Assisted Outpatient Treatment: Can it Reduce Criminal Justice Involvement of Persons with Severe Mental Illness?

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Questions

• Can Assisted Outpatient Treatment (AOT)* be effective?
  – Under what conditions?
  – Can it reduce arrests and criminal justice involvement?
  – Is it fair?

• Is AOT cost effective?

*AOT also refers to involuntary outpatient commitment (OPC)
Assisted Outpatient Treatment (AOT)

- What is it?
  - Procedure whereby a judge directs a patient with a history of treatment non-adherence to comply with a court-authorized treatment plan
- Permitted in all but a few states
- Explicitly permitted by 44 states and the District of Columbia
- Despite statutory support, used inconsistently
VARIANTS OF AOT

- Conditional release for involuntarily hospitalized patients
- Alternative to hospitalization for patients who meet inpatient commitment criteria
- Alternative status for patients who do not meet inpatient criteria
Criteria for OPC in N.C.

- Presence of a serious mental illness
- Capacity to survive in the community with available supports
- Clinical history indicating a need for treatment to prevent deterioration that would predictably result in dangerousness
- Mental status that limits or negates the individual's ability to make informed decisions to seek or comply voluntarily with recommended treatment
Controversies about AOT

• Availability of appropriate services might obviate the need
• Should not be used as a substitute for inadequacies in service systems
• Counter-argument: Given the apparent benefits of mental health courts in mobilizing resources do patients need to commit a crime to get such benefit?
Odds ratio for hospital readmission during any given month of 1-year trial

<table>
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<th></th>
<th>Odds Ratio</th>
<th>95% CI</th>
<th>p value</th>
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<tr>
<td>OPC group</td>
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<td>(0.46 – 0.88)</td>
<td>p&lt;0.01</td>
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Mean Psychiatric Hospital Days by Days of OPC

- Controls: 27.9 days
- <180 days OPC: 37.7 days
- 180+ days OPC: 7.51 days
Percent Violent at 12 Months by Days of OPC

Percent Violent

Randomized Group

Baseline Violent Group
Adjusted Probability of Arrest by OPC Days and Baseline History of Dual-System Recidivism

Probability of any arrest in year

No OPC 0-179 days 180-365 days

No OPC

0.14

0.11

0.21

0.14

0.47

0.44

0.12

Yes

Dual system recidivism history (hospitalization + arrest/violence)
Summary of NC OPC Study

- OPC can reduce hospital recidivism
- However:
  - OPC must be applied for an extended period
  - It is only effective when delivered in combination with frequent mental health services.
Other findings:
• OPC can reduce violence, victimization, family strain, arrests and improve medication adherence and quality of life.

However:
• To be effective, it must be delivered for an extended period AND in combination with regular mental health services.
• Limitations: the ‘dose’ of OPC and service intensity could not be controlled.
New York State
Assisted Outpatient Treatment Program Evaluation

Submitted under Contract with the New York State Office of Mental Health

Source: OMH evaluation data
Description of AOT Program and Regional Variations: Summary of Findings

• AOT statute can be used to prevent relapse or deterioration before hospitalization is needed.
• In nearly 3/4s of all cases used as a discharge planning tool for hospitalized patients.
• AOT is largely used as a transition plan intended to improve the effectiveness of treatment following a hospitalization and as a method to reduce hospital recidivism.
Recipient Outcomes During AOT: Findings

- Substantial reduction in psychiatric hospitalizations and in days in the hospital
- Modest evidence that AOT reduces arrests
- Substantial increases in receipt of intensive case management services
- More likely to adhere to psychototropic medications
- Subjective improvements in personal functioning.
Exhibit 3.8 Adjusted percent* with psychiatric inpatient admission in month, by AOT status

*Adjusted probability estimates were generated from repeated measures regression models controlled for time, region, race, age, sex, diagnosis, and co-insurance status. Models were also weighted for propensity to initially receive AOT and to receive more than 6 months of AOT.

Source: Medicaid claims and OMH admissions data.
Exhibit 3.9. Adjusted* average inpatient days during any 6 month period, by AOT status

*Adjusted mean estimates were generated from repeated measures regression models controlled for time, region, race, age, sex, diagnosis, and co-insurance status. Models were also weighted for propensity to initially receive AOT and to receive more than 6 months of AOT.

Source: Medicaid claims and AOT Evaluation database.
Exhibit 3.10 Adjusted percent* with at least 80% medication possession in month by AOT status

*Adjusted probability estimates were generated from repeated measures regression models controlled for time, region, race, age, sex, diagnosis, and co-insurance status. Models were also weighted for propensity to initially receive AOT and to receive more than 6 months of AOT.

Source: Medicaid and OMH records.
Exhibit 3.2. Adjusted* percent arrested in month by current receipt of AOT and EVS

*Adjusted arrest rate estimates were produced using multivariable time-series regression analysis, controlling for time, region, age, sex, race, education, and diagnosis. Months spent in hospital are excluded from analysis.

Source: 6-county interviews and Division of Criminal Justice Services.
Cost of AOT, mental health and criminal justice services before and after AOT in NYC

12-month period before discharge on AOT: $104,753

First 12-month period after discharge on AOT: $59,924

Second 12-month period after discharge on AOT: $52,386
Summary: AOT reduces costs for those it serves

• New York City sample: total costs declined
  • 50% in the first year after AOT began
  • additional 13% in the second year

• 5-county sample: total costs declined
  • 62% in the first year
  • additional 27% in the second year

• Overall, significantly reduced costs under AOT attributable mainly to a marked shift in service patterns from inpatient to outpatient care settings
Bottom Line on AOT Net Costs

• AOT can reduce overall net service costs for individuals with serious mental illness,

  • mainly by shifting patterns of service provision from inpatient to outpatient settings

• In New York AOT utilizes a substantial investment of state resources to provide community-based services,

  • but could yield significant long-term savings
Overall Summary of NYS Findings

• NYS’s AOT Program improves a range of important outcomes for its recipients including reduction in arrests.

• Increased services available under AOT clearly improve recipient outcomes
  – however, the AOT court order and its monitoring do appear to offer additional benefits in improving outcomes.

• The AOT order exerts a critical effect on service providers stimulating their efforts
Thanks!
Stakeholders Views of Mandated Treatment

- How do representative stakeholders evaluate the evidence regarding OPC?
- What importance do they give to the outcomes?
- Are the inherent trade-offs in mandates acceptable?
Four Outcomes Evaluated

- AOT
- Involuntary Hospitalization
- Interpersonal relationships
- Violent behavior
Vignette Example:

Upon discharge from the hospital, a judge ordered Mr. Smith to go to the mental health center for treatment for the next six months. If he doesn’t keep his appointments and take prescribed medications, the police will take him to treatment. After getting out of the hospital, he argues a lot with his family, friends, and other people. He becomes upset and suddenly hits a stranger on the street who he thinks might hurt him. His symptoms worsen and he is again admitted involuntarily to the psychiatric hospital for a week or more.
Rating the Vignettes:

- Think about how it would feel to be Mr. Smith in that situation (and how good or bad that would be).

- You will be asked to give each story a score from 0 to 10.

- Zero is a score for the worst possible situation for Mr. Smith. Ten is a score for the best possible situation for him.
Mean Preference Weights by Domain
Mean Preference Weights by Sample

- **Hospitalization**
- **Violence**
- **Relationships**
- **OPC**

**Groups:**
- Consumer
- Family
- Public
- Clinician
Summary

- Method elicits preferences from representative stakeholders and allows them to evaluate selected outcomes.
- Outcomes can be preference-weighted.
- Stakeholders give greatest importance to avoiding hospitalization followed by avoiding violence, maintaining good relations and avoiding OPC.
- Generally agree in rank-ordering preferences, giving least importance to OPC.
- Families differ in preference for OPC.
Is OPC Fairly Applied?
April 7, 2005
Racial Disproportion Seen in Applying 'Kendra's Law'
By Michael Cooper

ALBANY, April 6 - State officials say the statute, known as Kendra's Law, has been a great success, and Gov. George E. Pataki wants to make it permanent when it comes up for renewal in June. But an analysis of state data by a group that opposes its compulsory-treatment provision found that the law has been disproportionately applied to black New Yorkers.

The group, New York Lawyers for the Public Interest, concluded that blacks were nearly five times as likely as whites to be the subject of court orders stemming from Kendra's Law. Examining court orders for treatment that have been issued since the law took effect, the group found that 42 percent of the 3,958 orders for treatment were invoked against blacks, who make up 16 percent of the state's population, while 34 percent of the orders applied to whites, who make up 62 percent.
New York State Population  
(N=19,262,545)

- White (62%)
- Other (22%)
- Black (16%)

Kendra’s Law (AOT) Orders  
(N=3,958)

- White (34%)
- Other (24%)
- Black (44%)
Why does it matter?

- "It’s important to know if our mental health policy is disproportionately taking away the freedom of groups of people who have historically been oppressed."

Disparity in AOT is ambiguous and raises several key questions:

- Care vs. coercion
- Hospital vs. community
- **Discrimination at decision points for AOT** referral, investigation, and court order?
- *or*
- **Upstream socioeconomic factors** that sort people differentially into the pool of service recipients from which AOT orders are drawn?
AOT racial disparity indices in New York County: Ratios of AOT rates* for blacks compared to whites, using alternative denominators

* Period-prevalence of AOT cases active at any time during 2003, by selected denominators.
Implications

- Disparity in access to treatment (a public “good”) vs. disparity in limitations on personal liberty (a public “bad”)

- Hospitalization → AOT as less restrictive alternative
- Community → AOT as initiating coercion

- Is not intrinsically related to race and discrimination
- Lies “upstream” from the AOT referral/petition decision point
- Is nested within broader, systemic disparities, which may be rooted in the social-epidemiological patterns of mental illness and the organization/financing of care in the public mental health system.
Racial Bias in AOT Program?
Summary of Findings

• We find that the over-representation of African Americans in the AOT Program:
  – is a function of African Americans’ higher likelihood of being uninsured,
  – higher likelihood of being served by the public mental health system (rather than by private mental health professionals),
  – and higher likelihood of having a history of psychiatric hospitalization.

• We find no evidence that the AOT Program is disproportionately selecting African Americans or other minorities for court orders.