Assessing Predictors of Treatment Retention in a Community Outpatient Substance Abuse Clinic

Ryan Vandrey ¹, Maxine Stitzer ¹, Jeannie Fry ¹, Patricia Stabile ²
¹ Johns Hopkins School of Medicine, Baltimore, Maryland
² Harbel Prevention & Recovery Center, Baltimore, Maryland

BACKGROUND
Substance use disorders are a major health problem, and concentrated efforts are being made to improve access and effectiveness of treatment.

Positive treatment outcomes have been shown to improve as a function of treatment duration, however, many who enter treatment drop out early.

One approach to improving retention is to identify patient characteristics that predict treatment completion, and to provide more intensive or specialized treatment for those with poor prognosis for retention.

Demographic characteristics such as gender, ethnicity, and SES/employment status have not consistently been predictive of treatment retention in prior research.

Drug use severity at intake and early engagement in treatment have more consistently predicted treatment success (longer retention and/or reduced drug use).

The limitation of this prior research is that it has largely been restricted to the study of select populations (e.g. methadone patients, stimulant abusers) enrolled in trials at academic research clinics. Thus, the generality of these findings is uncertain.

AIM
We sought to identify demographic and behavioral predictors of 90-day treatment retention in clients enrolled in treatment at an outpatient community drug treatment center.

CLINIC
The site of the research was the Harbel Prevention & Recovery Center (Harbel) located in Baltimore, MD, a drug-free (no methadone or other pharmacotherapies provided), outpatient clinic with 4 full-time and 6 part-time counselors.

Harbel carries an adult census of about 125 clients, and clients have variable drug use histories and referral sources.

The clinic employs a psychosocial treatment plan that consists of regularly scheduled individual and group counseling sessions.

METHODS
A sample of 200 consecutively enrolled clients was selected for this study. Of those, 184 attended at least one appointment following intake assessment and are included in study analyses.

Independent variables included: age, gender, ethnicity, treatment referral source, drug(s) of abuse, current poly-drug use status, result of first urine drug screen, counselor assignment, early treatment engagement (number of counseling sessions attending during first month of treatment).

A Forward Stepwise Logistic Regression analysis was conducted to identify independent variables that predicted retention for at least 90-days (dichotomous variable).

SAMPLE DEMOGRAPHICS
Age: 35 +/- 11 years (mean +/- SD)
Gender: 76% Male
24% Female
Ethnicity: 76% African American
20% Caucasian
4% Other
Referral: 71% Criminal Justice
29% Other (self, family, etc.)
Drug Use: 61% Alcohol, Marijuana, or Both
39% Cocaine, Opiates, Other Drug/Combo
59% Poly-Drug Users
28% Drugs + Domestic Violence

RESULTS
Variables Entered in the Regression Equation

<table>
<thead>
<tr>
<th>Variables Entered in the Regression Equation</th>
<th>Bet</th>
<th>SE</th>
<th>Wald</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st Urine Drug Test</td>
<td>0.71</td>
<td>0.43</td>
<td>4.29</td>
<td>1</td>
<td>0.03</td>
</tr>
<tr>
<td>Total Wks 14</td>
<td>0.73</td>
<td>0.23</td>
<td>8.54</td>
<td>1</td>
<td>0.003</td>
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<tr>
<td>1st Urine Drug Test</td>
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<td>0.45</td>
<td>7.27</td>
<td>1</td>
<td>0.007</td>
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<tr>
<td>First UA(1)</td>
<td>2.26</td>
<td>0.25</td>
<td>23.06</td>
<td>1</td>
<td>1.455</td>
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</table>

Therapy Sessions Attended in 1st 4 Weeks

<table>
<thead>
<tr>
<th>Therapy Sessions Attended in 1st 4 Weeks</th>
<th>% Retained for 90 Days</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-2</td>
<td>100%</td>
</tr>
<tr>
<td>2-3</td>
<td>92%</td>
</tr>
<tr>
<td>3-4</td>
<td>80%</td>
</tr>
<tr>
<td>4-6</td>
<td>70%</td>
</tr>
<tr>
<td>&gt;6</td>
<td>60%</td>
</tr>
</tbody>
</table>

1st Urine Drug Test

<table>
<thead>
<tr>
<th>1st Urine Drug Test</th>
<th>% Retained for 90 Days</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive</td>
<td>100%</td>
</tr>
<tr>
<td>Negative</td>
<td>92%</td>
</tr>
</tbody>
</table>

SUMMARY/DISCUSSION
Significant predictors of retention identified were:

1) The result of first urine toxicology test (conducted at the time of first therapy session). Step 1 Wald statistic = 19.184; p < .001.

2) Early engagement in treatment (group and individual counseling sessions attended in first 4 weeks of treatment). Step 2 Wald statistic = 11.265; p < .001.

Replicates and extends prior studies in which early negative urine samples predicted positive treatment outcome in stimulant, opiate, or cannabis users.

Replicates some studies in which typical demographic variables do not predict treatment outcomes.

Drug testing early in treatment may help identifying clients who require more intensive treatment interventions.

- Use of abstinence-based incentives (CM)
- Evidence-based motivational interviewing
- More frequent contact/counseling

Modification of clinic services to help improve early client engagement in counseling services may help improve client outcomes.

- Conduct first counseling session as soon as possible after intake
- Use of appointment reminders (written, verbal, phone, text, e-mail) prior to scheduled sessions/groups
- Provide incentives for attendance (snacks, certificate/recognition among peers, small prizes).

ACKNOWLEDGEMENTS
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Contact: E-mail: rvandrey@jhmi.edu
Phone: 410-550-4036