Supplementary Online Content

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This supplementary material has been provided by the authors to give readers additional information about their work.

eMethods:
Expanded Notes on Study Methods
eTable 1 and eTable 2

Characteristics of the Cook County Juvenile Temporary Detention Center (CCJTDC)

Consistent with juvenile detainees nationwide,[1] nearly 90% of detainees at CCJTDC were male; most were racial/ethnic minority youth.

Sampling and Procedures

Participants were 1829 male and female youth, 10 to 18 years old, randomly sampled from intake into the CCJTDC from November 20, 1995, through June 14, 1998. The sample was stratified by sex, race/ethnicity (African American, non-Hispanic white, Hispanic, and "other" race/ethnicity), age (10-13 years or ≥14 years), and legal status (processed in juvenile or adult court) to obtain enough participants to examine key subgroups (e.g., females, Hispanics, younger persons). There were a total of 13 strata, as listed below. There were too few female detainees of each race/ethnicity and detainees identified as "other" race/ethnicity to further stratify these groups. Detainees aged 10 to 13 years were not stratified by legal status because they were generally too young to be considered for transfer to adult court.

Strata:

- African American females
- Non-Hispanic white females
- Hispanic females
- African American males, aged 10-13 years
- Non-Hispanic white males, aged 10-13 years
- Hispanic males, aged 10-13 years
- African American males, 14 years or older and processed as adult transfer
- Non-Hispanic white males, 14 years or older and processed as adult transfer
- Hispanic males, 14 years or older and processed as adult transfer
- African American males, 14 years or older and processed as a juvenile
- Non-Hispanic white males, 14 years or older and processed as a juvenile
- Hispanic white males, 14 years or older and processed as a juvenile
- Other race/ethnicity

A study Liaison was scheduled to work every day (including weekends) throughout the study. Each day, the Liaison randomly selected potential participants within strata. Detainees were classified in strata using information listed in the intake log. The Liaison sampled from the strata in a pre-set order. If no participants were available for a strata, the Liaison sampled from the next strata. If multiple detainees were available for a strata, the Liaison used a random number table and the last digit of the CCJTDC ID number to randomly sample potential participants from within the strata.[2] The final sampling fractions for the strata ranged from 0.018 to 0.689.

All detainees who were awaiting the adjudication or disposition of their case were eligible to participate in the study. Among these, 2275 detainees were randomly selected; 4.2% (34 youth and 62 parents or guardians) refused to participate. There were no significant differences in refusal rates by sex, race/ethnicity, or age. Twenty-seven youth left the detention center before an interview could be scheduled; 312 left CCJTDC while we attempted to locate their caretakers for consent. Eleven others were excluded from the sample because they were unable to complete the interview. The final sample size was 1829: 1172 males, 657 females; 1005 African Americans, 296 non-Hispanic whites, 524 Hispanics, 4 "other" race/ethnicity; age range, 10 to 18 years (mean, 14.9 years; median, 15 years) (see **Table 1** in the companion article).

Face-to-face structured interviews were conducted at the detention center in a private area, most within 2 days of intake. Participants were paid $25 for the 2- to 3-hour baseline interview.

For each follow-up, we interviewed participants irrespective of where they lived: in the community (approximately two-thirds of interviews); at correctional facilities (nearly 30% of interviews); or by telephone if they lived more than two hours away (<5% of interviews). Participants were paid $50 for each of the 3- to 4-hour follow-up interviews.

Youth Processed in Juvenile or Adult Court

Although most juvenile offenders are processed in juvenile court, all 50 states and the District of Columbia have legal mechanisms to try juveniles as adults in criminal court.[3,4] Transfers to adult criminal court typically result from: (1) judicial waiver on a case-by-case basis,[5-7] (2) automatic transfers based on the type of offense, criminal history, and age of the detainee;[5] and (3) prosecutorial direct-file mechanisms that allow prosecutors to determine when to file certain juvenile cases directly in adult criminal court.[5] The increased availability of legal mechanisms to process juveniles in adult criminal court is largely responsible for the 366% increase between 1983 and 1998 in the number of juveniles held in adult jails.[8] As of 2004, about 7% of the approximately 2 million arrests of youths eligible for processing in the juvenile justice system were cases in which the youth was transferred directly to adult criminal court.[9,10]

Procedures for Obtaining Parental Consent for Minor Youth for Baseline and Follow-up Interviews

For all interviews, participants signed either an assent form (if they were <18 years) or a consent form (if they were ≥18 years). The Northwestern University Institutional Review Board and the Centers for Disease Control and Prevention Institutional Review Board approved all study procedures and waived parental consent for persons younger than 18 years, consistent with federal regulations regarding research with minimal risk.[11] We nevertheless attempted to contact parents of minors to obtain their consent and to provide them with information on the study, and used an independent participant advocate to represent the minors' interests.[11]

Baseline: Study Liaisons tried to reach detainees' parents or guardians in two ways: First, they attempted to call them by telephone at least three times over 2 days. Second, they tried to obtain consent from the parents or guardians in person during visiting hours. A Participant Advocate acted on the child's behalf if the parents or guardians were not reachable. In the absence of a parent or guardian, the Participant Advocate protects the interests of the youth and determines that they are consenting voluntarily, understand the research procedure, and are not being coerced to participate. Consistent with federal regulations, we excluded detainees who did not wish to participate, even if their parents or guardians consented.[11,12]

Follow-up: Two weeks before a follow-up interview was due, a Liaison telephoned the parent or guardian of minors to obtain their consent. If they provided consent, the Liaison then contacted the youth to obtain assent and schedule their interview. The Illinois Department of Child and Family Services allowed us to recontact and interview participants who were under their guardianship, provided that we received assent from the youth. As with Baseline interviews, we excluded detainees who did not wish to participate, even if their parents or guardians consented. Also as with Baseline interviews, minors could still participate even if we could not reach their parent or guardian. If we could not reach them after one week and at least five attempts, we initiated the Participant Advocate system described above. In these cases, the Liaison contacted the participant directly to request his or her assent. If we could not reach the participant by phone, an interviewer traveled to his or her location.[11,12]

Clinical Research Interviewers

For baseline and follow-up interviews, female participants were interviewed by female interviewers. Most interviewers had graduate degrees in psychology or an associated field and had experience interviewing at-risk youth; one-third were fluent in Spanish. All interviewers were trained for at least 1 month. Follow-up interviews were longer than baseline interviews because, at the request of our funding agencies, we added additional variables.

Measures

Baseline Interviews

We administered the Diagnostic Interview Schedule for Children, version 2.3 (DISC-2.3),[13,14] based on the *DSM-III-R*, the most recent English and Spanish versions then available, which assesses disorders in the past six months. The DISC-2.3 is highly structured, contains detailed symptom probes, has acceptable reliability and validity, and requires relatively brief training.[13-17] Because the DISC-2.3 did not include posttraumatic stress disorder (PTSD), we used the module from the Diagnostic Interview Schedule for Children, version IV (DISC-IV) when it became available, 13 months after the study began.[18]

Follow-up Interviews

We administered the DISC-IV (Child and Young Adult versions), based on the *DSM-IV*, to assess schizophrenia, mood disorders, anxiety disorders, attention-deficit/hyperactivity disorder (ADHD), and disruptive behavior disorders in the past year.[19,20] Impairment was defined as "moderate impairment in at least one area of functioning" (Criterion A).[21] Consistent with *DSM-IV*, impairment was not required for hypomania and panic disorders.

To assess past year substance use disorders and antisocial personality disorder (APD), we administered the Diagnostic Interview Schedule, version IV (DIS-IV).[22,23] We used the DIS-IV to assess substance use disorders at follow-up because the DISC-IV is not sufficiently detailed for our population. Consistent with *DSM IV*, impairment was not required for a diagnosis of substance use disorder. Antisocial personality disorder was assessed for participants 18 years and older (who were no longer eligible for childhood disruptive behavior disorders). Consistent with the National Comorbidity Survey Replication,[24] participants who met criteria for substance use disorder or APD with "partial recovery" were scored as having the disorder. We did not implement *DSM* exclusionary criteria.

Comparability of Diagnoses Over Time

Our diagnostic measures changed over time for three reasons: (1) the release of the DISC-IV (based on the *DSM-IV* criteria) mid-study; (2) aging out of childhood disruptive behavior disorders by some participants; and (3) our need to use a more comprehensive measure of substance use disorder (DIS-IV) for the follow-up interviews.

As detailed in our prior work,[25] we checked that changes in prevalence rates over time were not due to changes in measurement by creating a set of adjusted scoring algorithms that maximized comparability among the DISC-2.3, DISC-IV, and DIS-IV criteria, but minimized alterations. Analyses of predictive continuity of disorders were run twice, with and without these adjusted criteria. Because there were no substantive differences in findings and to enable comparisons with other studies, we present results using the original, unadjusted diagnoses.

History of Incarceration

Incarceration variables are based on data from official records. We obtained intake and exit dates for correctional stays from the Illinois Department of Corrections adult and youth divisions, the Cook County Department of Corrections, and the Clerk of the Court of Cook County (for stays in the Cook County Juvenile Temporary Detention Center). Because it was not feasible to collect records for those in federal prisons, out-of-state prisons, and detention facilities outside of Cook County (< 3% of stays), dates for stays in these facilities are based on self-report. We used intake and exit dates to determine the total number of days incarcerated in the year prior to the follow-up interview.

Difference in Interviews Used for "Time 2" From Those Used in a Prior Manuscript

- **Time 1.** As in our prior work,[25] Time 1 is the first follow-up interview, but excludes interviews that occurred more than 18 months after the interview due date. Using a narrower window would restrict the generalizability of our findings because, in this high-risk and highly mobile population, participants can be difficult to track. Median time between baseline and Time 1 was 3.1 years (mean [SD], 3.2 [0.3] years; range, 2.7-4.5 years). For simplicity, we refer to the Time 1 interview as occurring approximately 3 years after baseline. **Table 1**, summarizing sample demographics and retention, shows that 90.7% of participants had a Time 1 interview.

- **Time 2.** Time 2 is the 4.5-year follow-up interview. As with Time 1, we excluded interviews that occurred more than 18 months after this due date. For 68 participants who were particularly difficult to find, we used their first follow-up interview if it occurred between 4.5 and 6.0 years after baseline. The median time between baseline and the Time 2 interview was 4.7 years (mean [SD], 4.8 [0.4] years; range, 4.3-6.0 years). We subsequently refer to the Time 2 interview as occurring approximately 5 years after baseline; 82.2% of participants had a Time 2 interview (**Table 1**).

  We note that this Time 2 differs from the "Time 2" used in our prior work.[25] The "Time 2" in our prior work also used a small portion of data from 3.5 year and 4.0 year interviews that were conducted on a random subsample (n=997) of our participants. The reason we could not use those data here is because the additional interviews did not assess many of the disorders used in this manuscript to determine comorbidity (panic, generalized anxiety, attention-deficit/hyperactivity, oppositional defiant, conduct, and antisocial personality).

Missing Data

To assess the effect of attrition on generalizability, we compared participants who provided follow-up data with those who did not on the following variables: demographic characteristics (gender, race/ethnicity, and age) and baseline disorders. There were no significant differences except: (1) at both Time 1 and Time 2, African Americans were less likely to drop out compared with non-Hispanic whites and Hispanics ($P < .05$); and (2) the 18 participants with hypomania at baseline were more likely to drop out at Time 2 than participants without hypomania ($P < .05$). We accounted for potential bias from demographic differences in attrition by augmenting sampling weights with nonresponse adjustments.

Differences in Definitions of Disorder From Those Used in Earlier Manuscripts Describing Disorders at Baseline

Prevalence rates of some disorders differ from those presented in earlier manuscripts[2,26] because we used different impairment criteria. Earlier manuscripts relied on *DSM-III-R* definitions of impairment for hypomania, panic, and substance use disorders, which were widely accepted at the time. This manuscript uses the more recent *DSM-IV* definitions to facilitate comparisons with publications from the National Comorbidity Survey Replication.[24]

"Any disorder" includes different disorders in this manuscript than in prior manuscripts[2,18,25,26] for 3 reasons. First, because separation anxiety, overanxious, and obsessive-compulsive disorders were not assessed in the follow-up interviews, they are not included in the definition of "any disorder" in this manuscript. Second, for this manuscript "any disorder" includes PTSD as a constituent disorder. In prior manuscripts, we reported prevalence rates of PTSD at baseline separately.[18,27] However, because PTSD is critical to understanding comorbidity in our sample, "any disorder" includes PTSD.

eReferences

1. Snyder HN, Sickmund M. *Juvenile Offenders and Victims: 2006 National Report.* Washington, DC: U.S. Department of Justice, Office of Justice Programs, Office of Juvenile Justice and Delinquency Prevention;2006.

2. Teplin LA, Abram KM, McClelland GM, Dulcan MK, Mericle AA. Psychiatric disorders in youth in juvenile detention. *Arch Gen Psychiatry.* 2002;59(12):1133-1143.

3. Puzzanchera C, Stahl A, Finnegan TA, Tierney N, Snyder HN. *Juvenile Court Statistics 1999.* Pittsburg PA: Office of Juvenile Justice and Delinquency Prevention;2003. NCJ # 201241.

4. General Accounting Office. *Juvenile Justice: Juveniles Processed in Criminal Court and Case Dispositions.* Washington, DC: US General Accounting Office;1995. GAO/GGD-95-170.

5. Griffin P. *Trying and sentencing juveniles as adults: an analysis of state transfer and blended sentencing laws. Technical Assistance to the Juvenile Court: Special Project Bulletin.* Pittsburg, PA: National Center for Juvenile Justice;2003.

6. Snyder HN, Sickmund M, Poe-Yamagata E. *Juvenile Transfers to Criminal Court in the 1990's: Lessons Learned from Four Studies.* Washington, DC: US Department of Justice, Office of Juvenile Justice and Delinquency Prevention;2000.

7. Salekin RT. Juvenile transfer to adult court: How can developmental and child psychology inform policy decision making? In: Bottoms BL, Bull Kovera M, eds. *Children, Social Science, and the Law*. New York, NY: Cambridge University Press; 2002:203-222.

8. Austin J, Johnson KD, Gregoriou M. *Juveniles in Adult Prisons and Jails: A National Assessment.* Washington, DC: Office of Juvenile Justice and Delinquency Prevention;2000.

9. Snyder HN. *Juvenile Arrests 2004.* Washington, DC: Office of Juvenile Justice and Delinquency Prevention; 2004 2006. NCJ204608.

10. Washburn JJ, Teplin LA, Voss LS, Simon CD, Abram KM, McClelland GM. Psychiatric disorders among detained youths: a comparison of youths processed in juvenile court and adult criminal court. *Psychiatr Serv.* 2008;59(9):965-973.

11. Federal Policy for the Protection of Human Subjects: Notices and Rules: Part 2. *Federal Register.* 1991;56(117):28002-28032.

12. Fisher CB. Integrating science and ethics in research with high-risk children and youth. *Social Policy Report: Society for Research in Child Development.* 1993;7(4):1-27.

13. Shaffer D, Fisher P, Dulcan MK, et al. The NIMH Diagnostic Interview Schedule for Children Version 2.3 (DISC-2.3): Description, acceptability, prevalence rates, and performance in the MECA Study: methods for the Epidemiology of Child and Adolescent Mental Disorders Study. *J Am Acad Child Adolesc Psychiatry.* 1996;35(7):865-877.

14. Schwab-Stone ME, Shaffer D, Dulcan MK, et al. Criterion validity of the NIMH Diagnostic Interview Schedule for Children Version 2.3 (DISC-2.3). *J Am Acad Child Adolesc Psychiatry.* 1996;35(7):878-888.

15. Piacentini J, Shaffer D, Fisher P, Schwab-Stone M, Davies M, Gioia P. The Diagnostic Interview Schedule for Children -- Revised Version (DISC-R): III. Concurrent criterion validity. *J Am Acad Child Adolesc Psychiatry.* 1993;32(3):658-665.

16. Schwab-Stone M, Fisher PW, Piacentini J, Shaffer D, Davies M, Briggs M. The Diagnostic Interview Schedule for Children--Revised version (DISC--R): II. Test-retest reliability. *J Am Acad Child Adolesc Psychiatry.* 1993;32(3):651-657.

17. Shaffer D, Schwab-Stone M, Fisher P, et al. The Diagnostic Interview Schedule for Children -- Revised version (DISC-R): I. Preparation, field testing, interrater reliability, and acceptability. *J Am Acad Child Adolesc Psychiatry.* 1993;32(3):643-650.

18. Abram KM, Teplin LA, Charles DR, Longworth SL, McClelland GM, Dulcan MK. Posttraumatic stress disorder and trauma in youth in juvenile detention. *Arch Gen Psychiatry.* 2004;661:403-410.

19. Shaffer D, Fisher P, Lucas C. The Diagnostic Interview Schedule for Children (DISC). In: Hilsenroth MJ, Segal DL, eds. *Comprehensive Handbook of Psychological Assessment (Vol 2)*. Hoboken, NJ: John Wiley & Sons; 2003:256-270.

20. Shaffer D, Fisher P, Lucas CP, Dulcan MK, Schwab-Stone ME. NIMH Diagnostic Interview Schedule for Children Version IV (NIMH DISC-IV): description, differences from previous versions, and reliability of some common diagnoses. *J Am Acad Child Adolesc Psychiatry.* 2000;39(1):28-38.

21. Canino G, Shrout PE, Rubio-Stipec M, et al. The DSM-IV rates of child and adolescent disorders in Puerto Rico. *Arch Gen Psychiatry.* 2004;61:85-93.

22. Robins LN, Cottler LB, Bucholz KK, Compton WM. *Diagnostic Interview Schedule for DSM-IV (DIS-IV).* St. Louis, MO: Washington University; 1995.

23. Compton WM, Cottler LB. The Diagnostic Interview Schedule (DIS). In: Hilsenroth M, Segal DL, eds. *Comprehensive Handbook of Psychological Assessment.* Vol 2. Hoboken, NJ: John Wiley & Sons; 2004:153-162.

24. Kessler RC, Chiu WT, Demler O, Walters EE. Prevalence, Severity, and Comorbidity of 12-Month DSM-IV Disorders in the National Comorbidity Survey Replication. *Arch Gen Psychiatry.* 2005;62:617-627.

25. Teplin LA, Welty LJ, Abram KM, Dulcan MK, Washburn JJ. Prevalence and Persistence of Psychiatric Disorders in Youth After Detention. *Arch Gen Psychiatry.* 2012;69(10):1031-1043.

26. Abram KM, Teplin LA, McClelland GM, Dulcan MK. Comorbid psychiatric disorders in youth in juvenile detention. *Arch Gen Psychiatry.* 2003;60(11):1097-1108.

27. Abram KM, Washburn JJ, Teplin LA, Emanuel KM, Romero EG, McClelland GM. Posttraumatic stress disorder and psychiatric comorbidity among detained youths. *Psychiatr Serv.* 2007;58(10):1311-1316.

eTable 1. Time 1 DSM-IV Diagnoses Predicted from Baseline Diagnoses, Males[a,b]

		Disorder at Time 1 (n = 1041)[c]														
Baseline Disorder, (N)		**Major Depression**			**PTSD**			**APD[d]**			**Alcohol**			**Drug**		
Major Depression																
% Absent,	(856)	**7.6**			**6.1**			27.5			17.8			28.5		
% Present,	(97)	**20.0**			**18.0**			35.7			30.4			43.1		
OR (95% CI)		**3.0**	**(1.3,**	**7.2)**	**3.4**	**(1.3,**	**8.6)**	1.5	(0.6,	3.5)	2.0	(0.9,	4.3)	1.9	(0.9,	4.0)
AOR(95% CI)		--			5.0	(0.95,	26.8)	0.8	(0.3,	2.2)	1.3	(0.6,	2.9)	1.8	(0.8,	3.9)
Dysthymia																
% Absent,	(877)	**7.4**			**6.6**			27.2			**17.5**			**27.8**		
% Present,	(79)	**24.6**			**16.4**			41.8			**35.1**			**53.5**		
OR (95% CI)		**4.1**	**(1.6,**	**10.1)**	**2.8**	**(1.01,**	**7.7)**	1.9	(0.8,	4.9)	**2.6**	**(1.1,**	**6.2)**	**3.3**	**(1.5,**	**7.4)**
AOR(95% CI)		**3.4**	**(1.1,**	**10.7)**	**5.2**	**(1.1,**	**25.6)**	1.2	(0.4,	3.6)	1.7	(0.6,	4.5)	**3.2**	**(1.4,**	**7.3)**
GAD																
% Absent,	(920)	8.4			**6.5**			28.9			19.3			**29.5**		
% Present,	(31)	23.2			**30.2**			16.7			16.2			**45.9**		
OR (95% CI)		3.3	(0.9,	12.2)	**6.2**	**(1.7,**	**22.0)**	0.5	(0.1,	2.1)	1.2	(0.3,	5.2)	**3.1**	**(1.1,**	**9.3)**
AOR(95% CI)		1.9	(0.4,	10.1)	2.4	(0.3,	21.1)	0.4	(0.1,	2.0)	0.8	(0.2,	3.4)	**3.3**	**(1.05,**	**10.7)**
PTSD[e]																
% Absent,	(387)	7.1			4.5			31.9			14.5			31.7		
% Present,	(32)	9.1			5.8			11.2			7.2			9.5		
OR (95% CI)		1.3	(0.35,	4.8)	1.3	(0.3,	6.2)	0.0	(0.0,	0.0)	0.5	(0.1,	2.0)	0.3	(0.1,	0.9)
AOR(95% CI)		1.1	(0.2,	5.4)	--			0.0	(0.0,	0.0)	0.5	(0.1,	2.0)	0.2	(0.1,	0.8)
ADHD																
% Absent,	(836)	**7.0**			6.7			26.7			18.2			**28.2**		
% Present,	(119)	**24.3**			13.4			40.4			26.4			**43.7**		
OR (95% CI)		**4.3**	**(1.9,**	**9.8)**	2.1	(0.8,	5.7)	1.9	(0.8,	4.2)	1.7	(0.8,	3.6)	**2.1**	**(1.1,**	**4.1)**
AOR(95% CI)		**3.5**	**(1.4,**	**9.0)**	3.5	(0.7,	17.9)	1.1	(0.4,	2.7)	1.2	(0.5,	2.7)	1.9	(0.97,	3.8)
CD																
% Absent,	(669)	**7.3**			6.8			**22.0**			**15.2**			**25.6**		
% Present,	(286)	**15.0**			10.2			**47.0**			**29.6**			**45.3**		
OR (95% CI)		**2.2**	**(1.1,**	**4.7)**	1.6	(0.7,	3.5)	**3.1**	**(1.6,**	**6.4)**	**2.4**	**(1.4,**	**4.3)**	**2.5**	**(1.5,**	**4.3)**
AOR(95% CI)		1.8	(0.7,	4.7)	2.2	(0.6,	7.9)	**--**			1.6	(0.8,	3.1)	**2.1**	**(1.2,**	**3.7)**
ODD																
% Absent,	(821)	**6.2**			**6.4**			26.9			**17.8**			**28.0**		
% Present,	(134)	**27.5**			**14.9**			38.9			**27.7**			**44.0**		
OR (95% CI)		**5.7**	**(2.6,**	**12.7)**	**2.6**	**(1.02,**	**6.4)**	1.7	(0.8,	3.8)	**2.2**	**(1.06,**	**4.7)**	**2.6**	**(1.3,**	**5.1)**
AOR(95% CI)		**5.0**	**(2.1,**	**12.1)**	3.9	(0.8,	19.1)	1.0	(0.4,	2.6)	1.5	(0.6,	3.4)	**2.1**	**(1.04,**	**4.1)**
Alcohol																
% Absent,	(708)	**6.7**			7.2			**24.4**			**13.3**			**25.6**		
% Present,	(238)	**16.3**			8.9			**40.5**			**36.5**			**43.6**		
OR (95% CI)		**2.7**	**(1.3,**	**5.7)**	1.3	(0.5,	2.9)	**2.1**	**(1.1,**	**4.0)**	**3.7**	**(2.1,**	**6.5)**	**2.2**	**(1.3,**	**3.7)**
AOR(95% CI)		2.3	(0.99,	5.6)	1.1	(0.3,	3.3)	1.7	(0.8,	3.5)	--			**1.9**	**(1.02,**	**3.5)**
Drug																
% Absent,	(530)	6.7			6.5			**20.1**			**13.3**			25.4		
% Present,	(418)	11.7			9.0			**38.1**			**27.4**			35.8		
OR (95% CI)		1.8	(0.9,	3.9)	1.4	(0.7,	3.1)	**2.5**	**(1.4,**	**4.2)**	**2.4**	**(1.4,**	**4.3)**	1.6	(0.99,	2.6)
AOR(95% CI)		1.7	(0.8,	3.8)	**4.0**	**(1.2,**	**12.9)**	**1.9**	**(1.03,**	**3.5)**	1.6	(0.8,	3.0)	--		

OR = Odds ratio; AOR = Adjusted odds ratio; CI = Confidence Interval; PTSD = Posttraumatic stress disorder; APD = Antisocial personality disorder; GAD = Generalized anxiety disorder; CD = Conduct disorder; ODD = Oppositional defiant disorder.

[a] Descriptive statistics are weighted to adjust for sampling design and reflect the demographic characteristics of the Cook County Juvenile Temporary Detention Center.

[b] Prevalence rates of disorder at Time 1 among males who did and did not have disorder present at baseline. Odds ratios contrast the prevalence of disorder at Time 1 (shown in the columns) between males who had the disorder at baseline (shown in the rows), compared with those who did not have the disorder at baseline. In each cell, the first odds ratio is unadjusted and the second is adjusted for the disorder at baseline (see Methods). Gray shading indicates homotypic prediction within category of disorder (affective, anxiety, behavioral, or substance). Bolding indicates statistically significant ORs or AORs ($p < 0.05$).

[c] Of the 1054 males interviewed at Time 1, 1048 received the DISC-IV and 1044 received the DIS-IV.

[d] Adjusted odds ratios for predicting APD at Time 1 control for CD at baseline.

[e] Assessed at baseline for females who were interviewed after the posttraumatic stress disorder module of the Diagnostic Interview Schedule for Children, Version IV became available.

eTable 2. Time 1 DSM-IV Diagnoses Predicted from Baseline Diagnoses, Females[a,b]

		Disorder at Time 1 (n = 603)[c]														
Baseline Disorder (N)		**Major Depression**			**PTSD**			**APD[d]**			**Alcohol**			**Drug**		
Major Depression																
Absent, %	(450)	**9.9**			**6.9**			**19.0**			10.3			17.2		
Present, %	(94)	**25.3**			**12.3**			**41.9**			12.2			24.2		
OR (95% CI)		**3.1**	**(1.7,**	**5.5)**	**1.9**	(0.9,	3.8)	**3.1**	**(1.3,**	**7.4)**	1.2	(0.6,	2.3)	1.5	(0.6,	3.6)
AOR(95% CI)		--			**2.9**	**(1.2,**	**7.4)**	**2.1**	**(1.01,**	**4.5)**	0.9	(0.5,	1.9)	1.2	(0.5,	2.8)
Dysthymia																
Absent, %	(473)	**9.9**			**6.8**			23.3			9.8			19.4		
Present, %	(71)	**32.8**			**15.4**			28.1			16.7			12.7		
OR (95% CI)		**4.4**	**(2.5,**	**7.8)**	**2.5**	**(1.2,**	**5.1)**	1.3	(0.6,	2.6)	1.9	(0.97,	3.5)	0.6	(0.3,	1.2)
AOR(95% CI)		**3.1**	**(1.6,**	**6.4)**	**4.5**	**(1.8,**	**11.1)**	0.9	(0.4,	2.0)	1.7	(0.9,	3.3)	0.5	(0.2,	1.0)
GAD																
Absent, %	(518)	**10.9**			**7.2**			23.1			10.2			18.7		
Present, %	(22)	**45.6**			**19.0**			34.6			17.5			12.7		
OR (95% CI)		**6.8**	**(3.1,**	**14.9)**	**3.0**	**(1.2,**	**7.9)**	1.8	(0.7,	4.4)	2.1	(0.8,	5.4)	0.7	(0.2,	2.0)
AOR(95% CI)		**5.0**	**(2.1,**	**11.8)**	**4.2**	**(1.2,**	**14.4)**	1.5	(0.6,	3.8)	2.2	(0.8,	5.8)	0.5	(0.2,	1.6)
PTSD[e]																
Absent, %	(247)	14.1			8.4			22.2			10.7			18.8		
Present, %	(36)	8.2			4.5			41.6			11.5			36.3		
OR (95% CI)		0.5	(0.2,	1.8)	0.5	(0.5,	0.5)	2.5	(0.7,	8.4)	1.1	(0.4,	3.1)	2.4	(0.6,	9.4)
AOR(95% CI)		0.3	(0.1,	1.5)	--			2.0	(0.7,	5.5)	0.7	(0.2,	2.5)	1.8	(0.5,	6.3)
ADHD																
Absent, %	(457)	**10.9**			**6.9**			22.8			9.5			18.0		
Present, %	(87)	**22.2**			**13.5**			29.8			16.2			20.5		
OR (95% CI)		**2.3**	**(1.3,**	**4.2)**	**2.1**	**(1.1,**	**4.2)**	1.4	(0.7,	2.8)	1.8	(1.0,	3.4)	1.2	(0.7,	2.1)
AOR(95% CI)		1.7	(0.9,	3.1)	**2.7**	**(1.1,**	**6.6)**	1.0	(0.4,	2.2)	1.5	(0.8,	2.9)	1.0	(0.5,	1.8)
CD																
Absent, %	(391)	11.3			**6.5**			**16.6**			**8.1**			**13.4**		
Present, %	(152)	16.3			**11.6**			**42.0**			**17.1**			**31.0**		
OR (95% CI)		1.5	(0.9,	2.6)	**1.9**	**(1.01,**	**3.6)**	**3.6**	**(1.8,**	**7.4)**	**2.3**	**(1.3,**	**4.0)**	**2.9**	**(1.6,**	**5.2)**
AOR(95% CI)		1.1	(0.6,	2.0)	**2.5**	**(1.02,**	**6.2)**	--			1.5	(0.8,	2.9)	**1.9**	**(1.05,**	**3.3)**
ODD																
Absent, %	(463)	**11.1**			**6.8**			**20.3**			**8.0**			18.3		
Present, %	(81)	**22.6**			**14.6**			**46.9**			**26.5**			19.7		
OR (95% CI)		**2.3**	**(1.3,**	**4.2)**	**2.4**	**(1.2,**	**4.7)**	**3.5**	**(1.8,**	**6.8)**	**4.0**	**(2.3,**	**7.1)**	1.1	(0.6,	2.0)
AOR(95% CI)		1.7	(0.9,	3.1)	**3.2**	**(1.3,**	**7.8)**	**2.4**	**(1.1,**	**5.5)**	**3.2**	**(1.8,**	**5.8)**	0.8	(0.4,	1.5)
Alcohol																
Absent, %	(393)	12.3			7.8			**17.3**			**7.6**			**14.1**		
Present, %	(139)	13.6			8.0			**39.6**			**19.7**			**30.6**		
OR (95% CI)		1.1	(0.6,	2.0)	1.0	(0.5,	2.0)	**3.1**	**(1.5,**	**6.5)**	**3.2**	**(1.9,**	**5.6)**	**2.8**	**(1.6,**	**5.0)**
AOR(95% CI)		0.9	(0.5,	1.7)	1.9	(0.8,	4.4)	**2.2**	**(1.2,**	**4.1)**	--			1.4	(0.8,	2.7)
Drug																
Absent, %	(318)	**9.8**			7.9			15.1			**6.7**			**9.3**		
Present, %	(215)	**16.7**			8.1			39.4			**15.9**			**32.1**		
OR (95% CI)		**1.8**	**(1.1,**	**3.1)**	1.0	(0.6,	1.9)	0.0	(0.0,	0.0)	**2.7**	**(1.5,**	**4.7)**	**4.7**	**(2.7,**	**8.1)**
AOR(95% CI)		1.6	(0.96,	2.8)	1.5	(0.6,	3.5)	0.0	(0.0,	0.0)	1.8	(0.9,	3.7)	--		

OR = Odds ratio; AOR = Adjusted odds ratio; CI = Confidence Interval; PTSD = Posttraumatic stress disorder; APD = Antisocial personality disorder; GAD = Generalized anxiety disorder; CD = Conduct disorder; ODD = Oppositional defiant disorder.

[a] Descriptive statistics are weighted to adjust for sampling design and reflect the demographic characteristics of the Cook County Juvenile Temporary Detention Center.

[b] Prevalence rates of disorder at Time 1 among females who did and did not have disorder present at baseline. Odds ratios contrast the prevalence of disorder at Time 1 (shown in the columns) between females who had the disorder at baseline (shown in the rows), compared with those who did not have the disorder at baseline. In each cell, the first odds ratio is unadjusted and the second is adjusted for the disorder at baseline (see Methods). Gray shading indicates homotypic prediction within category of disorder (affective, anxiety, behavioral, or substance). Bolding indicates statistically significant ORs or AORs ($p < 0.05$).

[c] Of the 605 females interviewed at Time 1, all 605 received the DISC-IV and 603 received the DIS-IV.

[d] Adjusted odds ratios for predicting APD at Time 1 control for CD at baseline.

[e] Assessed at baseline for females who were interviewed after the posttraumatic stress disorder module of the Diagnostic Interview Schedule for Children, Version IV became available.