

Caring for Children in Foster Care: Psychotropic Medication Overuse

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Children in Child Welfare

- Compared to other Medicaid-eligible youth, foster children:
 - have higher rates of emotional, behavioral and psychiatric disorders
 - use mental health (MH) services at a significantly higher rate
 - are prescribed psychotropic medications at a higher rate



Children in Foster Care Have Higher Rates of Emotional and Behavioral Problems than Other Children



Rates of Psychopathology in Foster Children

- Children in foster care ~ 3.75 - 5 times more likely to have emotional or behavioral problems requiring MH services than children in the community
 - 50 – 75% of children entering foster care
 - 10 – 20% for children in a community sample



Landsverk et al., 2006

Rates of Psychopathology in Foster Children

- 48% of children who come to the attention of child protective services scored in clinical range on the Child Behavior Checklist (CBCL)
- 61% of foster children have a lifetime psychiatric diagnosis



Burns et al., 2004; McMillen et al., 2005

Rates of Psychopathology in Foster Children

- Rates of psychiatric diagnoses greater in foster children than the general population:
 - attention deficit hyperactivity disorder (ADHD) (15.1% vs 4.5%)
 - conduct disorder (20.7% vs 7.0%)
 - major depressive disorder (19.0% vs 11.9%)
 - post-traumatic stress disorder (13.4% vs 5.2%)



White et al., 2007

Rates of Psychopathology in Foster Children

- **Proposed explanations for increased rate:**
 - **genetic predisposition**
 - depression
 - alcohol/drug abuse
 - **poverty**
 - poor prenatal care
 - **in utero exposure to drugs and alcohol**



English DJ, et al, 2015

Rates of Psychopathology in Foster Children

- **Proposed explanations for increased rate:**
 - **impaired attachment**
 - **abuse and neglect**
 - **removal from family of origin**
 - **multiple placement disruptions**
 - **selection factor**



Children in Foster Care Use Mental Health Services at a Higher Rate than Other Children



Mental Health Services in Foster Children

- **Foster children account for ~ 4% of Medi-Cal eligible children**
 - utilize 41% of MH services
 - 43% of MH expenditures
 - 15 times the rate of MH utilization
 - ~ 9 times the rate of inpatient psychiatric hospitalizations



Halfon et al., 1992

Mental Health Services in Foster Children

- Compared to other children in Medicaid, foster children:
 - have 23% greater MH utilization rates
 - have 41% higher expenditures
 - are 5 times more likely to be hospitalized
 - have a 36% longer length of stay (LOS)



Halfon et al., 1992

Mental Health Services in Foster Children

- Higher utilization of MH service use predicted by:
 - high scores on the CBCL (odds ratio (OR) 2.5 – 3.6)
 - sexual abuse (OR 3.7)
 - parental psychopathology (OR 2.4)
- Lower use of MH services associated with:
 - African-American race (OR 0.4)
 - in-home placement (OR 0.4 – 0.6)
- Only 25% of children with clinical scores received services



Burns et al., 2004

Children in Foster Care Use Psychotropic Medications at a Higher Rate than Other Children



Trends in Pharmacotherapy

- Zito et al., 2008
 - 93% of medications prescribed by child psychiatrists
 - 37.2% of all FC received psychotropic medications
 - 41.3% received ≥ 3 medication classes
 - 15.9% received ≥ 4 medication classes
 - 22.2% received ≥ 2 medications in same class



Zito et al., 2008

Trends in Pharmacotherapy

- Zito et al., 2008
 - most frequently prescribed medications:
 - antidepressants (56.8%)
 - ADHD drugs (55.9%)
 - antipsychotics (53.2%)



Zito et al., 2008

Trends in Pharmacotherapy

- Leslie et al., 2011
 - 15.2% of youth took psychotropic medications
 - 40-fold variation in use of psychotropic medications across catchment areas



Leslie et al., 2011

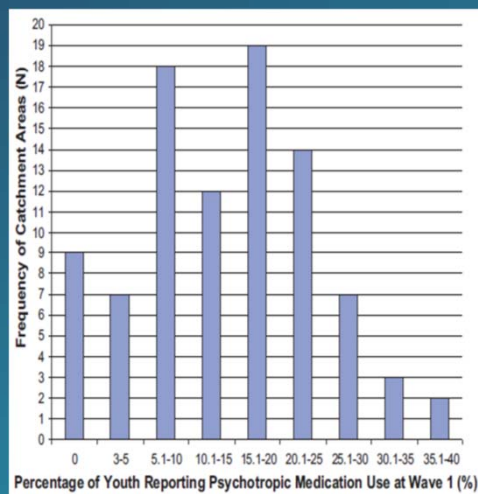
Trends in Pharmacotherapy

- Leslie et al., 2011
 - Predictors
 - older
 - male
 - higher scores on CBCL
 - stressful organizational climate at child welfare agency



Leslie et al., 2011

Trends in Pharmacotherapy



Leslie et al., 2011

GAO Study

- **Study design**
 - Medicaid fee-for-service pharmacy claims for psychotropic medications
 - CY 2008
 - FL, MD, MA, MI, OR, TX
 - FC vs. NFC



GAO Study

- **Study design**
 - indicators of potentially risky practices were analyzed
 - 5 psychotropic medications
 - prescriptions exceeding dosage guidelines
 - prescription to children < 1 year



GAO Study

- **Study design**
 - adherence to the AACAP Best Principles Guidelines was assessed:
 - Consent
 - Oversight
 - Consultation
 - Information Sharing



GAO Study

Psychotropic Medication Prescription Rates
Florida

Age (yrs)	Foster Child (FC)	Nonfoster Child (NFC)	FC/NFC Ratio
0 – 5	5.3	3.3	1.6
6 – 12	31.2	12.3	2.5
13 – 17	36.6	11.9	3.1
Total	22.0	8.2	2.7



GAO Study

Psychotropic Medication Prescription Rates Massachusetts

Age (yrs)	Foster Child (FC)	Nonfoster Child (NFC)	FC/NFC Ratio
0 – 5	4.9	2.2	2.2
6 – 12	44.8	12.1	3.7
13 – 17	53.4	14.7	3.6
Total	39.1	10.2	3.8



GAO Study

Psychotropic Medication Prescription Rates Michigan

Age (yrs)	Foster Child (FC)	Nonfoster Child (NFC)	FC/NFC Ratio
0 – 5	4.4	1.1	4.0
6 – 12	26.7	11.5	2.3
13 – 17	35.0	13.1	3.7
Total	21.0	7.9	2.7



GAO Study

Psychotropic Medication Prescription Rates Oregon

Age (yrs)	Foster Child (FC)	Nonfoster Child (NFC)	FC/NFC Ratio
0-5	2.5	0.6	3.9
6-12	23.4	6.2	3.8
13-17	43.3	12.0	3.6
Total	19.7	4.8	4.1



GAO Study

Psychotropic Medication Prescription Rates Texas

Age (yrs)	Foster Child (FC)	Nonfoster Child (NFC)	FC/NFC Ratio
0-5	9.1	3.1	2.9
6-12	45.8	10.6	4.3
13-17	58.2	11.4	5.1
Total	32.2	7.1	4.5



GAO Study

Concomitant Prescription of Five or More Medications

State	Foster Child (FC)	Nonfoster Child (NFC)	FC/NFC Ratio
FL	0.11	0.03	3.7
MA	1.33	0.07	19.0
MI	0.29	0.02	14.5
OR	0.13	0.01	13.0
TX	1.05	0.02	52.5



GAO Study

Prescriptions Exceeding Dosing Guidelines

State	Foster Child (FC)	Nonfoster Child (NFC)	FC/NFC Ratio
FL	1.5	0.44	3.4
MA	2.21	0.56	3.9
MI	1.67	0.49	3.4
OR	1.12	0.16	7.0
TX	3.27	0.37	8.8



GAO Study

- **Recommendation for Executive Action**
 - To improve the comprehensiveness of oversight of psychotropic drugs prescribed to foster children, we recommend that the Secretary of HHS evaluate our findings and consider endorsing guidance to state Medicaid and child welfare agencies on best practices for monitoring psychotropic drug prescriptions for foster children, including guidance that addresses, at minimum, informed consent, oversight, consultation, and information sharing.



Faces of Medicaid Study

- Medicaid Analytic eXtract (MAX) system, person-level information on:
 - Medicaid eligibility
 - claims-level information on service utilization and payments
 - pharmacy claims
- children < 19 years enrolled in Medicaid
 - TANF
 - foster care
 - SSI/disabled
- years 2005, 2008 and 2011



Pires et al, 2018

Faces of Medicaid Study

- **Extract claims for behavioral health services (BHS)**
 - claims that included a behavioral health primary diagnosis
 - service was designated as 'psychiatric services
 - service was delivered in a mental health setting, such as a community mental health center
- **Psychiatric diagnoses**
 - seven major categories
 - ADHD
 - Conduct disorder
 - Mood disorder
 - Anxiety
 - PTSD
 - Psychotic disorder
 - Substance use disorder



Pires et al, 2018

Faces of Medicaid Study

- **Psychotropic medication mapped using NDC codes**
 - five classes :
 - antipsychotics
 - anticonvulsant medications/mood stabilizers
 - antidepressants
 - attention deficit hyperactivity disorder (ADHD) medications
 - anxiety medications



Pires et al, 2018

Faces of Medicaid Study

Diagnosis	TANF	Foster Care	SSI/Disabled
ADHD	33.5	38.0	47.8
Conduct disorder	31.8	39.9	30.4
Mood disorder	30.9	39.3	31.4
Anxiety disorder	22.5	23.2	15.4
PTSD	5.0	13.1	5.0
Developmental disability	2.9	4.6	16.4
Psychosis	2.0	3.1	5.5
Substance use disorder	6.3	7.7	3.9



Pires et al, 2018

Faces of Medicaid Study

Service Type	TANF	Foster Care	SSI/Disabled
Psychiatric hospitalization	4.5	7.6	6.8
Residential treatment	3.0	9.3	6.0
Targeted case management	7.0	11.2	12.2
Emergency room	5.8	6.0	7.3
Partial hospitalization	3.2	4.2	6.6



Pires et al, 2018

Faces of Medicaid Study

Year	TANF	Foster Care	SSI/Disabled
2005	4.2	23.1	26.9
2008	4.2	22.9	28.5
2011	4.9	24.4	29.5
Increase 2005 - 2011	16.7	5.6	9.7



Pires et al, 2018

Faces of Medicaid Study

Medication Type	TANF	Foster Care	SSI/Disabled
ADHD	70.4	70.4	63.8
Antidepressant	31.1	38.6	31.5
Antipsychotic	17.6	41.0	40.2
Mood stabilizers	6.9	14.5	20.2
Anxiety	5.8	3.8	8.8



Pires et al, 2018

Faces of Medicaid Study

# of concurrent med classes	TANF	Foster Care	SSI/Disabled
1	75.6	53.2	55.2
2	18.0	29.0	28.8
3	5.3	14.2	12.6
4 or more	1.0	3.6	3.4



Pires et al., 2018

Trauma and Mental Illness



Griffin et al., 2011

Trauma and Mental Illness

Average Number of Mental Health Symptoms per Trauma Symptom

# of Trauma Symptoms	Average # of Mental Health Symptoms
0	0.51
1	2.04
2	3.06
3	3.53
4	4.64
5	7.73
	Incident rate ratio \approx 1.74



Griffin et al., 2011

Developmental Trauma Disorder

- A. Exposure - youth experienced or witnessed multiple or prolonged adverse events for at least one year:**
- direct experience or witnessing of repeated and severe interpersonal violence; and
 - significant disruptions of protective caregiving
 - repeated changes in primary caregiver
 - repeated separation from the primary caregiver; or
 - exposure to severe and persistent emotional abuse



Developmental Trauma Disorder

- B. Affective and physiological Dysregulation – youth exhibits impaired abilities related to arousal regulation, including at least two of the following:**
- inability to modulate, tolerate, or recover from extreme affect, including prolonged and extreme tantrums, or immobilization
 - disturbances in regulation in bodily functions (e.g. persistent disturbances in sleeping, eating, and elimination; over-reactivity or under-reactivity to touch and sounds; disorganization during routine transitions)
 - diminished awareness/dissociation of sensations, emotions and bodily states
 - impaired capacity to describe emotions or bodily states



Developmental Trauma Disorder

- C. Attentional and Behavioral Dysregulation - youth exhibits impaired abilities related to sustained attention, learning, or coping with stress, including at least three of the following:**
- preoccupation with threat, or impaired capacity to perceive threat, including misreading of safety and danger cues
 - impaired capacity for self-protection, including extreme risk-taking or thrill-seeking
 - maladaptive attempts at self-soothing (e.g., rocking and other rhythmical movements, compulsive masturbation)
 - habitual (intentional or automatic) or reactive self-harm
 - inability to initiate or sustain goal-directed behavior



Developmental Trauma Disorder

- D. Self and Relational Dysregulation - youth exhibits impaired sense of personal identity and involvement in relationships, including at least three of the following:**
- intense preoccupation with safety of the caregiver or other loved ones or difficulty tolerating reunion with them after separation
 - persistent negative sense of self (self-loathing, helplessness, worthlessness, ineffectiveness, or defectiveness)
 - extreme and persistent distrust, defiance or lack of reciprocal behavior in close relationships
 - reactive physical or verbal aggression toward peers, caregivers, or other adults
 - inappropriate (excessive or promiscuous) attempts to get intimate contact (including but not limited to sexual or physical intimacy) or excessive reliance on peers or adults for safety and reassurance
 - impaired capacity to regulate empathic arousal as evidenced by lack of empathy for, or intolerance of, expressions of distress of others, or excessive responsiveness to the distress of others



Developmental Trauma Disorder

- E. Posttraumatic Spectrum Symptoms – youth exhibits at least one symptom in at least two of the three PTSD symptom clusters B, C, & D.**



Use of Psychotropic Medications in Foster Children

- **Concerns:**
 - too many
 - too much
 - too young
 - off-label prescribing



Risks of Psychotropic Medications in Children

- **Neurological**
 - tardive dyskinesia
 - neuroleptic malignant syndrome
 - serotonin syndrome
 - tics
 - seizures



Risks of Psychotropic Medications in Children

- **Endocrine**
 - hypothyroidism
 - weight gain and insulin resistance
 - hyponatremia



Risks of Psychotropic Medications in Children

- **Systemic**
 - hepatic toxicity
 - life threatening rashes
 - neutropenia
 - pancreatitis
 - cardiotoxicity
 - arrhythmia
 - myocarditis



Risks of Psychotropic Medications in Children

- **Psychiatric**
 - mania
 - suicidal ideation and behavior
 - psychosis



Use of Psychotropic Medications in Foster Children

- **When to use:**
 - medication indicated as primary or secondary treatment
 - impairment significant
 - psychosocial intervention not effective/available
 - benefits outweigh risks or risky to NOT treat
 - patient/family preference



Use of Psychotropic Medications in Foster Children

- Off-label prescribing
 - prescribing for non-indicated use
 - prescribing outside of age
 - prescribing at a different dosage
 - prescribing using a different titration schedule than FDA approval
 - prescribing via a different route of administration



Use of Psychotropic Medications in Foster Children

- Off-label prescribing
 - common, may be standard of care
 - legal
 - based on sound scientific evidence
 - American Society of Health-System Pharmacists (ASHP) - AHFS-DI
 - Truven Health Analytics - DrugDEX



Psychiatrist Blames Bad Gene Pool for Massive Drugging of Foster Care Children in Texas

America's Foster Care System: Test Lab for Big Pharma, Cash Cow for Caretakers?

Feds Pay for Drug Fraud: 92 Percent of Foster Care, Poor Kids Prescribed Antipsychotics Get Them for Unaccepted Uses

Unwilling Guinea Pigs: Using Foster Care Children For Forced Drug Experiments



HHS Activities

- **Sponsored Technical Assistance Webinar Series (1 – 6/2012)**
- **“Because Minds Matter: Collaborating to Strengthen Management of Psychotropic Medications for Children and Youth in Foster Care” in 8/2012**



Policy Development

- **Child and Family Services Improvement and Innovation Act (P.L. 112-34)**
 - amends **Fostering Connections to Success Act**
 - states must outline protocols for the appropriate use and monitoring of psychotropic medications



Psychotropic Medication Oversight Program

- **Components**
 - Screening, evaluation and treatment planning
 - Shared decision-making
 - Medication monitoring
 - Mental health expertise & consultation
 - Information sharing



Psychotropic Medication Oversight Program

- **Screening, evaluation and treatment planning:**
 - identification of a child's mental health needs
 - integrated multidisciplinary treatment plan



Psychotropic Medication Oversight Program

- **Shared decision-making:**
 - informed consent
 - assent
 - communication between the foster child, the caregiver, the child welfare agency and the mental health clinician(s)



Psychotropic Medication Oversight Program

- **Medication monitoring:**
 - monitoring medication utilization at the patient level
 - monitoring medication prescription practices at the city, county or state level



Psychotropic Medication Oversight Program

- **Mental health expertise & consultation:**
 - patient- and system-level consultation by a BC/BE Child and Adolescent Psychiatrist
 - access to other mental health professionals



Psychotropic Medication Oversight Program

- **Information sharing:**
 - policy statements and procedures
 - psychoeducational materials
 - consent forms, clinical rating scales
 - QI reports on prescription patterns
 - links to helpful, accurate, and ethical websites



Psychotropic Medication Oversight Program

- **Retrospective**
 - consent resides outside child welfare agency
 - Medicaid payment data reviewed to monitor use of psychotropic medications
 - Texas



Psychotropic Medication Oversight Program

- **Texas**
 - court authorizes DFPS or an individual to consent to medical care
 - medical consenter
 - completes training on informed consent
 - participates in each medical appointment of child
 - court may authorize a 16 or 17 year old youth to consent to his or her own medical care



Psychotropic Medication Oversight Program

- **Texas**
 - published Psychotropic Medication Utilization Parameters for Foster Children
 - eight criteria indicate need for review of the child's medication regimen



Psychotropic Medication Oversight Program

- **Texas**
 - **Psychotropic Medication Utilization Review (PMUR) Process**
 - Health screenings - STAR Health Service Managers interview caretakers to identify children whose medication regimens are outside of the parameters
 - Automated pharmacy claims screening – real time automated screening utilizing pharmacy claims to identify medication regimens outside the criteria
 - External request – CPS Nurse specialists, CPS caseworkers, CASA volunteers, foster parents, etc.
 - Court request – Family court judges



Psychotropic Medication Oversight Program

- **Prospective**
 - consent resides within child welfare agency
 - medication consent requests from prescribers reviewed prior to prescription
 - Illinois



Psychotropic Medication Oversight Program

- Illinois
 - prescription of psychotropic medications to foster children guided by Rule 325
 - prescribers who wish to prescribe psychotropic medications to children in foster care must first get consent from the DCFS Guardian



Psychotropic Medication Oversight Program

- Illinois
 - two components of informed consent
 - the Clinical Services in Psychopharmacology (CSP) conducts independent reviews of medication consent requests
 - DCFS Office of the Guardian provides consent for medical, surgical, end of life and psychiatric care



Thank you

