

Addressing the Needs of Returning
Military Personnel and Their
Families:
*How can addiction treatment
research help?*

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Addiction and returning military personnel

- **Challenges**

- High rates of substance use, especially alcohol and smoking
- Substance use co-occurs and greatly complicates other problems and disorders, especially PTSD, TBI, and depression
 - 20-40% returning veterans have mental health problem
 - Not always evident upon immediate return
- Small proportion of those with addiction problem access, receive treatment
 - 17% of smokers
 - 20-30% of those with mental health problem
 - 12% report alcohol misuse, only 0.2% referred, smaller fraction seen

- **Assets**

- Initiation of Millenium Cohort Study in 2001, prospectively evaluate long term mental health (incl. substance use) of military personnel
- Integrated network of providers through VA, links to academic medicine, psychiatry
- Nations largest health care system

Treatment access

- Challenges
 - Overwhelming need
 - Limited resources
 - Workforce retention and training
 - Identifying and addressing complex comorbid problems in a large dynamic system.
 - Need for ongoing care for chronic relapsing disorders
 - Multiple barriers to treatment seeking
 - Comparative level of stigma



Perceived barriers to mental health services, Iraq (n=2530) and Afghanistan (n=3671) soldiers and marines (Hoge et al, 2004)

Barrier	Screen + for mental health issue	No mental health issue
I would be seen as weak	65%	31%
Leadership would treat me differently	63%	33%
Harm my career	50%	24%
Unit members might have less confidence in me	59%	31%
Difficulty scheduling	45%	17%
Treatment doesn't work	25%	9%

Can we offer our returning military personnel and their families anything less than the best science-based interventions we have?

Assets

- Wealth of science based treatments are applicable to returning military personnel
- Networks of providers and researchers enthusiastic about meeting the need, new opportunities

Available Addiction Pharmacotherapies

	Medication available?	
Smoking	√	
Alcohol	√	
Opioids	√	
Comorbid psychiatric problems	√	

Scientifically Validated Behavioral Therapies: Addiction

Motivational interviewing

- Marijuana users: Stephens & Roffman
- Dual diagnosis: Swanson
- Methadone maintenance: Saunders
- HIV Risk Reduction: Carey
- SBIRT-NIDAMED

Contingency management

- Community reinforcement + vouchers: Higgins
- Therapeutic workplace: Silverman
- Low cost CM: Petry
- Community reinforcement: Azrin
- Smokers: Stitzer & Bigelow

Family and couples therapy

- Multisystemic therapy for adolescents: Henggeler
- Brief strategic family therapy: Szapocznik
- Multidimensional family therapy
- Behavioral couples therapy for adults" Fals-Stewart & O'Farrell

Cognitive-behavioral therapy

- Cocaine users: Carroll
- Methamphetamine: Rawson
- Marijuana: Marijuana Treatment Research Group
- Combined CBT and nicotine replacement:

Carroll & Onken, *Am J Psychiatry*, 2005

Behavioral therapies effective across types of substance use

	Smoking	Alcohol	Opioids	Cocaine	Marijuana
Motivational interviewing					
Contingency management					
Cognitive behavioral					
Behavioral couples, family					

Summary of meta-analytic review of efficacy of behavioral therapies

- 34 RCTs, opioids, cocaine, marijuana, polysubstance
- 12-24 week treatment duration
- Significant abstinence:
31% treatment versus 13% control
- Posttreatment effect sizes: Overall: $d=.45$
 - Highest: CBT+CM =1.02
 - CM alone = .58, CBT alone = .28
- Comparable to effects of pharmacotherapy on depression and anxiety

Dutra et al, 2008, *American Journal of Psychiatry*

Will these be applicable to military personnel and their families?

A striking number of landmark addiction treatment studies done in VA settings...

Landmark addiction studies done in veteran populations

- Disulfiram for alcohol dependence (Fuller et al., 1986)
- Psychotherapy for substance users g users with psychiatric comorbidity (Woody et al., 1984)
- Importance of psychosocial services even with powerful pharmacotherapies (McLellan et al. 1993)

Even for our most powerful pharmacotherapies,
 level and type of behavioral therapies greatly
 improve outcomes (McLellan et al., JAMA, 1993)

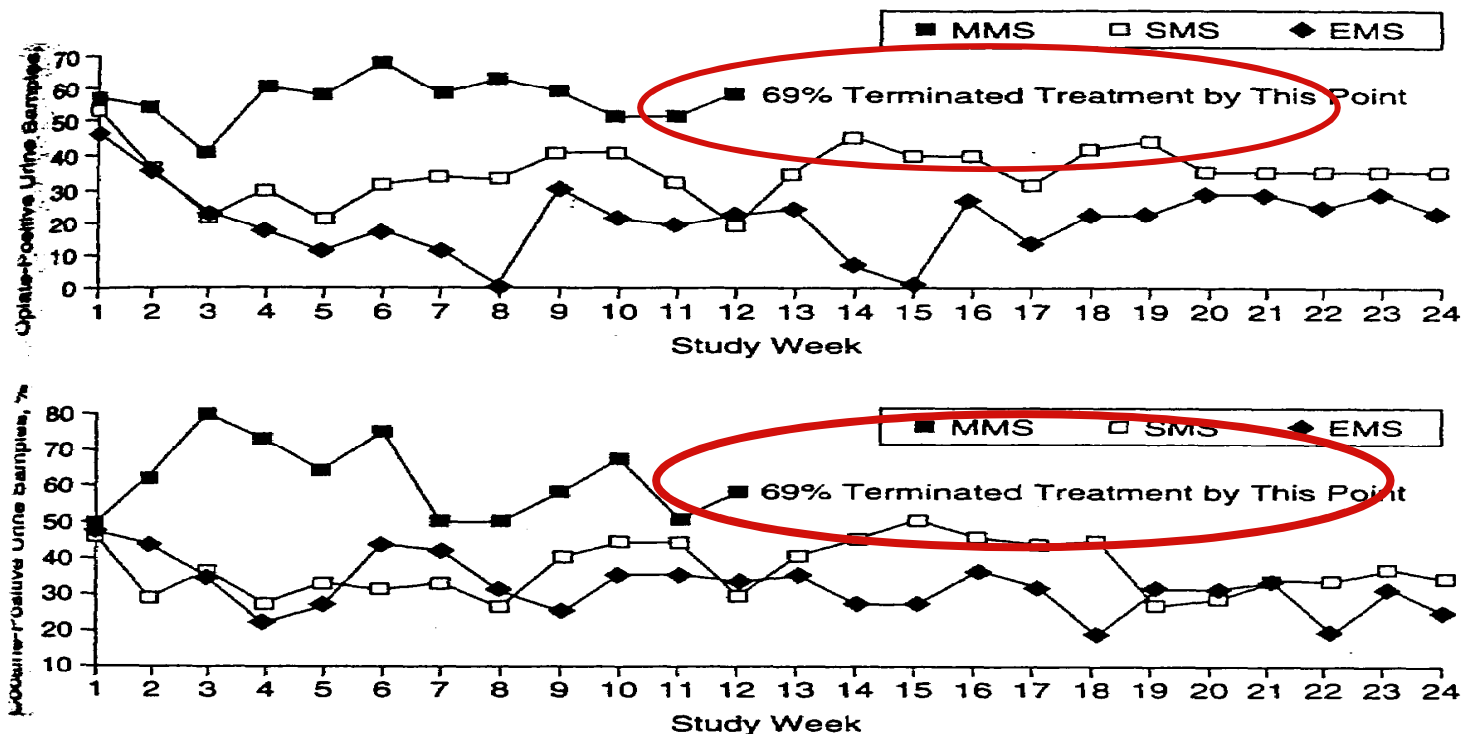
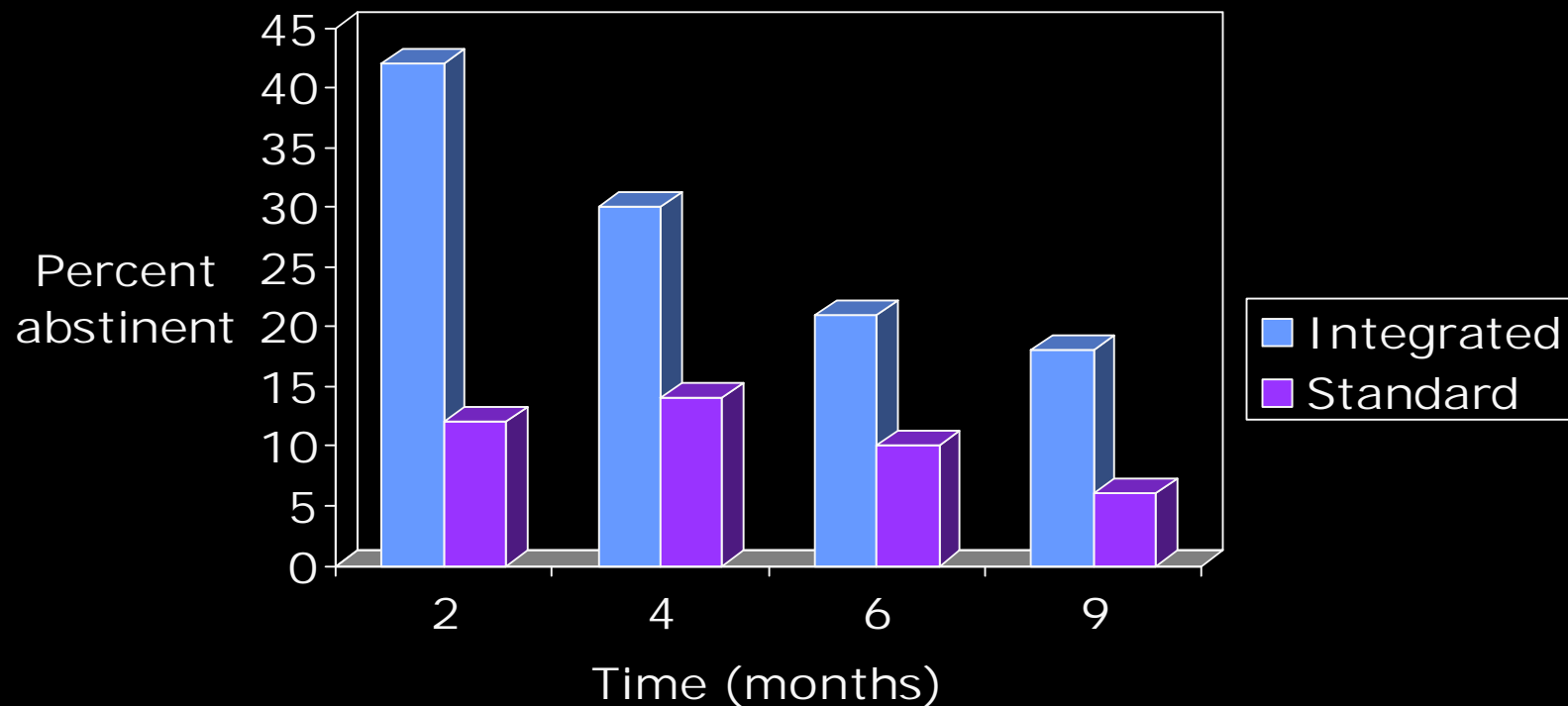


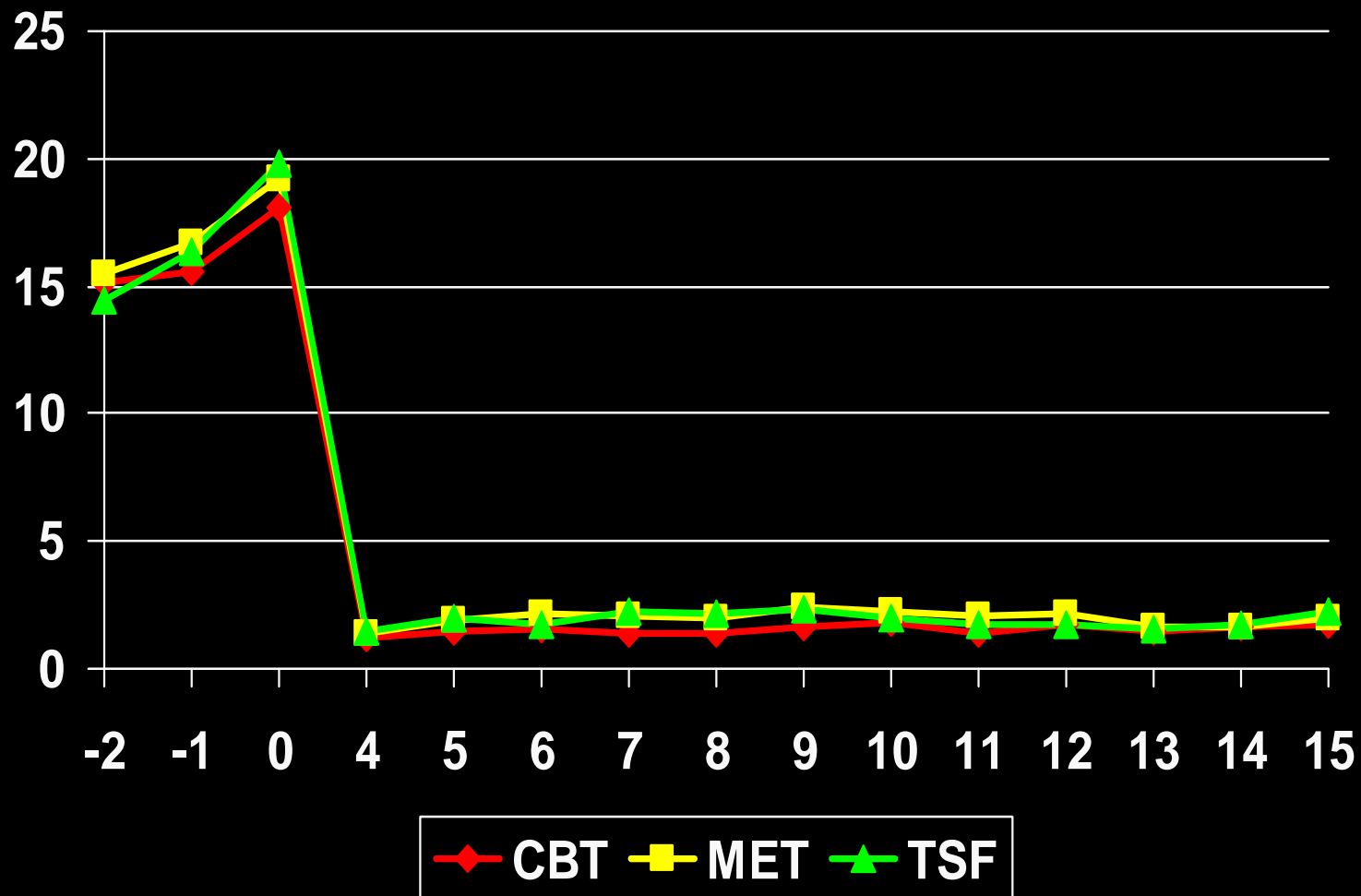
Fig 2.—Percentages of opiate-positive (top) and cocaine-positive (bottom) urine samples, per treatment group, by study week. See legend for Fig 1 for explanation of treatment groups.

Smoking: Importance of *INTEGRATED* care for smokers among veterans with PTSD (McFall et al., 2005)



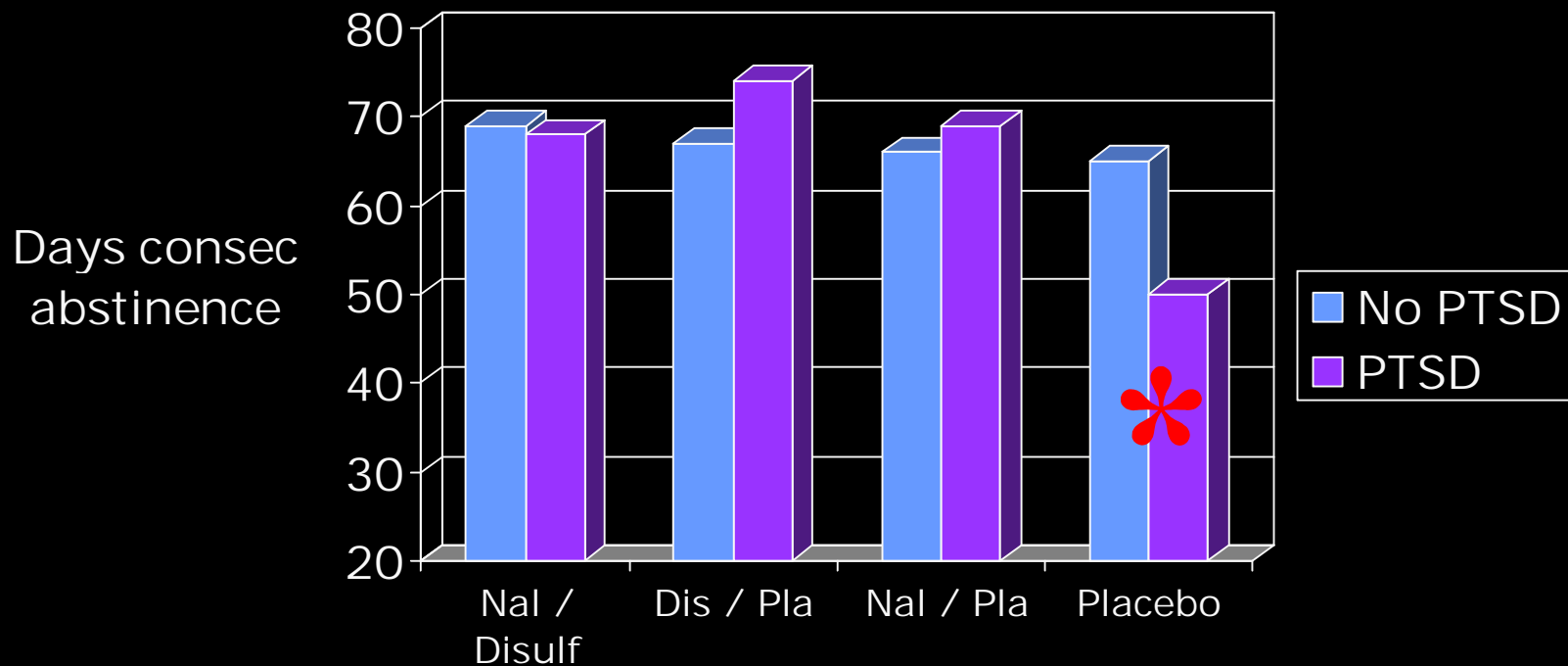
Alcohol : Project MATCH -4 VA sites

Behavioral therapies have strong and durable effects on reducing alcohol use

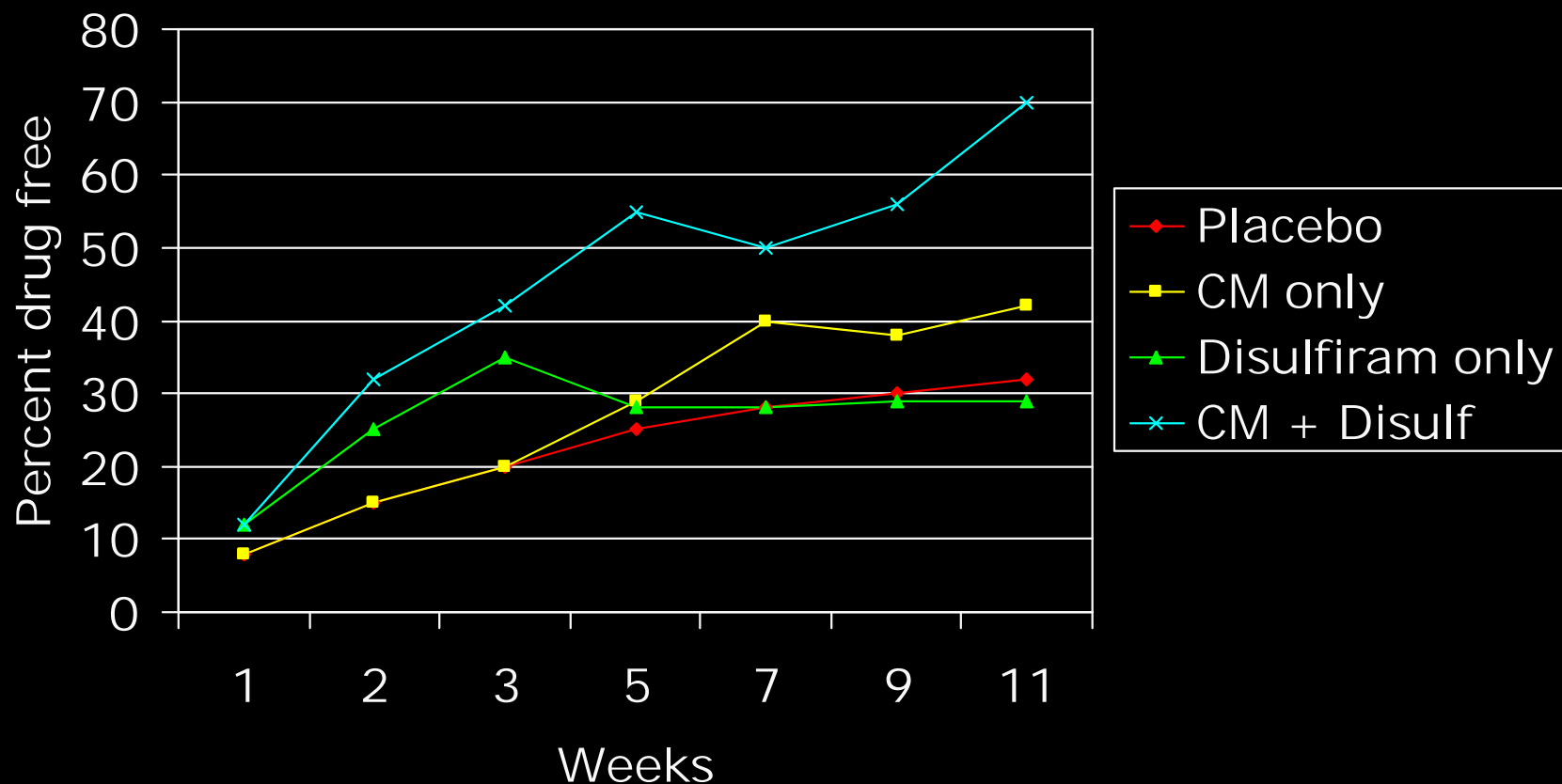


Comorbidity: Efficacy of naltrexone and disulfiram in veterans with PTSD and alcoholism (Petrakis et al., 2006):

Those with comorbid PTSD have *greater* need for science based therapies

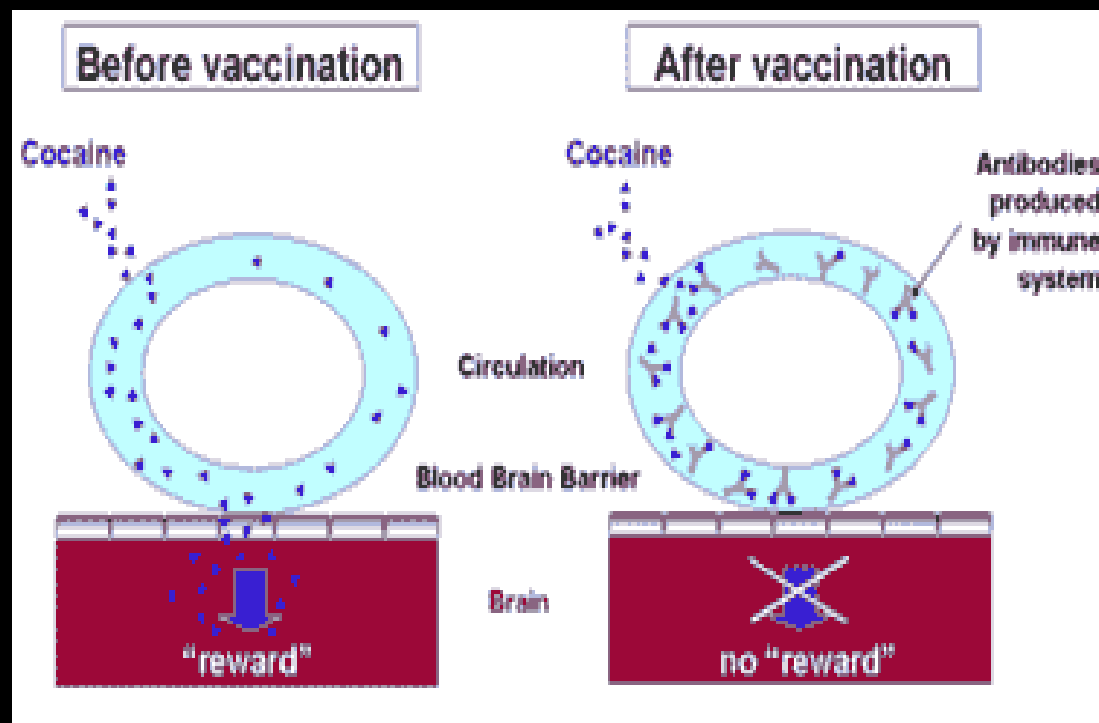


Combined behavioral treatment and pharmacotherapy for challenging addiction problems: Kosten et al., 2005



Ongoing work on cocaine vaccine

Kosten et al. (2005)



Particular Challenges for 4 EVT's

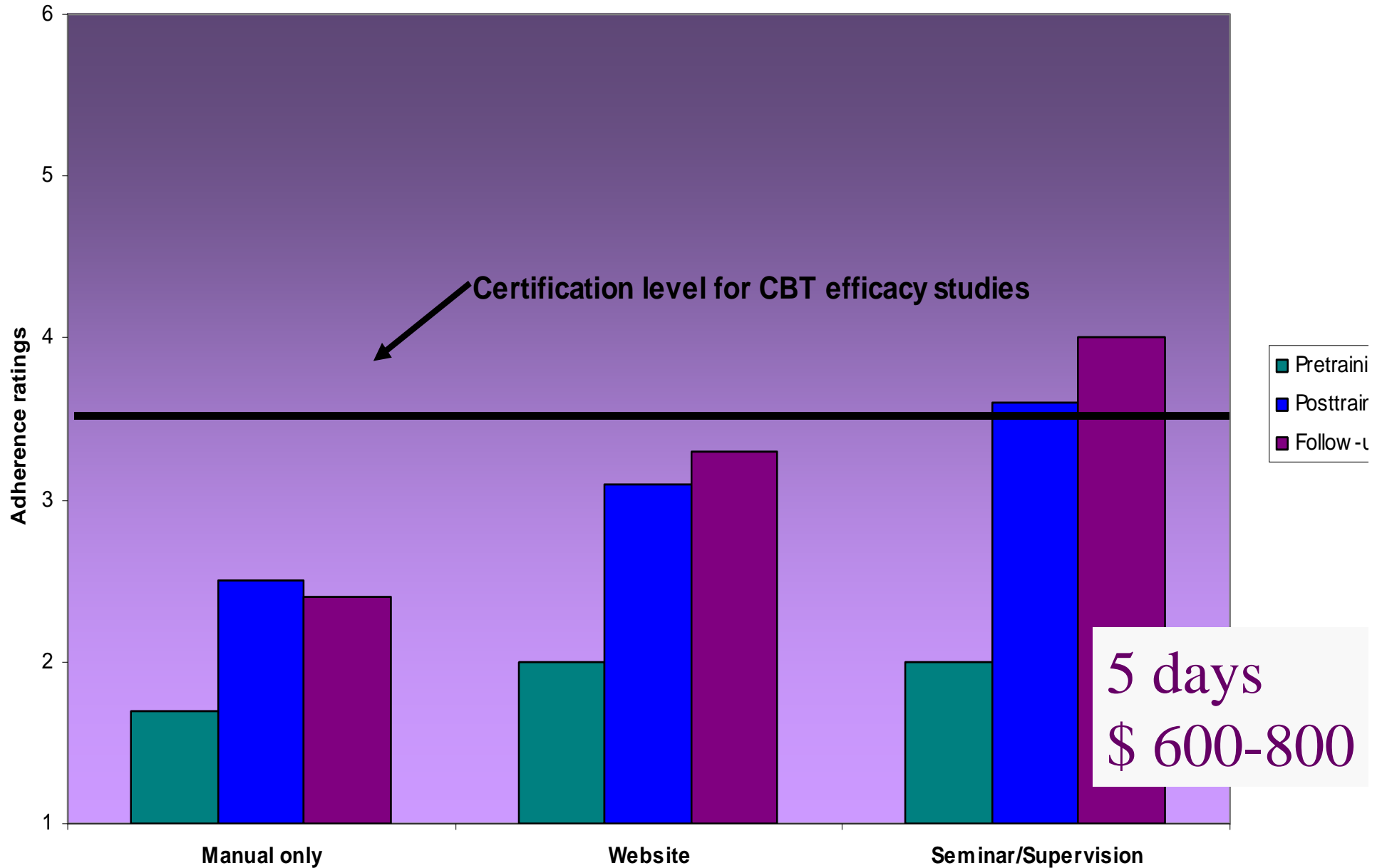
- **BCT:** Need for Willing Spouse/Family, Training, Engagement and Compliance
- **CBT:** Training, Engagement and Compliance
- **Voucher CM:** Paying for Incentives, Durability of Effect
- **Alcohol Medications:** Engagement and Compliance do not address Motivation and Psychosocial Issues

Challenges for dissemination

- EVT's require training and supervision
- EVT's currently minimally practiced
- Multiplicity of comorbid problems
 - Need to address multiple issues in integrated fashion
- High cost of training staff in multiple new therapies
- High demand on workforce

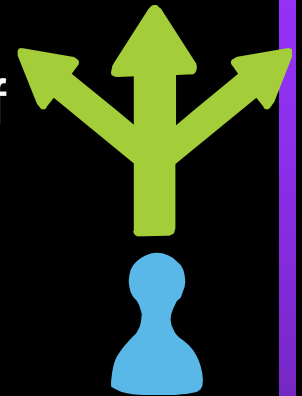


Role Plays: Adherence Scores by Training Condition



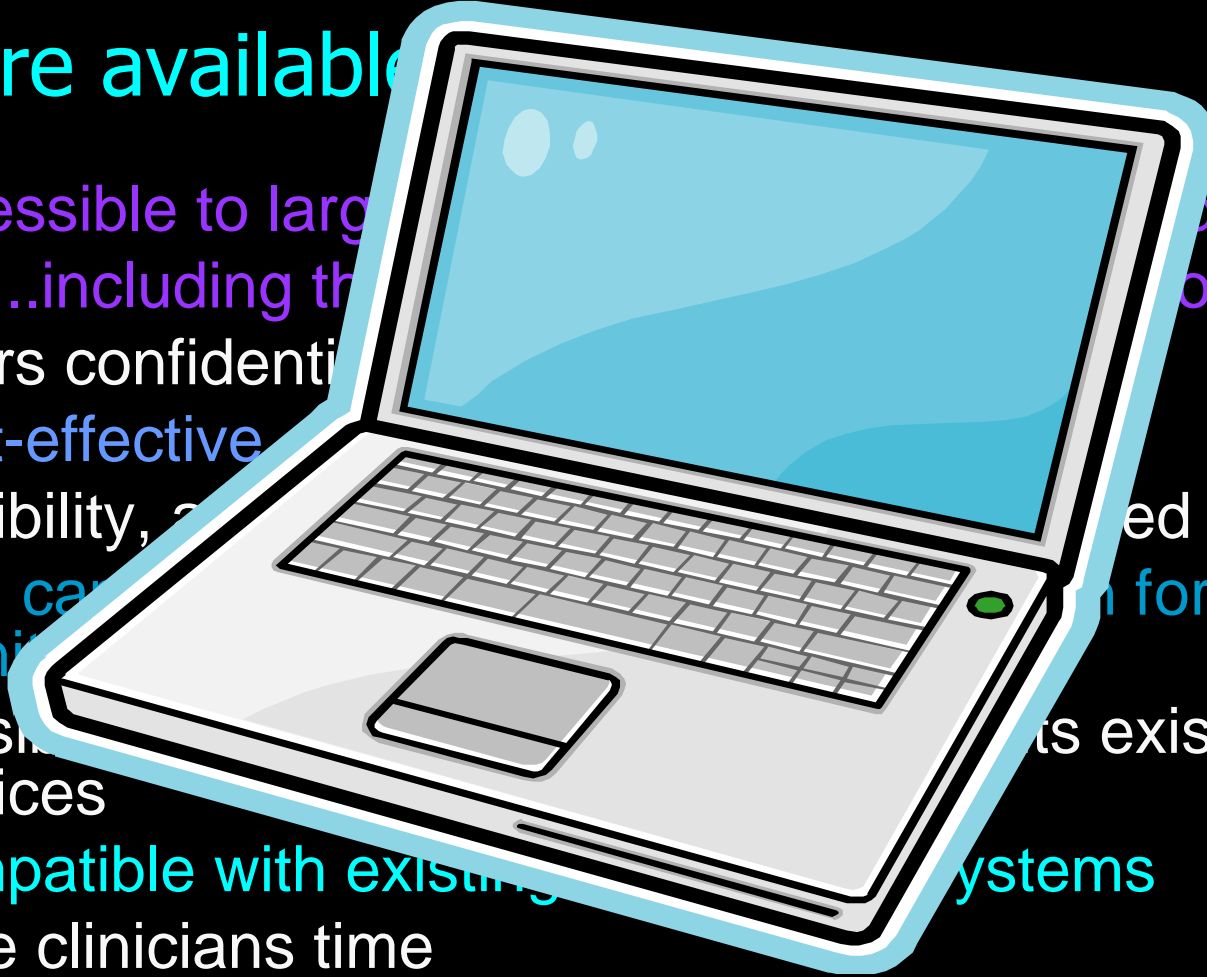
Dissemination Strategies

- Screening and Brief Intervention in a number of settings, integration with TBI, PTSD, other care
- **Link Addictions Treatment to Other Services**
 - Primary Care
 - Service Connected Compensation-Benefits Counseling
- **Streamlined Training**
 - Stepped training
 - Train the Trainer
 - Improved Self Monitoring



How can we make science based therapies more available

- Accessible to large populations, including those in rural areas, and it, on
- Offers confidentiality
- Cost-effective
- Flexibility, use in various settings
- High capacity for those with cognitive impairments
- Feasible to integrate with existing services
- Compatible with existing systems
- Save clinicians time
- Provides standardization, high and consistent level of quality



'CBT 4 CBT'

Computer Based Training in CBT

- 6 modules, 1 hour each, high flexibility
- Video examples of characters struggling
- Multimedia presentation of skills
- Repeat movie with character using skills to change 'ending'
- Interactive exercises, quizzes
- Multiple examples of 'homework'



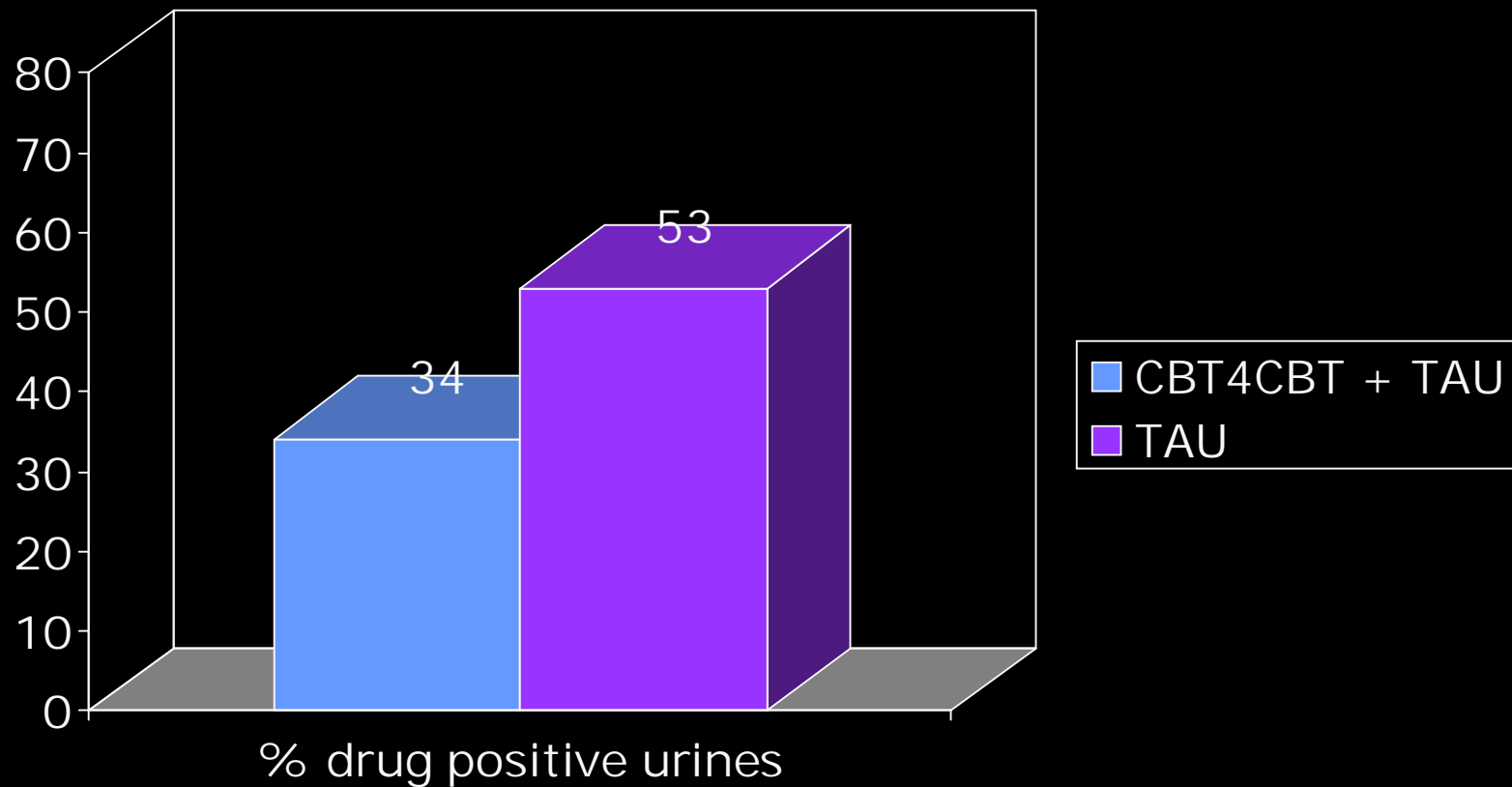


Overview: Randomized clinical trial

- 8 week randomized clinical trial
- Outpatient community treatment program
- Standard treatment (weekly individual + group therapy) (TAU) vs. CBT4CBT + TAU
- CBT4CBT offered in up to 2 weekly sessions
- 6 month follow-up

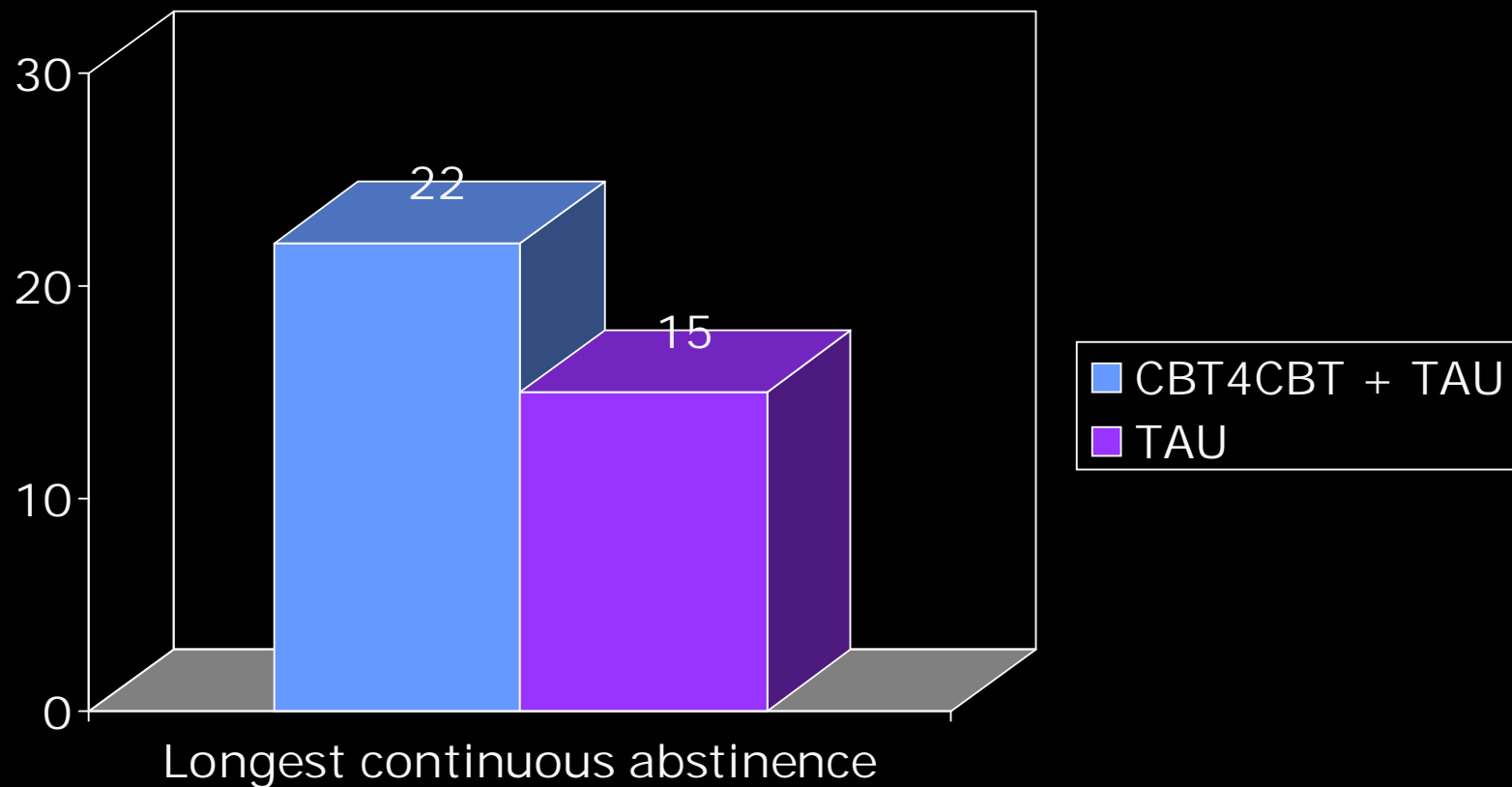
Carroll et al., Am J Psychiatry, 2008

Primary outcomes, 8 weeks CBT+TAU versus TAU



Carroll et al., 2008, *Am J Psychiatry*

Primary outcome: Longest consecutive abstinence, in days, at 8 weeks by condition

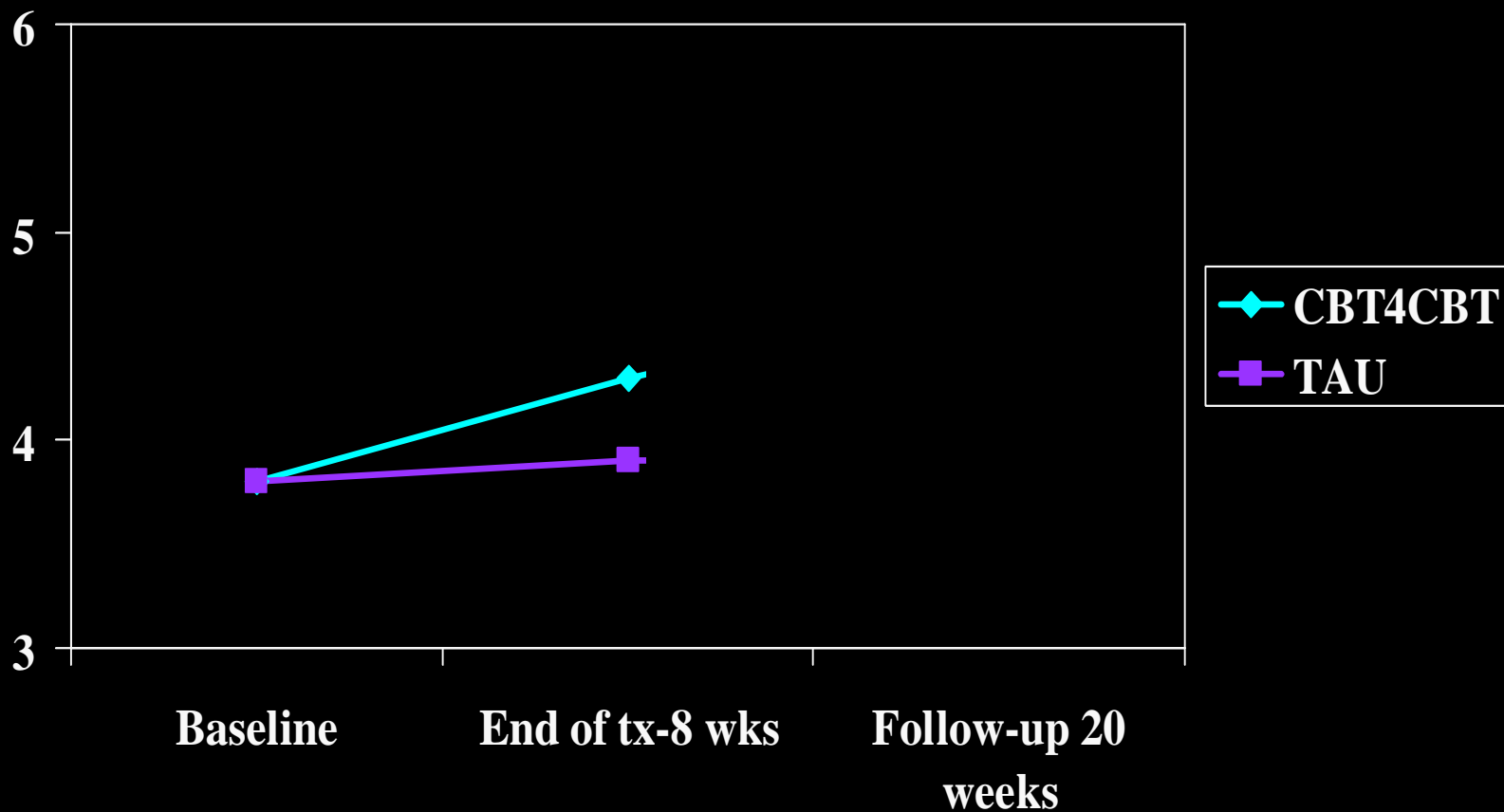


Carroll et al., 2008, *Am J Psychiatry*

Does CBT4CBT teach skills?

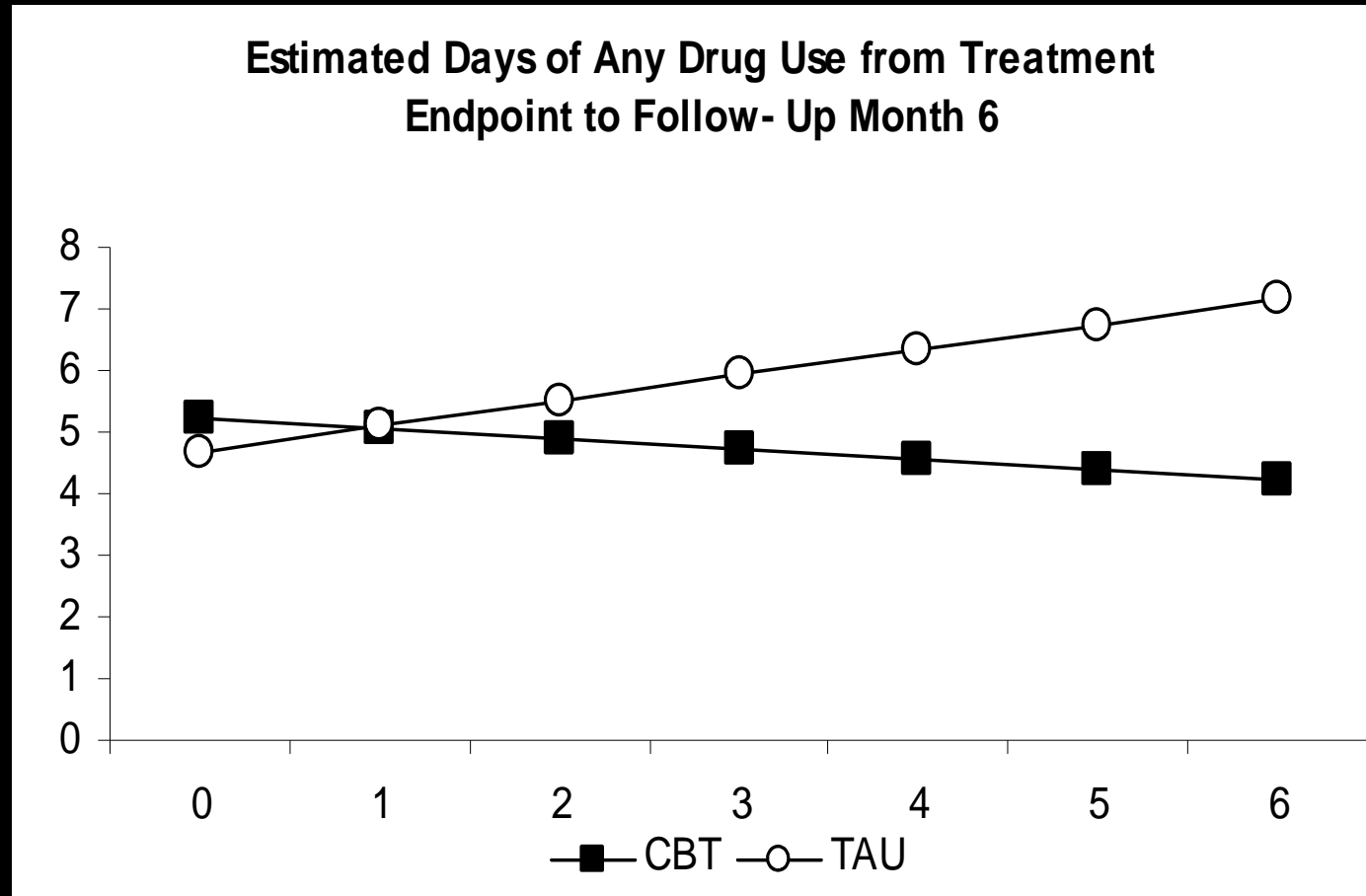
Quality of coping skills by time

CBT4CBT versus Treatment as usual



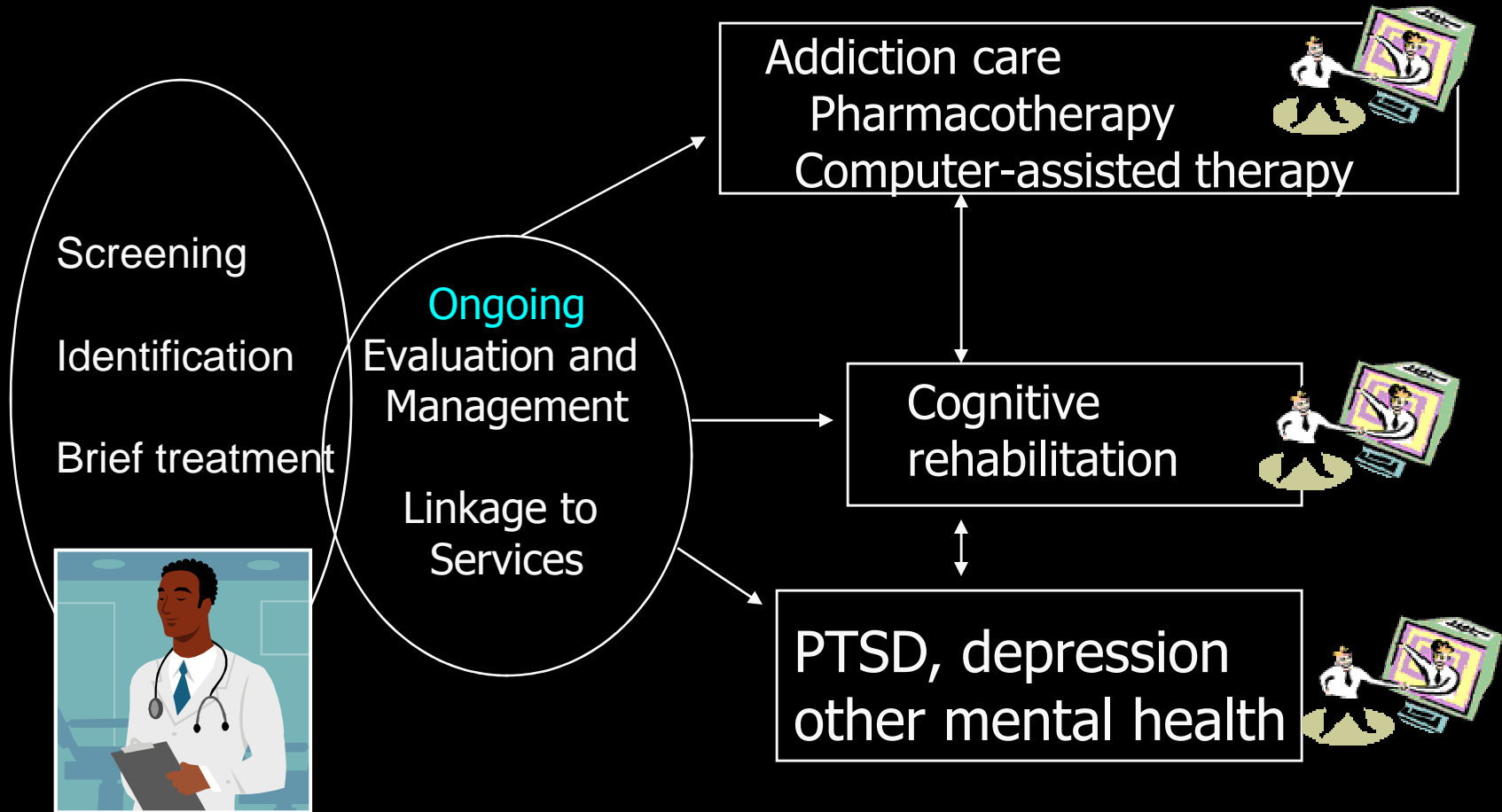
Kiluk et al, under review

Durability of Effects of CBT4CBT: 6 month follow-up



Carroll et al., Drug Alc Depend, 2009

Addressing complex co-occurring issues



Additional Strategies for Dissemination and Dissemination Research

- **Combine Treatments to Address Weaknesses:
Examples**

CM to enhance compliance/engagement for PTSD, other psychiatric, and pharmacotherapies

CBT, BCT, Meds to Enhance Durability of CM

Family Therapy to Increase Medication Compliance

- **Computer Assisted Clinician Training**

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