Opiate Use Disorder Patients: Characteristics and Outcomes from Residential Co-Occurring Disorder Treatment

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Objectives

1. Differentiate relevant characteristics within and between opiate use disorder patient presenting for treatment.
2. Understand the relevant data collection standards and evaluate the reliability and validity of data presented based on these standards.
3. Review the outcomes for opiate use disorder patients treated in private residential treatment for substance use and mental health disorders.
Opiate Use Prevalence

- 400% increase in prescription painkillers from 1999 to 2010 (National Center for Injury Prevention and Control, Division of Unintentional Injury Prevention, 2012).
- In 2011, prescription painkillers are the largest single category of illicit drug use other than marijuana (Substance Abuse and Mental Health Services Administration, 2012).
- The USA and Canada combined account for 6%, 22 tons, of the world’s heroin consumption in 2010 (United Nations Office on Drugs and Crime, 2010).
Opiate Use Prevalence

- In 2011, 4.5 million Americans over the age of 12 were current nonmedical users of painkillers and an additional 620,000 were past year users of heroin (Substance Abuse and Mental Health Services Administration, 2012).
- 1.8 million persons suffered from a pain reliever abuse or dependence in 2011 (Substance Abuse and Mental Health Services Administration, 2012).
- Opioid pain relievers accounted for 14,800 drug overdose deaths in 2008 (Centers for Disease Control and Prevention, 2011).
NIDA Statistics

- Roughly 21 to 29 percent of patients prescribed opioids for chronic pain misuse them.
- Between 8 and 12 percent develop an opioid use disorder.
- An estimated 4 to 6 percent who misuse prescription opioids transition to heroin.
- About 80 percent of people who use heroin first misused prescription opioids.

https://www.drugabuse.gov/drugs-abuse/opioids/opioid-crisis
Impact of Opiate Use

- Absenteeism among employees with opiate dependence is nearly **three times higher** than the average employee (Reutsch, 2010).
- Using a prescription opioid nonmedically predicted violence and some types of crime (Catalonoa et al., 2011)
- HIV and Hepatitis risk, as well as premature death, are associated with opiate abuse, even after cessation of use (Butler, 2010).
Costs of Opiate Use

• The societal costs of opioid abuse, dependence and misuse including health care consumption, lost productivity and criminal justice costs and were estimated at $\textbf{55.7 billion} (Birnbaum, 2011).
Gaps in Current Knowledge

• Research on opiate using population and treatment
  • Typically conducted in publicly funded treatment centers with populations from socio-economically depressed communities:
    • Over representation of individuals who are unemployed, have lower education attainment, high levels of trauma and violence, are homeless, and have criminal justice involvement
    • Motivation to change from outside source (eg, criminal justice population)
  • Focus tends to be on Medication Assisted Treatment (MAT) - methadone and buprenorphine
Research Locations

- Private / For profit
- Primarily Abstinence-based
- Individualized
- Dual Diagnosis treatment
  - Michael’s House – Palm Springs, CA
  - La Paloma – Memphis, TN
  - The Canyon – Malibu, CA
The FRN System of Care was developed using:

- Federal guidelines for dual diagnosis treatment in SAMHSA Publication TIP 42
- Dartmouth’s Dual Diagnosis Capability in Addiction Treatment (DDCAT) toolkit
- Evidence-based treatments such as the Stages of Change, Motivational Interviewing and Cognitive Behavioral Therapy
- Through our research, outcomes and patient-centered care process.

The core components of FRN’s System of Care are the organizational expression of our philosophy and guiding principles.
Core Components of FRN’s System of Care

**Standardized Program Elements** – Consistency within and between our programs provides stability for patients and staff, and it allows FRN to measure results. Standardization is implemented to support each treatment site fully while also allowing the site to develop its own identity and organizational culture within the framework of these core components.

**Patient-centered Care** – This involves recognizing the patient’s perspective and including the patient in the planning and process of care at all treatment levels, creating a consistent customer experience built around each individual’s expectations.

**Integrated Treatment** – The FRN System of Care merges separate clinical services to address the patient’s substance abuse issues, mental health conditions and other needs.

**Outcomes-informed Treatment** – FRN measures change in our patients’ behaviors and attitudes and allows those patient outcomes to inform decisions made at all levels of the organization. Our measurement processes meet or exceed federal standards, utilize psychometrically sound instruments, are verified by third parties and are overseen by an Institutional Review Board to guard patient rights and safety.
Core Program Components

- Guiding Principles
- Patient Centered Care
- Multi-Disciplinary Approach
- Documentation
- Levels of Care
- MI, DBT, CBT, Stages of Change
- Therapeutic Intervention Systems
- COD Education
- Medication Support

- Relapse Education
- Community (12 step, SMART, Refuge,...)
- Life Skills
- Exercise, Holistic, Adventure, Social Activities
- Family
- Continuum of Care
- Aftercare and Alumni

Standardization is implemented to support a consistent, reliable experience of excellence across sites, as well as to support each treatment site fully while also allowing the site to develop its own identity and organizational culture within the framework of these core components.
Outcome–Informed Treatment

Using data developed within the organization to shape decisions at all levels:

• Consumers
• Clinicians
• Management
• Policy Makers
Data collection standards

- Standards
- Reliability
- Validity
- Third Party Verification

**CHINESE WALL:**

“An insurmountable barrier, especially to the passage of information or communication”
Reliability

Reliability refers to consistency, factoring out as many variables as possible.

Exceeding benchmark standards for enrollment means that FRN does not exclude any patients: all patients who admit to treatment are offered the opportunity to enroll in the outcomes project.
Validity

**External validity** – can be generalized beyond the study population to the larger group.

Achieving a response rate that meets and exceeds SAMHSA guidelines means the results are more likely to reflect the experience of the entire population.
Verifying Results

- Independent third party review
- Peer reviewed articles
Research Process

• At intake all patients are offered the opportunity to participate in a research project to measure outcomes.
• All research reviewed by an Institutional Review Board.
• All research results independently verified by third party.
• All patients sign additional Informed Consent to participate in research
Research Population

• 1,972 patients entering treatment
  • Average length of stay 32 days
  • Average age 37.04 years (range 18-78)
  • Mostly males (59.3%) and Caucasian (89%)
• Follow up available for 75.8% (1,495 patients)
• 39.8% of all patients reported opiate use in 30 days prior to admission
Methodology

• Retrospective naturally occurring quasi-experimental design
• Measurement at Intake and 6 months post discharge

Instrumentation

• Addiction Severity Index
• University of Rhode Island Change Assessment
• Treatment Service Review
• 36-item Satisfaction Survey
Addiction Severity Index (ASI)

Measures problem severity in each of seven areas*:

- Alcohol Use
- Medical Health
- Employment/Self-Support
- Illegal Activity
- Drug Use
- Psychiatric Health
- Family Relations

Each question within a given problem area is given the same weight in calculation of the composite score. This scoring yields a score from 0-1 in each composite measure where 1 is highest level of severity**

URICA

- The University of Rhode Island Change Assessment (URICA) is a measure of readiness to change.
- 32 statements that subjects endorse on a five-point scale from strongly agree to strongly disagree.
- Yields scores on each of four scales; Precontemplation, Contemplation, Action, and Maintenance (Allen, 2003).
- Approximates four of the five stages of change described by DiClemente, Prochaska, & Norcross (1992).
- The Readiness to Change score was derived for this study in the same manner used in Project MATCH (Project MATCH Research Group, 1997, 1998) to yield an overall score.
Treatment Service Review

• Measures the types and frequencies of service
• Used in concert with the ASI to evaluate service usage before and after substance abuse treatment
• Covers a host of professional and peer support services (McLellan A. A., 1992).
• Participants recorded their service usage in all follow up interviews related to informal support group meetings, as well as professional medical, substance use, and mental health services.
# Patient Satisfaction

<table>
<thead>
<tr>
<th>Component 1 - Patient Dignity</th>
<th>Component 2 – Clinical Services</th>
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</thead>
<tbody>
<tr>
<td>Safety and privacy</td>
<td>Individual therapist</td>
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<tr>
<td>Level of respect with which I was treated</td>
<td>My therapist’s knowledge of dual diagnosis</td>
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<tr>
<td>Respect for my cultural or ethnic needs</td>
<td>Weekly sessions with my individual therapist</td>
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<tr>
<td>Professionalism of the staff</td>
<td>My involvement with my treatment plan</td>
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<td>Communication between staff and patients</td>
<td>Continuing care and relapse prevention</td>
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<td>Communication among staff</td>
<td>Opportunity for family participation plan</td>
</tr>
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<td>Usefulness of the resident handbook</td>
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<tr>
<td>Consistency of program rules and policies</td>
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<td>Fairness of house rules</td>
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<tr>
<th>Component 3 – Other Therapeutic Services</th>
<th>Component 4 – Program Schedule</th>
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<tbody>
<tr>
<td>Availability of medical staff appointments</td>
<td>Quality of program schedule</td>
</tr>
<tr>
<td>Availability of psychiatrist/nurse practitioner</td>
<td>Communication of changes to the schedule</td>
</tr>
<tr>
<td>Availability of staff in emergency/crisis</td>
<td>Availability of daily psychical activities</td>
</tr>
<tr>
<td>Psychiatric appointments meeting my needs</td>
<td>Weekend recreational activities</td>
</tr>
<tr>
<td>Quality of psycho-educational sessions</td>
<td>Amount of alone time</td>
</tr>
<tr>
<td>12 step meetings</td>
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<tr>
<th>Component 5 – Milieu</th>
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<tbody>
<tr>
<td>My initial impression of the facility</td>
</tr>
<tr>
<td>The intake assessment and process</td>
</tr>
<tr>
<td>Housing arrangements</td>
</tr>
<tr>
<td>Meals</td>
</tr>
<tr>
<td>Maintenance and cleanliness</td>
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<tr>
<td>The grounds</td>
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Opiate Use Mythology

- Unemployed
- Dependent on public resources
- Low levels of readiness
- “Different”
- Greater psych issues
- Treatment defiant
- Treatment resistant
- “Once a junkie...”
Gender (% female)

- Opiate Users
- Non-Opiate Users
Days Worked in past 30

Non-Opiate Users

Opiate Users
Average Age

Non-Opiate Users

Opiate Users
Alcohol and Drug Use

Alcohol use (days)

All drug use (days)

Opiate Users  Non-Opiate Users
Money from illegal activities

- Non-Opiate Users
- Opiate Users
Readiness for Change

Readiness for change levels measured at intake were nearly identical between both groups.
Baseline ASI scores

- Medical
- Employment
- Alcohol
- Drug
- Legal
- Family
- Psychiatric

- Opiate Users
- Non-Opiate Users
Treatment Completion Rates

Non-Opiate Users

Opiate Users
Treatment Retention

• Opiate users were 32% more likely to remain in treatment longer.
• The likelihood of treatment retention among clients with low ASI employment was 36% greater than clients with high ASI employment score.
• The ASI psychiatric composite score was significant in the final model: for one score increase, the likelihood of treatment retention increased by approximately 38%.
• Men were 14% more likely than women to remain in treatment.
ASI - % Change at 6 months
Substance Use Rates

![Graph showing substance use rates for different substances and groups, including Opiate Users Baseline, Opiate Users 6-Month, Non-Opiate Users Baseline, and Non-Opiate Users 6-Month.]
### Psych Results

<table>
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<tr>
<th></th>
<th>Opiate Users</th>
<th>Non-Opiate Users</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Baseline Mean (SD)</td>
<td>6-Month Mean (SD)</td>
</tr>
<tr>
<td>Psychological</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Depression(^1)</td>
<td>0.765 (.43)</td>
<td>0.328 (.47)</td>
</tr>
<tr>
<td>Anxiety(^1)</td>
<td>0.836 (.37)</td>
<td>0.491 (.50)</td>
</tr>
<tr>
<td>Cognitive(^a)(^1)</td>
<td>0.560 (.50)</td>
<td>0.258 (.44)</td>
</tr>
</tbody>
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\(^1\)Six-month post treatment measure significantly different from baseline measure for both groups

\(^a\)Cognitive refers to item indicating trouble understanding, concentrating, or remembering
Satisfaction Results

- Opiate users recorded higher satisfaction scores than non-opiate users on thirty of the thirty-six items.
- There were statistically significant differences in the following four items with **opiate users being more satisfied** than those individuals who did not use opiates on all four items:
  - my involvement in my treatment plan \((p \leq .028)\),
  - group therapy \((p \leq .050)\),
  - twelve-step meetings \((p \leq .017)\),
  - communication between staff and patients \((p \leq .035)\).
Post Treatment Service Use

• No significant differences in emergency room utilization or overnight stays in the hospital
• No significant differences in use of halfway or outpatient services at six months
• At 30 days post discharge, opiate users were more likely to participate in outpatient substance abuse programs and halfway housing.
• 12 step participation did not differ between groups.
Total pretreatment ER costs were estimated at $1,650,055, while post-treatment ER costs were estimated to be $601,599, a 64% reduction. Total costs associated with hospital admissions were reduced from $2,802,604 pretreatment to $929,040 post-treatment, a reduction of 67%.
Opiate Users by Age

Young (18-25 yrs)

- Resembles population discussed in literature.
- Motivation is external (e.g., legal involvement).
- Tendency toward OUTWARD displays of symptomology (e.g., violence, illegal activities).

Older (26+ yrs)

- Higher severity of medical and psychiatric issues
- less illegal substance use
- higher rate of depression
- suicide ideation.
- Concerned about relationships in life.
Opiate Use Mythology

• Unemployed
• Dependent on public resources
• Low levels of readiness
• Greater psych issues
• Treatment defiant
• Treatment resistant
• “Once a junkie...”
Results Suggest

• Abstinence-based residential treatment can be equally as effective for opiate users as it is for non-opiate using treatment populations.
Implications for Treatment

- ADDRESSING MEDICAL ISSUES

- DIFFERENT ISSUES BY AGE WITHIN OPIATE USER GROUP

- RECOGNIZING LOWER READINESS AND INTERVENING

- BREAKOUT GROUPS: OPIATES, ALCOHOL, WOMEN

- POSSIBLE OVER-MEDICATION RELATED TO EXPECTATION OF HIGHER ANXIETY - ASSESS
Implications for Treatment

- FOCUS ON AREAS THAT ARE WORKING SUCH AS THERAPEUTIC ALLIANCE

- INVOLVEMENT/PARTICIPATION SEEMS TO SIGNIFICANT TO OPIATE USERS

- OPIATE USERS POSSIBLY MORE WILLING TO PARTICIPATE IN EXTENDED CARE PROGRAMS
• For your dedication
• For your diligence
• For your time
• For your compassion