“How Research Evidence Informs Foster Youth Medication Policies”

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How Research Evidence Informs Foster Youth Medication Policies

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No financial conflicts with respect to pharmaceutical companies to disclose.
Objectives

1) Is there evidence that we should be concerned about children in foster care and the use of psychotropic medications?

2) What evidence is available to inform state oversight of psychotropic medication use? Where is evidence lacking? How have states responded?

3) How are states using local evidence collaboratively to measure medication use?

4) What has been one state’s experience?

5) What are next steps?
Acknowledgements

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The content of this report is solely the responsibility of the presenters and does not necessarily represent the official views of any funding agency.
Defining Our Terms: Foster Care and Psychotropic Medications

- **Children in Foster Care**: Children removed from their homes and under the custody of the state.

- **Psychotropic Medications**: Medications prescribed for emotional and behavioral problems.

Mary Ellen McCormack, 1874

“The Child Who Put a Face on Abuse”
Defining Our Terms: Research Evidence

- Empirical findings derived from systematic research methods and analyses
- Includes
  - Descriptive, evaluation, and intervention studies
  - Qualitative and quantitative data
  - Meta-analyses and cost-effectiveness studies
Question 1:

Is there evidence that we should be concerned about children in foster care and the use of psychotropic medications?
## Federal Legislation & Initiatives on Children in Foster Care

<table>
<thead>
<tr>
<th>Year</th>
<th>Legislation/Initiative</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td><strong>PL 110-351: Fostering Connections to Success and Increasing Adoptions Act of 2008</strong></td>
<td>Oversight and coordination of health and mental health services</td>
</tr>
<tr>
<td>2011</td>
<td><strong>PL 112-34: Child and Family Services Improvement and Innovation Act</strong></td>
<td>Required protocol for psychotropic oversight by July 2012</td>
</tr>
<tr>
<td>2012</td>
<td><strong>Because Minds Matter Summit: Collaborating to Strengthen Psychotropic Medication Oversight</strong></td>
<td>Convened representatives from Medicaid, mental health, and child welfare from 49 states and DC in August 2012</td>
</tr>
</tbody>
</table>
Research Evidence: Mental Health Disorders

- Epidemiological evidence:
  - Rates of emotional or behavioral disorders more common in foster care compared to community overall (50-80% vs. 1-25%)
  - History of adverse childhood experiences common:
    - Abuse and neglect
    - Domestic violence
    - Poverty
    - In-utero/environmental drug exposure
Research Evidence:
Lifelong Effects of Toxic Stress in Childhood

- Epidemiological evidence that toxic stress in early childhood linked to adult health and mental health disorders
  - Related to extent of cumulative stress over time and timing
- Biological evidence for intergenerational transmission of effects of toxic stress (epigenetics)

(Sources: Shonkoff and Garner, 2012; Source: http://www.acestudy.org/)
At Risk for Mental Health Problems

Source: http://www.acestudy.org/
Research Evidence: Impact on Placement

- 20% of placement changes related to behavior problems *(Source: James et al., 2004)*
- Multiple placements linked to behavior problems *(Source: Aarons et al., 2010)*
- Youth with “externalizing” problems twice as likely to remain in foster care 18 months after entry *(Source: Landsverk et al., 1996)*
Research Evidence:
Costs of Mental Health Care

MEDICAID ENROLLMENT, BEHAVIORAL HEALTH SERVICE USE, AND EXPENSE BY AID CATEGORY

- All Children in Medicaid*
  - Foster Care: 3%
  - SSI/Disability: 5%
  - TANF: 92%

- Behavioral Health Service Use**
  - Foster Care: 15%
  - SSI/Disability: 18%
  - TANF: 67%

- Behavioral Health Service Expense**
  - Foster Care: 29%
  - SSI/Disability: 27%
  - TANF: 44%

* All children in Medicaid in 2005, N=29,050,305.
** Behavioral Health service use and expense in 2005, N=1,958,908.

Research Evidence: Psychotropic Medication Use in Foster Care

- Higher rates of use: 13-52% in child welfare vs. 4% in community samples
  (Sources: dosReis et al., 2001; Kansas Health Policy Authority, 2008; McMillen et al., 2007; Raghavan et al., 2005; Zima et al., 1999)

- Polypharmacy common (3+ medications over 30 days)
  - 41% of children in foster care over 1 year in 1 state
    (Source: Zito et al, 2008)

- Geographic variation in studies using Medicaid claims data
  - Polypharmacy: 5.3%, range from 0.5% to 13.6%
    (Source: Rubin et al, 2012)
  - Use among children with autism in foster care: range from 5% to nearly 50%
    (Source: Rubin et al, 2009)
Research Evidence: Medication Use

CONCURRENT PSYCHOTROPIC MEDICATION USE AMONG CHILDREN IN MEDICAID

<table>
<thead>
<tr>
<th>Group</th>
<th>0%</th>
<th>20%</th>
<th>40%</th>
<th>60%</th>
<th>80%</th>
<th>100%</th>
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<tbody>
<tr>
<td>TANF*</td>
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<td>6%</td>
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<td>74%</td>
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<tr>
<td>SS1/Disability**</td>
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<td></td>
<td>13%</td>
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<td>29%</td>
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<td></td>
<td></td>
<td>54%</td>
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<tr>
<td>Foster Care***</td>
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<td></td>
<td></td>
<td>15%</td>
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<td>30%</td>
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<td></td>
<td></td>
<td></td>
<td>51%</td>
</tr>
<tr>
<td># Medications Prescribed</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4+</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td></td>
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</tr>
</tbody>
</table>

*N=1,119,266  **N=354,945  ***N=212,176

## Research Evidence: Medication Studies

<table>
<thead>
<tr>
<th>PROBLEM AREA</th>
<th>MEDICATION</th>
<th>SHORT-TERM EFFICACY</th>
<th>LONG-TERM EFFICACY</th>
<th>SHORT-TERM SAFETY#</th>
<th>LONG-TERM SAFETY#</th>
</tr>
</thead>
</table>
| Anxiety Disorders (including OCD*) | SSRIs (*FDA indications for OCD only)  
|                              | Benzodiazepines                                                             | A                   | B                  | A                  | B                 |
| ADHD                       | Stimulants*  
|                            | Atomoxetine*  
|                            | TCAs  
|                            | Alpha-2 Adrenergic Agonists*                                                | A                   | A                  | A                  | A                 |
| Aggression in Autism       | Atypical antipsychotics* (risperidone, aripiprazole)                        | A                   | B                  | A                  | B                 |
| Aggressive Conduct         | Lithium  
|                            | Valproate  
|                            | Carbamazepine  
|                            | Atypical antipsychotics                                                    | B                   | C                  | B                  | C                 |
| Bipolar Disorder           | Lithium*  
|                            | Valproate  
|                            | Carbamazepine  
|                            | Atypical antipsychotics*                                                   | B                   | C                  | B                  | C                 |
| Depression                 | SSRIs* (fluoxetine, escitalopram)  
|                            | TCAs  
|                            | Buproprion  
|                            | Venlafaxine                                                                | A                   | A                  | A                  | B                 |
| Schizophrenia (psychosis)  | Antipsychotics*                                                             | A                   | C                  | A                  | C                 |
| Tourette’s Disorder        | Antipsychotics* (haloperidol, pimozide)  
|                            | Alpha-2 Adrenergic Agonists                                                 | A                   | C                  | C                  | C                 |

SSRI = Selective Serotonin Reuptake Inhibitor  
TCA = Tricyclic Antidepressant  
Updated: November 1, 2010
Possibilities

- Appropriate Use
- Overuse
- Misuse
- Underuse
“It [mental healthcare] is really important. If I don’t have the help that I need, then I won’t be able to get my medicine and stuff. I need my medicine. If I don’t have my medicine, I have real bad blow-ups I try to hurt people or hurt myself, or I destroy stuff. So I really need my medicine for that.”

-Youth formerly in foster care

(Source: Leslie et al, 2011)
Research Evidence: Patient Experience

“They told me if it ever made me sleepy then they’ll take me off of the [antipsychotic medication]. Cause I’m a school person. I like to go to school. I like to learn and for the simple fact it was making me fall asleep in school I just felt like you’re just taking the fun out of my life because I love school, you’re just taking the one thing I love out of my life. And I would tell the doctor the medications is making me fall asleep in class and my teachers would tell them she’s falling asleep a lot in class and they still wouldn’t take me off the medications.”

-Youth formerly in foster care

(Source: Leslie, et al, 2011)
Multiple Research Studies:
Factors Impacting Use

- Access to trained clinicians
- Clinician knowledge/experience with trauma
- Access to effective, evidence-based non-pharmacological treatments
- System issues
  - Gaps in coordination across sectors
  - Lack of state oversight systems
Foster Youth: Many Adults in Their Lives but No One in Charge
Question 2:

- What evidence is available to inform state oversight of psychotropic medication use? Where is evidence lacking? How have states responded?
Psychotropic Medication Use: Federal Government Research Evidence

- HHS Guidance Could Help States Improve Oversight of Psychotropic Prescriptions (2011)
- Concerns Remain about Appropriate Services for Children in Medicaid and Foster Care (2012)
- Foster Children: HHS Could Provide Additional Guidance to States Regarding Psychotropic Medications. (2014)
Tufts Research Team

- **2009-2010 (Charles H. Hood Foundation)**
  - Examine state policies and best practices in response to 2008 legislation (47/51)

- **2011-2014 (W.T. Grant Foundation, AHRQ)**
  - Examine state policies and best practices in response to 2011 legislation
  - Investigate sources of information regarding psychotropic medication oversight
  - Explore novel cross-agency collaborations
Methods

- **Tools:** Semi-structured qualitative interviews and surveys to validate and update state data

- **Samples:** Key informants
  - Child welfare
  - Collaborators in youth-serving systems

- **Document review:** Policy and protocols available on child welfare website or provided by key informant

- **Analytic approach:** Coding consensus, co-occurrence, and comparison; descriptive frequencies
State Variation:
Psychotropic Oversight Policies 2009-10

Alaska
Hawaii

States
Policy Status
- Evaluation Only
- Oversight Only
- Both Evaluation and Oversight
- No Policy
- No data
State Variation:
Implementation Stage 2009-10

- States at different stages:
State Variation:
Availability and Configuration of Mental Health and Medical Expertise

Mental health expertise may be available as:
- Hired staff within the Agency;
- Staff at partnering State Agencies; or
- Consultants external to the State system (e.g. academic medical center).

(Source: Leslie et al, 2010)
State Variation:
Taxonomy for child-centered approach to oversight of psychotropic medications

(Source: Mackie et al, under review)
State Variation
Psychotropic medication review prior to dispensing (i.e., prospective) and/or after (i.e., retrospective), N=51

- Prospective review only: 12% (n=6)
- Concurrent review only: 12% (n=6)
- Both prospective and concurrent review: 23% (n=12)
- Neither: 53% (n=27)
State Variation:
Availability and Configuration of Mental Health and Medical Expertise in Child-level Monitoring (2)

- 20% (n=17) of monitoring mechanisms identified nationally did not routinely have a licensed health professional providing review of safety concerns for psychotropic medication use.
State Variation:
Who provides informed consent for children in foster care?

- Participants in clinical encounter (e.g., caregiver, prescriber, youth)
- Biological parent
- Caseworker
- Child welfare supervisor/administrator
- Child welfare unit with mental health expertise
- Judicial system
- Youth consent and assent (variation in age)

(Source: Leslie et al, 2010)
State Variation: Availability and Configuration of Population-level Monitoring, N=51

**Databases:**
Cross-sectional and/or trends analyses  
\( n=40 \ (78.4\%) \)

**Audit:**
Review of select cases  
\( n=9 \ (17.7\%) \)

**Review case-records and/or interview key stakeholders**
Response to Federal Efforts: 
Inter-agency Collaborations

Sample: 6 states implementing psychotropic oversight mechanisms by August 2011:
  - All implemented at least 2 inter-agency collaborations (e.g., sub-committees, working groups) to inform oversight efforts (range: 2-4)
  - Over half (9 of 16 collaborations) were meeting at least monthly since convened
Response to Federal Efforts:
Perceived Benefits of Inter-agency Collaborations (1)

- Exchange of expertise, values and beliefs across agencies

“We had a pharmacist that went with us to [the Summit] and...her whole expertise is...different from mine...[She would ask questions about] How do you want to monitor these medications? Do you want to look for kids that are on three, four, or five medications? Are those the outliers? She’s already thinking about those things so that’s important.”

-Mental health agency respondent
Transfers of discipline specific research evidence

“All of us in the inter-agency advisory panel] come from really different backgrounds so some of the folks are behavioral health in their expertise, I’m a pediatrician, some are social workers, some are more like the business and some are the quality gurus so we all have … different literature things that sort of strike our fancy…. there are other things that some of the other folks are going to find where I probably wouldn’t have even noticed it.”

-Child welfare agency respondent
Opportunities to appeal for and ultimately leverage resources available to other state agencies

“... [child welfare doesn’t] have all the money that some of the other places have, but we are trying to -- like from my perspective making the case...[and] it is not a hard case to make...that this is a population...[where Medicaid] could save money and improve care...”

- Child welfare respondent
Summary Points

- State variation considerable
- Variation may be appropriate for local context
- Limited evidence exists as to the comparative effectiveness of existing state approaches
- Critical to evaluate for intended and unintended outcomes
  - Decreased use of medications with no increase in psychosocial treatments leading to more placement disruptions or greater use of residential care?
  - Oversight of antipsychotics (e.g., Geodon) may lead to higher use of other classes of medications which may or may not be as effective
Question 3:

How are states using local evidence collaboratively to measure medication use?
Funded by Annie E. Casey Foundation and led by Center for Healthcare Strategies (Kamala Allen and Sheila Pires)

Three year initiative to develop best practices in psychotropic medication oversight and monitoring for foster youth.

27 states applied, six selected based in part on ability to measure medication utilization.

Each state developed individual goals along with agreement on a series of common measures.
Comprised of representatives of Child Welfare, Mental Health and Medicaid from each of the 6 participating states

- Illinois, New Jersey, New York, Oregon, Rhode Island, and Vermont

Goal: Identify and agree upon common definitions and measures that each state could implement to address the inappropriate use of psychotropic medications (NOTE: there is no standard definition in research or practice for many of our terms)

Relied heavily on work in NY, called PSYCKES
PMQIC State Approaches

- Develop or revise informed consent procedures
- Develop method for generating real-time medication utilization data, in some cases from Medicaid-claims
- Develop a protocol for reviewing “red flags” or outlier prescribing practices based on age, dose, duration, diagnosis, class of medication, co-pharmacy and polypharmacy
- States develop the oversight and monitoring processes that are most appropriate for their jurisdiction and practice concerns
**Psychotropic medications**: medications being used for an emotional or behavioral condition

Medications automatically assumed to be for a psychiatric indication and included in this definition:

- Antipsychotics
- Stimulants
- Antidepressants
- Benzodiazepines
- Anti-anxiety medications (incl. Buspar)
- Mood stabilizers (e.g., Lithium)
Dosage Guidelines

- **FDA approval for use in a pediatric population**: Use the associated/extrapolated dose for children under 13 years and those 13 to 18 as the PDR suggests.

- **Multiple indications in youth**: Use the maximum dose for the psychiatric indication (PDR).

- **No FDA indication for the pediatric population**: Use the guidelines proposed by the Texas report regarding the care of children in foster care*

- **No FDA indication or guidance from the Texas report**: Use dosing parameters set forth in Appendix 1 of Pediatric Psychopharmacology: Principles and Practice (Editors Andres Martin, Lawrence Scahill, Dennis S. Charney, and James F. Leckman Oxford University Press, 2003)

- **None of the above sources set forth any guidance**: Use the adult PDR maximum

Minimum Metabolic Monitoring Protocol for SGAs

- **Personal and family history**: Baseline and annually
- **Waist circumference**: Baseline and annually
- **Weight and BMI**: Baseline, every 4 weeks up to 12 weeks, and then quarterly
- **Blood pressure**: Baseline, 12 weeks and annually
- **Fasting plasma glucose**: Baseline, 12 weeks and annually
- **Fasting lipid profile**: Baseline, 12 weeks and annually
Common Measures

Data gathered at baseline, and over the course of the 3-year initiative, will measure the percentage of children in foster care:

<table>
<thead>
<tr>
<th>Measure</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>On any psychotropic medication</td>
<td>✔</td>
</tr>
<tr>
<td>On specific classes of medications (e.g., antidepressants, stimulants, mood stabilizers, antianxietytals)</td>
<td>✔</td>
</tr>
<tr>
<td>On more than 1 medication from the same class (co-pharmacy)</td>
<td>✔</td>
</tr>
<tr>
<td>On 2, 3, and 4+ psychotropic medications</td>
<td>✔</td>
</tr>
<tr>
<td>&lt; 6 years old on any psychotropic medication</td>
<td>✔</td>
</tr>
<tr>
<td>&lt; 6 years old on 2, 3, and 4+ psychotropic medications</td>
<td>✔</td>
</tr>
<tr>
<td>&lt;6 years old on antipsychotics</td>
<td>✔</td>
</tr>
</tbody>
</table>
Will also measure:

- Implementation of evidence-based or promising interventions for sleep disorders and/or aggression

- Development of an informed consent process or increased adherence to the state’s informed consent process
Question 4:

What has been one state’s experience?
Psychotropic Medication Policy in New Jersey

Debra Lancaster
Director
Office of Strategic Development
Establish the Fundamentals

- Case Practice Model
- Philosophy for caring for children in foster care
- Child health values:
  - Access
  - Continuity
  - Child/Family Centered
  - Quality
  - Integration
  - Partnership
NJ Psychotropic Medication Policy: Development

- AACAP, AAP, and CWLA Guidelines
- Other states
- Internal workgroup
- Drafted policy consistent with DCF values and case practice model
- Psychototropic Medication Advisory Group
- Issued policy in January 2010
NJ Psychotropic Medication Policy: Key Components

- Psychiatric evaluation
- Authorized prescribers
- Treatment plan
- Informed consent
- Medication guidelines
- Safety monitoring guidelines
- Prescribing parameters
### State Context for Implementation

- State-administered child welfare system
- All children in foster care enrolled in NJ Medicaid
- Children’s System of Care
- Child Health Units (CHU)
- DCF Child/Adolescent Psychiatrists
ROLE OF THE CHILD HEALTH UNIT

- Develop a healthcare plan specific to the child’s health needs
- Coordinate healthcare services to ensure access to healthcare and timely follow-up
- Facilitate effective and ongoing communication among:
  - Child Protection & Permanency
  - Child Health Program
  - Resource Families
  - Birth Families
  - Child/Adolescent
When there are additional questions or concerns, consultation with DCF’s Child/Adolescent Psychiatrist may be appropriate.

Cases typically referred for consultation include:
- Child under 6 years of age and the medication is not recommended per Policy Prescribing Parameters
- Three or more psychotropic medications
- Child has complicating medical illness
- Medication not approved for child’s diagnosis

Responses may include a conference call or requesting a treatment team meeting.
**Psychotropic Medication Trackers**

- For every child prescribed a psychotropic:
  - Demographics (name, date of birth, etc.)
  - Medication name, start date, dosage, and frequency
  - Diagnosis, prescriber name, and prescriber specialty
  - Date of most recent treatment plan, consent, and psychiatric evaluation
  - Other non-pharmacological interventions (yes/no)

- Maintained by CHU’s on ongoing basis

- Compiled and analyzed quarterly to establish data trends

- Review of at-risk cohorts (i.e., children > 6 years old & children prescribed 4+ psychotropics) conducted quarterly by DCF Chief Child/Adolescent Psychiatrist
Next Steps: The Research, Policy, and Practice Interface
Resources

To access resources from today’s event, please visit

www.aypf.org/resource-search


