When is evidence ready for prime time? 
Addressing disparities in access for African-American children with ADHD.

Janice L. Cooper, Ph.D.
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21st Annual Research and Training Conference
Feb. 25, 2007, Tampa Florida

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Introduction

Aims
- Examine guideline level care in light of new data
- Examine by race/ethnicity
- Understand the larger contextual implications for researchers

Background

ADHD one of the most widely identified childhood disorders
- Nearly 9% of American children and adolescents (8-15) met the DSM-IV criteria for ADHD
- Poor children were more likely to meet criteria for ADHD diagnosis
- No difference between African-American and non-Hispanic/Latino Whites re: likelihood to meet criteria but African-American and Hispanic/Latino less well represented among subtype “inattentive”

Source: Froehlich et al., 2007

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Overview

- Introduction
- Background
- Countercharges
- Methods
- Findings
- Implications

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**Background**

- **1999 MTA dictated gold standard for ADHD treatment**
  - Stimulant only and Combination Stimulant and Behavioral treatment guideline level care
  - Behavioral only for children with no other co-occurring conditions not optimal care
- **Critics charged**
  - 14 months too short to base policy
  - Largely ignorant of physiological implications
  - Stimulants gateway to substance abuse

**State of the Field 2000 on...**

<table>
<thead>
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<th></th>
<th>Overall</th>
<th>Combo</th>
<th>Meds</th>
<th>Behav.</th>
<th>Community</th>
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<td>11.7</td>
<td>12</td>
<td>11.6</td>
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<tr>
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<td>8%</td>
<td>9%</td>
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*Source: MTA, 1999*

**Aims**

- Examine treatment patterns in light of clinical evidence on efficacy (medication and psychosocial interventions)
- Examine individual and provider characteristics
- Examine treatment over time

**Shifting Evidence – quick story**

- ADHD most commonly diagnosed child mental health condition
- Diagnosis and treatment remains controversial
- Significant consequences associated with lack of treatment for ADHD
- Does treatment conform with guidelines?

**Study Design and Methods**

- Florida Medicaid data 1996-2000
- Claims and enrollment data
- Individual choice model
  - Logistic, multinomial logistic regressions
  - Modified episode approach: all care within 365 days of first diagnosis
Methods

- Dependent var. treatment choice
- No treatment
- Behavioral only
- Stimulant treatment
- Combination treatment
- Residual

Describing variables and methods

- Behavioral only: threshold of 4+ visits
- Combo: 3 mos. Stimulant therapy & 4+ visits behavioral
- Combo include at least one episode of dual treatment
- Episode defined: Start DOS for stimulant script & end tx break >28 days
- Stimulant episode where 3+ scripts
- Residual: treatment options that do not meet above

Population Characteristics: 96-00
n=105,251

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<table>
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Clinical Characteristics 96-00

| Medical comorbidity | 36.5%
| Medical comorbidity | 12.1%
| Case management | 27.9%
| Mental health inpatient use | 4.6%
| Primary treating clinician is mental health specialist | 48.7%

Treatment for Children with ADHD in Florida Medicaid

Treatment Trends for Children and Adolescent Enrollees with ADHD
### Treatment Choice Model Results

**Over time**
- White children less likely to receive guideline level care
- Males more likely to receive no MH treatment, behavioral only and residual care
- Specialty provider and case management decreasingly associated with:
  - Behavioral only treatment
  - Residual treatment
  - Combination therapy

### MTA Results 24 & 36 months

- All treatment groups improved
- No difference in clinical & functional outcomes between groups
- Instead of having improved outcomes for medication, it was a significant indicator of “deterioration”
- Youth who received special ed. Services between 24-36 months got worse

### Other outcomes: ADHD-related medication and Substance Use

- Approximately 12% of youth in MTA sample reported substance 24 months vs 6% of youth in control group
- By 36 months the proportion of youth in the MTA cohort who reported substance use had doubled, while only 8% of the control group reported substance use

**Source:** (Molina et al., 2007); (Swanson et al., 2007)

### Other outcomes

- Association between ADHD-medication and growth rates
  - Youth with consistent medication youth were shorter and lighter than control group
- Association between ADHD-related medication use and delinquency
  - More than ¼ (27%) of youth in MTA sample reported moderate to serious delinquency (stealing, violence, possession of weapon) at 36 months versus < than 1/10 (8%) in control group reported moderate to serious delinquency
  - At 24 and 36 months MTA enrolled children with higher delinquency were more likely to receive medication to treat ADHD. Youth who received behavioral tx only were less likely to be delinquent

**Sources:** (Molina et al., 2007; Swanson et al., 2007)

### Further research

- Replication of MTA work on:
  - Substance use
  - Delinquency (problems with admin data)
  - Growth rates
- Use other Medicaid data to review quality care

### Implications

- Prior interpretation
- New interpretation
- How do we address community concerns?
- MTA did not release race/ethnicity
- What is the role of the researcher of color?
- Is the argument for operationalizing clc?
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