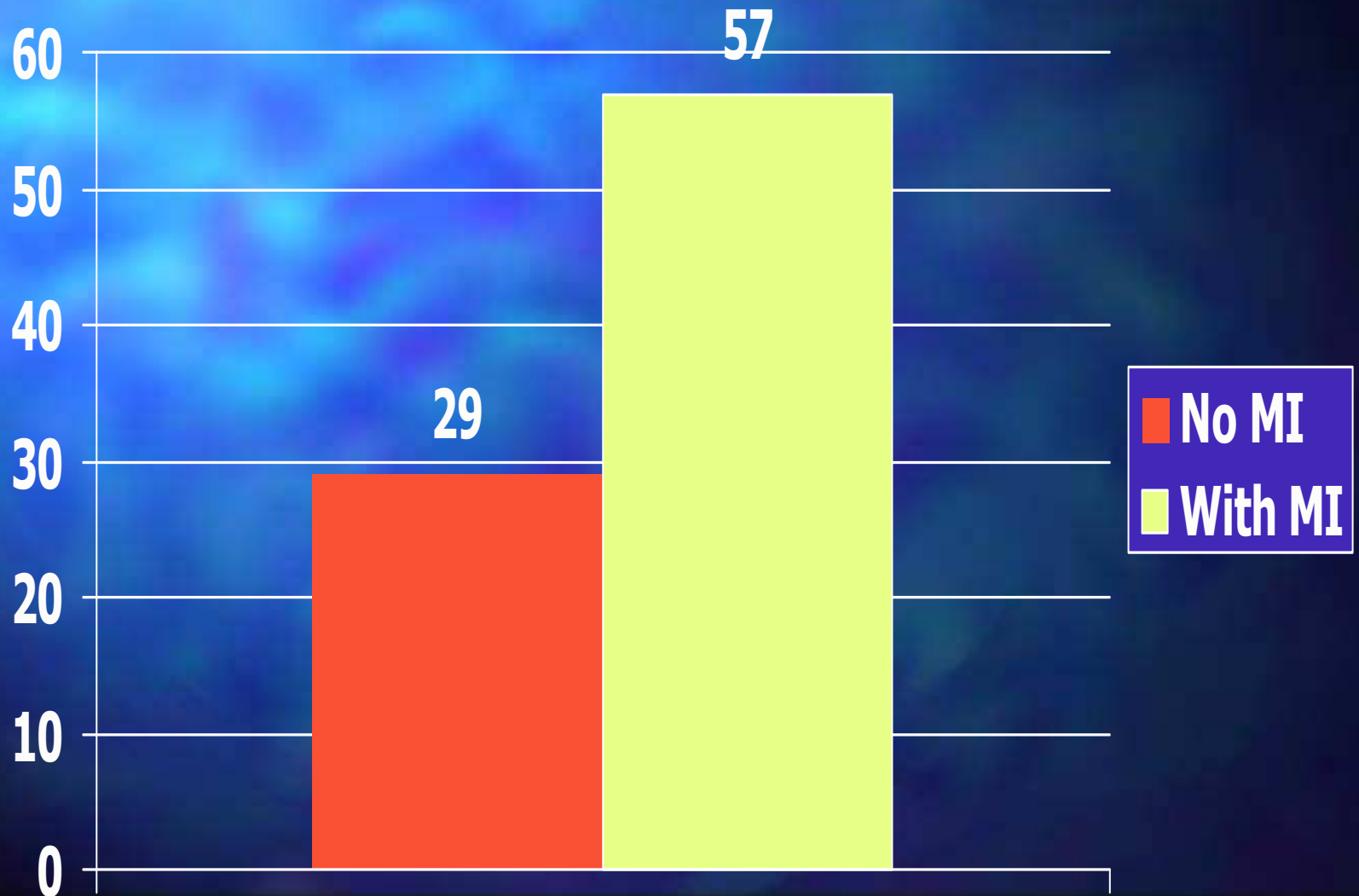
Private Residential Treatment

Standard Drinks / Week



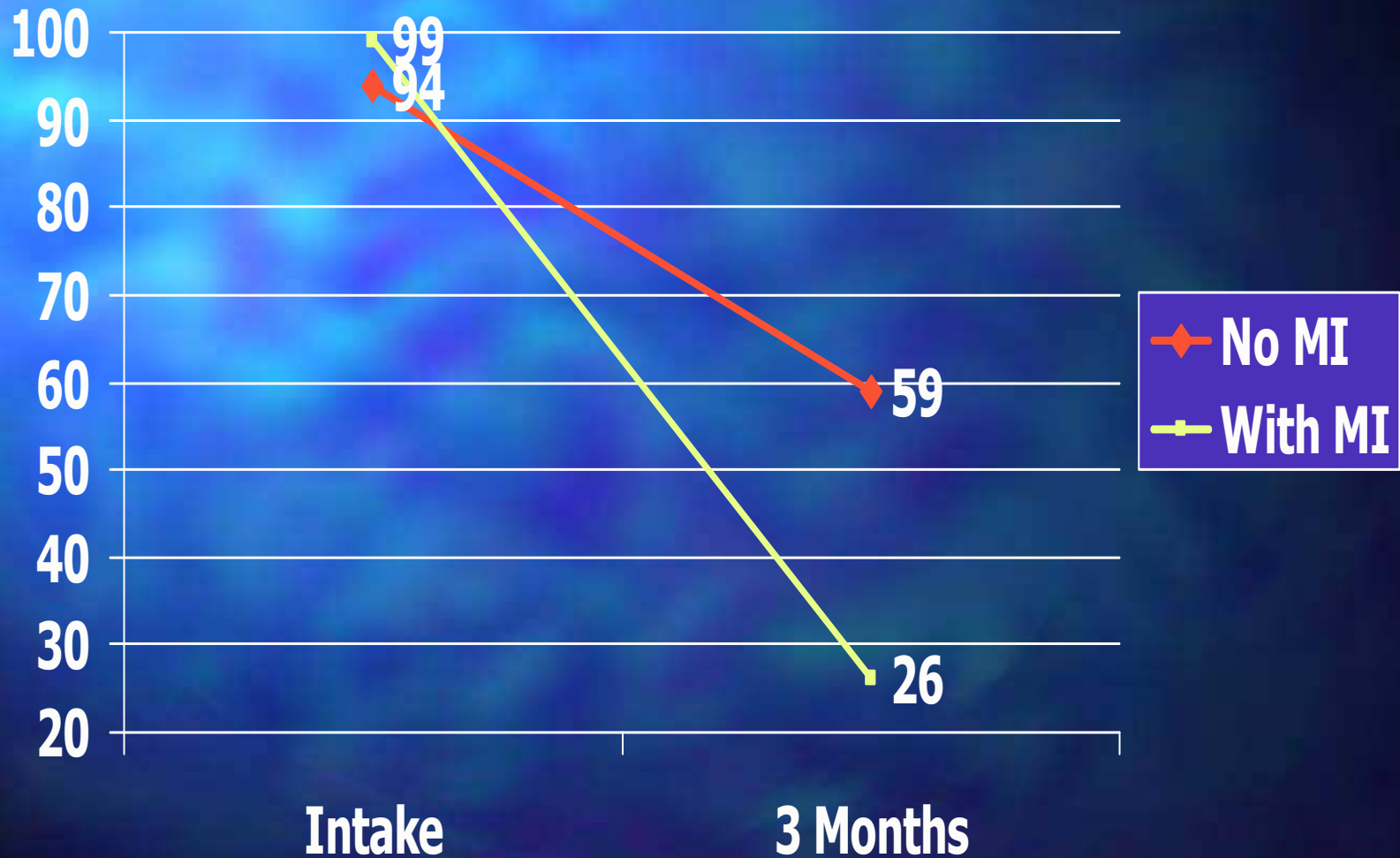
Private Residential Treatment

3-Month Post-Treatment Abstinence Rate



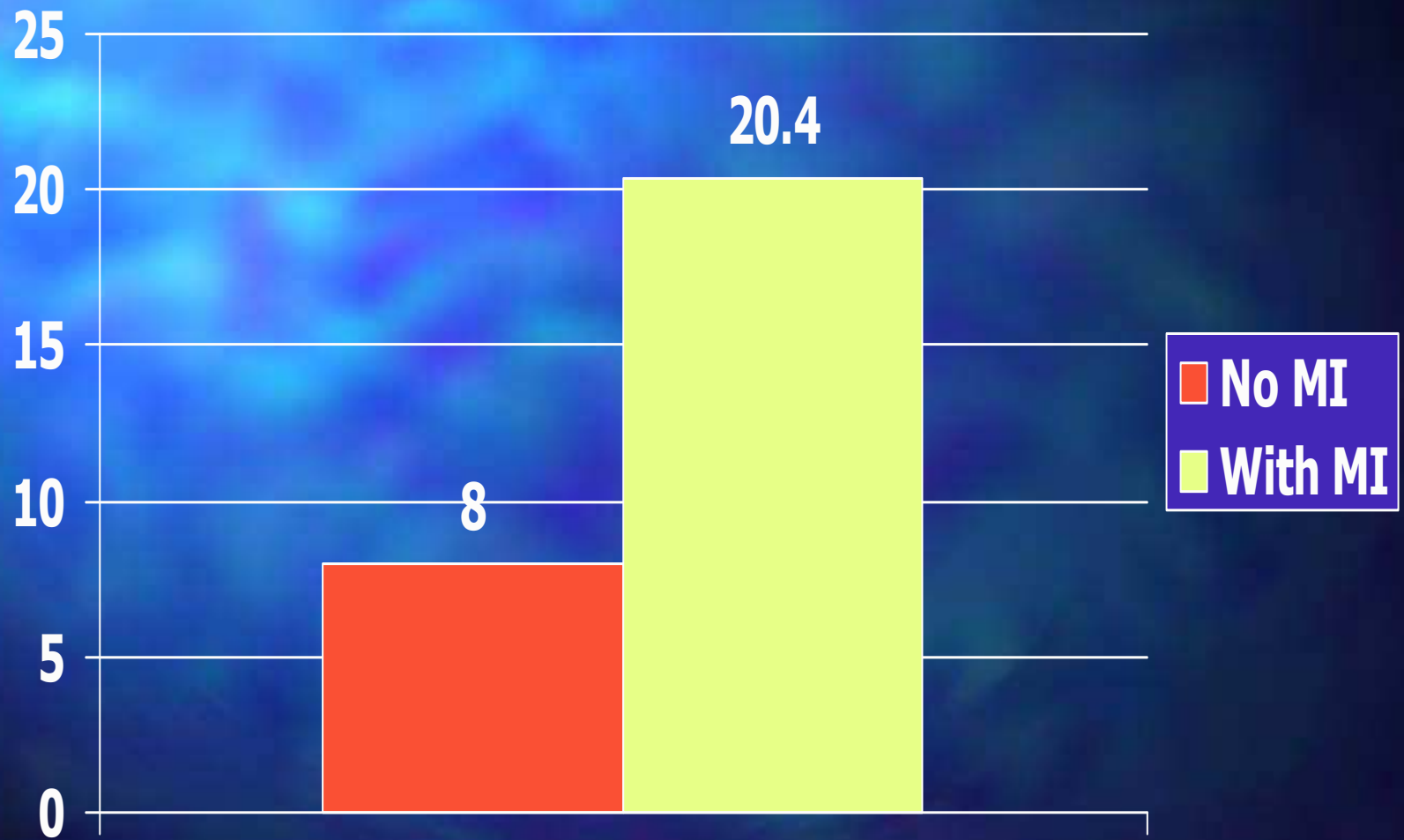
Outpatient Adolescent Treatment

% Days Drug Use



Outpatient Adolescent Treatment

Treatment Sessions Attended



Steve Rollnick

1989

Sydney



MOTIVATIONAL INTERVIEWING

*Preparing People to Change
Addictive Behavior*

*William R. Miller
& Stephen Rollnick*

1991

2002

MOTIVATIONAL INTERVIEWING

P R E P A R I N G
P E O P L E F O R
C H A N G E

WILLIAM R. MILLER
STEPHEN ROLLNICK

second edition

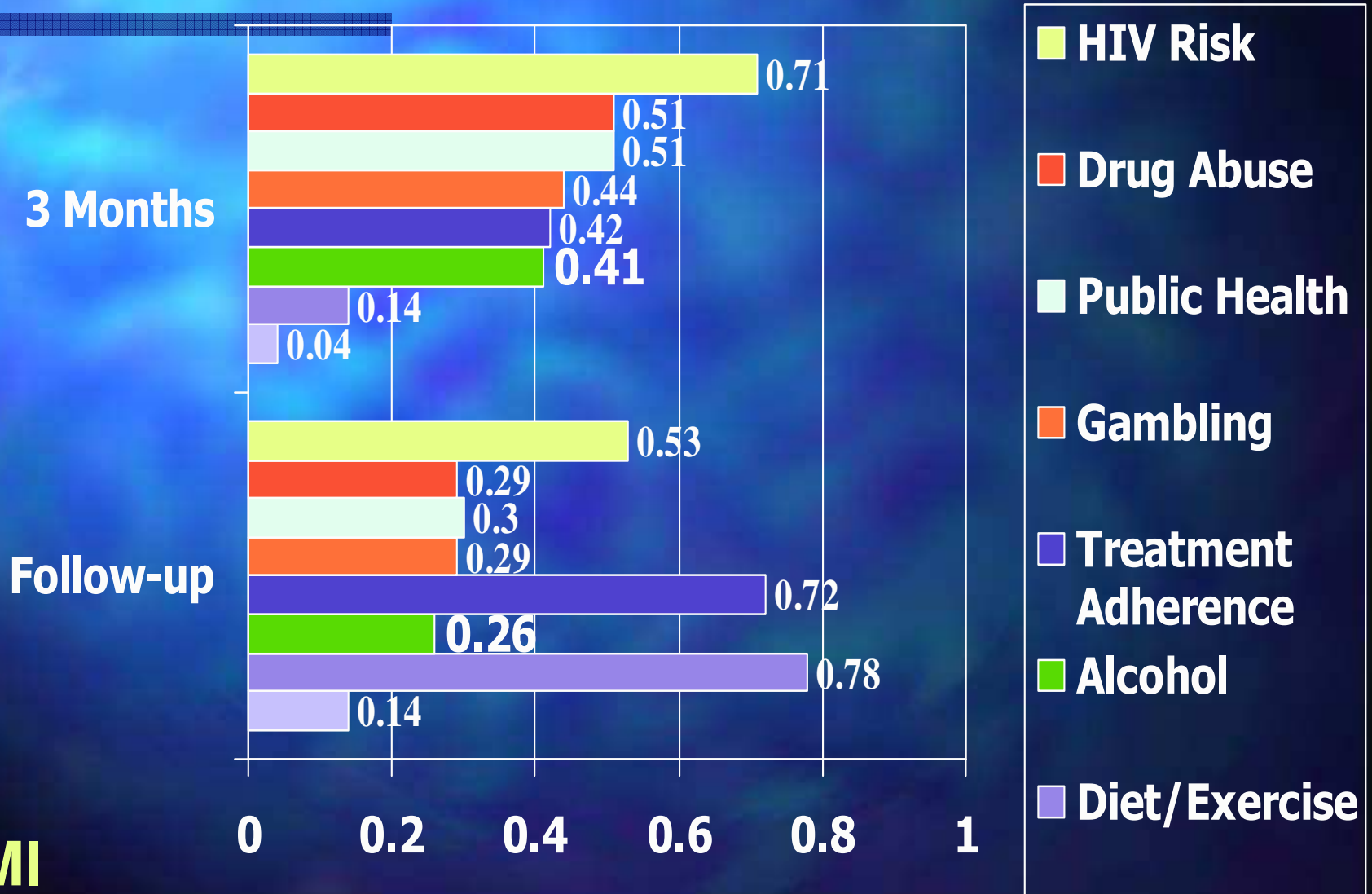
A Meta-Analysis of Research on Motivational Interviewing Treatment Effectiveness (MARMITE)

Hettema, Steele & Miller
Annual Review of Clinical Psychology
Vol 1, 2005

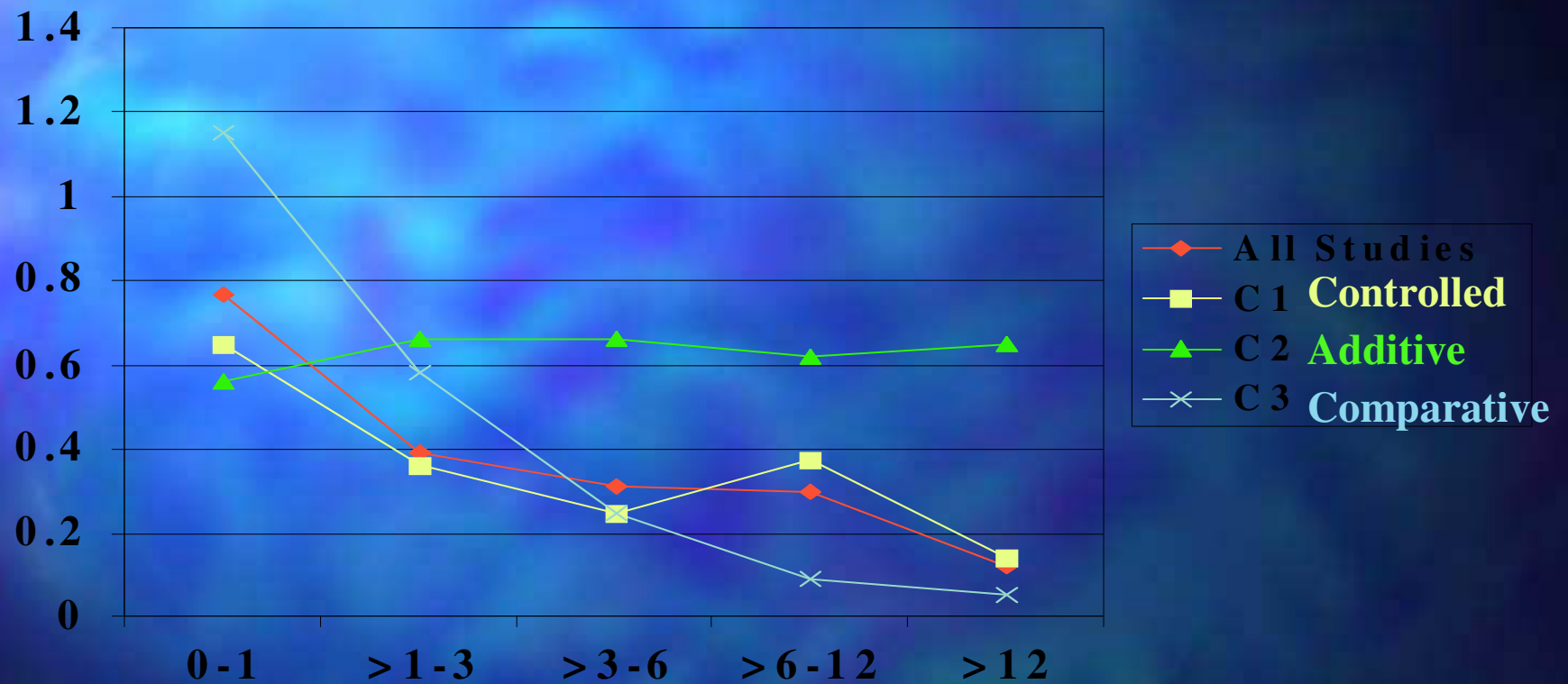
Effect sizes were computed:

- For all reported outcome variables
- At all reported follow-up points
- For all between-group contrasts
- With 95% confidence intervals
- Correcting for small sample bias

Mean Combined Effect Size by Problem Area (N=72 Clinical Trials)



Effects of MI Over Time



Effect size was predicted by:

Use of a manual to guide MI:

- Studies using a manual $d = .37$
- Studies not using a manual $d = .65$

Ethnicity:

- Anglo/Caucasian samples $d = .39$
- Minority samples $d = .79$

The effects of MI are highly variable

- Therapist effects are sizeable
- Site-by-treatment interactions appear in multisite trials
- Provider characteristics do not predict effectiveness with MI, but . .
- Treatment process variables do
- Suggests a need to understand *how and why* MI effects behavior change

How Does MI Work?

MI



Desire
Ability
Reasons
Need



Commitment



Change



5. Community Reinforcement Approach

Azrin (1976)

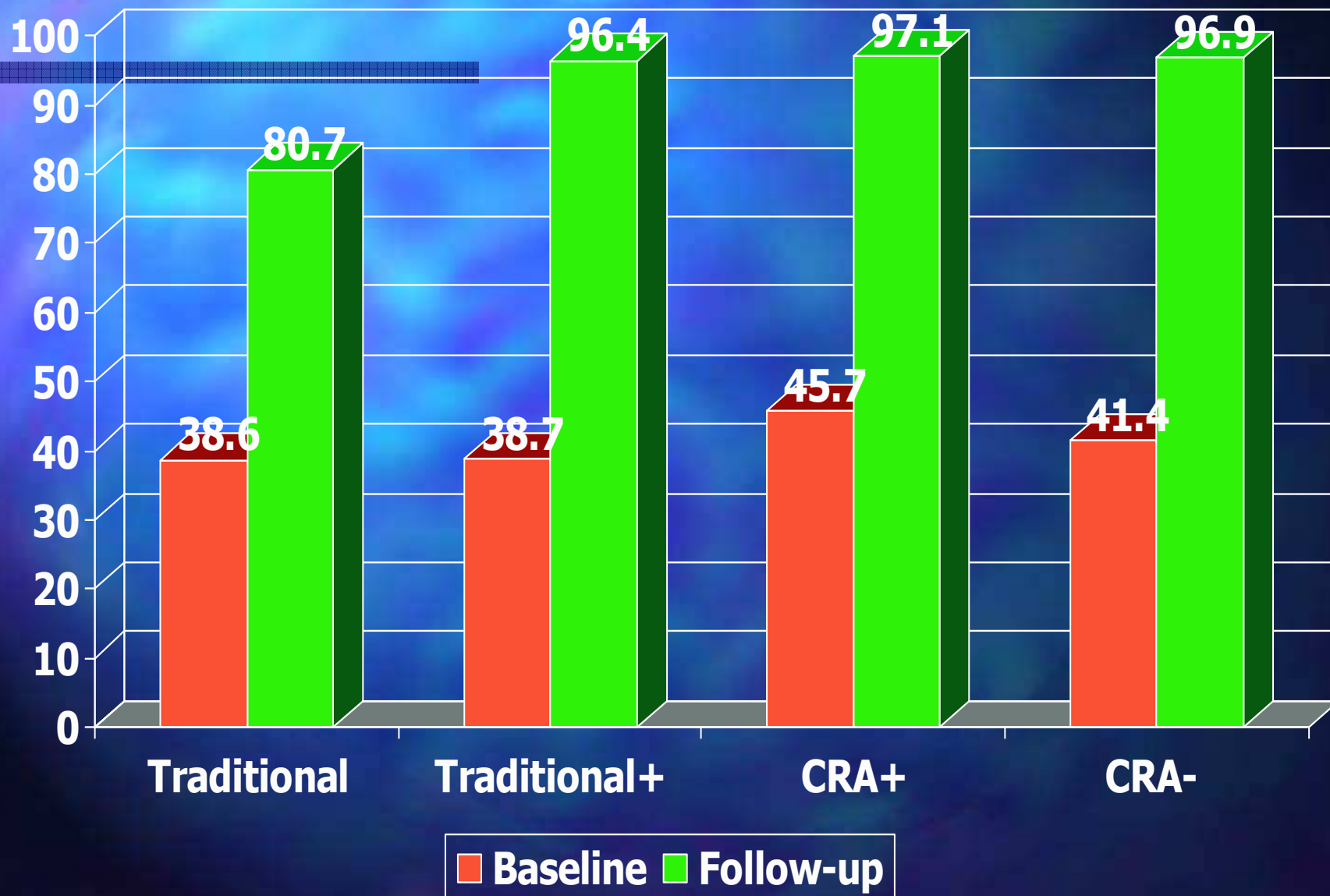
6 Month Outcomes (% Days)



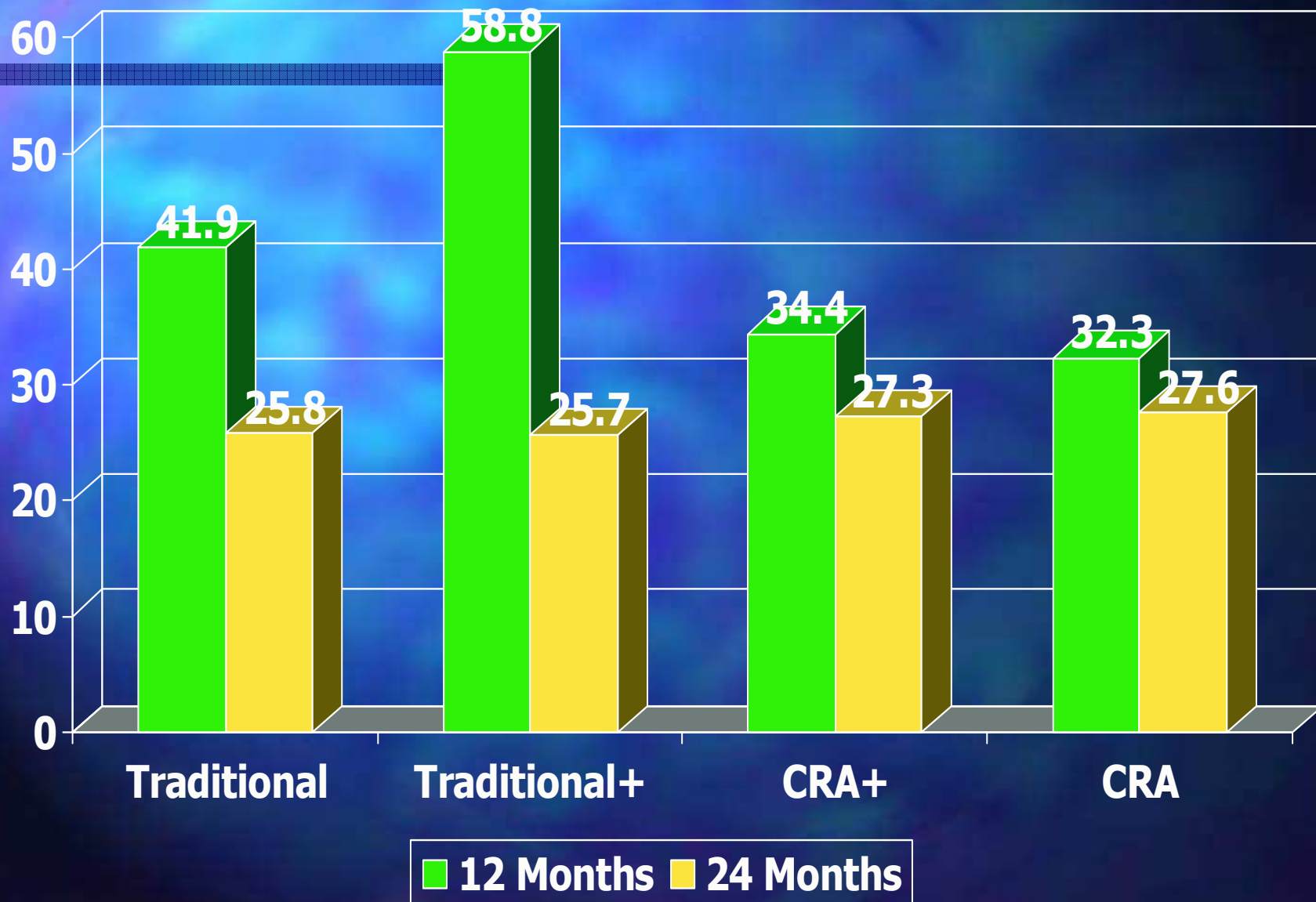
CASAA CRA Study

- Traditional treatment
 - Traditional treatment + Disulfiram assurance
 - CRA with Disulfiram assurance
 - CRA without Disulfiram assurance
-
- All treatments delivered by counselors who were trained in and believed in them

Percent Days Abstinent



Percent Cases Abstinent



Weekly Peak BAC at 12 Months by Belief About Alcoholism



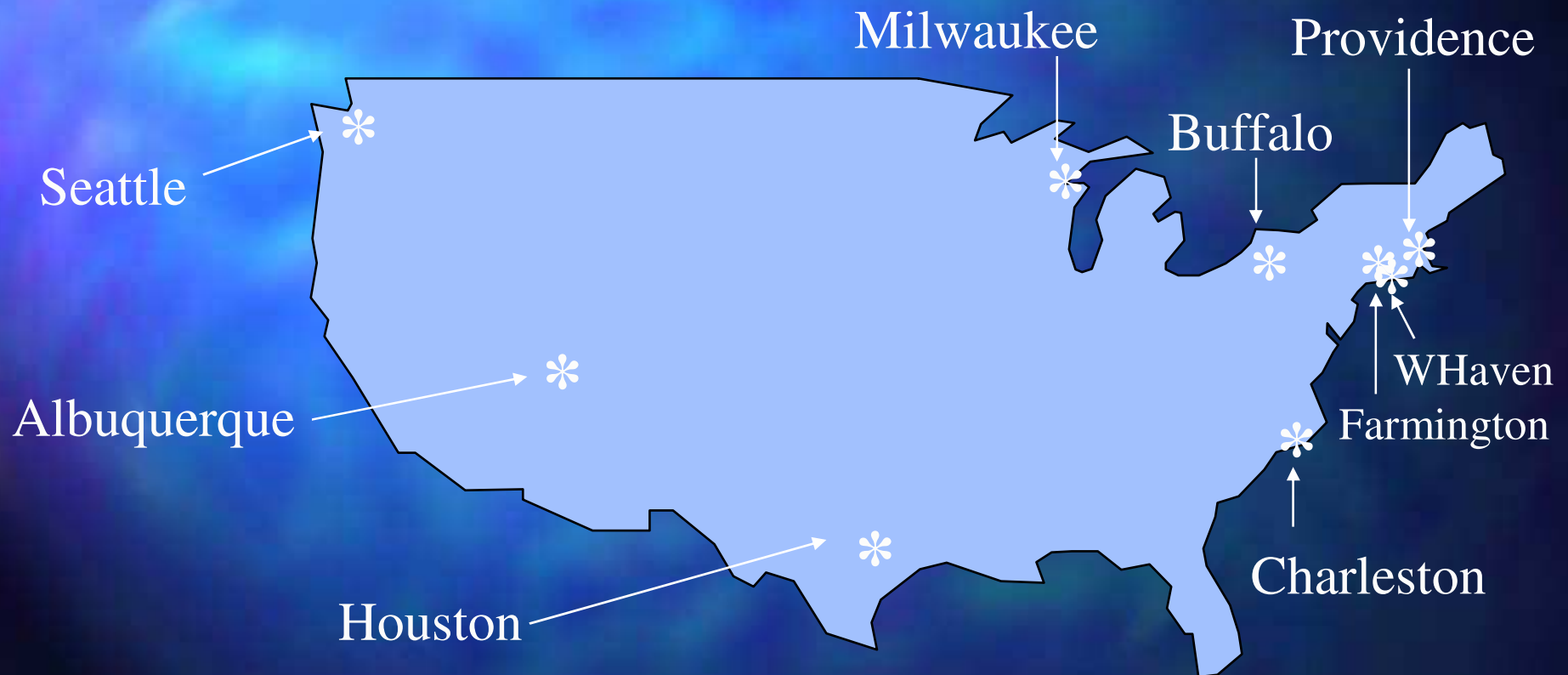
Weekly Consumption at 24 Months by Client Belief about Alcoholism



A close-up photograph of a hand holding a lit matchstick. The matchstick is held between the thumb and index finger, with the flame at the tip. The flame is bright yellow and orange, with a long, thin tail of smoke or vapor extending to the right. The background is solid black, making the flame and the hand stand out. The hand is slightly out of focus, with the fingers appearing as dark shapes against the black background.

6. Project MATCH

Clinical Research Units Project MATCH

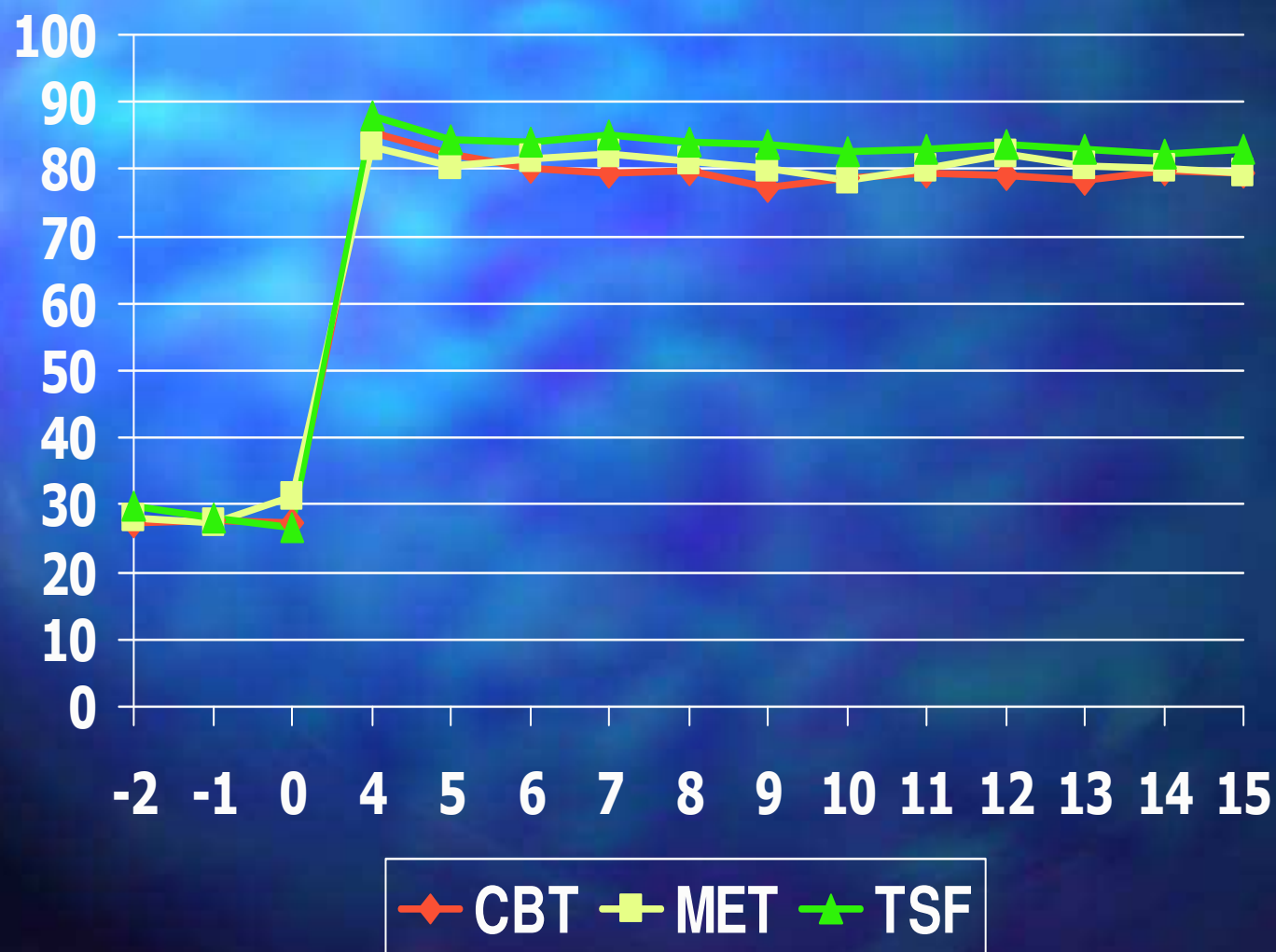




The MATCH Treatments

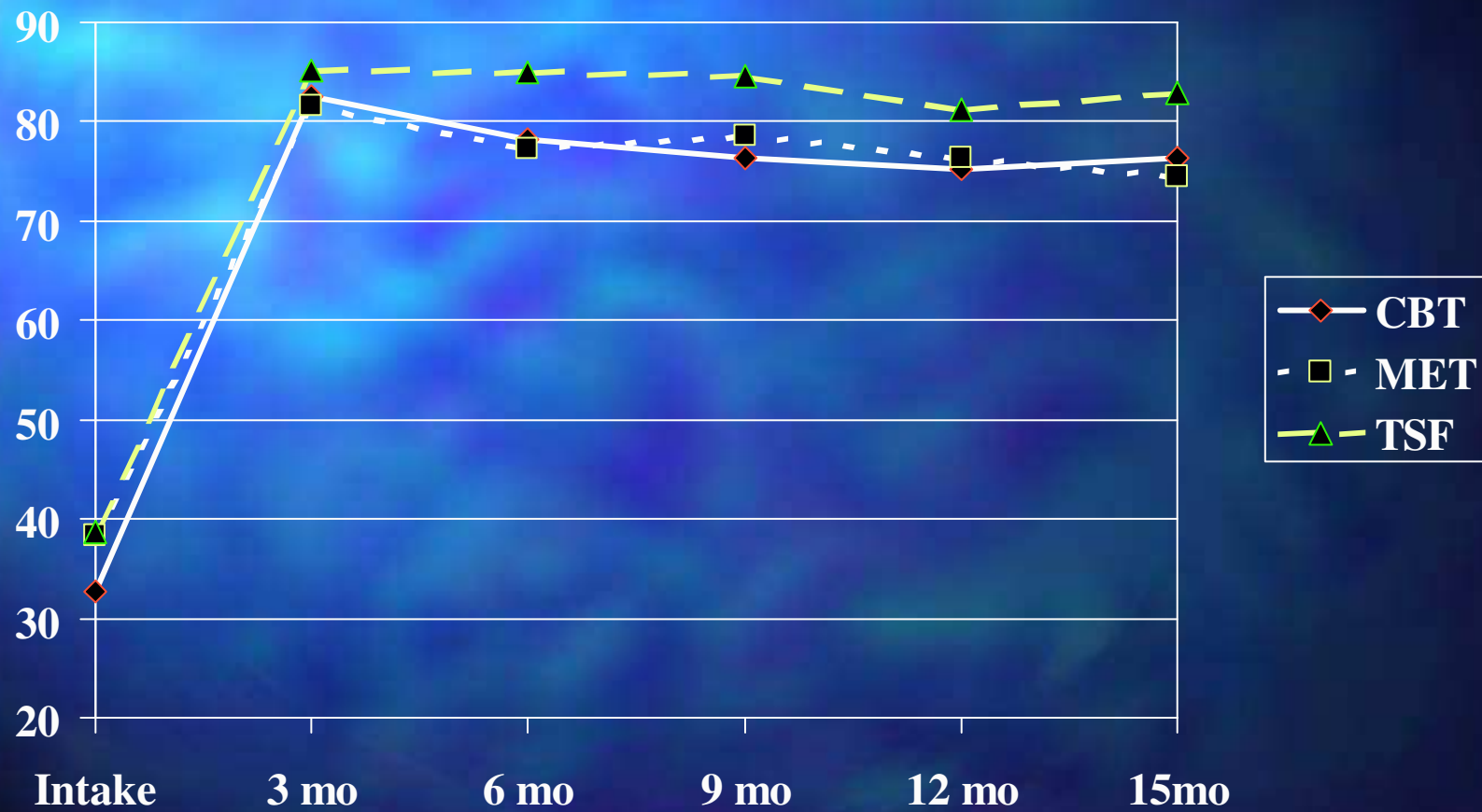
- Cognitive-Behavior Therapy (Kadden)
 - 12 sessions (with significant CRA input)
- Twelve-Step Facilitation (Nowinski)
 - 12 sessions
- Motivational Enhancement Therapy (Miller)
 - 4 sessions

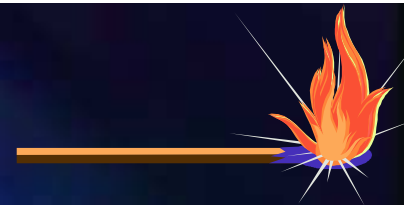
Monthly % Days Abstinent in Follow-up (Outpatients)



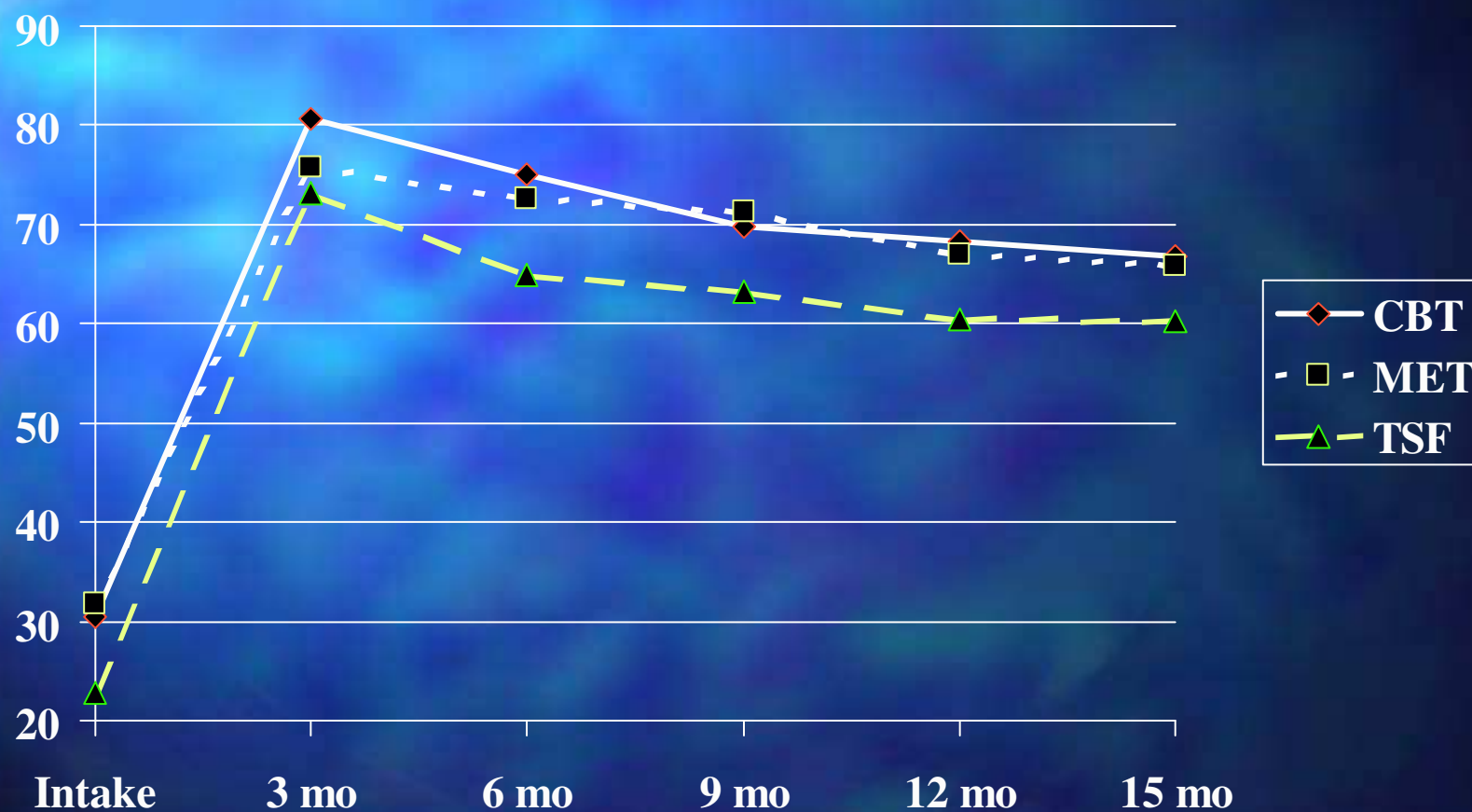
But . .

Albuquerque Site

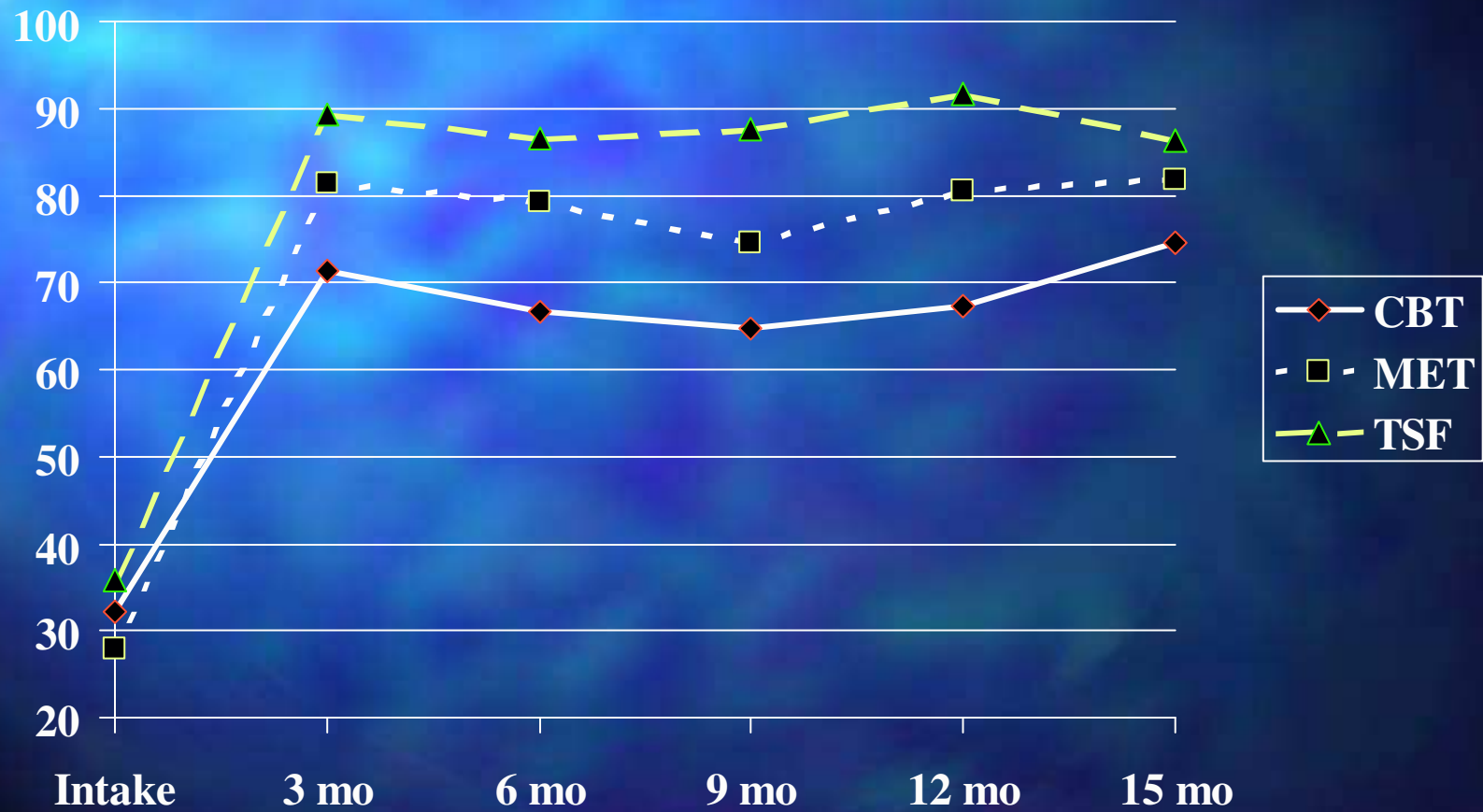




Farmington Site



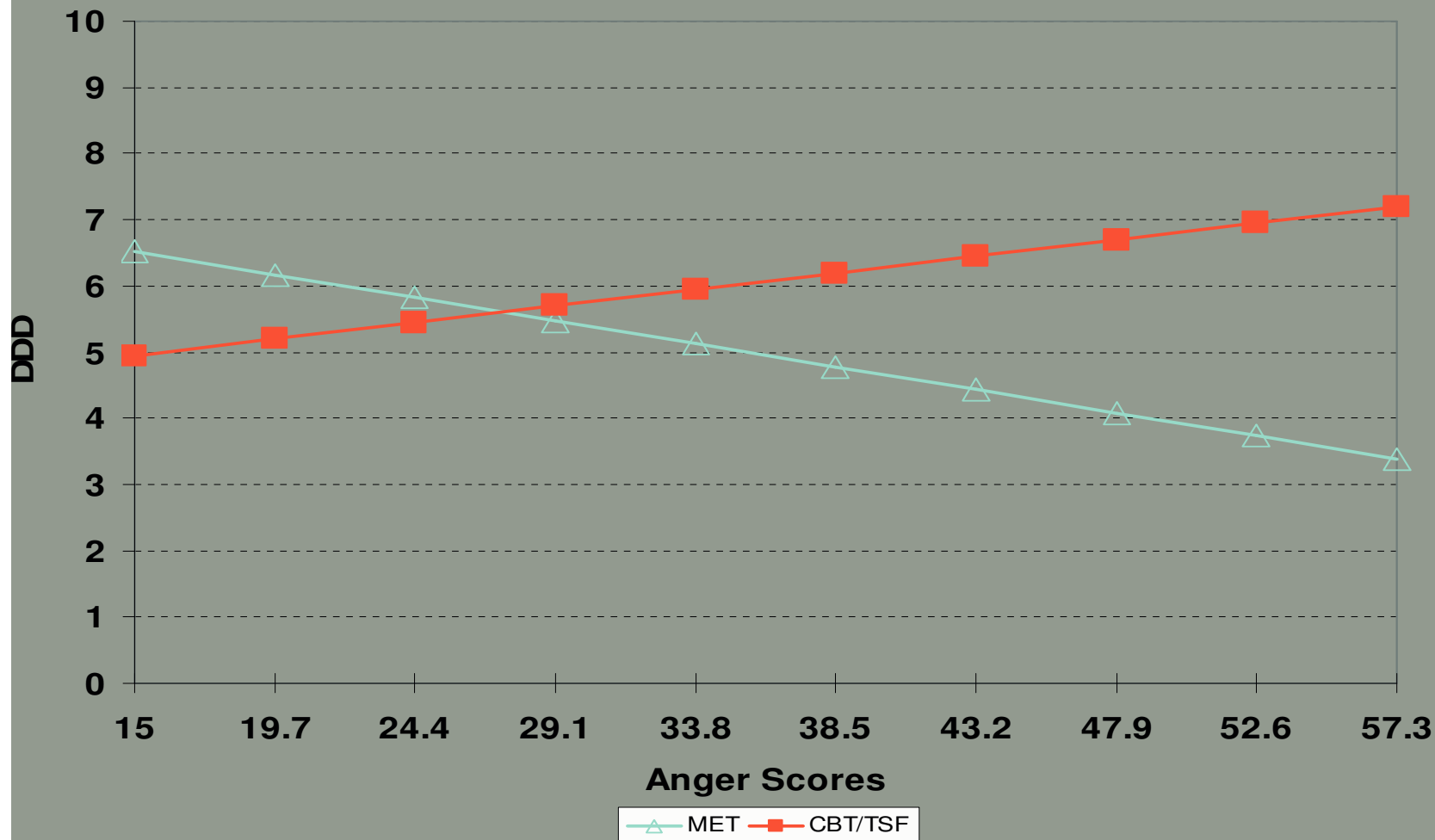
West Haven Site



Example Matching Effect: Anger



Drinks Per Drinking Day (DDD)



Do Clients Do Better in a Clinical Trial?

Westerberg et al (2002) *Journal of Studies on Alcohol* 61: 720-727

- Compared MATCH clients enrolled at CASAA
- with CASAA clients receiving TAU
- both with similar extensive intake assessment
- both with regular follow-ups to 12 months

- Groups were similar on pretreatment characteristics
- Both groups showed large improvement
- No significant differences in treatment outcome



7. New Instrument Development

New Instrument Development

Alcohol Treatment Assessment

- Comprehensive Drinker Profile (Marlatt)
- Form 90 family of instruments
- Drinker Inventory of Consequences (DrInC)
- SOCRATES (Motivation for change)
- AA (12 Step) Involvement Scale (Tonigan)
- General AA Tools of Recovery (GAATOR)
- Ala-GAATOR (Alanon version)

New Instrument Development

Drug Abuse Treatment Assessment

- Form 90-D family of instruments
- Inventory of Drug Use Consequences (InDUC)
- SOCRATES-D (Motivation for change)



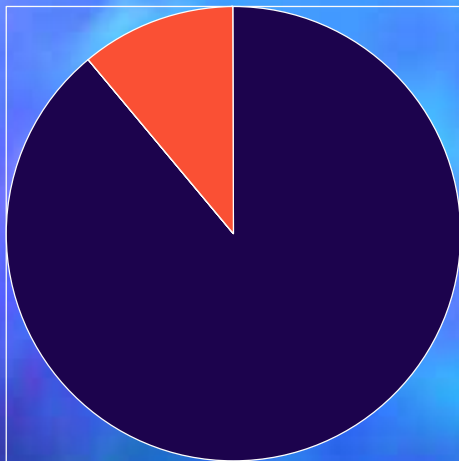
8. CRAFT

Community
Reinforcement and
Family Training

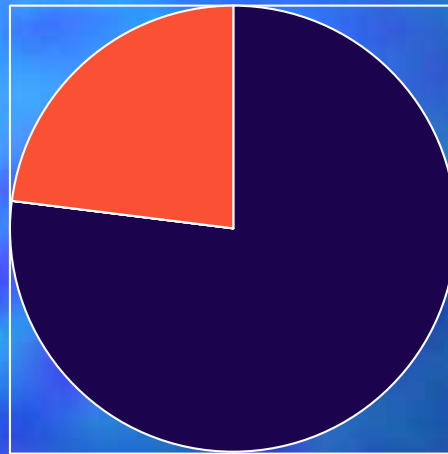
Concerned family members call: Should you . . .

- Plan a surprise “intervention” to confront the identified patient (IP)
- Counsel the family member to attend Al-Anon, accept powerlessness, and detach?
- Teach the family member(s) how they can influence the IP’s drinking and motivation for change

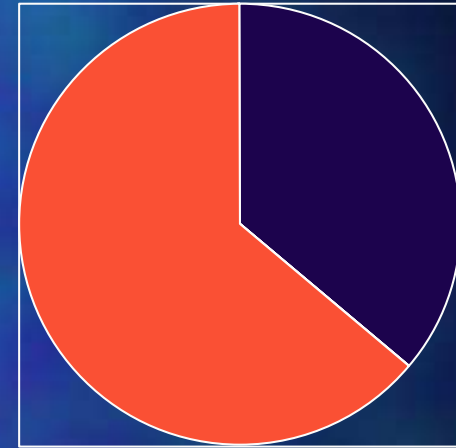
Percentage of Identified Patients Engaged in Treatment (6 months)



Al-Anon
Facilitation

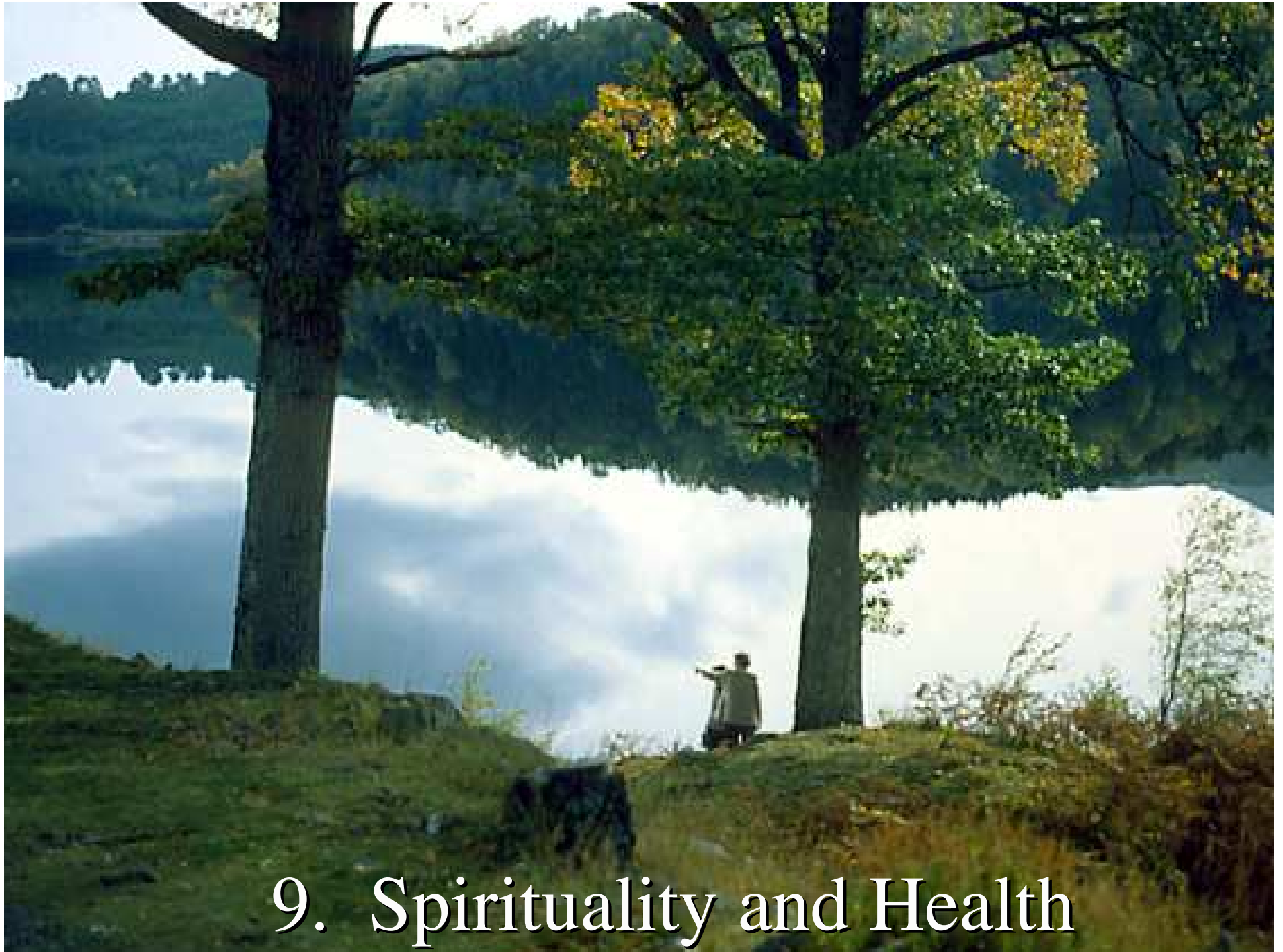


Johnson
Intervention



CRAFT

Miller et al (1999) *Journal of Consulting and Clinical Psychology* 67: 688-697



9. Spirituality and Health

- 1988 *Spirituality and Behavior Therapy* book
- 1990 Archibald lecture: Spirituality & Addiction
- 1996 Templeton panels on Spirituality & Health
Instrument development
- 1997 NIAAA symposium: Research on
Spirituality and Alcoholism
- 1998 Trans-NIH Working Group on Research
on Spirituality and Health
- 1999 *Spirituality and Psychotherapy* (APA)
- 2000 Pew Grant: Nature of the Human Person
- 2005 *Judeo-Christian Perspectives on
Psychology* (with Harold Delaney)

Studies of Spiritual Direction (SD)

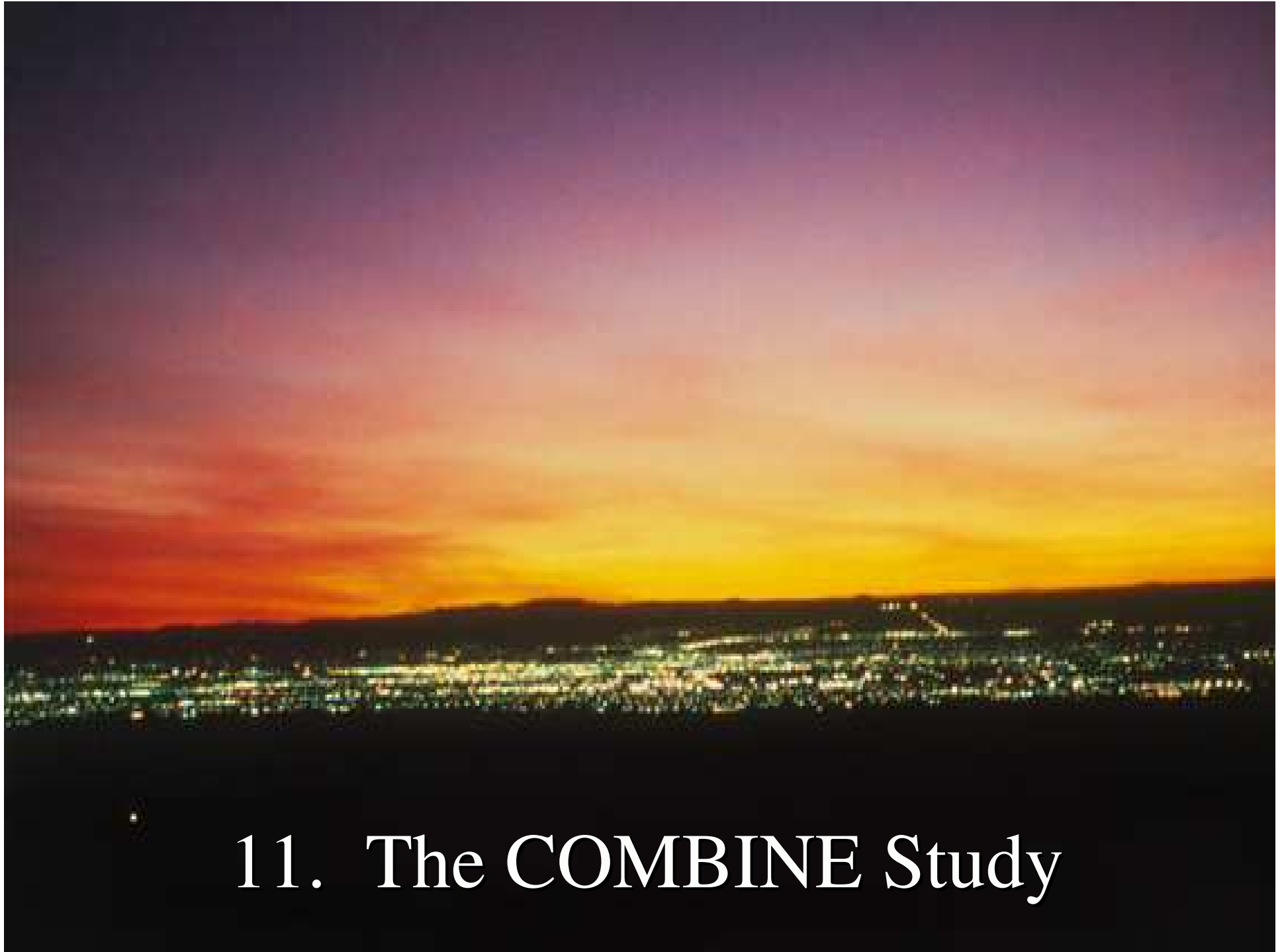
- Clinical trial of SD in aftercare
(Robert Wood Johnson Foundation)
- Randomized trial of SD with college freshmen
(Templeton Foundation)
- Planned clinical trial of SD during residential substance abuse treatment

10. Quantum Change



Transformational Change Research

- 1990 Conceived on sabbatical (Australia)
- 1991 Initial study of 55 quantum changers
- 1994 First quantitative report
- 1995 Transcription and qualitative coding
- 2001 *Quantum Change* book
- 2002 10-year follow-up of original participants
- 2003 Special issue: *Journal of Clinical Psychology*
- 2004 Forcehimes thesis – 16 quantum changers in AA



11. The COMBINE Study

Combining Medications and Behavioral Interventions

- 11 Clinical Research Units (outpatient)
- Coordinating Center: UNC Chapel Hill
- Training/QA Center: UNM CASAA
- 1383 clients randomized to 9 cells
- Follow-up for 1 year post-treatment
- 3-year cost-effectiveness study ongoing at 9 sites

The COMBINE Treatments

- Behavioral Interventions
 - Medical Management (MM; 9 sessions)
 - Combined Behavioral Intervention (CBI; up to 20 sessions; based on CRA)
- Pharmacotherapies (8 pills per day)
 - Naltrexone vs. Placebo
 - Acamprosate vs. Placebo

COMBINE Study Design

1,383 clients randomized to:

MM+PL+PL

MM+PL+PL+CBI

MM+AC+PL

MM+AC+PL+CBI

MM+PL+NA

MM+PL+NA+CBI

MM+AC+PL

MM+AC+PL+CBI

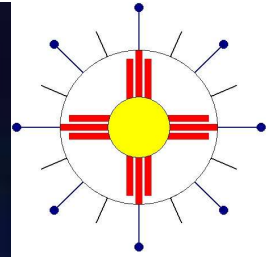
or

CBI with no pills



12. The Clinical Trials Network

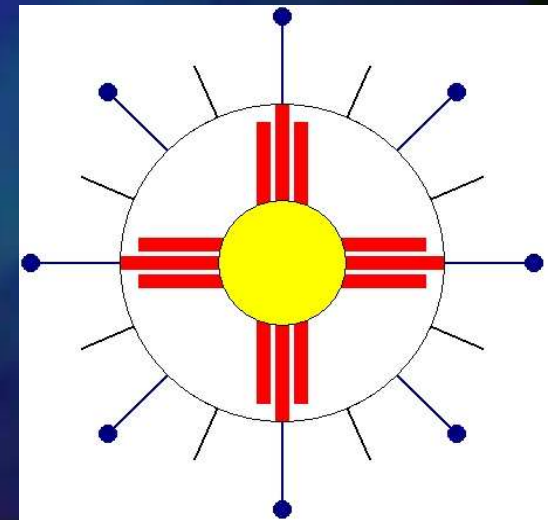
The Southwest Node



- The RRTC is CASAA
- The Community Treatment Programs are
 - Alcoholism & Substance Abuse Programs (Albuquerque)
 - Ayudantes (Española, Las Vegas and Santa Fe)
 - Counseling and Psychotherapy Institute (Albuquerque)
 - Life Link (Santa Fe)
 - Milagro (Albuquerque)
 - Na'nizhoozhi Center (Gallup)
 - Turquoise Lodge (Albuquerque)
 - V.A. Healthcare System (Albuquerque)

The SW Node is participating in:

- 0008 Survey of program characteristics
- 0010 Buprenorphine (adolescents)
- 0012 Infection control
- 0013 MI (pregnant women)
- 0018 Safer sex - men
- 0020 Job-seekers training
- 0021 MET (Spanish language)





13. Dissemination of Evidence-Based Treatments

The International Conference on Treatment of Addictive Behaviors

(ICTAB)



Characteristics of ICTAB

- Blend of research and practice
- Disseminating evidence-based methods
- Limited enrollment (300 people)
- Self-contained informal venue
- 12 invited speakers remain for full 4 days
- International collaboration
- Self-supporting
- Focal, integrating, cutting-edge theme
- Broader contributed presentations (symposia, workshops, posters, roundtables)

ICTABs

- 1. Taos, New Mexico 1979*
- 2. Grand Canyon, Arizona 1981
- 3. North Berwick, Scotland 1984*
- 4. Os/Bergen, Norway 1987*
- 5. Sydney, Australia 1990*
- 6. Santa Fe, New Mexico 1993
- 7. Leeuwenhorst, Holland 1995
- 8. Santa Fe, New Mexico 1998
- 9. Cape Town, South Africa 2000*
- 10. Heidelberg, Germany 2003
- 11. Santa Fe, New Mexico January 2006

Some ICTAB Themes

- 1979 Commonalities in Addictive Behaviors*
- 1984 The Transtheoretical Model of Change*
- 1987 Brief and Early Intervention*
- 1990 Self-regulation*
- 1993 Motivation for Change
- 1998 Addictions and the Family*
- 2000 Intervention Through Health Care*
- 2006 What Works and Why

*Book produced from conference

Evaluating Methods for Motivational Enhancement Education (EMMEE)

Stage 3 Behavior Therapy Development Research
Funded by NIDA

Miller, W. R., Yahne, C. E., Moyers, T. B., Martinez, J., & Pirritano, M. (2004). A randomized trial of methods to help clinicians learn motivational interviewing. Journal of Consulting and Clinical Psychology, 72, 1050-1062.

Study Design

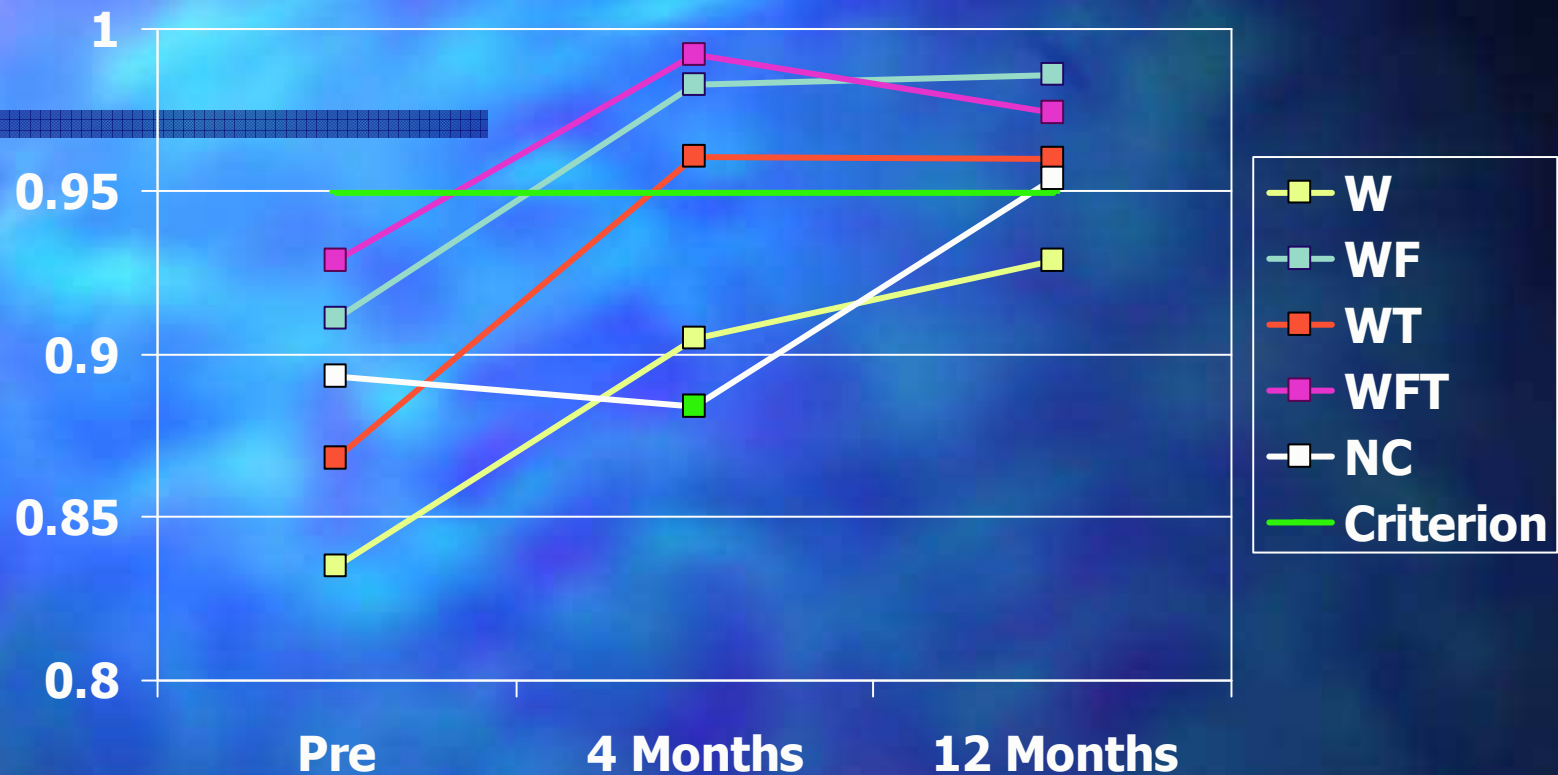
140 clinicians randomly assigned to:

- W: 2-day CPE workshop only
- WF: Workshop + **Feedback** from practice samples
- WT: Workshop + 6 **Telephone Coaching** sessions
- WFT: Workshop + **Feedback** and **Coaching**
- SC: Self-Training **Control** (waiting list)


Did clinicians learn the treatment method?



Percent MI-Consistent Responses

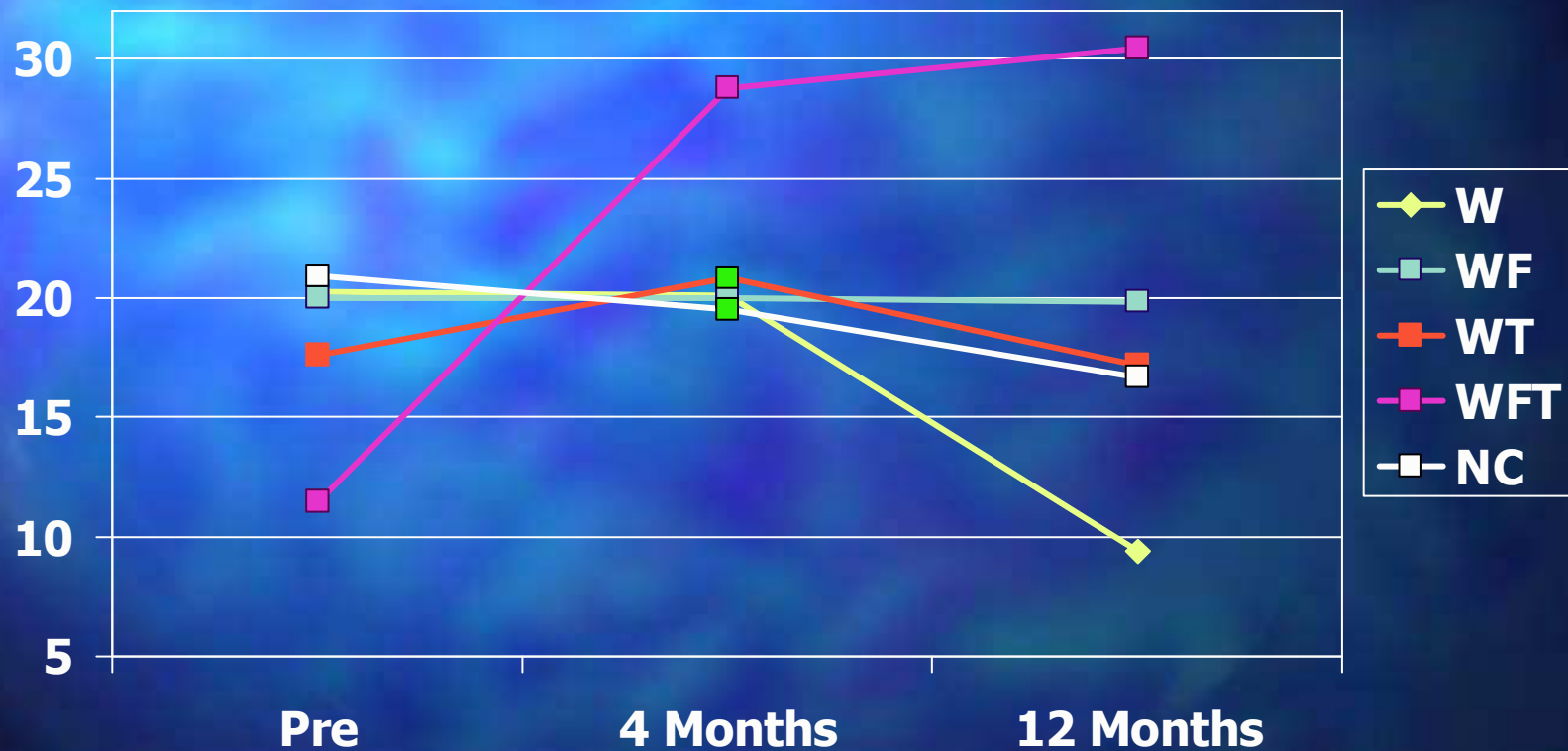


Trained groups > control at 4 months $p < .001$
All enhanced training groups exceed criterion
Due mostly to decreased MI-inconsistent responses



Do their clients
respond
differently?

Client Change Talk



No significant increase except in Group WFT

A photograph of a sunset or sunrise. The sun is a bright, glowing orb positioned centrally on the horizon line. It casts a long, vertical beam of light downwards and a horizontal glow across the sky. The sky is a deep, dark orange-brown color. The horizon is a dark, silhouetted line. A small, bright reflection of the sun is visible on the horizon to the right of the sun. The overall mood is serene and contemplative.

14. Addressing Addictions Through Health Care

- 1987 Norway ICTAB: Brief intervention
- 1993 Bien review showing efficacy of brief interventions
- 2000 Cape Town ICTAB: Health care
- 2002 *Addressing Addictions Through Health and Social Systems* (with Connie Weisner)
- 2003 RWJ Grant: Placing MA/MPH in Family Practice Clinic to develop models for healthcare-based intervention
- 2004 Delivering MI via Tele-medicine (Baca)
Intervention trial in primary care (Baca)
- 2005 CTN protocol planned for health care intervention for prescription opioid abuse



The
End