Psychotropic Medication Utilization in Two Intensive Residential Programs

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Background
- Dramatic increase in the number of children on psychotropic medication (PM)
- Most PMs prescribed for children are “off label”
- PM utilization predicted by medically indicated (e.g., Dx, history) and non-indicated (e.g., race, gender) factors
- Limited efficacy data
- Health risks (e.g. weight gain)

Out of Home Placement
- Foster care youth are on PMs at 3x rate of poor children
- In-patient: high PM rates, typically increase during stay
- Residential treatment: high PM rates (75%)
- Boys Town research
  - Increase in PM utilization (1995 vs. 2005)
  - Currently, 49% of group home youth are on PMs at some time during their stay; 40% at intake, 26% at discharge
  - Approach: cognitive-behavioral treatment and careful PM management

Current Study
Goal: examine PM utilization in two intensive residential settings
- Intake vs. discharge
- Percentage of youth on PMs; PM classes
- PM utilization across two placement settings (step down)
- Age and gender differences
- Restraints and aggressive behavior
- Case study

Participants
- First time admits between 2005-2007
  - N = 357 (53%) male
  - 200 (64.3%) were state wards
  - 243 (78.1%) came from equal or more restrictive settings
  - Averaged 3.7 prior formal placements
  - Average LOS in program was 134 days

Residential Programs
<table>
<thead>
<tr>
<th>Intensive Residential Treatment Center (n = 232)</th>
<th>Specialized Treatment Group Home (n = 125)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ages 7-18 with psychiatric disorders</td>
<td>Ages 10 to 18 with psychiatric disorders</td>
</tr>
<tr>
<td>Attached to hospital, medically directed care</td>
<td>Group Home setting with medical oversight</td>
</tr>
<tr>
<td>24 Hour Locked Secured</td>
<td>24 Hour Staff Secured</td>
</tr>
</tbody>
</table>
**Medication Classes**

- Anti-depressant
- Anti-psychotic
- Mood stabilizer
- Stimulant

*These four classes equal 91.5% of all medications

**Medication Reduction**

(Percentage on and Average Number of Medications)

- 91.5% of medications are in these four classes.

**Medication Class Percentages**

- Anti-depressant
- Anti-psychotic
- Mood stabilizer
- Stimulant

**Step Downs**

- 152 (65.5%) of the IRTC youth stepped down within the Boys Town continuum to the STGH program.
- The average IRTC length of stay for these youth was 101.2 days.
- The average STGH length of stay for these youth was 161.0 days.

**Age Difference Background**

- There is little published research looking at medication rates for young children.
- Inpatient medication rate for young children is high: 75 - 85%.
- Have found that medication rate for young children much higher than adolescents for
  - Stimulants
  - Adrenergic agents
- Program by age numbers
  - IRTC - 71 (31%) 12 & under, 161 (69%) 13 & older
  - STGH - 20 (16%) 12 & under, 105 (84%) 13 & older
**Percentage of Youth on Medications by Age Class**

- 2.5 Average Medications
- 2.2 Average Medications
- 1.9 Average Medications

**Admit to Discharge Change by Gender**

- M/Admit
- M/Discharge
- F/Admit
- F/Discharge

**Case Study**

- 13-year old, African American male
- Ward of the state, 4 previous formal placements, admitted to IRTC from home of natural parents
- Bipolar Disorder – most recent severe manic with psychotic features, Intermittent Explosive Disorder, Oppositional Defiant Disorder
- Admission Medications:
  - Lexapro – 10 mg
  - Zyprexa – 15 mg
  - Lithium – 600 mg
  - Tegretol – 400 mg

**Discussion**

- Youth come into the IRTC and STGH programs with high PM rates
- There were significant reductions for all medication classes at discharge
- Younger youth have higher rates of medication usage at admission and discharge than the older youth
- No gender differences for medication use, aggression or restraints
- Restraint use and aggression reduce over time
- Case Study: need to allow behavior to occur to treat and adjust PMs based on accurate data and treatment progress

**Future Research**

- Analysis of clinical decision process and factors that guide the changes made in psychotropic medication use.
- Examination of age differences for behavioral and health problem severity with medication use.
- Examination of disruptive behavior, symptoms, and medication use across transitions in the child care continuum.
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