

Dually Diagnosed Consumers

A Fine-Grained Analysis of Outcomes



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Initial Findings and Baseball

Rookie Years are not
always predictive of
career performance

Consider two careers

Joe DiMaggio

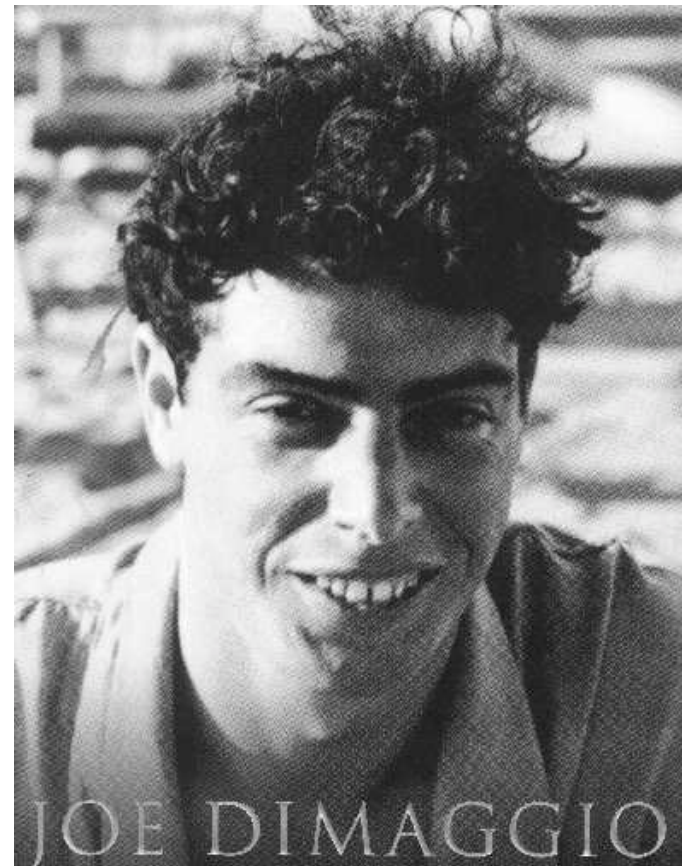
New York Yankees

1936

AVG: .323

HR: 29

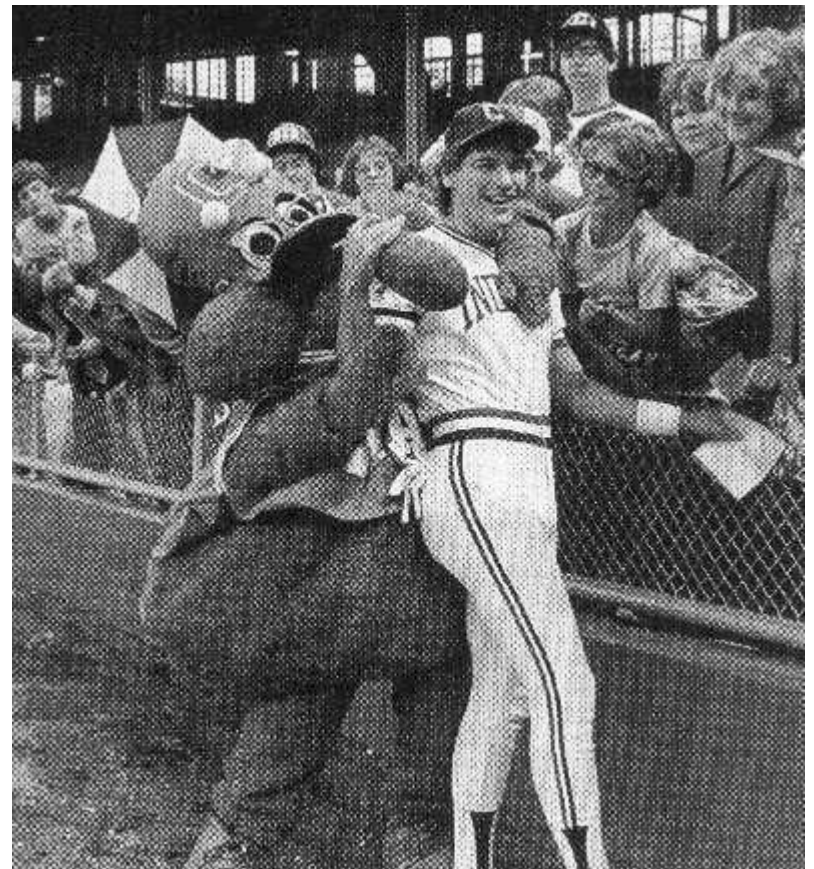
RBI: 125



Rookie Years: The Toast of Cleveland

- ***Joe Charboneau***
- ***Cleveland Indians***
 - ***1980***

- ***AVG: 289***
 - ***HR: 23***
 - ***RBI: 87***





DiMaggio vs. Charboneau

AL Rookies of the Year

1970 Thurman Munson
1971 Chris Chambliss
1972 Carlton Fisk
1973 Al Bumbry
1974 Mike Hargrove
1975 Fred Lynn
1976 Mark Fidrych
1977 Eddie Murray
1978 Lou Whitaker
1979 John Castino/Alfredo Griffin
1980 Joe Charboneau

■ DiMaggio:

■ “The Next Babe Ruth”

■ Rookie of the Year Awards don't begin for eleven more years

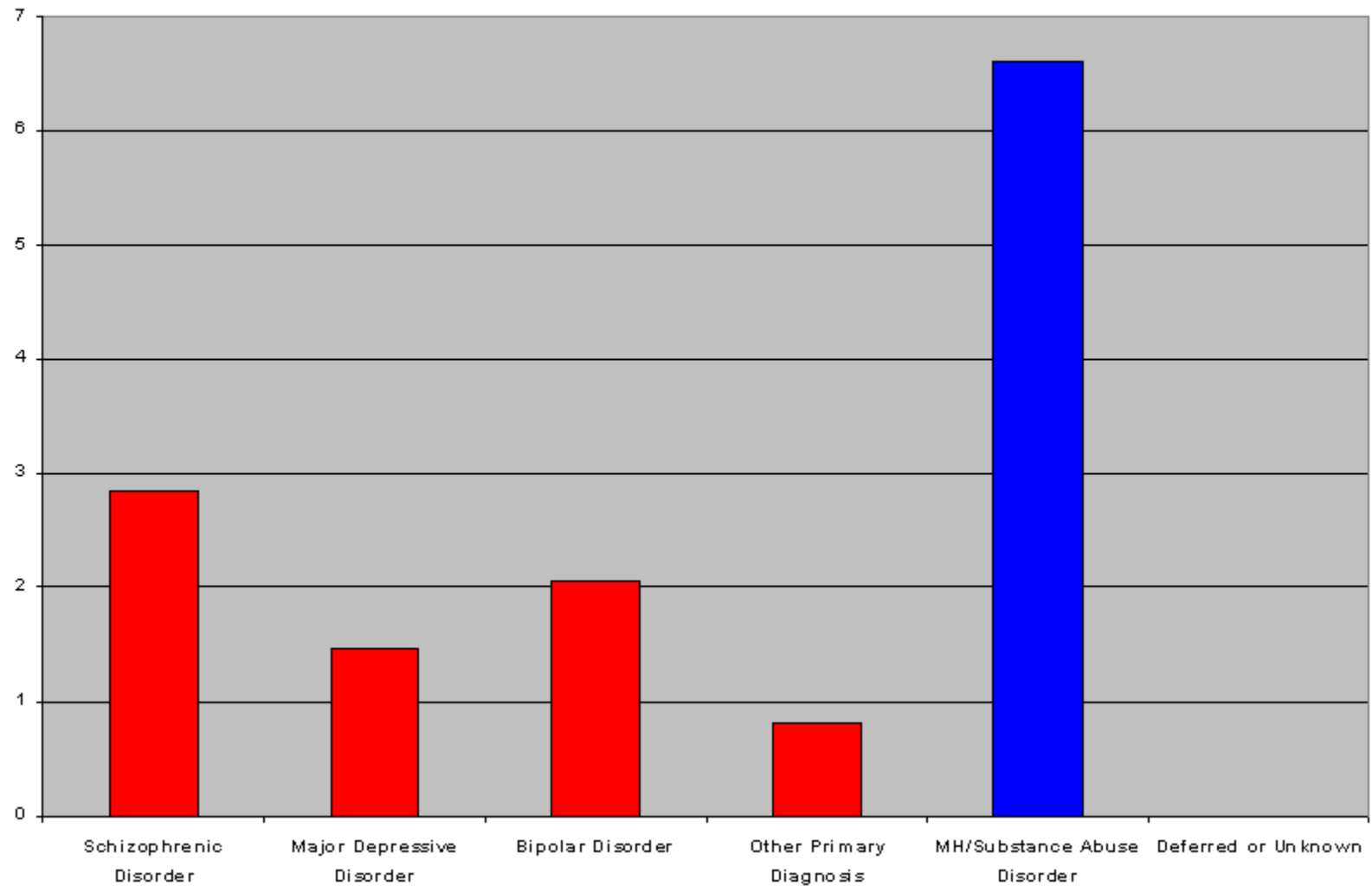


Persistent Puzzle

- Dually Disordered consumers:
 - Challenge us clinically
 - Force us to examine our values
 - Challenge us financially with demonstrated
 - higher service costs than other diagnostic groups
 - higher rates of intensive service utilization (hospital, jail and crisis services)

Example: Use of Crisis Services in April

Crisis Center Use/Month/100 Caseload





Evaluate Model Pilot for DD Treatment

■ Multi-level program: SAMHSA: “Exemplary Program”

– 3 components

- Assessment

- Case Coordination: Less Intense Services

- Specialized DD Treatment Groups

- MH Services from Mobile Mental Health Team

- Case Management: More Intense Services

- Admission Criteria:

- » Substance Dependence

- » Brief Psychiatric Rating Scale (BPRS) Total Score > 39

- » Global Assessment of Functioning Score < 40

- » Recent Active Substance Use (last 30 days)

- » Documentation of Mental Illness for ≥ 2 Years

- » A History of Failed Treatment



3 Phases of Intensive Treatment

■ Intense:

- Face-to face contact $\geq 1x/\text{week}$
- Phone contact 3x/week

■ Moderate

- Face-to-face contact $\geq 1x/2 \text{ weeks}$
- Phone contact 2x/week

■ Maintenance

- Face-to-face contact 1x/month
- Phone contact 1x/week.



Intensive Treatment Phase

- Focus on Relapse Prevention
- Medication Monitoring & Maintenance
- Assistance with Housing, Employment and other linkages
- Clinical judgment as to promotion to less intense phase of service



Current Evaluative Sample

- First 79 consumers to complete at least 6 months of case management treatment
- Retrospective study
- Opportunistic sampling:
 - employing routinely collected data elements from the mental health and substance abuse systems



Sample characteristics

- 46 of 79 Female (58%)
- Ethnicity
 - 38% African Americans
 - 4% Hispanics
 - 58% Whites
- Mean Age: 36.2 Years



MH Diagnoses

■ Schizophrenic Disorders	n=10	12.7%
■ Major Depressive Disorders	n=27	34.2%
■ Bipolar Disorders	n=22	27.8%
■ Other Disorders	n=15	19.0%
■ Substance Abuse Primary	n=2	2.5%
■ Deferred or Missing	n=3	3.8%
■ Total	N=79	100%



Primary Substance Abuse Diagnoses

■ Alcohol Dependence	22	26.5%
■ Amphetamine Dependence	1	1.2%
■ Cannabis Dependence	6	7.2%
■ Cocaine Dependence	38	45.8%
■ Inhalant Dependence	1	1.2%
■ Opioid Dependence	4	4.8%
■ Polysubstance Dependence	8	9.6%



Continuity of Care

- Mean time in public mental health system prior to program entry: 2.8 years
- Mean time in program at study date: 2.3 years
- 18 of the 79 had at least one break in treatment. 61 of 79 (77%) remained in treatment throughout.
- On average, consumers were active in treatment during 78% of days between case program opening and case program closure.



Outcomes: Public Hospitalizations

- Prior to entering the program, 1/3 of the participants had logged public psychiatric hospital stays.
- Maximum = 10 previous public admissions
- Mean across the 79 = .8 public hospitalizations



Annualized Hospital Rates: Two Indicators

■ Admissions:

– Number of Public Hospitalizations
/Years in Treatment

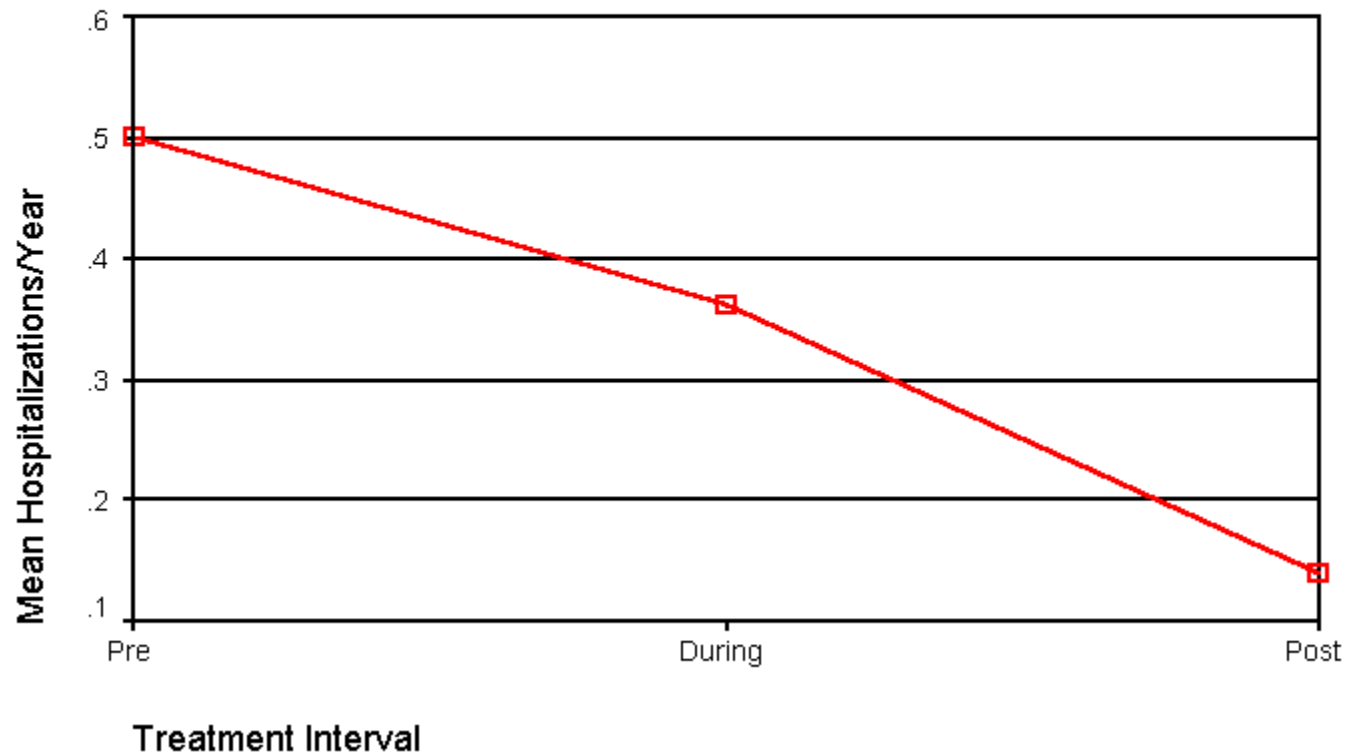
■ Length of Stay

– Number of Bed Days/Years in
Treatment

Outcome for Admission Rates: Significant Change

Annualized Public Hospital Admission Rate

n=54



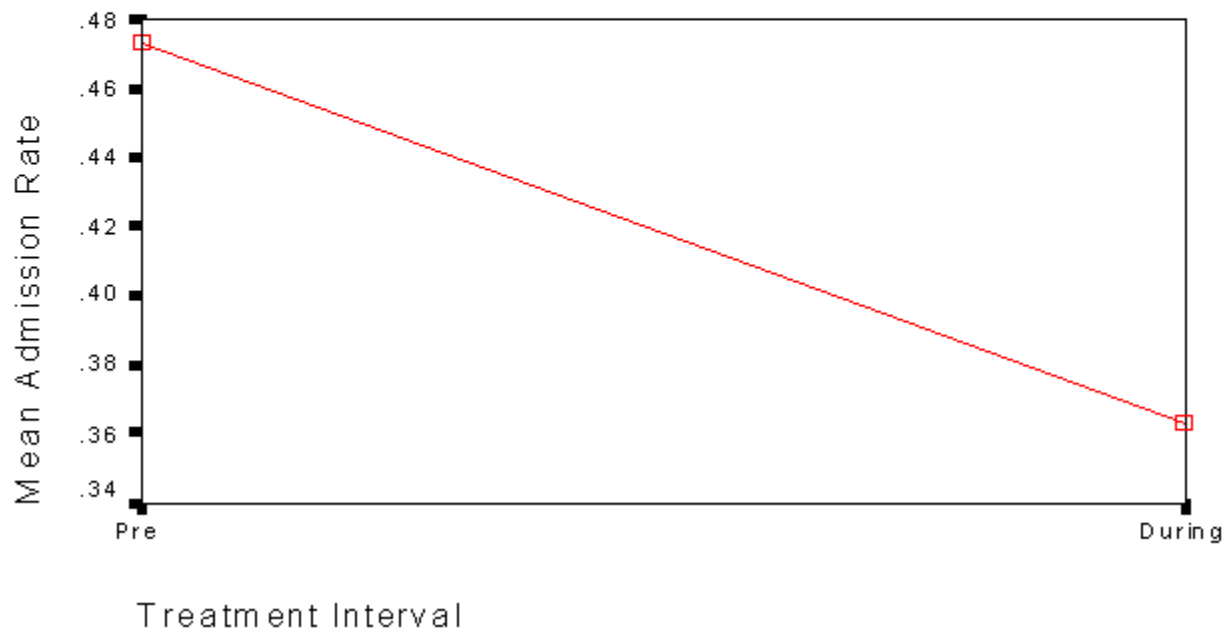
Outcome for Admission Rates:

No significance until post-treatment

Annualized Admission Rates

n=79

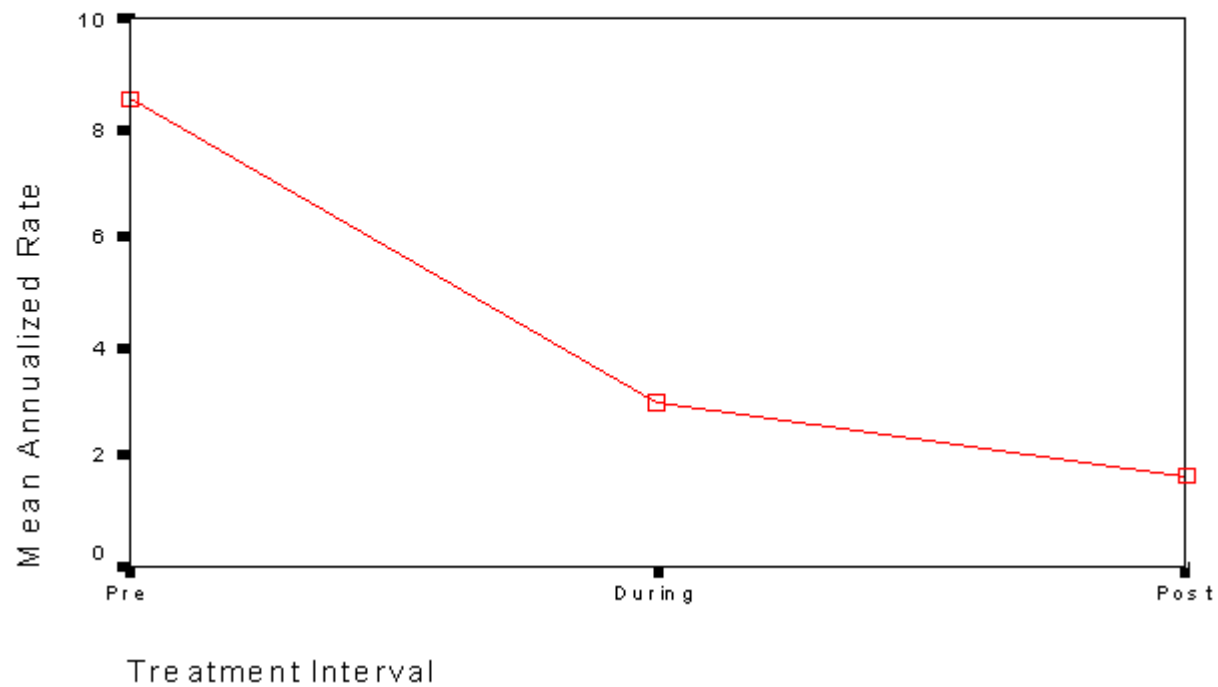
Pre-, During Only



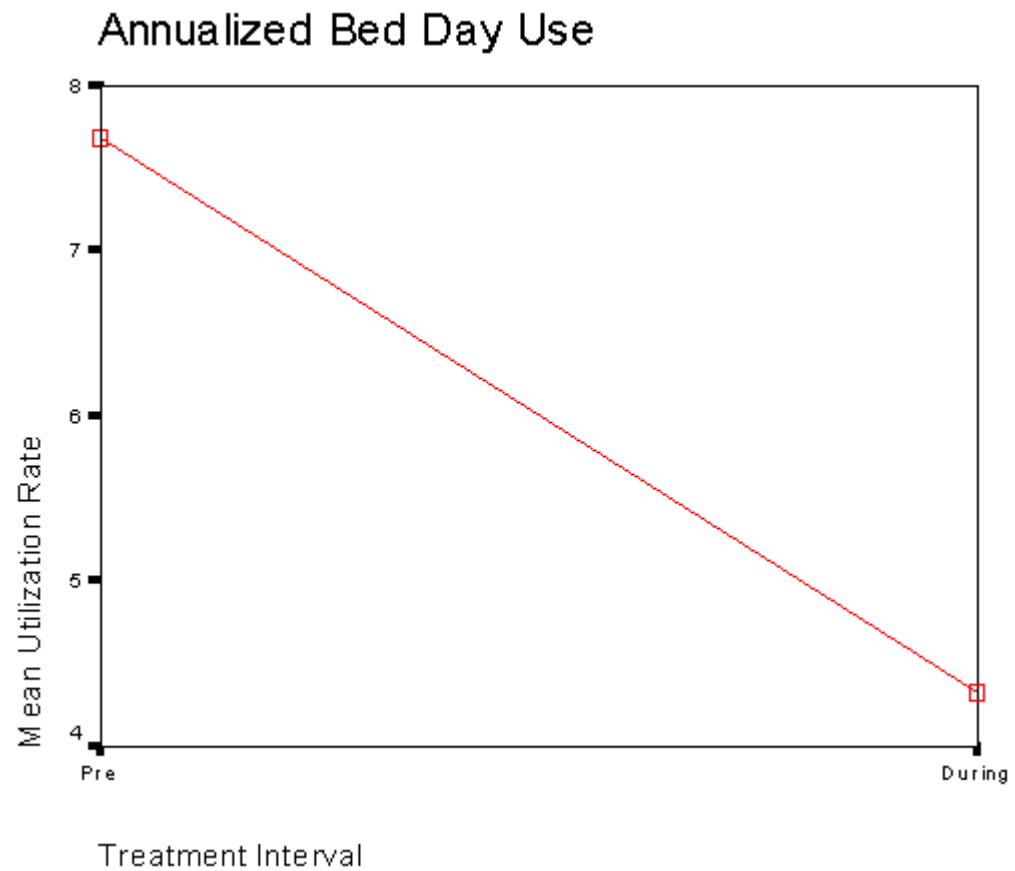
Bed Day Outcome: Marginal Positive ($p=.055$)

Annualized Bed Day Utilization

n=79



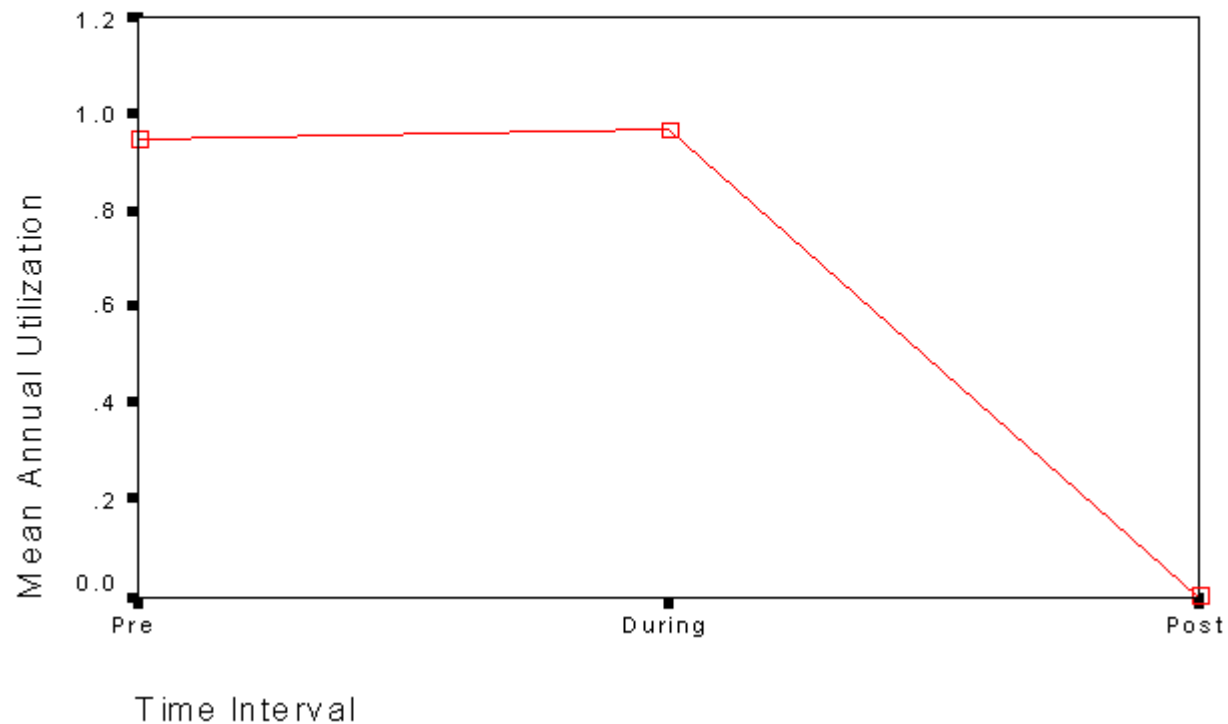
Near-term Outcome: **Non-significant**



Outcomes Crisis Center Utilization: **Significant Reduction Only After Treatment**

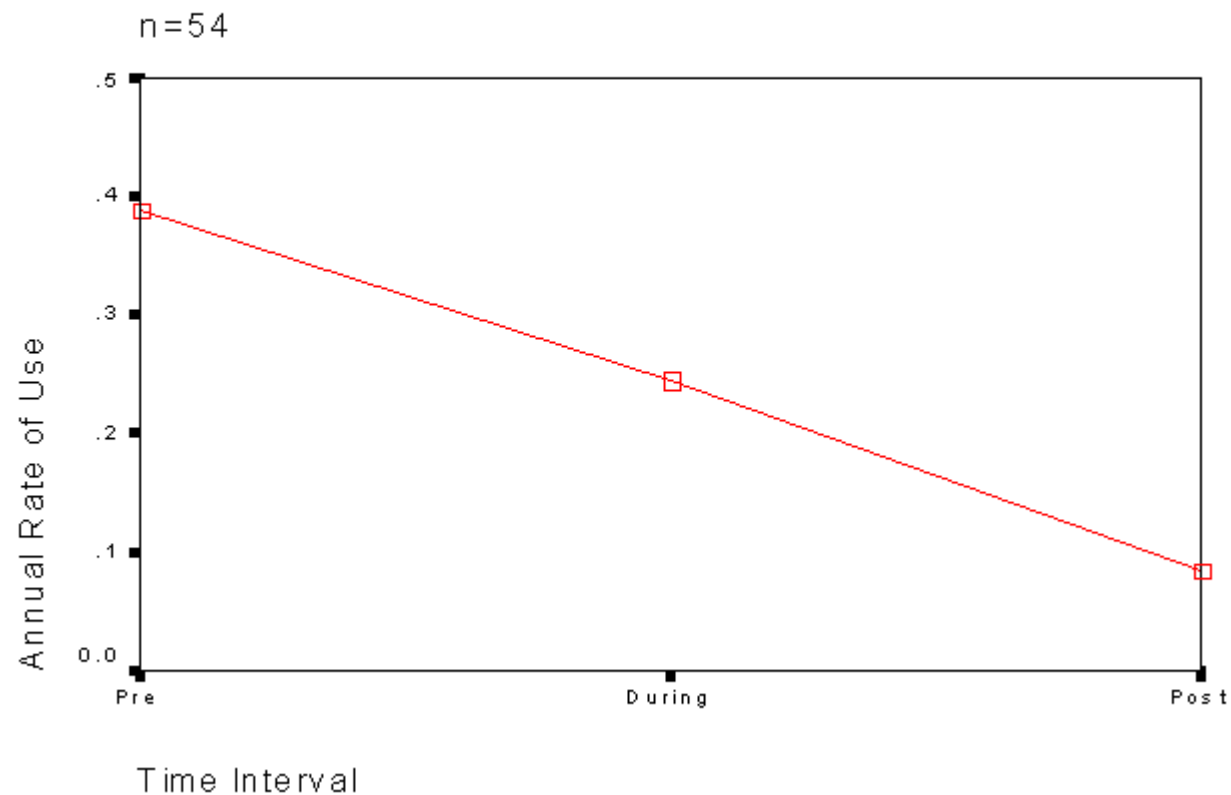
Annualized Crisis Center Utilization

n=79

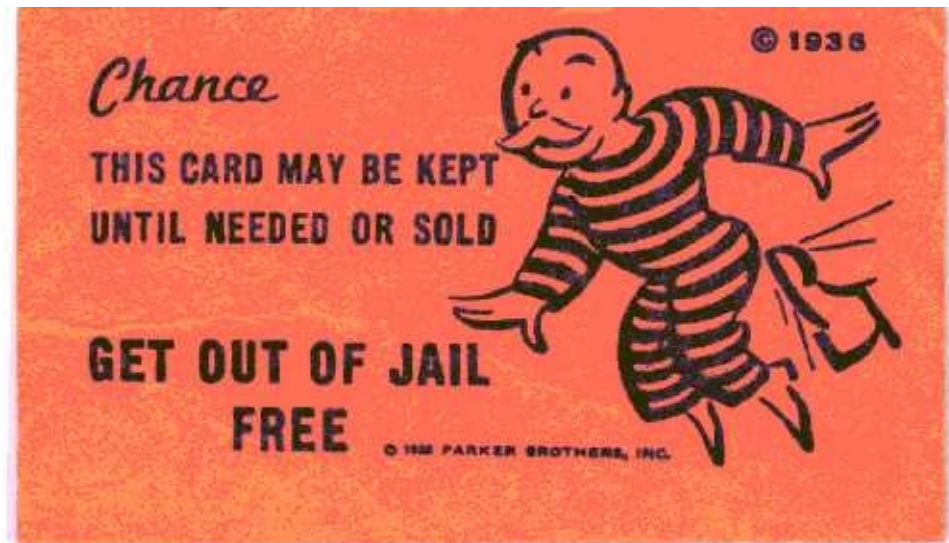


Jail Psychiatric Service Use: Significant Reduction in Admissions

Annualized Admissions: Jail Psychiatric Service



Jail Psychiatric Service Use: No Change in Jail Psychiatric Bed Day Use





Combined Cost Index

A single indicator of intensive service utilization for each consumer

Bed day cost x annualized bed day utilization rate

+

Jail psychiatric service bed day cost x annualized jail bed day rate

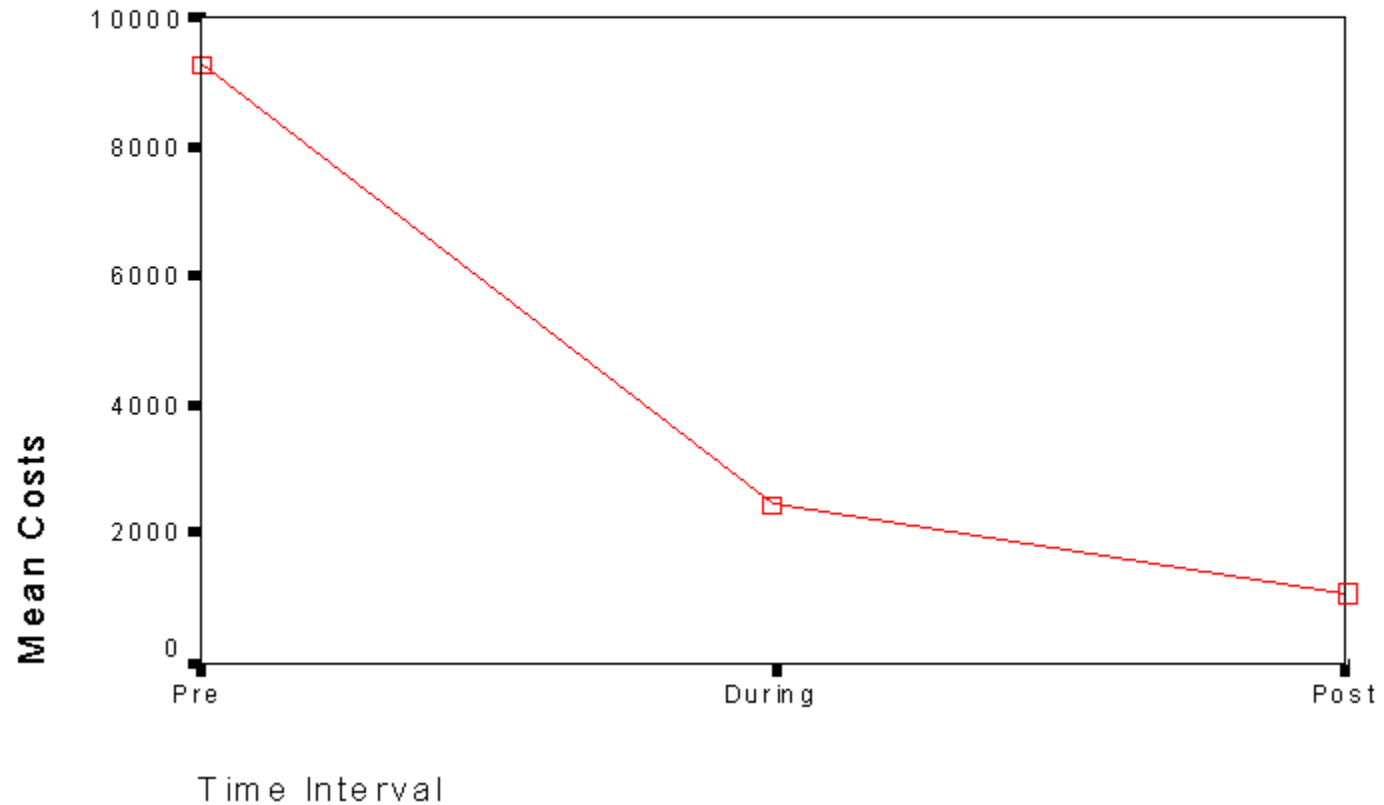
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Cost per crisis center visit x annualized crisis rate

Combined Intensive Services Outcome: Significantly Reduced Costs

Annualized Mean Intensive Service Cost

n=54





Cost Reduction

- Reduction \$6,800 per customer during treatment
- Reduction of \$8,200 per customer per year following treatment
- Annual program budget (\$374,000)/Annual number served (236)=Estimated cost per consumer per year (\$1,585)
- Caution: Outcomes for consumers in treatment \geq 180 days (~=60% to date)
- With this adjustment savings reduced by \$1,100/per consumer/year



Clinical Outcomes

Substance Abuse Treatment Scale

Instructions: *This scale is for assessing a person's stage of substance abuse treatment, not for determining diagnosis. The reporting interval is the last six months. If the person is in an institution, the reporting interval is the time period prior to institutionalization.*

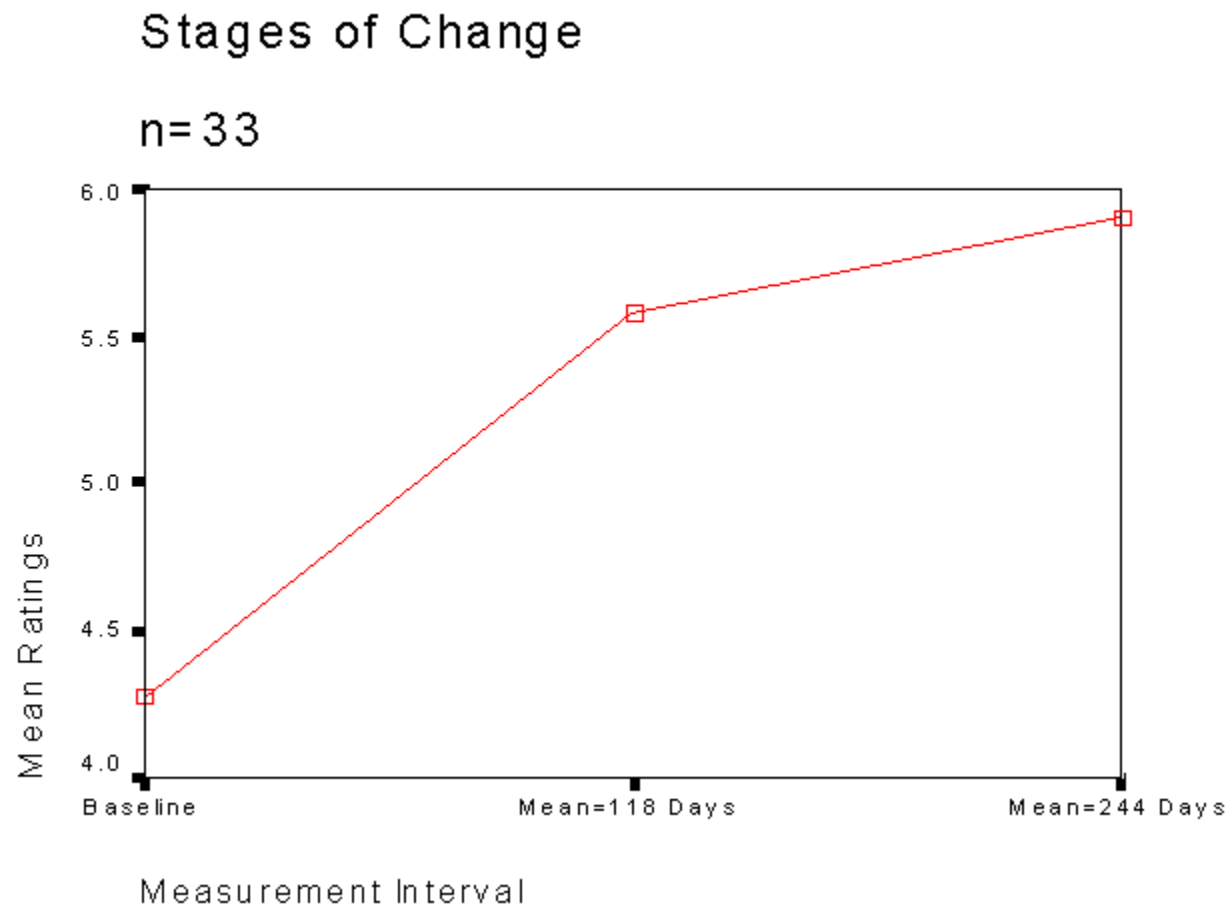
1. **Pre-engagement** The person (*not client*) does not have contact with a case manager, mental health counselor or substance abuse counselor.
2. **Engagement** The client has had contact with an assigned case manager or counselor but does not have regular contacts. The lack of regular contact implies lack of a working alliance.
3. **Early Persuasion** The client has regular contacts with a case manager or counselor but has not reduced substance use more than a month. Regular contacts imply a working alliance and a relationship in which substance abuse can be discussed.
4. **Late Persuasion** The client is engaged in a relationship with case manager or counselor, is discussing substance use or attending a group, and shows evidence of reduction in use for at least one month (*fewer drugs, smaller quantities, or both*). External controls (*e.g., Antabuse*) may be involved in reduction.
5. **Early Active Treatment** The client is engaged in treatment, is discussing substance use or attending a group, has reduced use for at least one month, and is working toward abstinence (*or controlled use without associated problems*) as a goal, even though he or she may still be abusing.
6. **Late Active Treatment** The person is engaged in treatment, has acknowledged that substance abuse is a problem, and has achieved abstinence (*or controlled use without associated problems*), but for less than six months.
7. **Relapse Prevention** The client is engaged in treatment, has acknowledged that substance abuse is a problem, and has achieved abstinence (*or controlled use without associated problems*) for at least six months. Occasional lapses, not days or problematic use, are allowed.
8. **In Remission or Recovery** The client has had **no** problems related to substance use for over one year and is no longer in any type of substance abuse treatment.



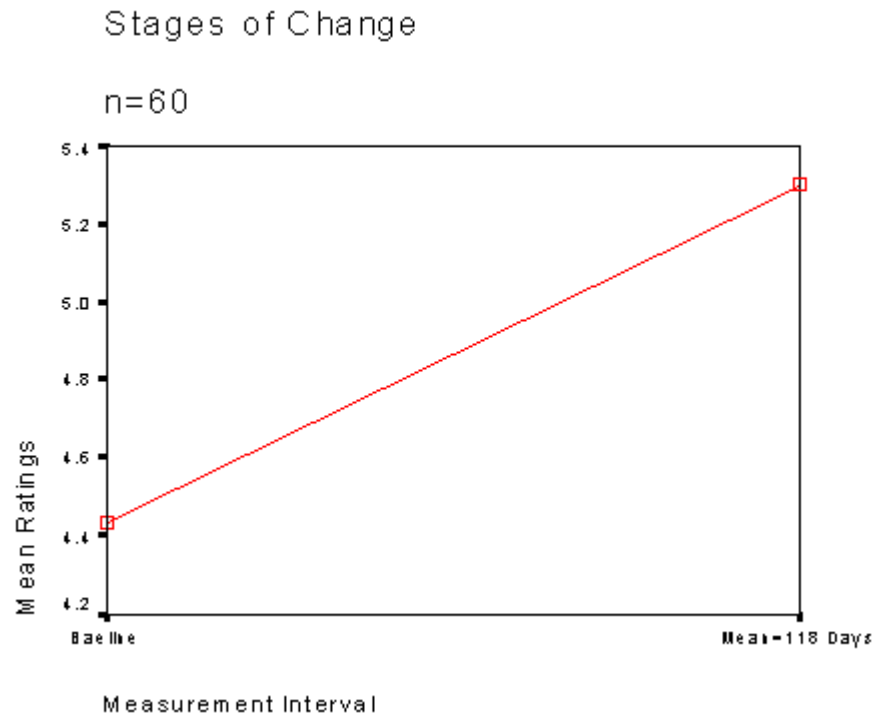
Substance Abuse Treatment Scale

- 4. Late Persuasion** The client is engaged in a relationship with case manager or counselor, is discussing substance use or attending a group, and shows evidence of reduction in use for at least one month (*fewer drugs, smaller quantities, or both*). External controls (*e.g., Antabuse*) may be involved in reduction.
- 5. Early Active Treatment** The client is engaged in treatment, is discussing substance use or attending a group, has reduced use for at least one month, and is working toward abstinence (*or controlled use without associated problems*) as a goal, even though he or she may still be abusing.
- 6. Late Active Treatment** The person is engaged in treatment, has acknowledged that substance abuse is a problem, and has achieved abstinence (*or controlled use without associated problems*), but for less than six months.

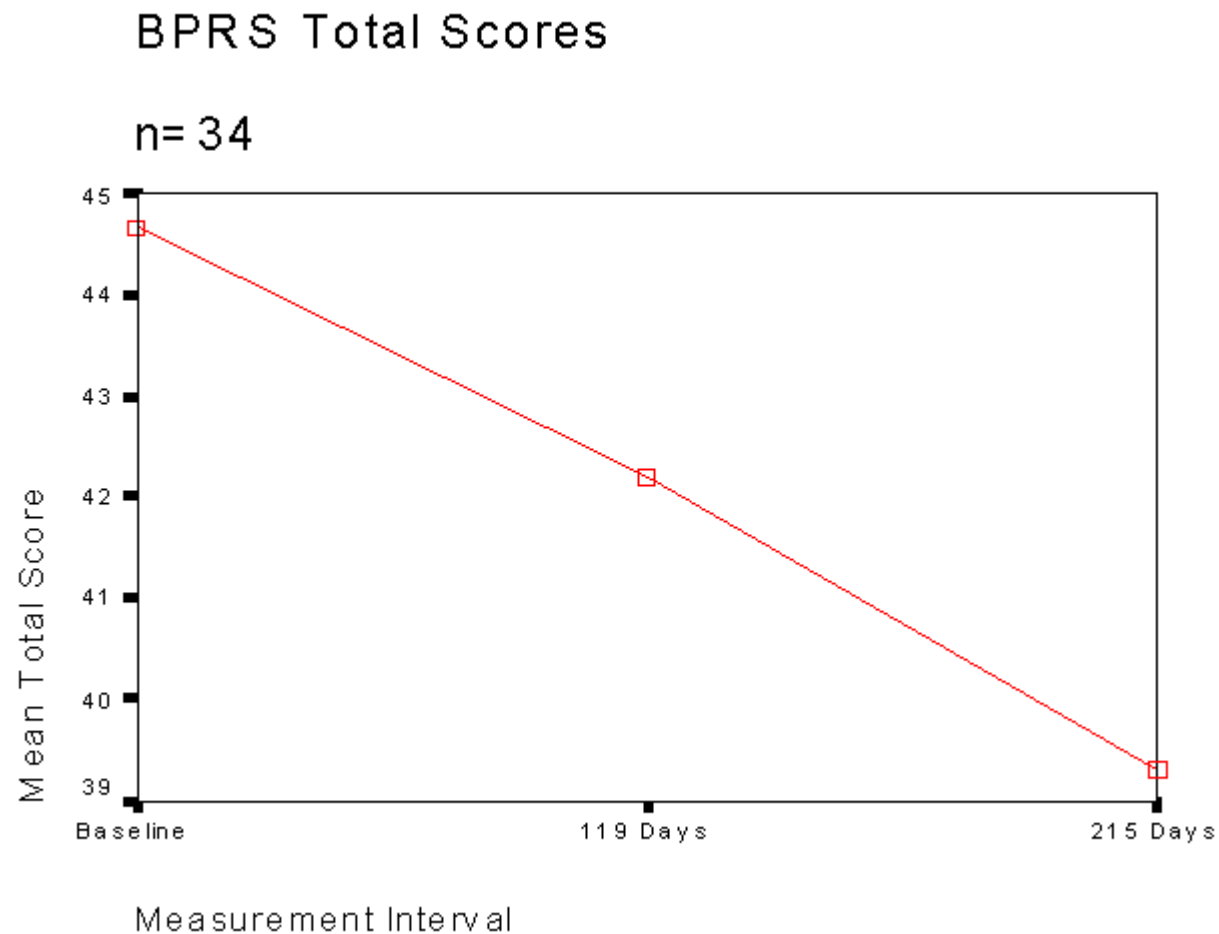
Clinical Outcomes - Substance Abuse: **Significant Improvement**



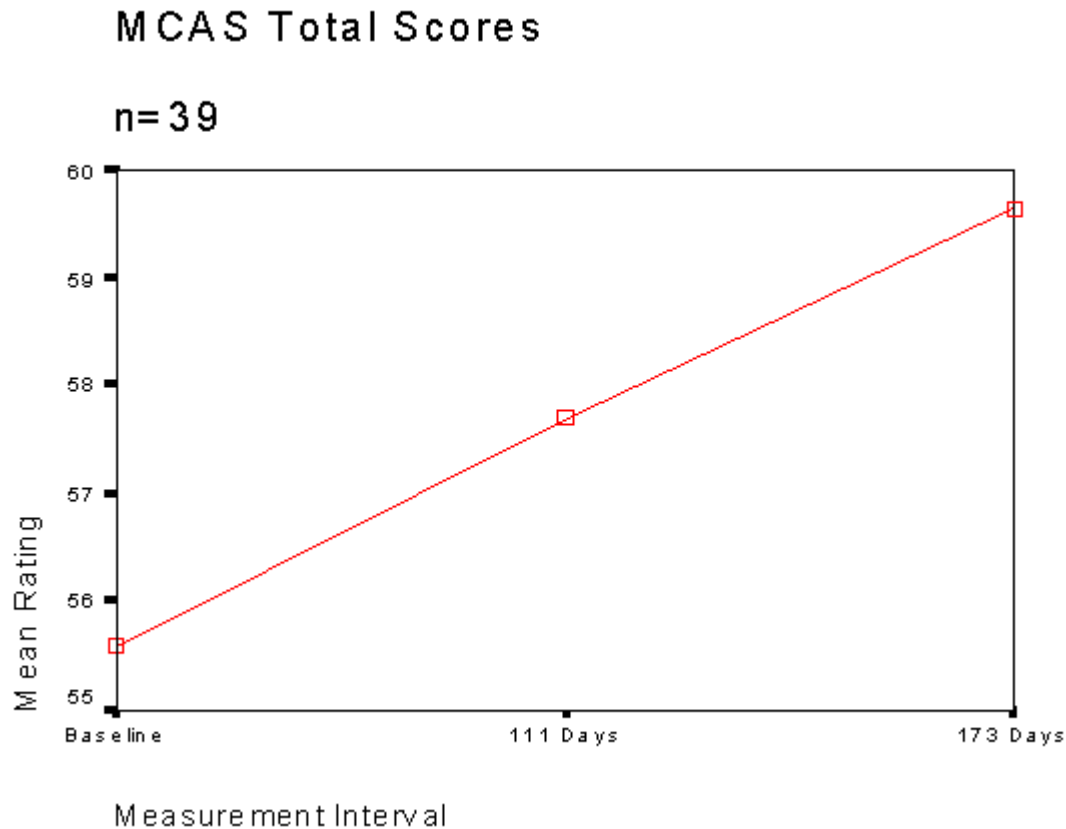
Stages of Change (SATS)- Significant Near-term Improvement



Symptom Severity: Significant Reduction



Functional Ability: Marginal Improvement ($p=.068$)

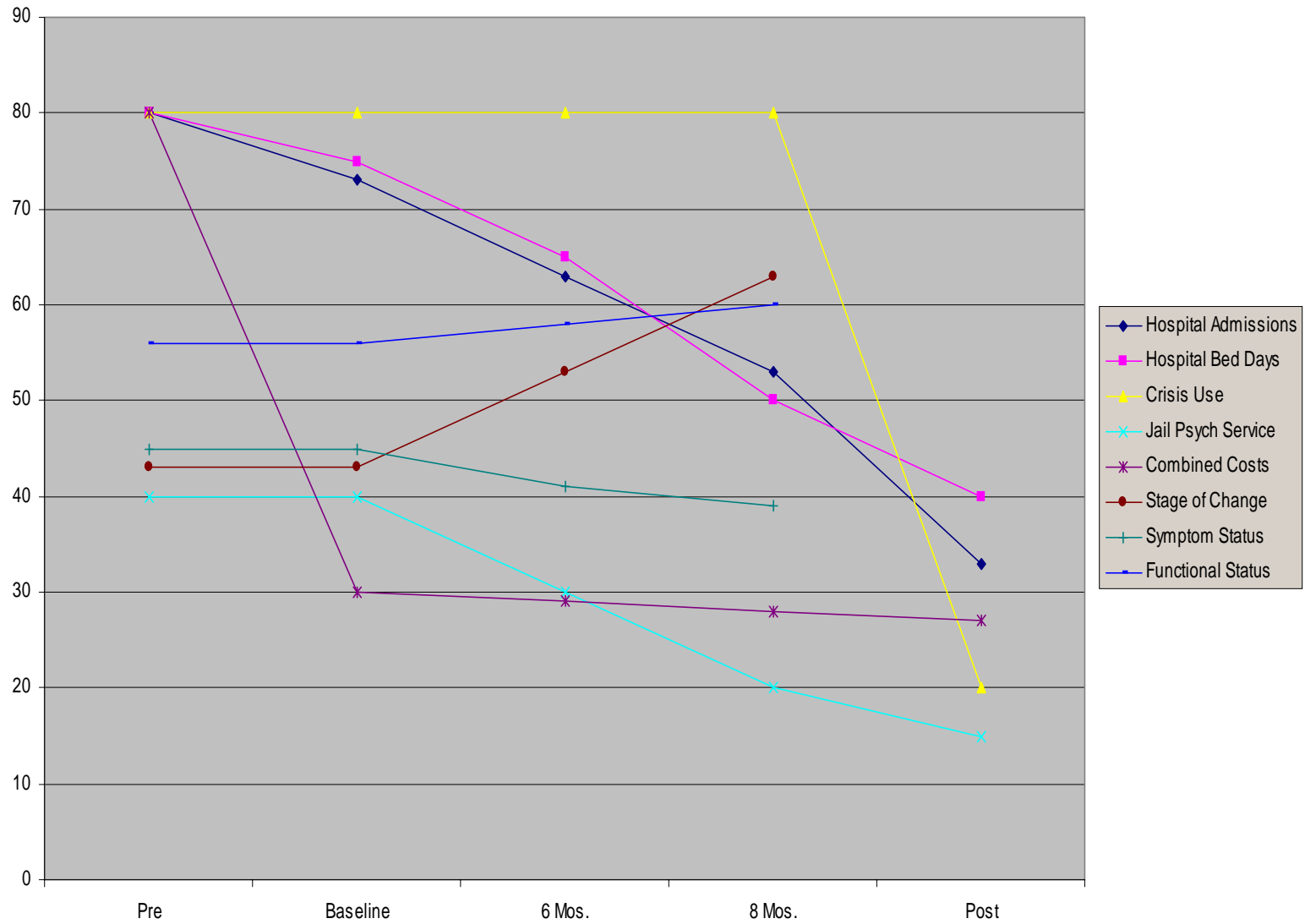




Small Sample: Trends

- Males were more impaired at admission and showed greater improvement
- The most severe cases (global severity ratings) also improved the most, though global severity ratings only changed slightly
- Persons with schizophrenia and bipolar disorder showed more improvement than those with major depressive disorders
- Amount of service (events, time) was not associated with more positive outcome
- Persons with primary alcohol or marijuana use or abuse disorders improved the most
- Two cases were observed to deteriorate:
 - Emphasizes need for admission criteria

The Whole (Tangled) Picture at Once





Time and Progress

- Need for long-term treatment
- Need for long-term evaluation approaches
- Outcome standards and expectations should be adjusted to type of outcome and time frame



Back to Baseball

■ DiMaggio

- ***Career Avg.: .325***
- 9 World Series Rings
- 56-Game Hitting Streak
- 13 Major League Seasons
- Hall of Fame
- Mr. Coffee
- Marilyn's Sweetheart

■ Charboneau

- ***Career Avg.: .266***
- One Full Major League Season
- Done in Less Than Three Years
- Still popular in Cleveland



DiMaggio or Charboneau?

- Clinically effective
- Financially feasible
- Long-term results yet to be observed