Research Findings on Psychotherapy and Counseling for Cocaine Use Disorders

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Definition

Psychotherapy = “a psychological treatment that aims to change problematic thoughts, feelings, and behaviors through creating a new understanding of the thoughts and feelings that appear causally related to the presenting difficulty”

Theorized Mechanism of Change

"Change occurs in the context of a supportive relationship with a therapist who provides the patient with an opportunity to explore the underpinnings of maladaptive behaviors, thoughts, and feelings and then change patterns that contribute to distress".

Two Categories of Psychotherapy for Addictions

1) “Off the shelf”

- Used in general psychiatry
- Modified for addictive disorders
- Examples: CB, SE, IPT
- Therapists typically Ph.D’s or MD’s
- Much training

2) For addictions

- Motivational interviewing enhancement (Miller & Rollnick)
- Style is directive/non-directive
- Theory = insistence on immediate abstinence discourages rx entry
- Shorter training period than CB, SE, IPT
- Mirror opposite of DC/12-Step

Drug Counseling for Addictions

The “standard”

Directive, concrete, drug-focused

Push for immediate cessation of use

Strong emphasis on 12-steps

Learned via courses, personal recovery, “on the job”

BA, MA or CAC

Basis for comparison with psychotherapies

Settings Where Studies Done

1) Methadone Programs

- Potent pharmacotherapy
- Psychorx and counseling added
- Behavioral contingencies operative
- Penn and Yale studies examples

2) “Drug-free” programs

- NIDA Cocaine Psychotherapy study
- Project MATCH with alcohol
- Carroll study
- Few/no contingencies

3) Non-treatment-seeking

- MET/MI
- Focused on reducing HIV risk
- Booth study
- No contingencies

Timeframes over which change assessed:

In methadone studies, after “stabilization”

- Usually have had reduction in use

In outpatient cocaine & alcohol studies, shortly after rx entry

- Little reduction in use

Why Study Psychotherapy for Addictions?

Clinical observations

Many psychiatric problems/self medicate

Some substance-induced/disappear with abstinence

Others independent & need longer term rx

Help resolve ambivalence (MET/MI)

Psychiatric symptoms a common cause of relapse

High symptom levels = worse outcome

Most treatment done by persons with little psychiatric training

Maybe psychorx can improve, at least for some

Engage more; resolve ambivalence

First Studies In Methadone Programs

1st Penn/VA study

1) After stabilization on methadone, random assignment to
   - DC
   - DC + SE
   - DC + CB
2) Therapies for 6 months

Results

1) All improved
2) No differences for low severity patients
3) High severity patients did better if had additional psychorx
4) Improvements in drug use + other areas
5) ASPD alone improved less than ASPD + depression

High Severity Patients

ANCOVA

Differences between groups

Employment area, SE and CB better than DC

Drug abuse area, SE and CB better than DC

Legal area, CB and SE better than DC

Psychiatric area, SE and CB better than DC

Significant differences in outcome by therapist

Mediating factors:

- “Helping Alliance”
- Compliance with therapy

Table 2. *Per Cent Change from Start of Treatment to 7-Month Follow-up Outcome Measures**

	N	DRUG USE	EMPLOYMENT STATUS	LEGAL STATUS	PSYCHIATRIC STATUS	BECK DEP.	SCL-90	MAUDSLEY N SCALE	AVERAGE EFFECT-SIZE†
SE THERAPIST									
A	10	34	32	20	102	58	44	64	0.74
B	8	33	34	17	49	37	46	59	0.59
C	8	−14	12	7	−4	8	−2	13	0.19
CB THERAPISTS									
D	11	61	19	17	34	36	39	44	0.53
E	10	70	22	13	19	24	30	30	0.44
F	9	48	10	11	14	14	21	33	0.46
DC THERAPISTS									
G	9	51	8	13	9	4	9	−1	0.20
H	6	46	−4	6	2	−3	11	3	0.13
I	7	66	17	7	15	14	15	17	0.27

Looked like psychotherapy effect due to “matching phenomena on H.S. pts

But, not sure since:

- Therapist effects present
- Unbalanced design – no “placebo” psychiatrist

Did show that psychosocial rx with methadone patients can help

Yale Study

Randomized to DC or DC+IPT

All patients improved

No differences between groups

No interaction with psychiatric severity

Very low levels of drug use throughout

Title of paper: “Psychotherapy in Treated Addicts”

Why Differences?

Therapist effects?

Low enrollment at Yale site

- Therapist offices not in clinic

Strong contingency in effect at Yale

- Suspension if urines positive after 3 months
- “Ironed” out/before randomization

2nd Penn/VA study

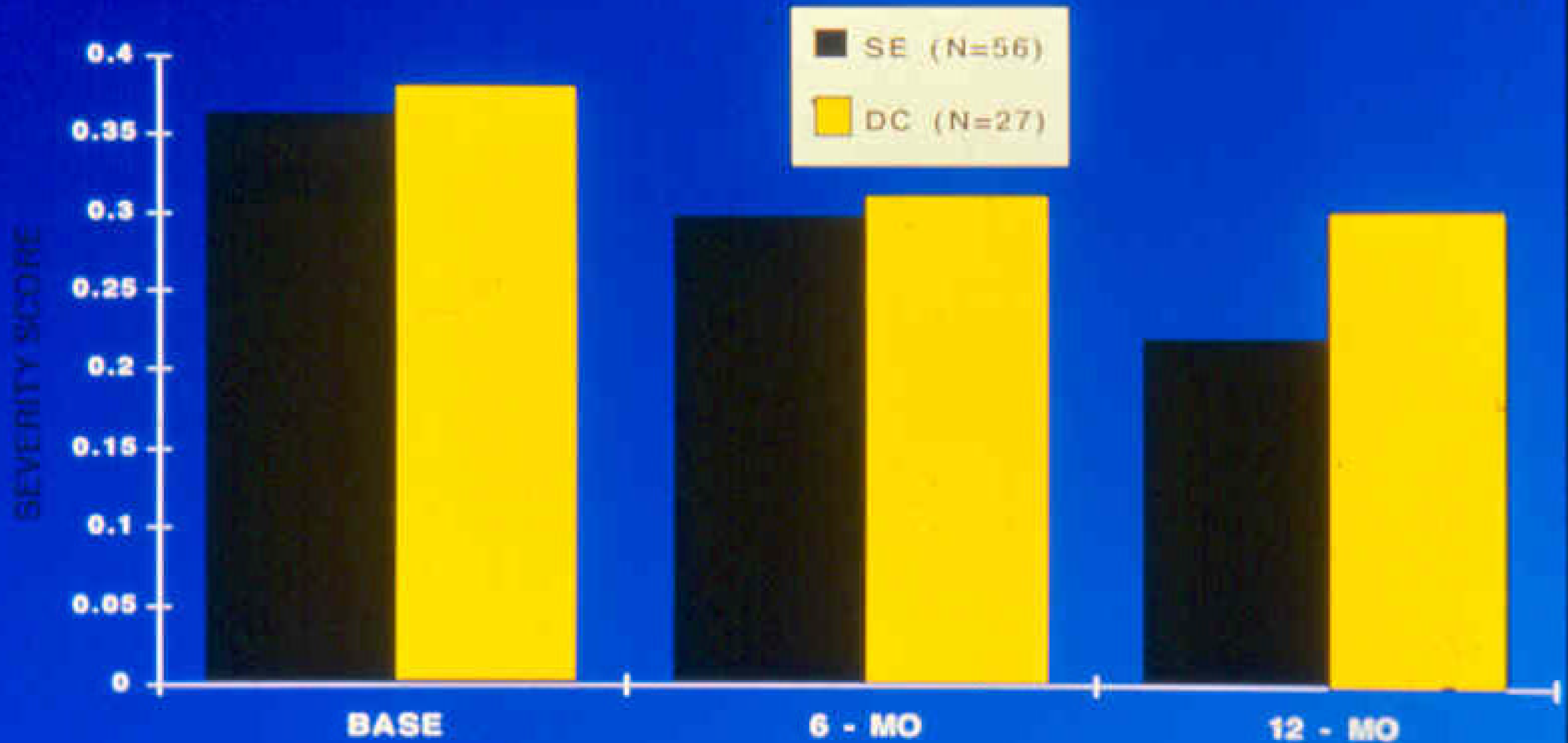
Done in community methadone programs

Enroll high severity patients only

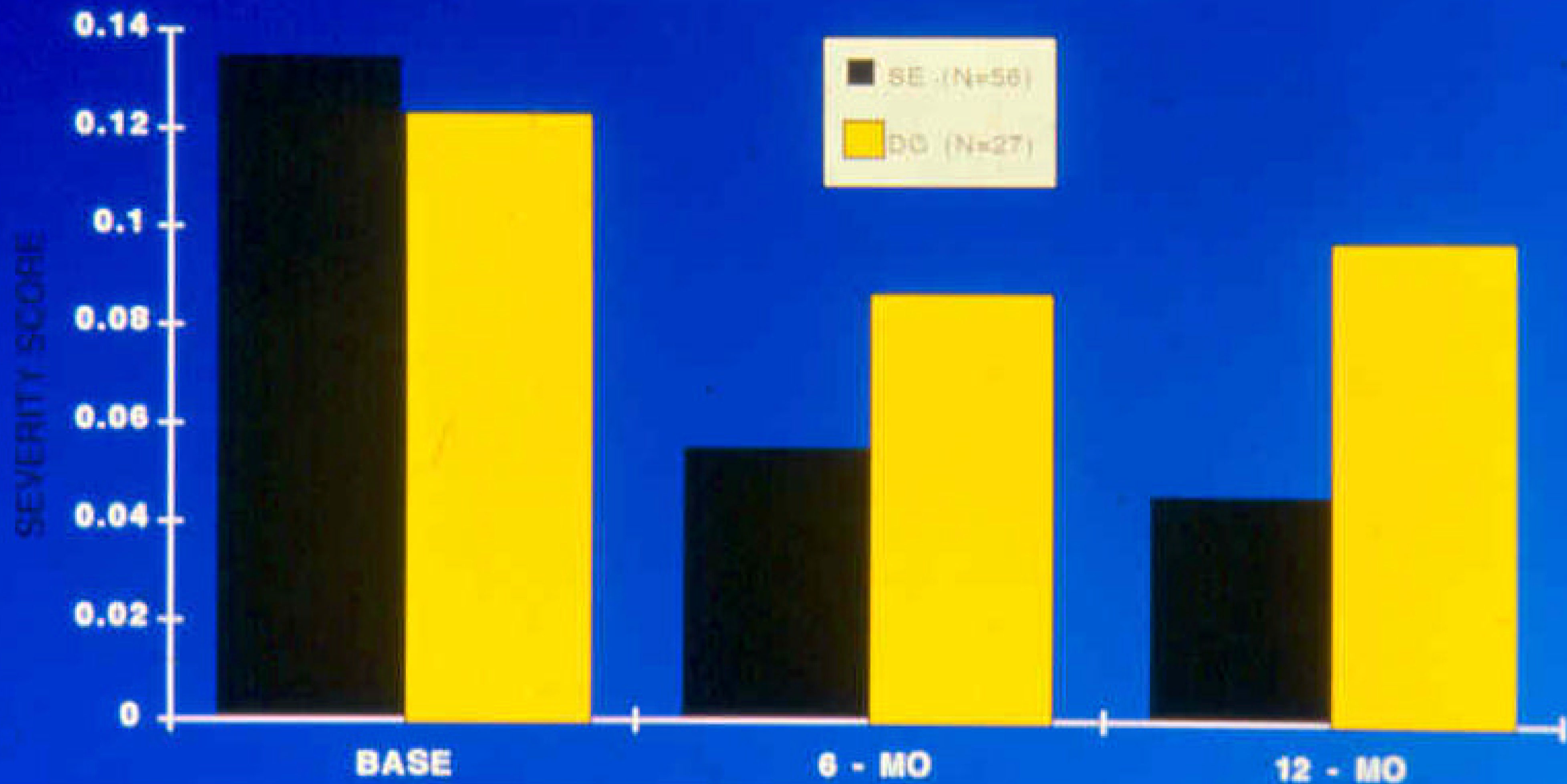
Randomize to DC/DC or DC+SE

No differences at 6 months

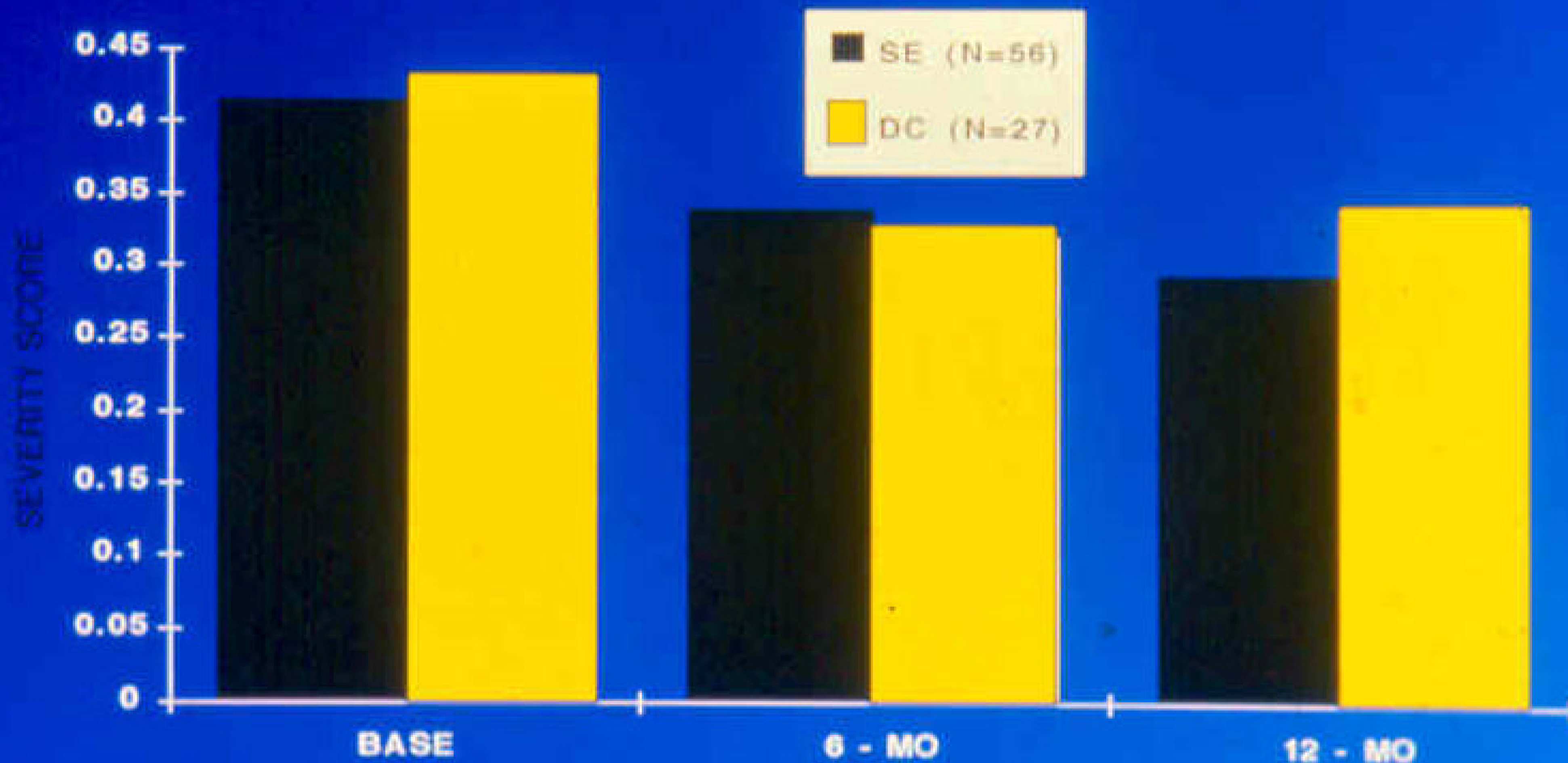
Improvements favoring SE at 12 months

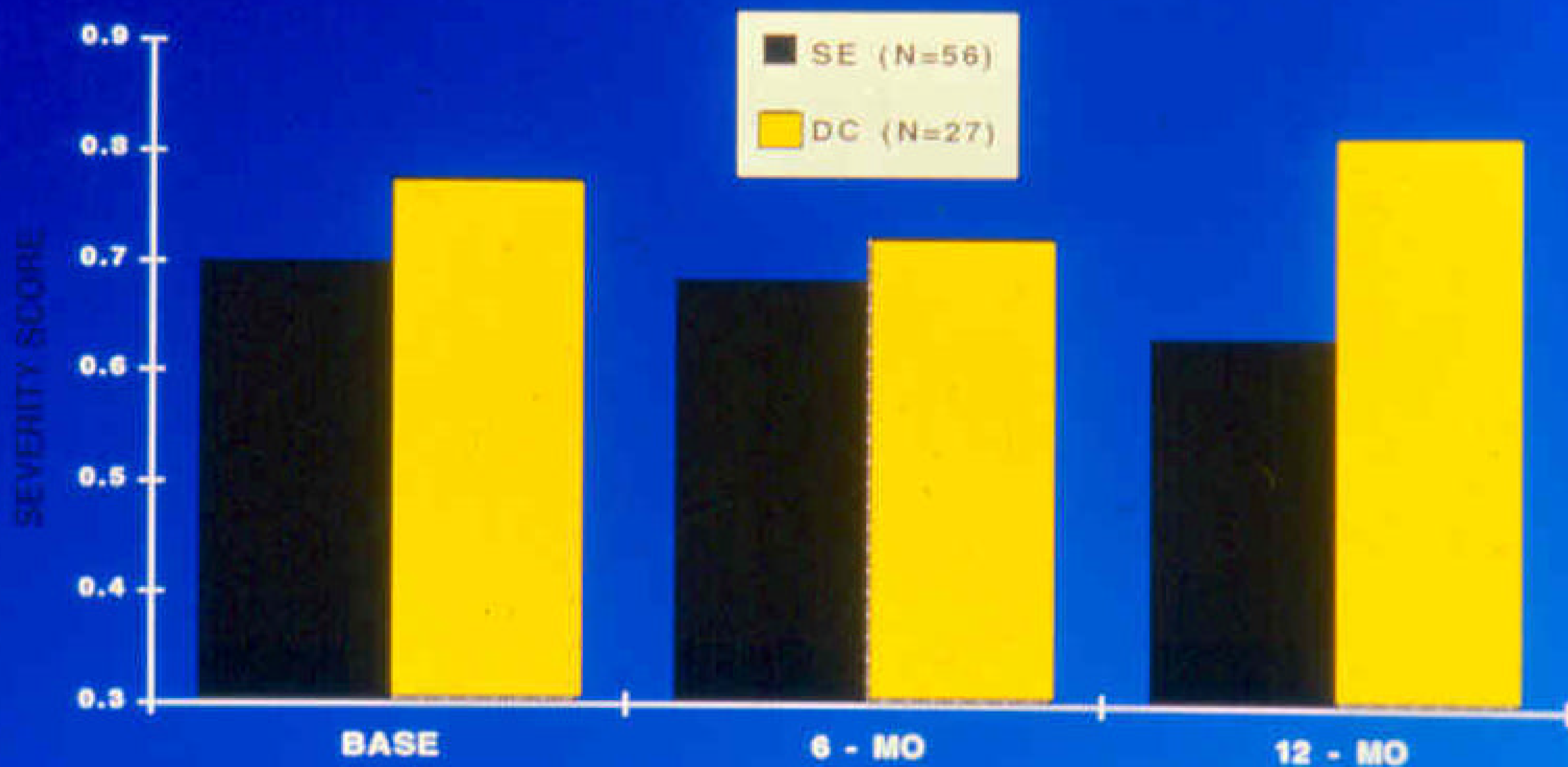


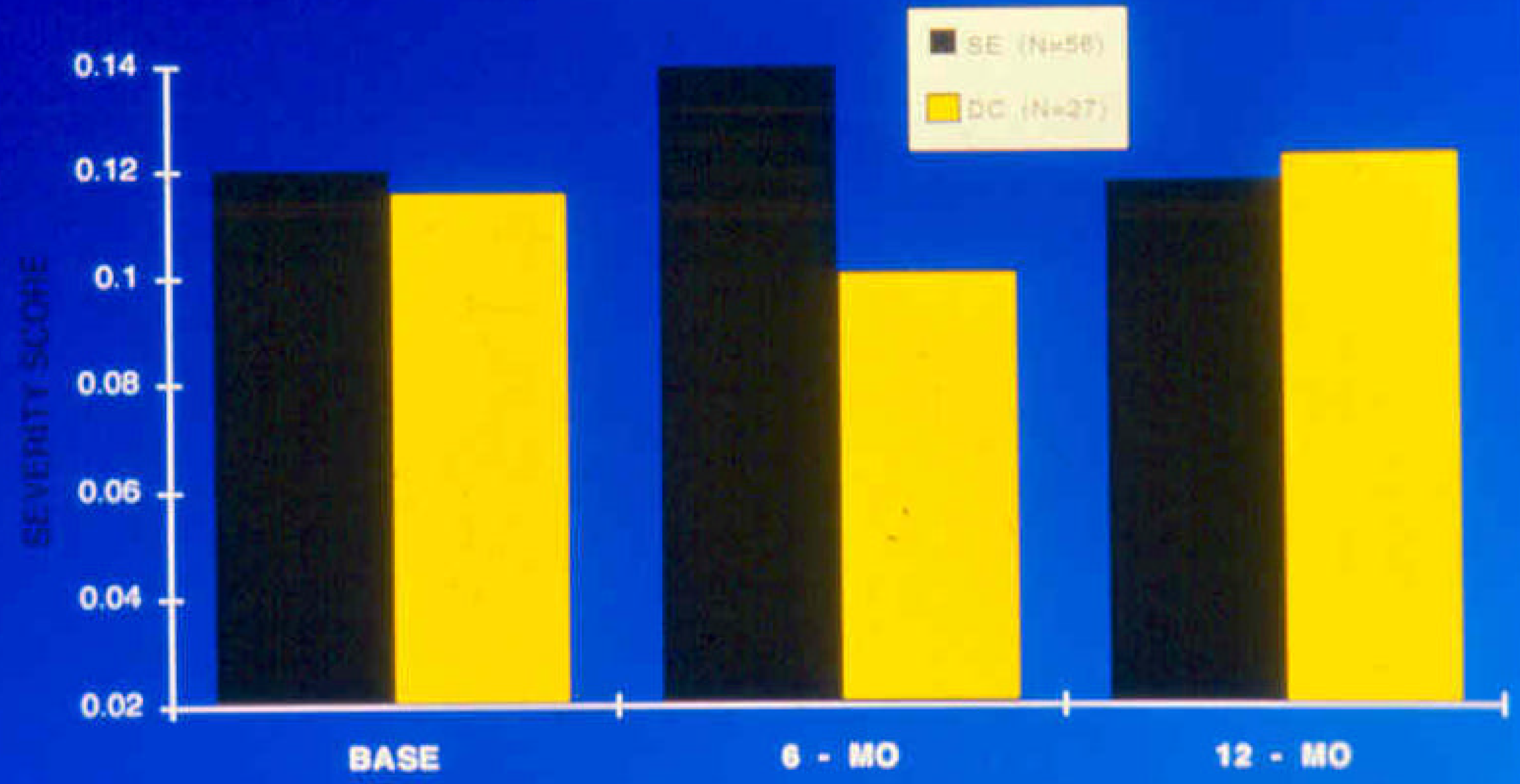
DRUG PROBLEM: BASELINE TO
12-MONTH FOLLOW-UP
SE (N=56)
DC (N=27)
0.4
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
SEVERITY SCORE
BASE
6 - MO
12 - MO

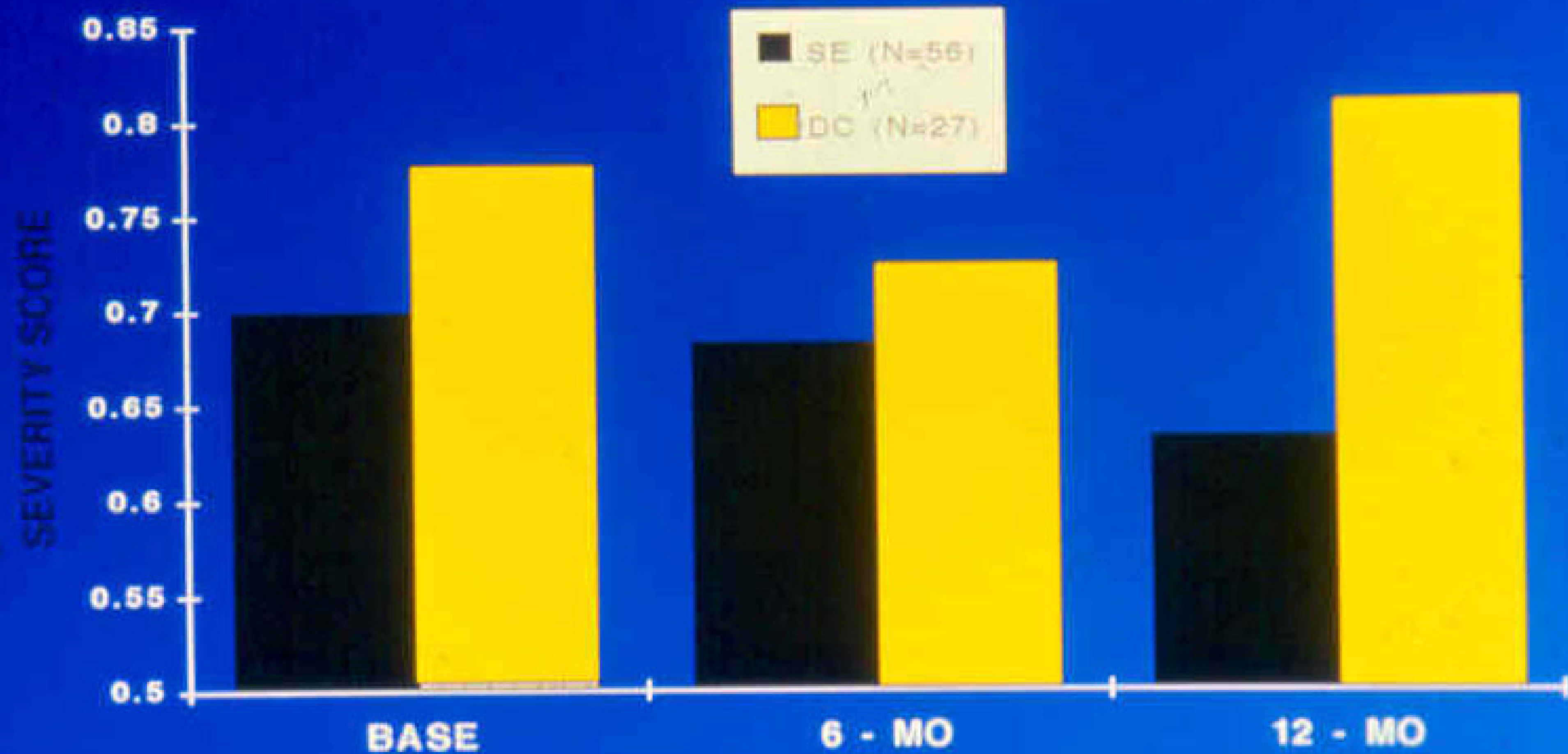

ALCOHOL PROBLEM: BASELINE TO 12-MONTH FOLLOW-UP
SE (N=56)
DC (N=27)
SEVERITY SCORE
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
BASE
6 - MO
12 - MO

PSYCHIATRIC PROBLEM: BASELINE TO 12-MONTH FOLLOW-UP




MEDICAL PROBLEM: BASELINE
TO 12-MONTH FOLLOW-UP
SE (N=56)
DC (N=27)
0.9
0.8
0.7
0.6
0.5
0.4
0.3
SEVERITY SCORE
BASE
6 - MO
12 - MO


LEGAL PROBLEM: BASELINE TO
12-MONTH FOLLOW-UP
SE (N=56)
DC (N=27)
0.14
0.12
0.1
0.08
0.06
0.04
0.02
SEVERITY SCORE
BASE
6 - MO
12 - MO


EMPLOYMENT PROBLEM:
BASELINE TO 12-MONTH FOLLOW-up
SE (N=56)
IDC (N=27)
SEVERITY SCORE
0.85
0.8
0.75
0.7
0.65
0.6
0.55
0.5
BASE
6 - MO
12 - MO

Value of “talking therapy” for methadone patients confirmed by McLellan, et al

1) Randomly assigned patients to:

   - One brief counseling session/month
   - Weekly counseling & referral out for psych med/rx
   - Weekly counseling & psych/med rx in clinic

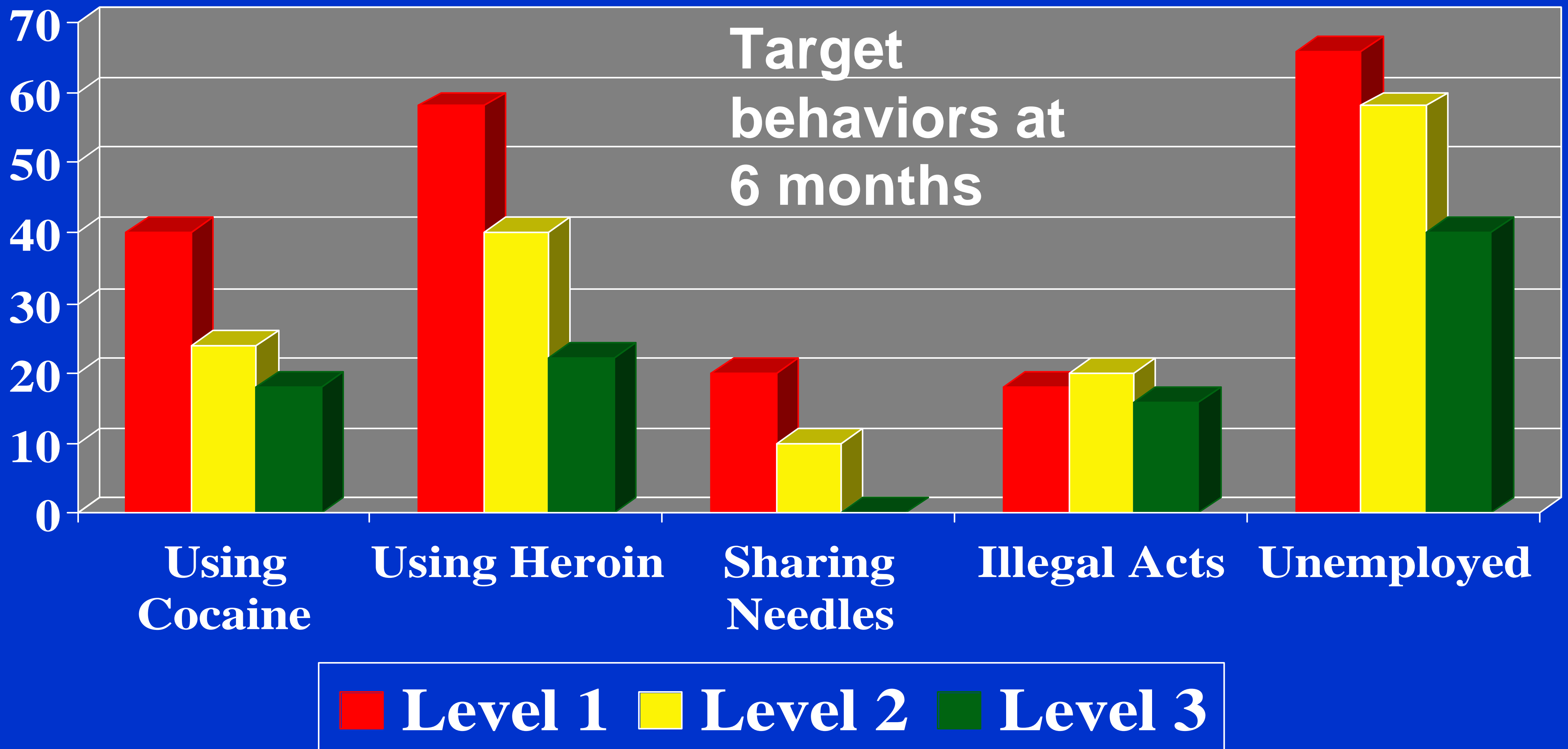
Levels of Treatment in Methadone Maintenance Programs

Random Assignment 6 Months

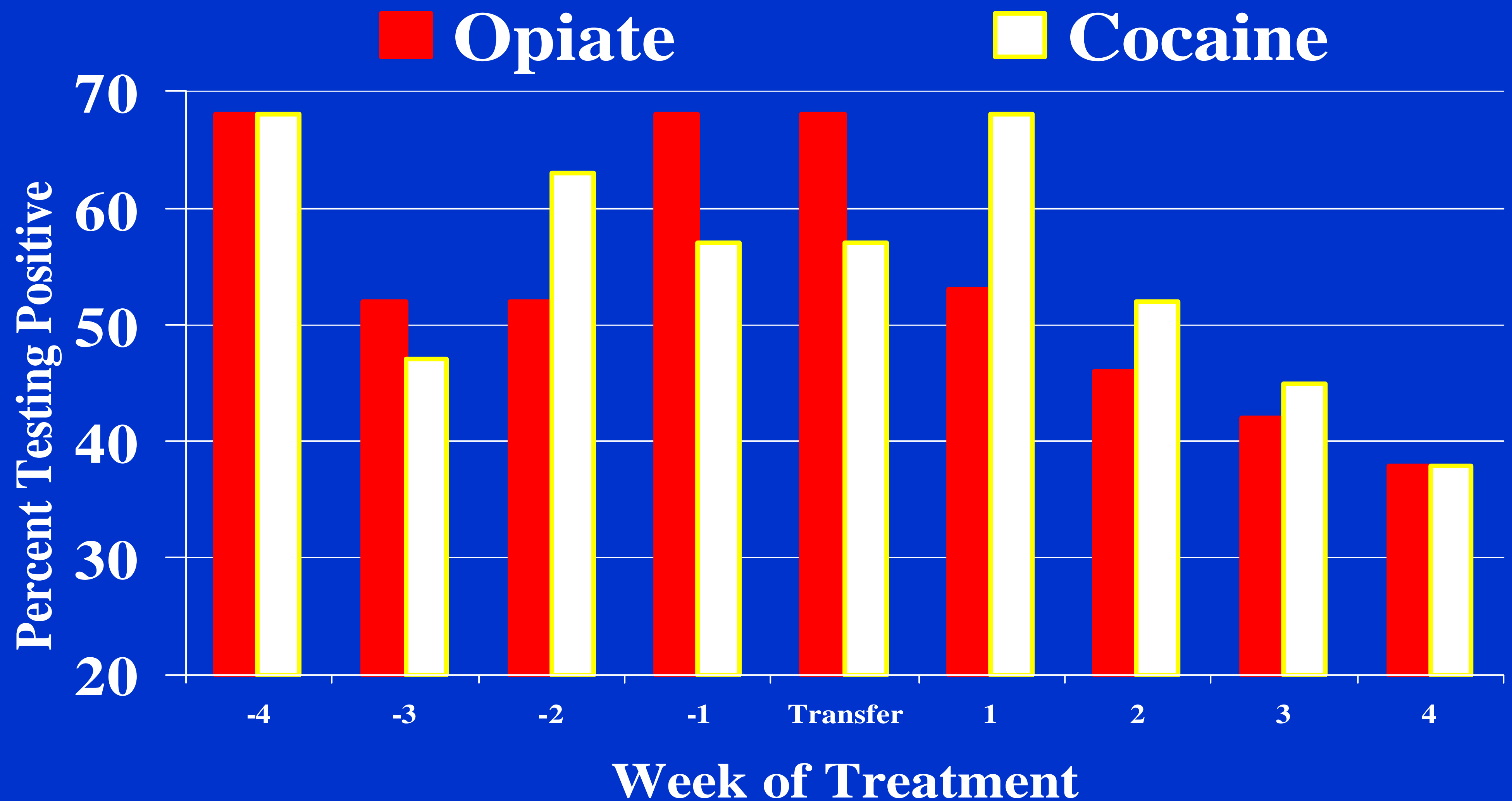
	Level 1 * (n=29)	Level 2 (n=34)	Level 3 (n=36)
Methadone:	> 60mg	>60mg	>60mg
Urine/Breath:	weekly	weekly	weekly
Counseling:	Emergency Regular	Emergency Regular	Emergency Employment Family Therapy Psychiatric Care

*does not include 13 patients not completing treatment

Methadone Levels Study



Methadone Only to Standard Treatment - Positive Urines



Results

Stepwise improvement according to treatment condition

70% of brief counseling patients "protectively transferred"

Counseling & in-clinic psych/med rx did the best

"Dose-response" finding

Most cost-effective was weekly counseling

NIDA Collaborative Cocaine Treatment Study

NIDA

Jack Blaine, Lisa Simon-Onken

STUDY SITES

Brookside Hospital

Arlene Frank (P.I.)
Steven Butler (Co-P.I.)
Sarah Bishop (Project Director)

McLean/MA General

Roger Weiss (P.I.)
David Gastfriend (Co-P.I.)
Lisa Najavits (Project Director)

University of Pennsylvania

Lester Luborsky (P.I.)
Jacques Barber (Co-P.I.)
Delinda Mercer (Project Director)

University of Pittsburgh/WPIC

Michael Thase (P.I.)
Dennis Daley (Co-P.I.)
Ihsan Salloum (Co-P.I.)
Judy Lis (Project Director)

NIDA Collaborative Cocaine Treatment Study

UNIVERSITY OF PENNSYLVANIA
COORDINATING CENTER

Principal Investigator
Paul Crits-Christoph

Study Coordinator
Lynne Siqueland

Assessment Unit Director
Karla Moras

Data Management and Statistics Unit Director
Bob Gallop, Jesse Chittams
Larry Muenz

Treatment Conditions

CT: Cognitive Therapy + Group Counseling
Beck, Wright, Newman & Liese (1993)

SE: Supportive-Expressive Therapy + Group Counseling
Mark & Luborsky (1992)

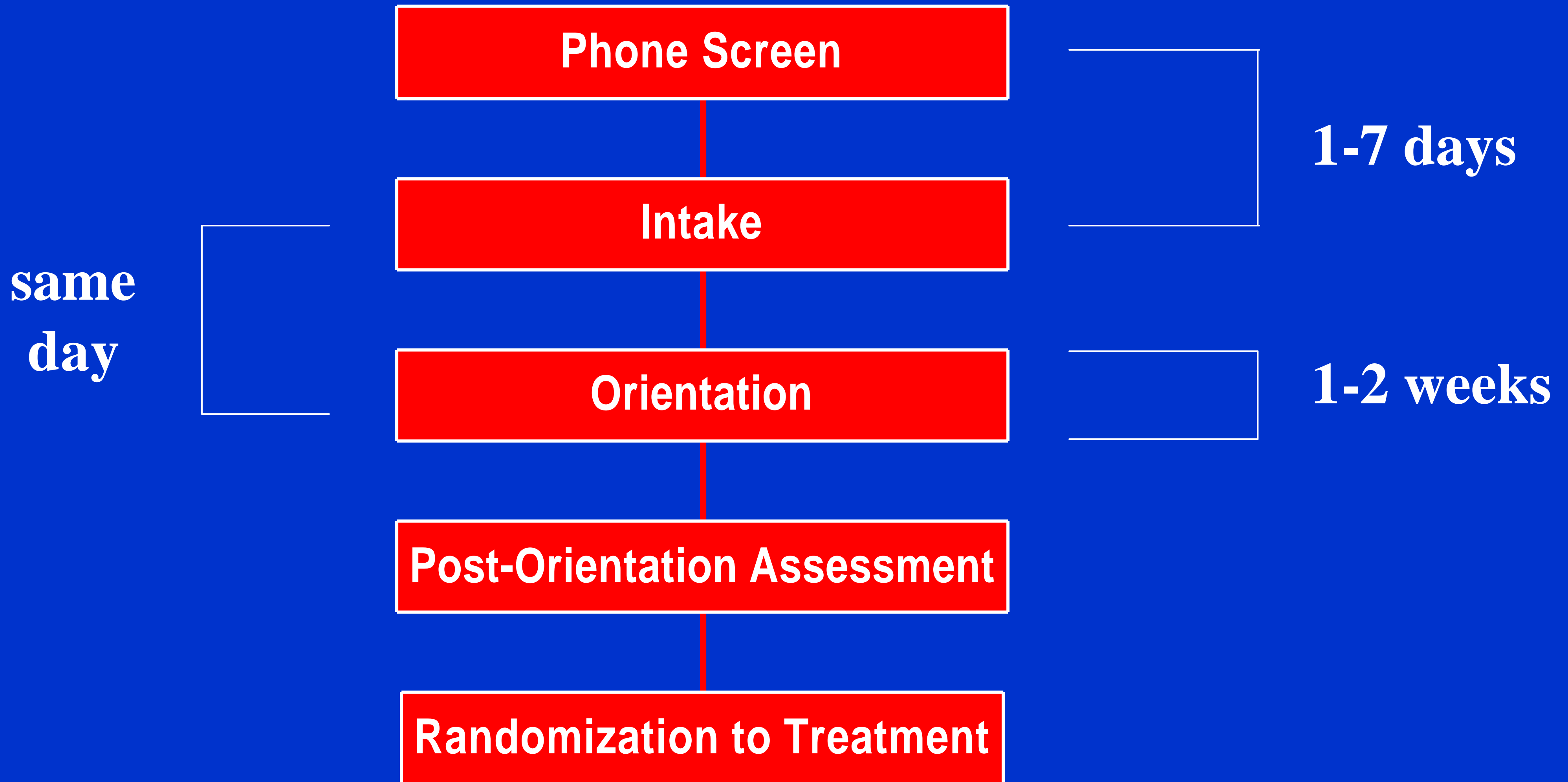
IDC: Individual Drug Counseling + Group Counseling
Mercer & Woody (1992), based on 12 step addiction & psychoeducational model

GDC: Group Drug Counseling
Mercer, Carpenter, Daley, Patterson & Volpicelli (1994), based on 12 step addiction & psychoeducational model

Primary Goal of Study

To compare the short and long-term efficacy & patient acceptance:

- **Group Drug Counseling alone (GDC)**
- **Cognitive Therapy + GDC**
- **Supportive-Expressive Therapy + GDC**
- **Individual Drug Counseling + GDC**


Study Design
Phone Screen
Intake
Orientation
Post-Orientation Assessment
Randomization to Treatment
same day
1-7 days
1-2 weeks

Study Design

Active Phase of Treatment:

- Individual Treatment:
  - 2x/ week sess, 3 months
  - 1x/ week sess, 3 months
- Group Treatment
  - 1x/ week group, 6 months

Booster Phase: 1 session a month for 3 months

Patient Flow

2206 patients screened

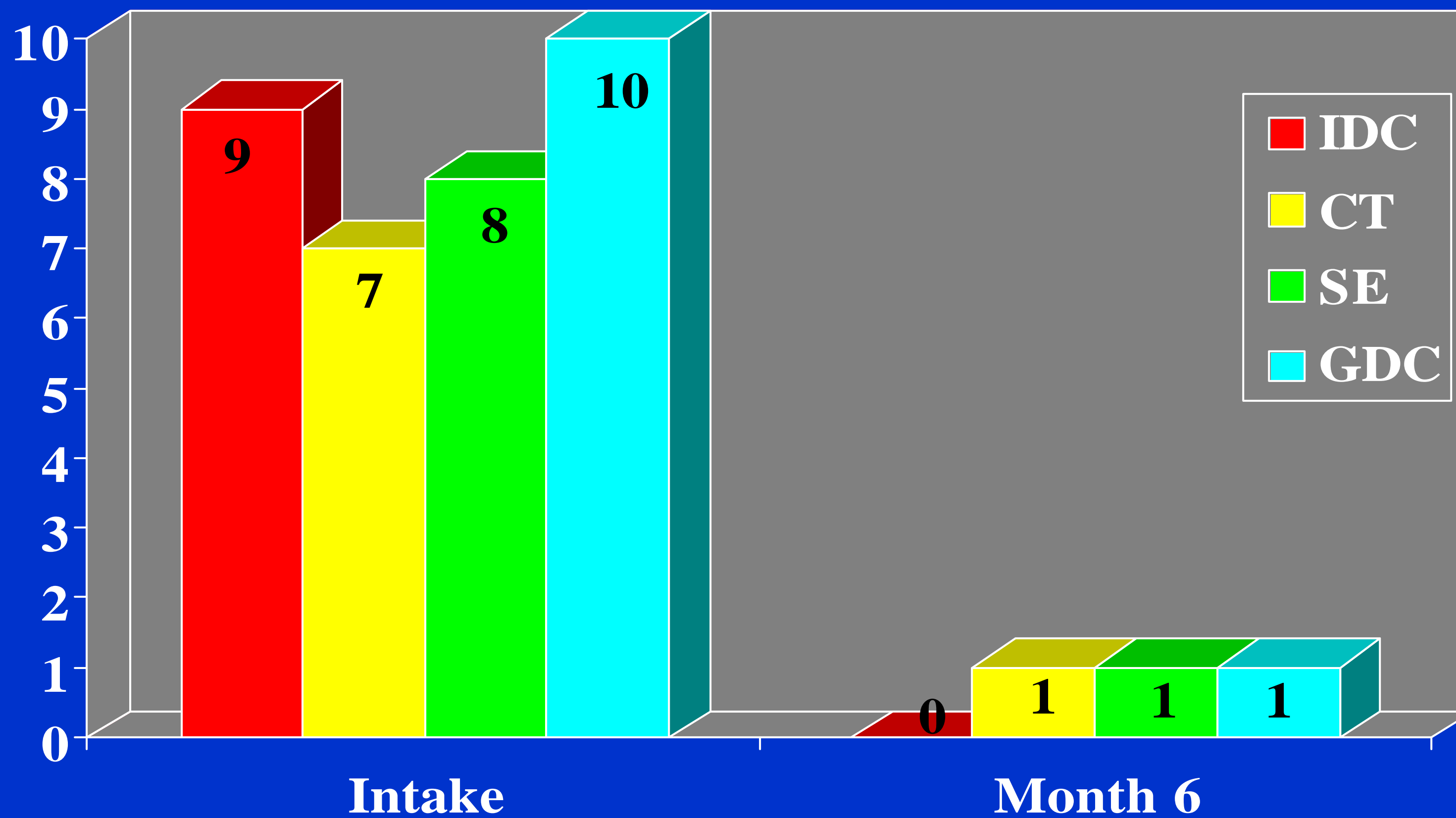
1784 (81%) eligible for intake

937 (52%) attended intake

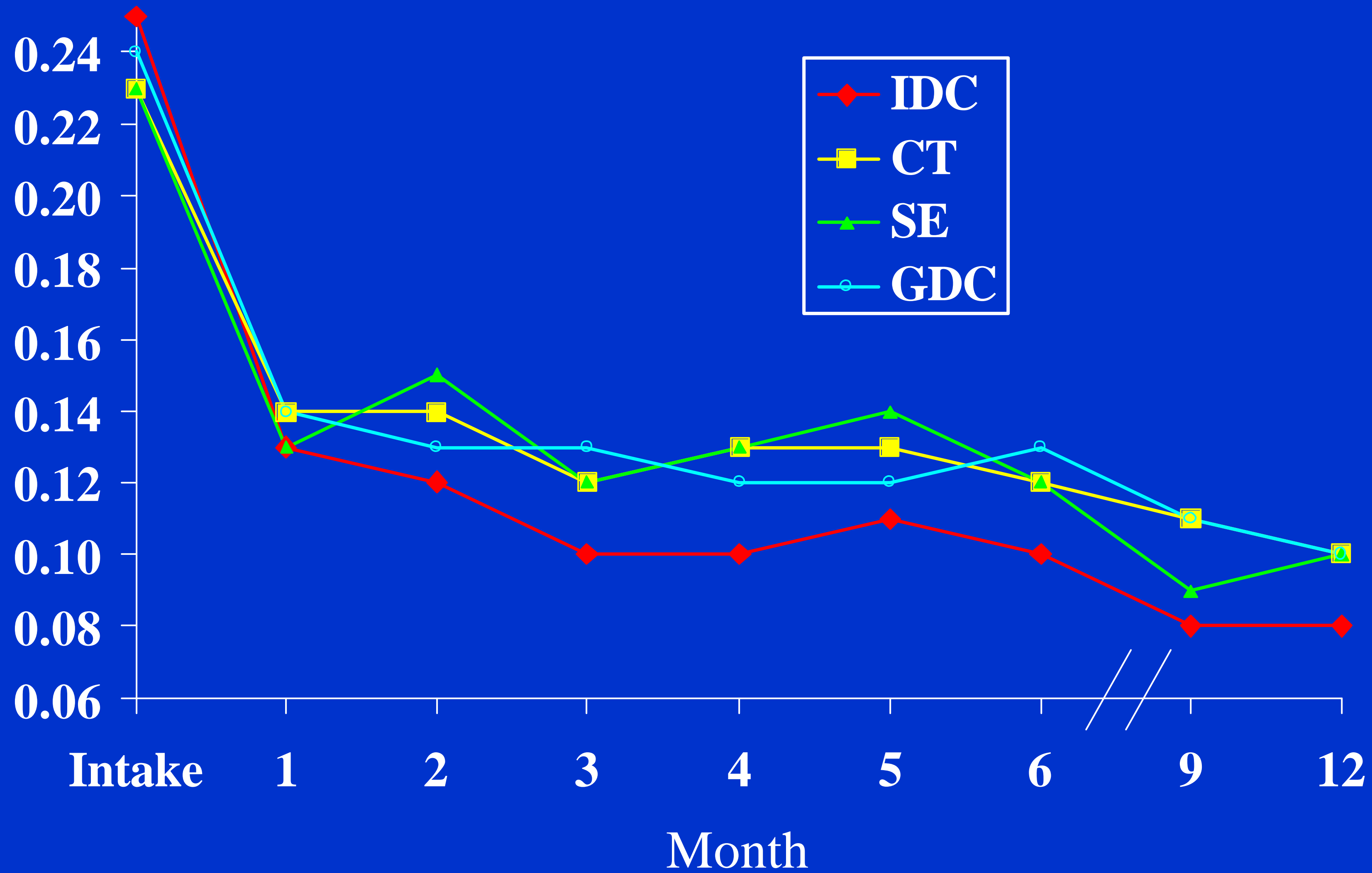
871 (93%) began orientation

487 (56%) randomized to treatment

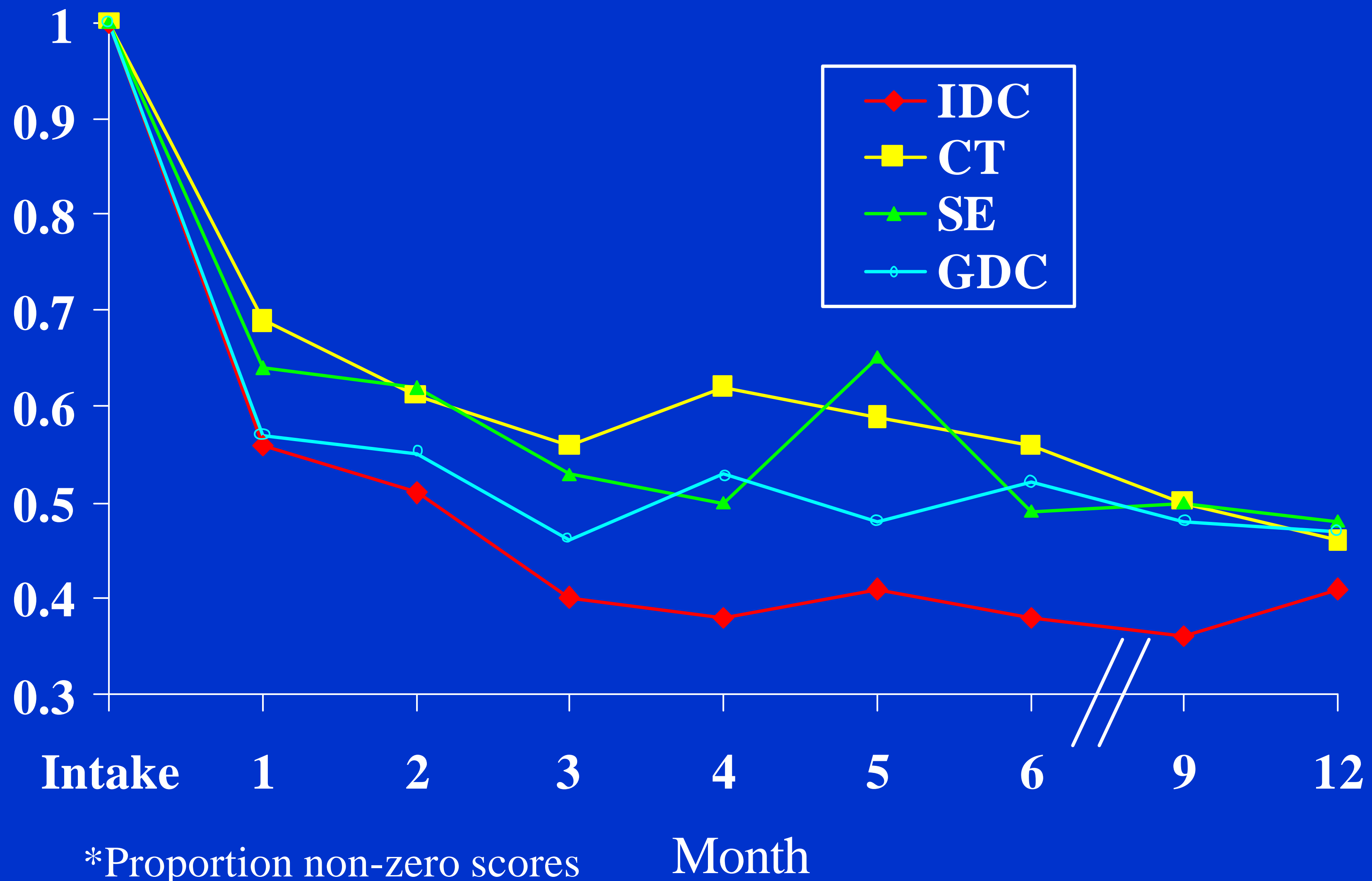
Median Days Used Cocaine in Past 30 by Treatment Condition



Mean ASI Drug Use Composite by Treatment Condition



Percent Using Cocaine (past 30 days) by Treatment Condition*



*Proportion non-zero scores

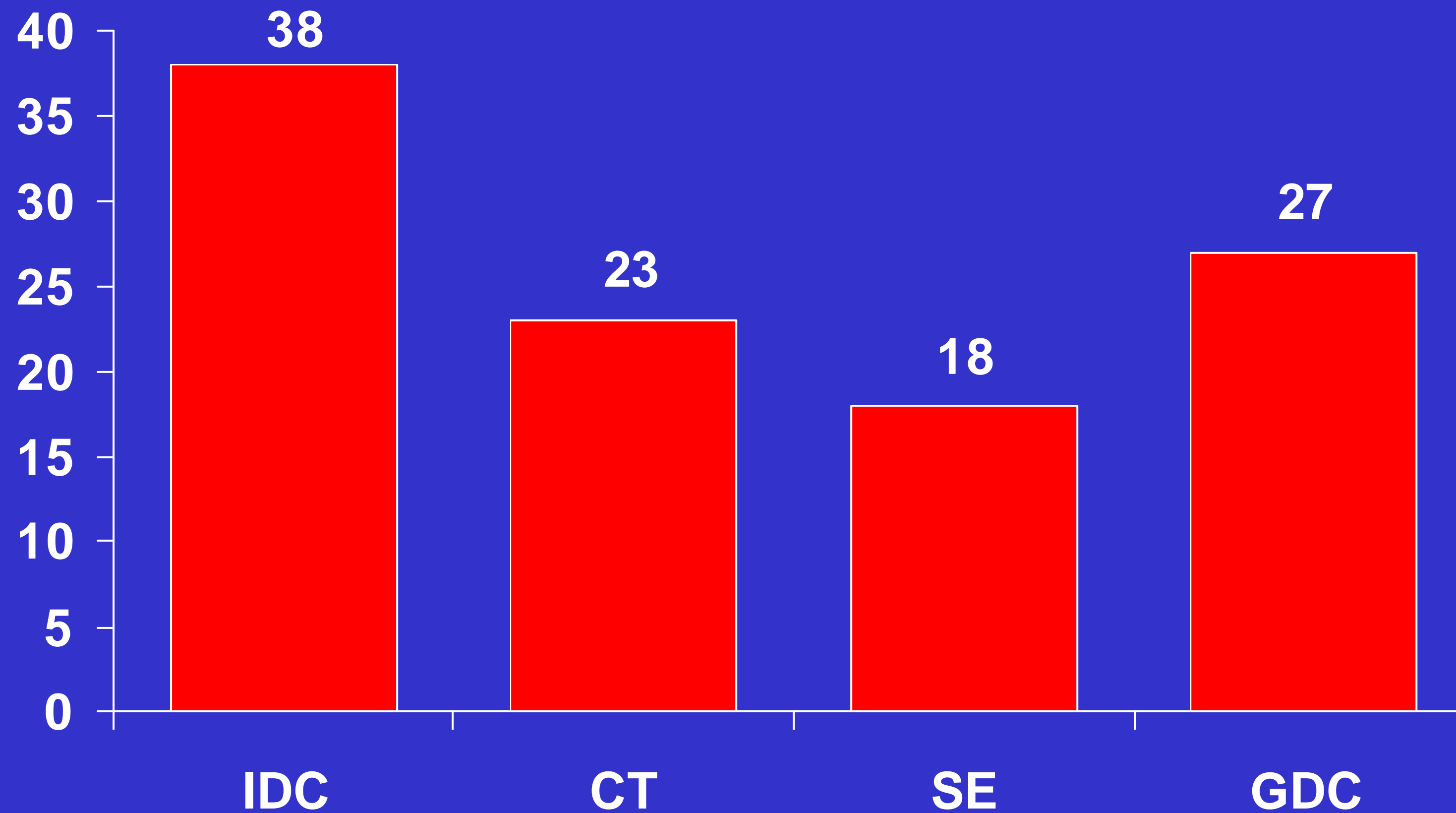
Longitudinal Analysis of Cocaine Used Last 30 Days

	p value
Overall treatment effect	**.025**
IDC vs. CT & SE	.002
IDC vs. GDC	.11
GDC vs. CT & SE	.20

*Bonferroni adjusted p value= .0167 (.05/3)

including covariates: site, intake drug and psych **sev** & CPI Soc

Percent of Patients Achieving Three Months Abstinence



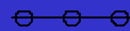
Patterns of change in Drug Use Outcome

Proportion who used

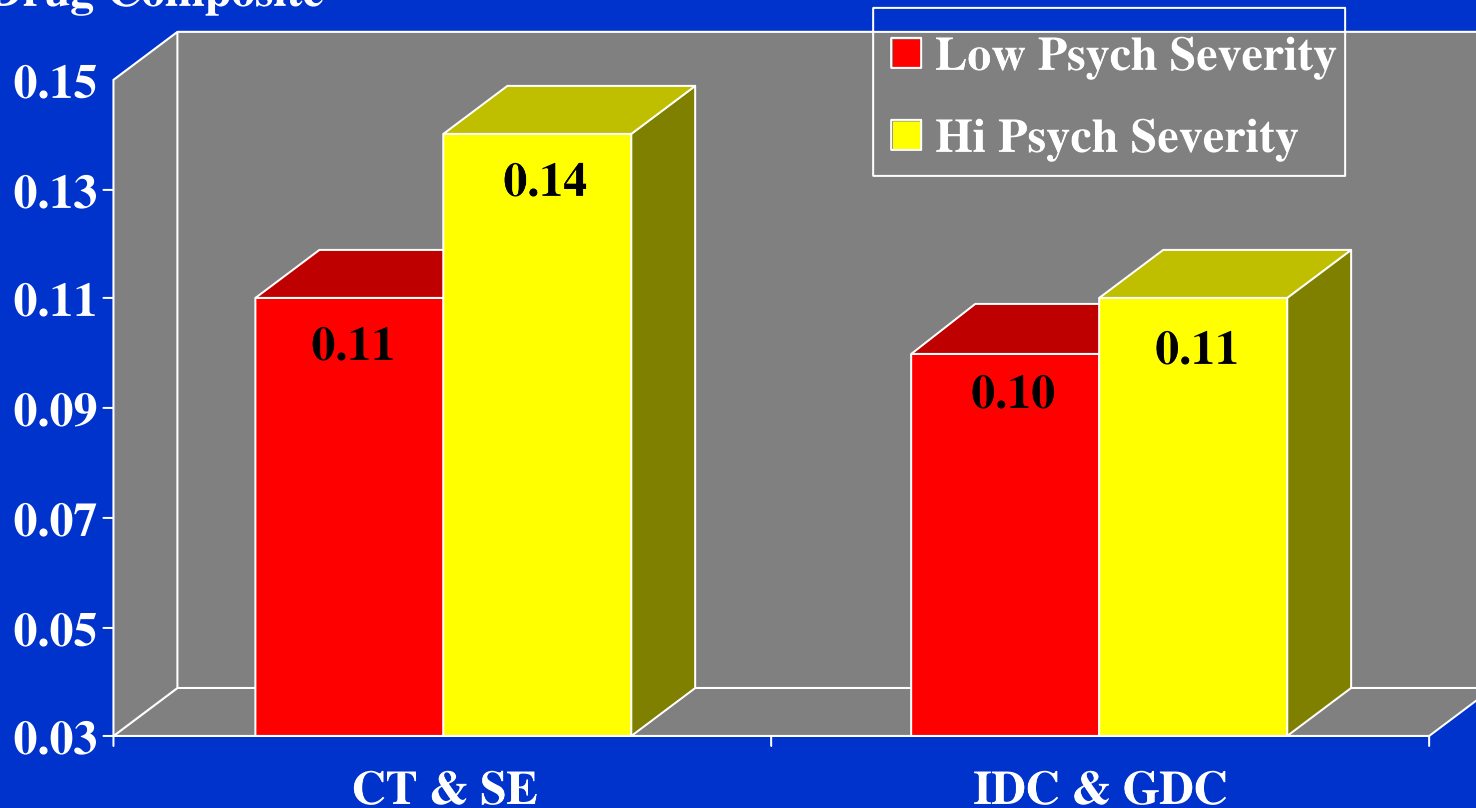
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.0

0 1 2 3 4 5 6

Month

Cluster Early Improvers  Steady Improvers Continued Users

Psychiatric Severity Interaction: ASI Drug Use Outcome by Treatment Condition



No therapist effects found

Helping Alliance high in all conditions

Attributable to extensive training and selection

Conclusions:

- Hypothesis concerning superiority of psychotherapies to group alone not confirmed
- Hypothesis regarding better outcome in psychotherapies for patients with more psychiatric severity not confirmed
- Hypothesis regarding better outcome in CT than SE for patients with an externalizing coping style/sociopathy not confirmed

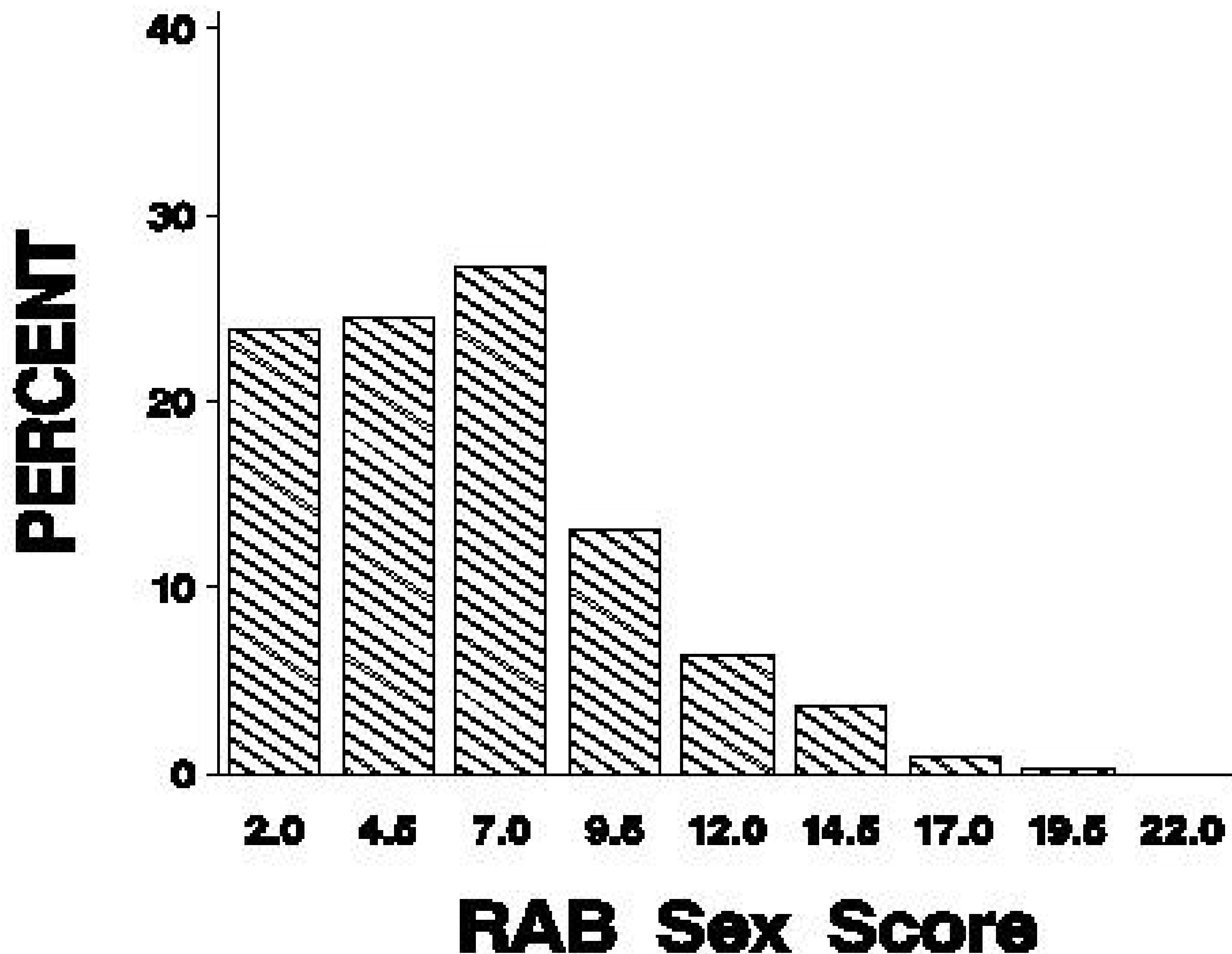
Unexpected Finding:

- Individual Drug Counseling consistently better outcome than psychotherapies

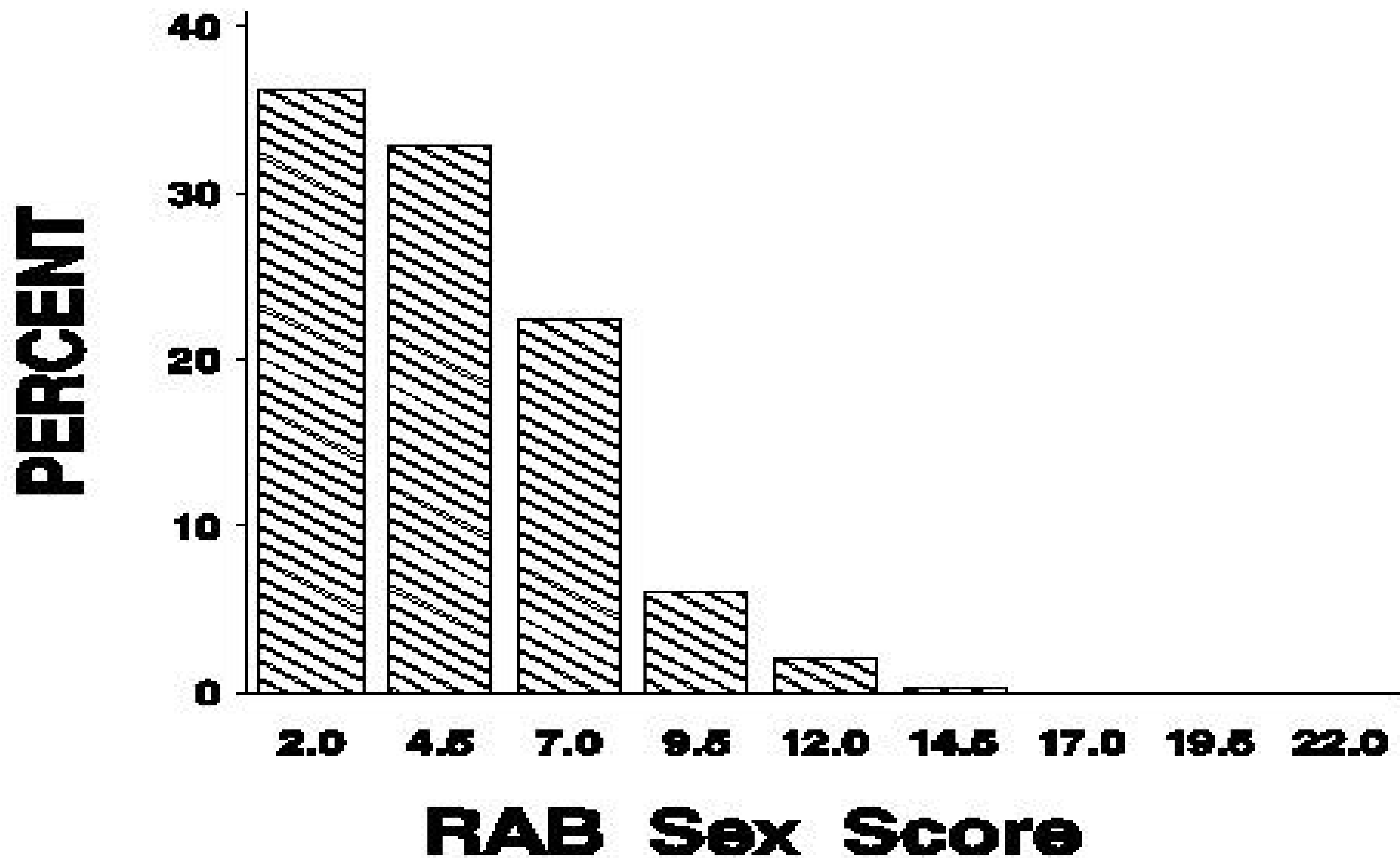
Reduction in cocaine use associated with an average 40% decrease in HIV risk

Seen across all treatment, gender and ethnic groups

Due to fewer sexual partners and less unprotected sex



Post Stab SEX Risk
PERCENT
40
30
20
10
0
2.0
4.5
7.0
9.5
12.0
14.5
17.0
19.5
22.0
RAB Sex Score


Month 6 SEX Risk
PERCENT
40
30
20
10
0
2.0
4.5
7.0
9.5
12.0
14.5
17.0
19.5
22.0
RAB Sex Score

Project MATCH

1726 patients: 10 sites

2 arms: inpatient & outpatient rehab

3 therapies: CB, TSF, MET

12 wks therapy

1 yr follow-up

Findings

60-80% reduction in:

- Percent days abstinent
- Drinks/drinking day

TSF = 40% abstinent in 90 days prior to 15 month FU

CBT & MET = 36-38% abstinent

Difference significant but not large

No interactions with psychiatric severity, ASPD, many others

Very similar to cocaine/psychorx study

MI Study; Carroll et al:

- Random assignment to MI or TAU at intake
- One MI interview
- 2-3 times increase in attendance at first therapy session

Un-Motivated Drug Users

- Booth et al. University of Denver
  - 4,000 IV Drug Users in 15 cities
  - Seeking HIV testing - Not Treatment
- Randomly assigned to:
  - HIV Testing Only
  - HIV Testing PLUS MET Counseling
- Six Month Follow-Up Results

Drug Injection at Six Months

- HIV Testing Only

45%

- HIV Test + MET

*20%

Abstinence at Six Months

- HIV Testing Only

11%

- HIV Test + MET

*42%

Arrest Rate at Six Months

• HIV Testing Only	• HIV Test + MET
24%	14%

CONCLUSIONS

Psychosocial treatments help

Effect size mild/moderate

Differences between therapies not large, when found

- Similar to psychorx studies for depression, anxiety, etc

Therapist effects can be significant

Can remove by training and selection

As “stand alone rx”:

IDC + GDC looks pretty good

MET/MI new and useful

HIV risk reduction with non methadone rx’s

Cocaine rx:

- ? in use, sexual partners & unprotected sex
- mm: ? in injecting & sharing

Psychiatric therapies help H.S. methadone pts.

- If combined with DC
- Suspension may suppress

Similar findings with antidepressant studies (Nunes; others)

Similar benefits for HS cocaine or alcohol patients if used with a highly effective medication?