Children in Foster Care: Predictors of Psychiatric Diagnoses, Medication, and Mental Health Care

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Study Purpose

To investigate child, family, child welfare, and medical care correlates of mental health treatment among a state sample of children in foster care.

Kids in Foster Care: Mental Health Issues

- 50% to 80% have mental health disorders (Klee, Kronstadt, & Zlotnick, 1997; Stein et al., 1996; Trupin et al., 1993).
- 13% to 18% have had a filled prescription for a psychotropic medication, usually within a 1 year period (Child Health and Developmental Institute of Connecticut, 2001; Raghavan, et al., 2005; Zima et al., 1999).
- high utilizers of mental health services relative to other groups of children; accounting for 41% of all users of mental health services even though represented 4% of Medicaid eligible children (Halfon, Berkowitz, & Klee, 1992).

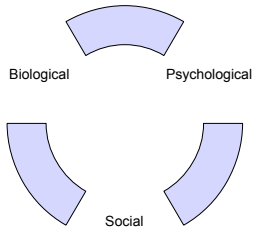
Factors Correlated with MH Utilization

- Type of maltreatment: Sexual abuse (Leslie et al., 2004).
- Type of placement: Children in kinship less likely to utilize mental health services (Leslie, et al., 2000).
- Placement change/instability: Doubles utilization rates (James, et al., 2004; Rubin et al., 2005).
- Demographic Factors:
  - Older male children are more likely to receive mental health treatment (Zima et al., 1999).
  - African American children less likely to be exposed to mental health services, even when controlling for potential confounding factors such as age, gender, type of maltreatment, and psychopathology (Garland et al., 2000; Leslie et al., 2004; Leslie et al., 2005).

Factors Correlated with Psychotropic Medication

- Rates of use 3 to 4 times that of non-disabled low income children (Zito et al., 2005).
- Older Caucasian males with history of physical abuse, public insurance, and borderline scores on CBCL (Raghavan et al., 2005).

Interaction of Factors Influencing Child Mental Health



Etiology of Mental Health Issues Among Children in Child Welfare

- Biopsychosocial Factors:
  - Biological:
    - Genetic Loading
    - Possible in utero exposure
    - Injury and other physical insults
    - Temperament
  - Psychological:
    - Trauma associated with maltreatment
    - Trauma associated with out-of-home placement – iatrogenic effects of child welfare involvement.
  - Social:
    - Poverty
    - Discrimination/oppression/historical trauma
    - Quality of Caregiving
    - Neighborhood/Environmental factors

Study Aim

- To examine the effects of child demographic characteristics, placement history variables and health service utilization on the probabilities (adjusted odds ratios) of psychiatric diagnoses, psychotropic medication use and mental health services utilization.
- The sample includes Native American children in care, an under-represented population in this literature.

Sample

- N = 6,153 children
- In Washington State's foster care system fiscal year 1999
- ≥ 90 days
- 5 and 18 years of age

Data Sources

- 3 administrative data bases linked at case level:
  - Child welfare
  - Mental Health
  - Medicaid

Measurement

- Child welfare data base
  - demographic data
  - foster care history
- Mental health data base
  - public community mental health service utilization by type of service (ever any services and specific services during year)
- Medicaid claims data base
  - *International Classification of Diseases, Ninth Revision* diagnoses
  - medical visits
  - emergency room encounters
  - Filled prescriptions for psychotropic medications.

Analyses

- Binary logit models assessed the relative influence of child demographic factors (age, gender, race), foster care history, and medical care on the estimated likelihood of receiving a psychiatric diagnosis, a psychotropic medication or community mental health system utilization during the observation year.
- Included in the logit models was the general foster child utilization rate specific to each community mental health service system (RSN) to control for local differences in the community mental health care system.

Table 1
Demographic Characteristics (N = 6153)

Variable	**Mean / %**
Age – Entry to Study	11.24 (SD = 3.72)
Gender	
Male	49.9%
Female	50.1
Race/Ethnicity	
Caucasian	58.8%
African American	13.5
Native American	11.1
Multi-race	10.4
Other	5.8

Child Welfare Factors

Age – Entry to Care	8.10 (SD = 4.39)
Length of Stay	3.73 years (SD = 3.08)
Number of Placements	
1	18.1%
2-3	31.2
4-6	28.0
7-10	14.6
11+	8.2
Reason for Placement	
Neglect or Parent D&A only	19.3%
Child Behavior	46.6
Physical Abuse	34.4
Parent in Jail	17.6
Sexual Abuse	15.8
Placement Type	
Non-family Foster Care only	49.6%
Any Family Foster Care	29.1
Any Group Care	21.3

Mental Health Services (N=6153)

Variable	**%**
Mental Health Diagnoses	
Any Diagnosis	27.8
ADHD	9.1
Depression	8.6
Drug/Alcohol	6.8
Conduct Disorder	5.5
Other	2.3
Psychotropic Medications	
Any psychotropic medications	24.9
Anitdepressants/mood stabilizers	16.5
Stimulants	13.4
Antipsychotics	3.0
Psychotropic Medication – No Diagnosis[1]	38.6
Mental Health Diagnosis – No Medication	16.7

[1] No diagnosis linked to the MA data base; may be a diagnosis in the public mental health chart.

Community Mental Health Treatment

Any Mental Health Treatment	46.0
Direct Counseling	37.3
Group Therapy	2.0
Day Treatment	.5
In-patient Psychiatric	1.3
Any Psychotropics or Mental Health Treatment	53.4

Medical Care

Physician Visits	
0	19.3%
1-5	44.6
>5	36.1
Emergency Room Visits	
0	81.0
1	9.2
>1	9.8

SIGNIFICANT FACTORS CORRELATED WITH PSYCHIATRIC DIAGNOSIS

Variable	Odds Ratio
Female	.80**
African American	.81*
Native American	.71**
# Placements	1.13**
Group Care	1.37**
M.D. Visits	1.45**
E.R. Visits	1.56**

**p<.05; **p<.01*

SIGNIFICANT FACTORS CORRELATED WITH PSYCHOTROPIC MEDICATION

Variable	Odds Ratio
African American	.81**
Native American	.78**
# Placements	1.09**
Group Care	1.20*
M.D. Visits	2.10**
E.R. Visits	1.18**

**p<.05; **p<.01*

FACTORS CORRELATED WITH A PSYCHIATRIC DIAGNOSIS AND/OR PSYCHOTROPIC MEDICATION

- Demographically, the clinically identified children were more often **male** and **Caucasian**. Their foster placement histories showed a pattern of **less stable placements**, with more **frequent exposure to group or residential care**. The clinically identified children also were **higher utilizers of outpatient and emergency medical care.**

SIGNIFICANT FACTORS CORRELATED WITH OUTPATIENT COUNSELING

Variable	Odds Ratio
Age-Study Entry	.95**
Female	.88*
African American	.76**
Native American	.57**
Age-1st Placed	1.07**
# Placements	1.33**
Group Care	1.35**
E.R. Visits	1.10*

**p<.05; **p<.01*

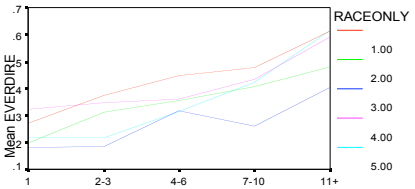
FACTORS CORRELATED WITH OUTPATIENT INDIVIDUAL COUNSELING

- Controlling for regional differences in the state mental health system, six factors were positively and significantly related outpatient counseling. These variables included being **younger at study entry** but being **placed at an older age**, being **male** and **Caucasian**, and experiencing **more placements**, with at least one of those **placements in group care**.

Figure 1

Percent Recieving Individual Counseling

by Number of Placements and Race



number of 'real' placements

1 = Caucasian, 2 = African American

3 = Navtive American, 4 = Multi-racial, 5 = Other

Limitations

- Administrative data
- No Clinical measures
- Does not capture other community mental health services outside of the public system.

Implications

- Need to better understand disproportionality:
  - Findings regarding Native American children particularly troubling.
  - Research with diverse *non*-foster care samples shows that African American families are just as likely to identify problem behaviors but have negative expectation about treatment.

Possible Approaches to Address Disproportionality

- Institute universal mental health screening for children entering care (WA State has since done this).
- Stronger partnerships between child welfare and mental health have proven to reduce disparities (Hurlburt et al., 2004).
- Work collaboratively with the communities of color to develop culturally appropriate interventions.

Multiple Placements

- Traumatic for children.
- Placement patterns and the potential consequences for children are complex, requiring further study (James et al., 2004).
- Should be a priority in child welfare.
- Collaborations between child welfare workers, other systems,and researchers to identify practice solutions.