ASPE RESEARCH BRIEF
OFFICE OF THE ASSISTANT SECRETARY FOR PLANNING AND EVALUATION
OFFICE OF HUMAN SERVICES POLICY - U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES

PSYCHOTROPIC MEDICATION USE AMONG CHILDREN WHO ARE SUBJECTS OF CHILD PROTECTIVE SERVICES INVESTIGATIONS: DOES COURT OVERSIGHT MATTER?

Overview

Psychotropic medications are used to treat emotional and behavioral problems. According to the American Academy of Child and Adolescent Psychiatry (2015), there is evidence that these medications are both under- and over-prescribed to children in the United States. In the child welfare system, over-prescription is the primary concern and has been the subject of recommendations by a number of health care organizations in recent years (Committee on Early Childhood, Adoption, and Dependent Care, 2002; Council on Foster Care, Adoption, and Kinship Care and Committee on Early Childhood, 2012) focusing on ensuring adequate assessment of children's mental health conditions and needs as well as proper oversight and monitoring of the use of these drugs. The rates at which psychotropic drugs are prescribed to children and youth in foster care has also received congressional attention (GAO, 2014).

This ASPE Research Brief examines the courts' roles in overseeing psychotropic medication prescriptions for children who were subjects of child maltreatment investigations. It is based on data from the National Survey of Child and Adolescent Well-Being II, which studied the well-being of nearly 6,000 children investigated by child protective services agencies in 2008 and 2009. The study conducted direct assessments of children and surveyed their caregivers and caseworkers at several points in time through 2012.

Key Findings

1. Child welfare systems varied widely on whether and how they monitor psychotropic drug prescriptions for children served. Of children served by the child welfare system:
   - 44 percent lived in counties in which neither caseworkers nor the courts reported responsibility for monitoring the use of these medications
   - 23 percent lived in counties in which caseworkers had responsibility for activities related to use and monitoring of these medications
   - 32 percent lived in counties in which the courts took a leadership role in overseeing the use of psychotropic medications.
2. Twelve percent of all children aged 2 and older for whom a child protective services (CPS) investigation was conducted in 2008 and 2009 were using one or more psychotropic medications in the months immediately following the maltreatment investigation. This included 24 percent of children assessed as having one or more emotional or behavioral problems, and 4 percent of those without such problems.
3. While use of psychotropic medications was lower in counties in which courts had oversight responsibility, this relationship faded when other variables such as child demographics, insurance type, and service system characteristics were taken into account.
4. In counties where courts monitor the medical plans and prescription medications of children in the child welfare system, children were less likely to be re-reported to CPS.

This research was conducted under contract to ASPE by researchers at RTI International. Authors include Cecilia Casanueva, Chelsea Burfeind, and Stephen Tueller. The findings and conclusions of this report are those of the author(s) and do not necessarily represent the views of ASPE or HHS.

Background

Emotional or behavioral problems (E/BPs) are a significant concern among children reported to the child welfare system (CWS) for possible maltreatment. Between one-third and one-half of children reported to CWS meet clinical thresholds for mental health disorders (Burns et al., 2004). Psychotropic medications often represent frontline treatment for many pediatric mental health conditions and when used appropriately, can be an effective component of symptom management (National Institute on Mental Health, 2009). However, inappropriate use of these medications is a particular concern. Recent guidelines and federal policies call attention to the need for the courts and CWS to ensure children receive adequate screening and close monitoring of psychotropic medication prescriptions (Committee on Early Childhood, Adoption, and Dependent Care, 2002; Council on Foster Care, Adoption, and Kinship Care and Committee on Early Childhood, 2012). Of particular concern in the child welfare population is "polypharmacy," defined for the purposes of this study as the concurrent use of three or more psychotropic medications. Multiple prescriptions may be purposeful, but may also result inadvertently from shifts in caregivers and health care providers, without adequate overall management of children's conditions and service receipt.

Careful monitoring of the use of psychotropic medication among children is necessary to avoid the potential for very serious adverse events (sudden death, life-threatening rash, liver failure, cardiovascular complications, diabetes, suicidality, and psychotic symptoms) as well as less serious but nonetheless important side effects that may include weight gain, decreased appetite, dizziness, withdrawn behavior, and sleep disturbances (Kubiszyn & Mire, 2014). Furthermore, many children in the United States are prescribed psychotropic medications that have not been fully studied in clinical trials specific to children and adolescents. Short- and long-term consequences for children are relatively unknown for many drugs and there is scarce knowledge of the safety and efficacy of some medications or about their interactions with other drugs in the pediatric population (Huefner & Griffith, 2014; Tishler & Reiss, 2012). Both the National Council of Juvenile and Family Court Judges and the American Bar Association provide recommendations about monitoring psychotropic medication for children in CWS care (Flood, 2015; National Council of Juvenile and Family Court Judges, 2011).

Recommendations to child welfare and juvenile justice agencies on the oversight of psychotropic medication for children involved with the CWS include:

- Obtain informed consent by the child, parents, and the court-appointed guardian
- Ensure that a psychiatric evaluation is completed
- Conduct a full review of the child's medical history and diagnostic assessment
- Develop a psychosocial and psychotropic treatment plan
- Review the child's functioning improvement, risks and benefits of using, evidence supporting the use, access by child, and assurance of use as directed
- Monitor medication use and combination with other medications
- Conduct regular reassessment of reactions (side effects) and response to psychotropic medication
- Monitor the discontinuation of the psychotropic medication (Solchany, 2011).

Data and Methods

The analyses presented in this brief use data from the National Survey of Child and Adolescent Well-Being II (NSCAW II, Ringeisen et al., 2011), a nationally representative longitudinal survey of children who were the subject of child protective services investigations in 2008 or 2009 and were followed through 2012. The sample design includes oversampling of children in out-of-home placement, and undersampling of cases not receiving services.[1] Of the sample, 68 percent remained at home following the maltreatment investigation with no ongoing child welfare case and 19 percent remained at home with an open in-home case. Ten percent were

[1] To account for oversampling of out-of-home children, all estimates presented are from weighted data. The raw sample for types of living arrangements includes sufficient sample size to detect potential associations with court oversight.

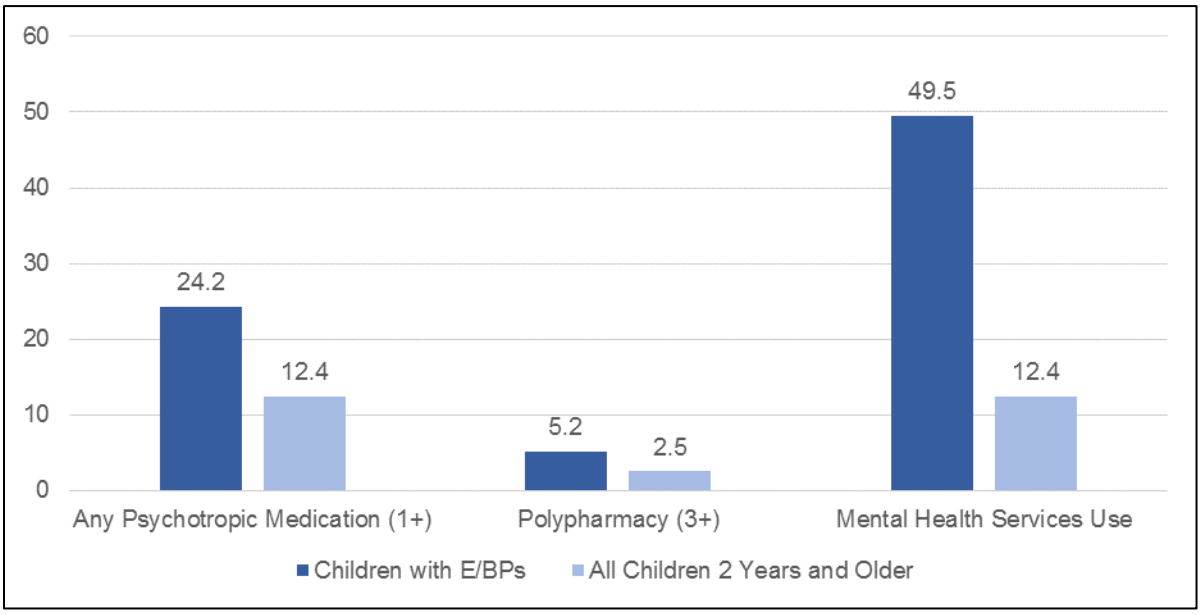
living with relatives (7 percent informally and 3 percent in kinship foster care), and 4 percent were in foster care or other child welfare placements.

The analyses examine associations between the courts' roles in overseeing psychotropic medication prescriptions for children in the CWS and the frequency and patterns with which such medications are used, as well as their associations with subsequent maltreatment re-reports. The analyses also review the extent to which these children received mental health services other than psychotropic medications. Analyses focus on children ages 2 to 17 years, as well as a critical subpopulation of these children identified as having E/BPs. These analyses include children placed in out-of-home settings and children remaining in home with either an open or a closed CWS file after investigation. The brief concludes with a discussion of the role and relevance of court and caseworker oversight of psychotropic medication use. Detailed information on the sample and definitions used in this brief may be found in the methodological appendix.

Use of Psychotropic Medication and Mental Health Services

Among children 2 years old and older, about 42 percent were identified with one or more E/BPs (based on scores in the clinical range on standardized measures used for direct assessment). As shown in Figure 1, about 24 percent of children with identified E/BPs (based on caregiver, teacher, or youth reports of symptoms) and 12 percent of all children were prescribed a psychotropic mediation. Of note, among children without identified E/BPs, 4 percent also received one or more psychotropic medications.

Figure 1. Percentage of Children Using Psychotropic Medications and Mental Health Services



Polypharmacy, that is, the use of three or more psychotropic medications simultaneously, occurred among 3 percent of children 2 years old and older, and 5 percent of children with E/BPs. There were no significant differences for polypharmacy by gender, race/ethnicity, or setting. Polypharmacy was more frequent among children 11 to 17 years old compared to younger children; and children who received inpatient, family doctor, and specialty outpatient mental health services compared with children not receiving these services. Among children with E/BPs, polypharmacy was also more frequent for those with Medicaid compared to children with other types of private insurance (Appendix Table 1).

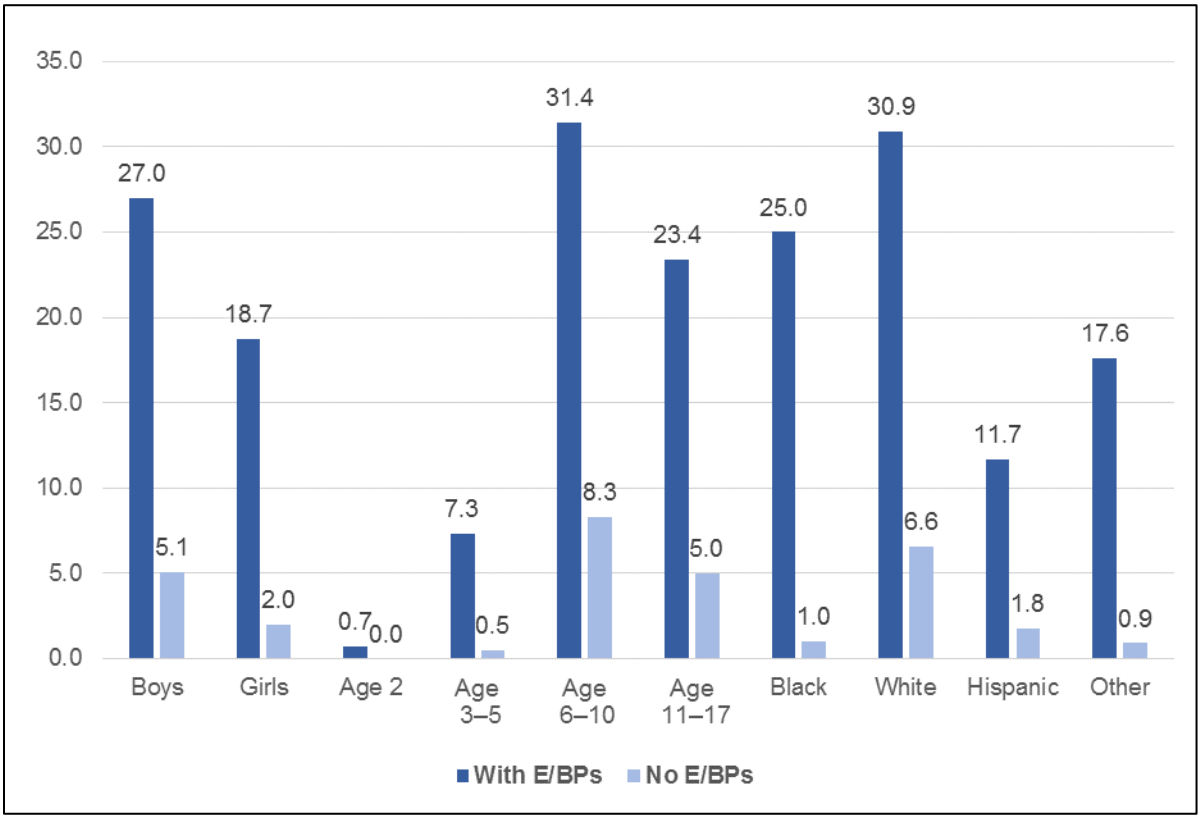
As expected, children with identified E/BPs received mental health services more often than the total population of children who were the subjects of maltreatment investigations.

Who is Receiving Psychotropic Medication?

Children of widely varying demographic characteristics are prescribed psychotropic medications. Among both children with E/BPs and in the total sample of children, boys had higher use of psychotropic medication than girls, children age 6 and older had higher use than their younger counterparts, and usage was distributed across racial/ethnic groups, with the highest rates among children identified as White. Usage was greatest among children with Medicaid compared to children with other types of private insurance; as well as among children seeing a family physician (versus not receiving care from a family physician), receiving outpatient mental health services (versus not receiving specialty care), and receiving inpatient mental health services (versus not receiving inpatient care, Appendix Table 1). These results were evident both in descriptive analyses and when other variables were taken into account.

As shown in Figure 2, children with E/BPs were significantly more likely to receive psychotropic medications than children without E/BPs, with variations by children's age and race/ethnicity. Children age 6 to 10 years old, as well as White children with and without E/BPs, were the most likely to receive psychotropic medications (Appendix Table 2).

Figure 2. Demographic Characteristics of Children with and without E/BPs and Use of Any Psychotropic Medications



Who is Receiving Mental Health Services?

Similarly, as shown in Appendix Table 2, receipt of mental health services among children with E/BPs and all children aged 2 and older varied by demographic characteristics:

- *Sex:* Girls with E/BPs more often received mental health services; however, among all children aged 2 and older with or without E/BPs, boys received more services.

- *Age:* For children with E/BPs and all children aged 2 and older, as age increased, so did receipt of mental health services (ranging from 5 percent to 6 percent among children aged 2 years to approximately 42 percent to 55 percent among children aged 11 to 17 years).
- *Race/Ethnicity:* For children with E/BPs and all children, mental health services were greatest among children identified as White, followed by Other, Black, and Hispanic.
- *Setting*: Receipt of mental health services was greatest among children in group home/residential treatment and lowest among children remaining in home with an open or closed CWS file.
- *Type of Insurance*: Unlike use of psychotropic medications, receipt of mental health services for both children with E/BPs and all children was relatively comparable for children with Medicaid or with private/other insurance.

These results remained evident when other variables were taken into account.

Is Level of Court and CWS Oversight of Medical Plans Associated with Psychotropic Medication and Mental Health Services Use?

NSCAW-participating counties (n = 83) and caseworkers in those counties who were responsible for children participating in the study were categorized into three groups depending on how oversight for psychotropic prescriptions was handled, as reported by CWS agencies' directors and caseworkers (see text box). Using latent class analyses, responses from agency directors and caseworkers were combined and analyzed, and three groups emerged:

- **Caseworker Responsibility**. Caseworkers had primary responsibility for overseeing prescription medication for children in their caseload. This group included counties in which 23 percent of children reside.
- **Court Oversight**. Courts had primary responsibility for oversight activities. This category included counties in which 32 percent of children reside.
- **Neither**. Agency directors reported courts were rarely or never involved with psychotropic medication and caseworkers reported not at all being responsible for monitoring prescription medications for children in their caseload. This category was largest, including counties in which 44 percent of children reside.

PSYCHOTROPIC MEDICATION OVERSIGHT

Agency directors were asked to report for each type of psychotropic oversight if the court was always, sometimes, rarely, or never involved. Court oversight in monitoring medical plans and psychotropic medications included:
(1) reviewing and approving medication plans before a prescription was written;
(2) reviewing and approving changes to a medication prescription; and
(3) monitoring prescription medications at hearings, requiring that medications be prescribed, and requiring that medications be stopped or dosage changed.

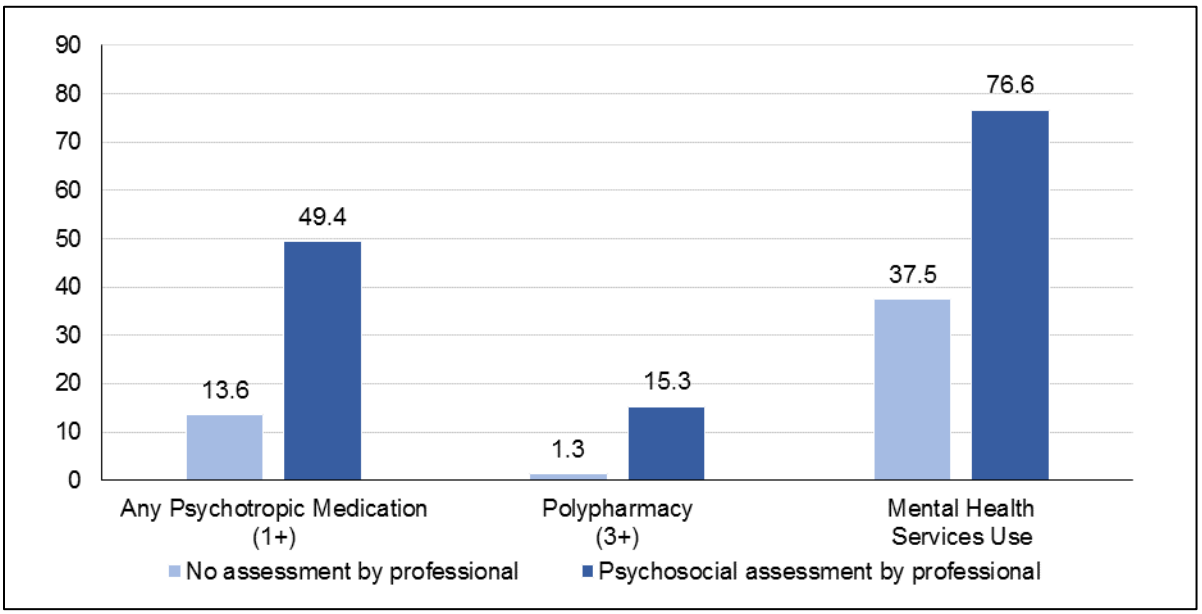
Caseworkers reported their level of responsibility (from very responsible to not at all) related to prescription medication for children in their caseloads with E/BPs. Responsibilities could include:
(1) arranging for evaluation or treatment visits;
(2) reporting on medication use at team meetings;
(3) documenting medication use in child welfare records;
(4) obtaining permission for medication use from the biological parent or courts; and
(5) reporting on medication use at hearings.

In general, children in counties where courts were responsible for monitoring medical plans and prescription medication were less likely to be using psychotropic medications compared to those in counties with low court oversight (9 percent compared to 14 percent) and less likely to be prescribed three or more such medications (less than 1 percent compared to 3 percent) (Appendix Table 3). However, when other variables were taken into account, the associations between court oversight and psychotropic medication use were no longer evident (Appendix Table 4). Thus, other characteristics that are correlated with oversight practices are likely responsible for apparent differences in psychotropic medication use between jurisdictions with and without court oversight practices. These factors may include demographic characteristics (child age, sex, race/ethnicity), caseworker

report of a formal psychosocial assessment, insurance type, and receipt of specialty and general medical care for E/BPs. Other unmeasured factors may also be important.

As shown in Figure 3, among the population of children with E/BPs, those children that the caseworker reported received a formal psychosocial assessment conducted by a psychologist or other medical professional were more likely than children without an assessment to receive any psychotropic medication, more than three psychotropic medications, and mental health services. These results remained evident when other variables were taken into account.

Figure 3. Percentage of Children with E/BPs Receiving Treatment Based on Caseworker Report of Formal Assessment



Is Level of Court and CWS Oversight of Medical Plans Associated with Later Child Maltreatment Re-Reports?

The two groups representing court oversight of psychotropic medication use and caseworker responsibility were significantly associated with fewer children being re-reported for maltreatment across the following 36 months compared to the group with low court oversight and low caseworker responsibility for both children with E/BPs and among all children (Table 1). This result also remained significant when other variables were taken into account.

Table 1. Child Maltreatment Re-reports by Type of Court/CWS Oversight of Prescription Medications

Court Oversight and Caseworker Responsibility	All Children		Children with E/BPs	
	N	Re-Reports percent	N	Re-Reports percent
Total	3,096	13.9*	1,339	17.8*
Neither	1,343	17.7[a]	601	22.7[a]
Caseworkers responsibility	958	11.8[b]	422	12.9[b]
Courts oversight	795	10.1[b]	316	13.4[b]

Note: All analyses were conducted using weighted NSCAW II baseline, Wave 2, and Wave 3 data. Pearson χ^2 tests for cluster samples were used for significance tests. Asterisks indicate statistical significance (*$p < .05$), groups with a different superscript letter are significantly different from each other.

As shown in Table 1, children with E/BPs and all children aged 2 and older in counties in which neither courts nor caseworkers are responsible for monitoring psychotropic medications also had the highest percentage of maltreatment re-reports.

That court oversight of psychotropic medications was not significantly related to rates of psychotropic medication use after controlling for other factors yet was significantly related to maltreatment re-reports suggests that while multiple factors may explain use of psychotropic medication among children who are the subjects of maltreatment investigations, court oversight of prescription medication could be correlated with other court and caseworker practices that improve child safety. This study cannot identify the temporal order of key events. Therefore, variables that account for significant associations with use of psychotropic medication, namely the caseworker reporting a formal psychosocial assessment and receipt of mental health services, may or may not be a consequence of court oversight.

Implications

State policies vary greatly in the extent to which they require court oversight of medical plans and prescription medication for E/BPs (Mackie et al., 2011). Several recent high-profile studies found high rates of psychotropic medication use among foster children. The need for judicial oversight related to psychotropic medications for children under court jurisdiction has been articulated in several recent guidelines and federal policies. Both the American Academy of Pediatrics (Committee on Early Childhood, Adoption, and Dependent Care, 2002) and the American Academy of Child and Adolescent Psychiatry (2001) have published guidelines calling for adequate screening, concurrent psychosocial treatment, and cautious use of psychotropic medications, particularly among young children. Most recently, the *Child and Family Service Improvement and Innovation Act* (Public Law 112-34, 2011) mandated that state and tribal Title IV-B agencies address psychotropic medication oversight among children in foster care. At present, only a few states have passed legislation on court oversight of psychotropic medication (Connecticut in 2004, California in 2004 and 2007, Texas in 2005, 2011 and 2013, Oregon in 2009, Nevada in 2011, and Illinois in 2011; per NCSL, 2013). However, this research found that court oversight of psychotropic medication use itself, when controlling for other factors including receipt of mental health services, was not significant in reducing the use of psychotropic medication. Additional research is needed to identify the factors that influence use and over-prescription of these medications.

Among all children and those with E/BPs, court oversight and caseworker responsibility were associated with fewer maltreatment re-reports across the following 36 months when compared to agencies with low court oversight and low caseworker responsibility, even when other variables were taken into account. Tracking of maltreatment re-reports is critical to assess the effectiveness of juvenile courts and the CWS in ensuring child safety after protective intervention. A key outcome sought by federal child welfare programs is ensuring that "children who have been found to be victims of abuse or neglect are protected from further harm" (U.S.

Department of Health and Human Services Administration for Children and Families, 2011). There was a connection between court oversight and caseworker responsibility with reducing maltreatment re-reports. Because of the lack of a direct relationship between court oversight and use of psychotropic medications, the positive child welfare safety outcome described here may be a marker of the quality of the child welfare agency, the resources of the jurisdictions, or a combination of these factors. Future studies are needed to understand what specific practices associated with court oversight and caseworker responsibility for psychotropic medication may explain the safety results.

At the same time, despite published guidelines calling for adequate screening, assessment, and treatment planning for the unique mental health needs of children who have been maltreated, close to 4 percent of those without an identified E/BP also receive one or more psychotropic medications. Adequate screening and assessment can help ensure that not only are children not unduly medicated, but those in need of mental health services or psychotropic medications receive them.

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Methodological Appendix

The National Survey of Child and Adolescent Well-Being II

NSCAW is a longitudinal survey with two nationally representative samples, intended to answer a range of fundamental questions about the functioning, service needs, and service use of children who come in contact with CWS. NSCAW is sponsored by the Office of Planning, Research and Evaluation within the Administration for Children and Families, U.S. Department of Health and Human Services. This study uses data from the second NSCAW cohort (NSCAW II).

The NSCAW II cohort included 5,872 children ranging in age from birth to 17.5 years old at the time of sampling. Children were sampled from child welfare investigations closed between February 2008 and April 2009 in 83 counties nationwide. The cohort included substantiated and unsubstantiated investigations of abuse or neglect, and children and families who were and were not receiving services.

The sample design includes oversampling children in out-of-home placement, and undersampling of cases not receiving services to ensure appropriate representation among subgroups. At the time of sampling, 4,112 children were receiving services from the CWS, and 3,613 had a substantiated investigation. At baseline, 1,105 children were in non-kin foster care, 495 in kin foster care, and 540 were in informal kin care (defined as not receiving CWS funding), while some children had already being reunified with their family. As the study progressed, more children were placed out-of-home, reaching 3,250 children placed out-of-home at any point during the study. Once oversampling is taken into account, the weighted estimate of out-of-home placement across the study is 25 percent.

Face-to-face interviews or assessments were conducted with children, parents, and nonparent adult caregivers (e.g., foster parents, kin caregivers, group home caregivers), and investigative and services caseworkers. A paper or Web-based survey was given to the child's teacher. Baseline data collection was completed between April 2008 and September 2009. For Wave 2, children and families were re-interviewed approximately 18 months after the close of the NSCAW II index investigation. The NSCAW II cohort of children who were approximately 2 months to 17.5 years old at baseline ranged in age from 16 months to 19 years old at Wave 2. Data collection for Wave 2 began in October 2009 and was completed in January 2011. Wave 2 weighted response rates were 82.8 percent for children, 86.3 percent for caregivers, and 93.9 percent for caseworkers. For Wave 3, children and families were re-interviewed approximately 36 months after the close of the NSCAW II index investigation. The NSCAW II cohort of children who were approximately 2 months to 17.5 years old at baseline ranged in age from 34 months to 20 years old at Wave 3. Data collection for Wave 3 began in June 2011and was completed in December 2012. Wave 3 weighted response rates were 80.2 percent for children, 82.6 percent for caregivers, and 93.7 percent for caseworkers.

The data for all figures were calculated from baseline data. Children 2 to 17 years were considered to be at risk for an emotional/behavioral problems if either (1) a caregiver reported an elevated score (> 1.5 standard deviations above the mean) on the Total Problems, Internalizing, or Externalizing scales of the Child Behavior Checklist (Achenbach & Rescorla, 2001); (2) an adolescent reported an elevated score (> 1.5 standard deviations above the mean) on the Total Problems, Internalizing, or Externalizing scales of the Youth Self Report (Achenbach & Rescorla, 2001); (3) a teacher reported an elevated score (> 1.5 standard deviations above the mean) on the Total Problems, Internalizing, or Externalizing scales of the Teacher Report Form (Achenbach & Rescorla, 2001); (4) a clinically significant score was obtained on the Children's Depression Inventory (Kovacs, 1992); or (5) a clinically significant score was obtained on the Post Traumatic Stress Disorder scale of the Trauma Symptoms Checklist (Briere, 1996). However, these measures do not necessarily equate with clinical diagnoses. Use of psychotropic medication and mental health services was based on caregiver's report. All caregivers of children 2 to 17 years old were asked about their child's current use of psychotropic medications. Any use of psychotropic medications was defined as one or more. Polypharmacy was defined as the use of three or more psychotropic medications. Any mental health service was defined as use of at least one

session of any specialty outpatient, inpatient, family doctor, or school-based services for an emotional, behavioral, learning, attentional problem, or substance abuse problem.

Information about the caseworker report on the child receiving a formal psychosocial assessment was based on one question: "Was a formal assessment done for an emotional, behavioral, or attention problem? This would have been done by a psychologist or a medical professional at school or some other place." Responses were either yes or no.

The data for Table 1 were calculated from follow-up data. A re-report was defined as the second, third, or subsequent report that alleges a child has been maltreated and that receives an investigation or assessment by child protective services regardless of the disposition.[2] To be counted as a re-report, a minimum of 24 hours must have elapsed between the index report at baseline and the subsequent re-report. Information on re-reports was from caseworker interviews at 18 and 36 months follow up. Caseworkers were asked to describe up to 10 re-reports, including the date of re-report, status and outcome of investigation, type of abuse, alleged perpetrator, where the abuse or neglect was alleged to have occurred, and placement decision after investigation. No caseworker interview was pursued when children had a closed case after the baseline interview and a caregiver reported no further contact or service received from the CWS (because they no longer had a caseworker). Additionally, once a child turns 18 years old, he or she is not reportable to child protective services.

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[2] The definition of re-report used here follows previous publications on re-reports (Connell et al., 2007; Fluke et al., 2008; Lipien & Forthofer, 2004).

Appendix Table 1. Use of Mental Health Services and Psychotropic Medication

Characteristic	Children 2 to 17 Years Old				Children 2 to 17 Years Old with Emotional/Behavioral Problems			
	N	*Any Mental Health Services* (percent)	*Current Psychotropic Medication (percent)*	3+ psychotropic Medication (percent)	*N*	*Any Mental Health Services* (percent)	*Current Psychotropic Medication (percent)*	3+ psychotropic Medication (percent)
Total	3,096	29.0	12.4	2.5	1,339	49.5	24.2	5.2
Gender		***	***			*	*	
Male	1,578	33.7	15.7	2.9	632	43.5	28.8	5.5
Female	1,518	24.4	9.0	2.1	707	54.8	19.0	4.9
Age		***	***	**		***	***	*
2	304	5.7	0.1	0	63	5.3	1.0	0
3–5	814	12.9	2.1	0.3	207	31.3	7.4	1.2
6–10	1,023	34.8	19.6	2.3	527	52.8	31.4	4.1
11–17	955	42.1	16.5	5.0	542	55.4	25.0	7.9
Race/Ethnicity		**	***			*	***	
Black	873	24.6	11.0	1.4	352	48.5	26.0	3.3
White	1,200	35.8	17.8	3.6	533	56.2	32.0	7.3
Hispanic	787	22.4	6.3	1.6	331	39.6	12.3	3.1
Other	231	29.2	8.9	3.0	122	50.3	18.7	6.8
Setting		*	*			*	*	
In-home closed	1,190	28.7	13.0	2.5	529	48.9	23.9	5.1
In-home open	863	26.4	9.1	3.0	339	47.5	21.4	7.6
Informal Kin care	244	30.6	20.1	0.9	105	51.9	37.9	1.6
Formal Kin care	229	39.3	12.1	0.8	88	69.8	27.2	2.4
Foster care	386	46.1	15.1	4.2	191	67.8	29.1	8.3
Group home or residential program	52	86.1	48.6	22.2	38	83.0	74.9	36.1
Insurance			*				*	*
Medicaid	2,390	28.9	14.2	3.1	1,040	49.8	27.5	6.9
Private/Other	486	32.5	9.3	1.5	206	52.0	17.5	2.1
Inpatient MH Services			***	***		NA	***	**
Yes	125	NA	64.2	30.0	112		63.9	32.3
No	2,970		10.7	1.6	1,226		21.3	3.3
Specialty Outpatient MH Services			***	***			***	***
Yes	773	NA	43.0	10.2	555	NA	51.5	12.6
No	2,320		4.5	0.6	782		9.5	1.3
Family Doctor MH services		NA	***	***		NA	***	**
Yes	269		65.1	11.4	218		70.0	12.1
No	2,826		6.8	1.5	1,120		14.2	3.8
Child with E/BPs		***	***	***		-	-	-
Yes (42.2 percent)	1,339	49.5	24.2	5.2				
No	1,755	14.0	3.8	0.4		-	-	-

Note: All analyses were on weighted NSCAW II baseline data; N's are unweighted and, therefore, direct percentages cannot be calculated by hand. Reported N's vary slightly across analyses because of missing data in some variable categories. Pearson χ^2 tests for cluster samples were used for significance tests. Asterisks indicate statistical significance (*p < .05, **p < .01, ***p < .001). An asterisk in a column applies to the subsequent results for the covariate.

Appendix Table 2. Use of Psychotropic Medication among Children 2 to 17 Years Old With and Without Emotional/Behavioral Problems

Demographic Characteristic	Current Psychotropic Medication			
	Children 2 to 17 years Old With Emotional/Behavioral Problems		Children 2 to 17 Years Old Without Emotional/ Behavioral Problems	
	N	(percent)	(percent)	*p*
Gender				
Male	1,705	27.0	5.1	***
Female	1,615	18.7	2.0	***
Age				
2	520	0.7	0.0	
3–5	818	7.3	0.5	**
6–10	1,021	31.4	8.3	***
11–17	961	23.4	5.0	***
Race/Ethnicity				
Black	949	25.0	1.0	***
White	1,266	30.9	6.6	***
Hispanic	859	11.7	1.8	***
Other	241	17.6	0.9	**

Note: All analyses were on weighted NSCAW II baseline data. N's are unweighted and, therefore, direct percentages cannot be calculated by hand. Asterisks indicate statistical significance (*p < .05, **p < .01,***p < .001).

Appendix Table 3. Court Oversight and Caseworker Responsibility by Use of Mental Health Services and Psychotropic Medication

	Children 2 to 17 Years Old				Children 2 to 17 Years Old with Emotional/Behavioral Problems			
Characteristic	***N***	***Any Mental Health Services* (percent)**	***Current Psychotropic Medication (percent)***	**3+ psychotropic Medication (percent)**	***N***	***Any Mental Health Services* (percent)**	***Current Psychotropic Medication* (percent)**	**3+ psychotropic Medication (percent)**
Total	3,096	29.0	12.4	2.5	1,339	49.5	24.2	5.2
Court oversight and Caseworker responsibility			*	***				*
Neither	1343	31.6	14.1	3.1	601	50.5	25.8	6.2
Caseworker responsibility	958	31.6	14.1	3.6	422	54.2	22.9	7.1
Court oversight	795	23.4	8.7	0.8	316	43.7	22.4	2.2
Caseworker report of psychosocial assessment		***	***	***		***	***	**
Yes	599	63.5	36.3	10.6	384	76.6	49.4	15.3
No	1462	19.9	7.0	0.7	527	37.5	13.6	1.3

Note: All analyses were on weighted NSCAW II baseline data; N's are unweighted and, therefore, direct percentages cannot be calculated by hand. Reported N's vary slightly across analyses because of missing data in some variable categories. Pearson χ^2 tests for cluster samples were used for significance tests. Asterisks indicate statistical significance (*p < .05, **p < .01, ***p < .001). An asterisk in a column applies to the subsequent results for the covariate

Appendix Table 4. Logistic Regression Model Predicting Any Mental Health Services, Any Prescription Medication Current Use, and Polypharmacy among Children 2 and Older with Emotional/Behavioral Problems—NSCAW II Baseline

(N = 1,399)	Any Mental Health Services			Any Current Use Prescription Medication			3 or More Medications (Any Polypharmacy)		
	OR	Lower 95 percent CI	Upper 95 percent CI	OR	Lower 95 percent CI	Upper 95 percent CI	OR	Lower 95 percent CI	Upper 95 percent CI
Court Characteristics									
Court Type (ref. Neither)									
Caseworkers responsibility	1.1	0.7	1.8	0.9	0.5	1.7	1.3	0.6	3.0
Courts oversight	0.8	0.5	1.3	1.4	0.8	2.6	0.4	0.1	1.9
CWS Characteristics									
Prior CPS Involvement (ref. no)	1.3	0.8	2.0	1.1	0.5	2.3	0.8	0.4	1.9
Caseworker report of psychosocial assessment (ref. no)	**4.5**	**3.0**	**6.7*** **	**2.4**	**1.2**	**4.7***	**5.8**	**1.7**	**19.7****
Child Characteristics									
Sex (ref. male)	**0.6**	**0.4**	**0.8****	0.6	0.3	1.1	0.6	0.3	1.2
Age (ref. 3-5)									
6-11	**3.4**	**2.1**	**5.5*** **	**5.6**	**1.9**	**16.3****	2.1	0.4	10.2
12-13	**3.9**	**1.9**	**8.0*** **	**5.7**	**1.9**	**17.0****	3.4	0.7	17.2
14 or more	**4.1**	**2.3**	**7.3*** **	**3.2**	**0.9**	**10.9**	4.0	0.5	31.5
Race/Ethnicity (ref. White)									
Black	0.9	0.5	1.6	1.0	0.5	2.0	0.5	0.1	1.8
Hispanic	**0.6**	**0.4**	**1.0***	**0.3**	**0.1**	**0.6*** **	0.8	0.2	2.7
Other	0.9	0.4	2.0	0.4	0.2	1.1	0.8	0.2	2.9
Setting (ref. In-home closed)									
In-home open	0.9	0.5	1.5	0.9	0.5	1.6	1.3	0.4	4.1
Informal kin	1.0	0.5	2.1	**3.0**	**1.3**	**6.6***	0.2	0.1	1.3
Formal kin	2.0	0.7	6.2	1.5	0.6	4.1	0.5	0.1	2.5
Foster	1.5	0.7	3.4	0.7	0.4	1.4	0.9	0.3	2.6
Group	3.3	0.6	17.8	2.4	0.5	10.9	2.2	0.4	11.6
Insurance Medicaid (ref. Private/Other)	0.8	0.4	1.6	2.2	1.2	3.99**	**6.2**	**1.4**	**27.9***
Any Outpatient Specialty MH Care (ref. no)	NA			**4.8**	**2.6**	**9.0*** **	**3.5**	**1.4**	**9.0****
Any Inpatient MH Care (ref. no)	NA			**6.4**	**2.6**	**15.8*** **	**6.7**	**2.5**	**17.9****
Any General Medical Care (ref. no)	NA			**8.7**	**4.1**	**18.6*** **	1.1	0.5	2.5

Note: All analyses were on weighted NSCAW II baseline data. N's are unweighted and, therefore, direct percentages cannot be calculated by hand. Asterisks indicate statistical significance (*p < .05, **p < .01,***p < .001).