

Symptom Onset and Patterns of Service Use among Youth with Conduct Disorder:

Findings from the Great Smoky Mountains Study (GSMS) of Youth

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Outline

- Background: Findings on conduct disorder
- Description of Great Smoky Mountains Study
- Findings on symptom onset & service use
- Implications

Prevalence of CD

- 2.5% to 16.8%
(Angold et al, 1999; Maughan et al, 2004)
 - Variations in estimates
 - Definition (DBD, CD, SED)
 - Incidence: Past 3 months to past 1 year
 - Age: 6 to 18 years
- More common among boys
- High rates of comorbidity
- Increase over last few decades
(Costello et al, 2006)

Course and Prognosis

- Main findings from trajectory work:
 - Childhood onset → higher rates of subsequent offending (Broidy et al, 2003)
 - Aggression (chronic or physical) → continuity & escalation (Loeber et al, 2005)
- Long-term follow up:
 - Early substance use
 - Violence & arrest
 - Academic problems & lower school completion
 - Poor functional outcomes in early adulthood
 - APD?

Service use

- General picture for all child MH disorders
 - little use of specialty mental health services
- Behavioral disorders
 - 26-41% use services
 - Behavior disorders common in outpatient treatment, Child Welfare, and Juvenile Justice
- Lack of findings on service onset

Aims of the study

- Estimate prevalence of CD in community
- Examine rates of service use among children with CD
- Examine onset of service use
- Examine patterns of service use
 - What sectors?
 - What services within sectors?
 - Demographic variations

Great Smoky Mountains Study (GSMS) of Youth

- PIs: Costello & Angold
- Funded by NIMH & NIDA
- Cohort-sequential design
- General aims:
 - Estimate the number of boys & girls with mental health disorders
 - Persistence of those disorders over time
 - Need for and use of services
 - Risk factors

Measures

- Child & Adolescent Psychiatric Assessment (CAPA)
 - DSM-IV diagnosis over last 3 months
 - Symptom onset (retrospective)
- Child and Adolescent Services Assessment (CASA)
 - Last 3 months
 - Ever
 - Sectors: specialty mental health, education, child welfare, juvenile justice

Design of current study

Age at study entry	Y1	Y2	Y3	Y4
9	✓	✓	✓	✓
11	✓	✓		
13	✓			

Prevalence of CD in the GSMS

- N=1398
- 9.9% with CD (n=141)
- Middle of range of prior studies
- Liberal estimate
- Young age of the sample

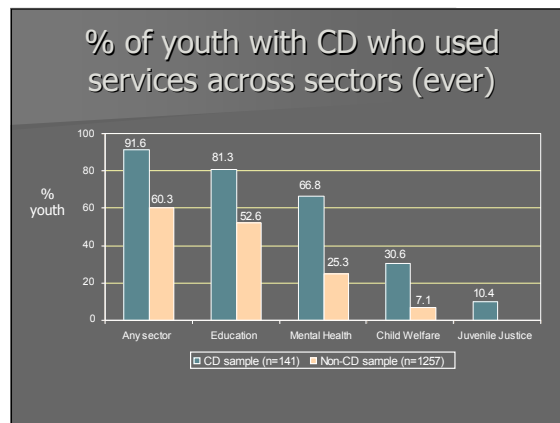
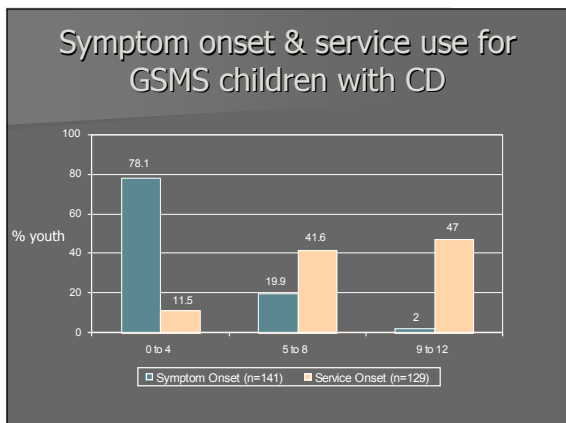
GSMS: Sample Characteristics

Demographics	GSMS (n=1398) %	CD sample (n=141) %	Non-CD sample (n=1257) %
Age at study entry			
9	36.7	33.9	36.9
11	34.9	42.7	34.5
13	28.4	23.5	28.7
Gender			
Male	50.7	80.3	51.0
Female	49.3	19.7	49.0
Race			
White	69.3	67.4	69.5
African American	6.2	14.2	5.3
American Indian	24.5	18.4	25.1

Comorbid conditions in the GSMS

DSM-IV diagnosis*	GSMS sample (n=1398) %	CD sample (n=141) %	Non-CD sample (n=1257) %
Oppositional defiant disorder	5.3	38.9	3.3
ADHD	3.0	15.1	2.2
Any depression	3.3	14.8	2.6
Any anxiety	5.7	14.0	5.2
Substance use	13.7	38.6	12.2

*At any wave



Demographic variations in service use

Service	% Girls	% Boys
Inpatient	39.2	8.1
Child Welfare	41.9	27.9

Use of Education services (ever)

Service	CD sample (n=141)	Non-CD sample (n=1257)
Total Education	81.3%	52.6%
Guidance counselor	72%	44.1%
Special Education (BEH)	12.2%	-
Special Education (LD/MR)	46.7%	29.4%
Tutoring	21.4%	14.9%

Use of Specialty Mental Health (ever)

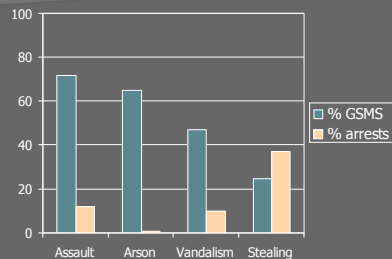
Service	CD sample	Non-CD sample
Total specialty Mental Health	66.8%	25.3%
Outpatient	64.9%	24.2%
Inpatient /Residential	14.2%	-

- ### Use of Child Welfare (ever)
- 1/3 of CD sample were in contact with Child Welfare
 - High rate of behavioral problems in maltreated youth
 - Foster care as a trigger for mental health services (Farmer et al, 2003)
 - Child Welfare as gateway / early warning system?

Juvenile Justice involvement (ever)

Service	CD sample	Non-CD sample
Total Juvenile Justice	10.4%	-
Court counselor / probation	9.9%	-
Detention / Jail	-	-

Comparison of symptoms to national arrest data*



*Snyder & Sickmund, 1995 - 253,100 arrests of juveniles

Summary of main findings

- Early onset of CD symptoms
- Lag between symptom onset and service onset
- High degree of service contact prior to age 13
 - Probably heightened by:
 - High rates of contact with the Education sector
 - Our definition of service use
- Use of multiple sectors

Implications

- Need for earlier screening and service provision
- Communication and coordination among sectors
- Evidence-based practices in schools