


Youth and Family Risk Factors on Service Recommendations and Delivery in a School-Based System of Care

Melissa L. Whitson, Ph.D.
Joy S. Kaufman, Ph.D.
Yale University School of Medicine

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Background

- Systems of care (SOC) are coordinated networks of community-based services and supports that were created to meet the challenges of children and youth with serious emotional disturbance (SED) and their families (Stroul & Friedman, 1986).
- SOC communities offer an array of wraparound services individualized to the families' needs, including assessment, case management, outpatient therapy, inpatient services, intensive home-based care, respite care, therapeutic foster care, vocational training, and juvenile justice services.

Background

- SOCs have shown promising effects (E. Foster, Stephens, Krivelyova, & Gamfi, 2007; Graves, 2005; Tebes, Bowler, Shah, et al., 2005).
- Outcomes of systems of care have been found to be influenced by components of the services system as well as child and family factors (Bank & Barraston, 2001).
- Several risk factors associated with deterioration and/or negative outcomes in SOCs have been identified. (Hawkins, Catalano, & Miller, 1992; Kaufman et al., 2009; Nation, Crusto, Wandersman, et al., 2003; Walrath Ybarra, & Holden, 2006).
- Yet, researchers have yet to identify if the presence of these risk factors differentially impacts service access for these youth, which has been found to increase effectiveness (Tebes et al., 2005).

Risk Factors for Negative Outcomes in SOCs

- Child Risk Factors:
 - **Substance Use History** (Hawkins et al., 1992; Kaufman et al., 2009; Nation et al., 2003; Walrath et al., 2006).
 - **History of Suicide Attempts** (Mandell, Walrath, & Goldston, 2006).
 - **Minority Status** (Walrath et al., 2006).
 - **History of Out-of-Home Placements** (Kaufman et al., 2009; Walrath et al., 2006).
- Family Risk Factors:
 - **Substance Use History** (Hawkins, Catalano, & Miller, 1992; Nation, Crusto, Wandersman, et al., 2003).
 - **History of Mental Illness** (Fraser, James, & Anderson et al., 2006).

Risk Factor: Adolescent Substance Use

- Alcohol and drug abuse during adolescence remains a serious public health problem.
- Early onset of drug use has been consistently found to predict subsequent misuse and abuse of drugs.
- Youth with comorbid psychiatric and substance use problems are challenging SOCs due to higher levels of functional impairment and higher costs for services (King et al., 2000).
- It appears that youth with such comorbidity often fall under the jurisdiction of juvenile justice systems, leading to high rates of unmet need for their mental health and substance use problems (Huang et al., 2005).

Purpose of the Study

- Studies suggest two indicators of service access are useful benchmarks of service system development in SOCs: services recommended and services received (Walrath et al., 2006).
- Lack of research on how pertinent pre-referral risk factors that have been found to predict negative outcomes in systems of care proximally impact these system-level indicators (Tebes et al., 2005; Walrath et al., 2006).
- Important to identify if these risk factors are not only associated with negative outcomes, but also with service access in systems of care.

The PARK Project, Bridgeport, CT



- The Partnership for Kids or **PARK** Project is an innovative approach to community-based service delivery through partnership with local schools, families, providers and state agencies, for the purpose of producing positive outcomes for children and youth with serious emotional and behavioral challenges.
- PARK is first system of care community funded for starting a system of care in the school system and working out into the community rather than starting in the community and later going into the schools.

The PARK Vision and Mission

Vision

Children will live in a safe, caring community that nourishes the development of positive mental health.

Mission

To build a system of care in partnership with home, school, and community so that children with behavioral and mental health challenges can achieve success.

Systems Change

- True partnerships are developed between parents, youth, service agencies, and schools.
- Partners share responsibility and accountability for successes and failures of the system of care.
- Through collaborative partnership with schools, behavioral health is being incorporated into the Bridgeport schools as a necessary part of the learning environment.



Outcome Evaluation

- **Enrollment criteria:**
 - Attending targeted school
 - DSM IV diagnosis
 - In need of multi-agency services
 - At risk for or in out-of-home placement
 - Impairment in school, home and/or community that has lasted longer than 1 year

Sample

- 125 families included in this study:
 - All families enrolled into the PARK Project were invited to participate in outcome study, 64.9% (194/299) consented.
 - Sample for current study restricted to children 11 & older (n = 125).
 - All children were diagnosed with severe emotional or behavioral disorder
 - Data collected from primary caregiver and youth (age 11 and older) by trained interviewers, half of whom were parents of children within the system of care.
 - Families received a \$40 gift card for participation in each interview.

Measures

Child & Family Risk Factors

Caregivers provided history of child and family.

Dichotomous items representing presence or absence of each risk factor.

- Parent/caregiver history of substance abuse
- Family history of mental illness
- Child's history of out-of-home placements
- Child's history of suicide attempt(s)
- Child's history of substance use

- composite variable from caregiver's report and youth's responses to the Substance Use Survey – Revised (SUS-R).

Measures

- Services Recommended & Received:**
 Obtained from Outcome Grid, collected by Care Coordinators during Child Specific Team meetings
- Number of mental health and total services recommended and received
 - Dichotomous variables indicating whether or not types of services were received:
 - mental health
 - operational
 - juvenile justice
 - social service

Demographic Characteristics of Youth

- **Gender:** 59.2% male, 40.8% female
- **Age:** Mean = 14.23 Range = 11.13 - 19.10
- **Family Income:** 50% < \$15,000, 79% < \$25,000
- **Race/Ethnicity:** The majority of the youth were children of color.

■ Latino / Hispanic	56.8%
■ Black / African American	40.8%
■ Other (mostly Hispanic)	37.6%
■ White	8.0%
■ Native American	0.8%

Child & Family Risk Factors

- **Child Substance Use History:** Of the children who had youth or caregiver reports on substance use (n = 115), 21% had a substance use history.
- **Childs History of Suicide Attempts:** 8.8% (n = 114)
- **Child's History of Out-of-Home Placements:** 6% (n = 116)
- **Parent/Caregiver Substance Use History:** 38.3% (n = 115)
- **Family History of Mental Illness:** 77% (n = 113)

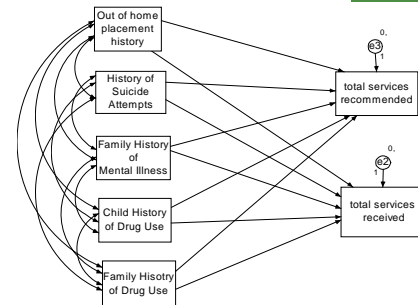
Services Recommended & Received

- **Total Services**
 Recommended: 0 - 17, Mean = 7.59
 Received: 0 - 13, Mean = 4.44
- **Mental Health Services**
 Recommended: 0 - 9, Mean = 3.89
 Received: 0 - 8, Mean = 2.52
 Received: 77.6%
- **Operational Services**
 Received: 59.7%
- **Juvenile Justice Services**
 Received: 9.7%
- **Social Services**
 Received: 59.7%

Data Analysis

- Preliminary ANOVAs indicated no significant differences between males & females on service factors.
- Multivariate multiple regression with five risk factors as predictors and two outcomes: sum of total services recommended and sum of total services received.
- Another regression with same predictors but with mental health services as the outcomes.
- Four separate logistic regressions examining the relationship between four of the risk factors and whether or not different types of services were received (mental health, operational, juvenile justice, social services).

Multiple Regression Analyses



Multiple Regression Analyses, continued

Total Services:

- **Child History of Drug Use** and **Family History of Drug Use** were significantly related to number of total services recommended ($\beta = .23$ and $\beta = .24, p < .05$).
- **Family History of Drug Use** positively related to number of total services received, while **History of Out-Of-Home Placements** was negatively related to services received ($\beta = .22, p < .05$; $\beta = -.30, p < .01$).

Mental Health Services:

- Only **Family History of Drug Use** was significantly related to number of mental health services recommended ($\beta = .30, p < .01$).
- **Family History of Drug Use** positively related to mental health services received, while **History of Out-Of-Home Placements** was negatively related to services received ($\beta = .23, p < .05$; $\beta = -.29, p < .01$).

Logistic Regression Analyses

- **Mental Health Services Received**
Trends for **Family History of Mental Illness** and **Child Drug History** (OR = 3.08, 5.56)
- **Operational Services Received**
Family History of Mental Illness (OR = 4.71)
- **Juvenile Justice Services Received**
Child Drug History (OR = 24.06)
- **Social Services Received**
Non significant

Summary

- Results suggest that previously identified risk factors for negative outcomes in systems of care were differentially associated with service access.
- Specifically, youth who had child and family histories of drug use had more services recommended and received more services than youth without these histories.
- In addition, children who had a history of out-of-home placements received less services.

Summary (continued)

- History of family mental illness was associated with receiving mental health & operational services.
- Child drug history was related to receiving mental health services & significantly improved prediction of a child receiving juvenile justice services.

Implications – Systems of Care

- Increased access to services is one of the goals of systems of care and has been found to be related to improved outcomes and reduction of symptoms for youth receiving services within a system of care.
- Results of this study highlight the need to evaluate the referral process within systems of care to ensure that at-risk youth are identified and equitably provided appropriate prevention and intervention services.

Implications – Adolescent Substance Use

- Consistent with previous research: children with histories of substance use were more likely to receive juvenile justice services.
- Researchers argue that keeping youth with emotional and behavioral problems out of the juvenile justice system should be a public health priority (Cocozza & Skowrya, 2000; E. M. Foster et al., 2004).
- Systems of care seek to reduce juvenile justice involvement by identifying challenges earlier and providing services that will enhance strengths and reduce difficulties. By targeting underlying mental health problems (e.g., depression, aggression), mental health services may reduce likelihood of subsequent offenses or contact with juvenile justice system.

Limitations

- No comparison group.
- Assessments only provided by parent/caregiver and youth (for one measure).
- Cross-sectional nature of data.
- Low percentages of youth who had a history of out-of-home placements and suicide attempts.
- Service data only available for a portion of the sample (85 out of 125).
- Dosage of services received not available.

Future Directions

- This paper provides a preliminary understanding of the impact of risk factors on service access for families within a school-based system of care.
- Continued research is needed to examine longitudinal outcomes for children with these risk factors and identify if differential service access and dosage impacts these outcomes over time.

Contact Information

Melissa L. Whitson, Ph.D. & Joy S. Kaufman, Ph.D.
Yale University School of Medicine
melissa.whitson@yale.edu
joy.kaufman@yale.edu