Multimodal Treatment for ADHD Among Youths in Three Medicaid Subgroups: Disabled, Foster Care, and Low Income

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Objective: **This study compared the use of treatments for attention-deficit hyperactivity disorder (ADHD) among three distinct subpopulations of Medicaid-insured youths who have very different mental health needs and patterns of service use: those with federally documented disability, those in foster care, and those in families with low income.** _Methods:_ **This one-year, cross-sectional study of community mental health services used administrative data. Individuals who were younger than 20 years, who were continuously enrolled in one Mid-Atlantic state Medicaid program, and who had two or more medical encounters associated with an ADHD diagnosis in 1998 were identified (N=1,296). Measures of the use of mental health services were the number of different classes of psychopharmacologic medications, the psychopharmacologic regimen, and the combined use of pharmacotherapy and psychotherapy treatments (multimodal treatment).** _Results:_ **Use of multiple psychopharmacologic agents was greater in the disabled and foster care groups compared with the low-income group. Significantly fewer mental health provider visits, but greater use of stimulant treatment only, were observed in the low-income group compared with the other groups. Youths in the disabled group were significantly more likely than youths in the low-income group, but not more likely than youths in the foster care group, to receive multimodal treatments. Children in foster care were significantly more likely than those in the other groups to use a substance abuse service.** _Conclusions:_ **Among a cohort of Medicaid-enrolled youths with ADHD, co-existing psychiatric disorders and complex psychopharmacologic treatments were more common in the disabled and foster care groups than in the low-income group. Youths with disabilities were significantly more likely than youths in the low-income group to receive multimodal treatment. (_Psychiatric Services_ 55: 1041–1048, 2004)**

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Epidemiologic findings show a 3 to 5 percent prevalence of attention-deficit hyperactivity disorder (ADHD) among school-aged children (1,2). Other studies have noted a prevalence of 7 to 16 percent (3,4). Identification of ADHD in pediatric primary care visits for four- to 15-year-old youths increased from 1.4 percent in 1979 to 9.2 percent in 1996 (5). Data from studies of youths in a health maintenance organization and in Medicaid programs indicate that use of stimulants rose from .7 to 1.6 percent in 1991 to 2.5 to 3.8 percent in 1996 (6,7), and national estimates of stimulant use increased from .9 percent in 1987 to 3.4 percent in 1997 (8). Primary care physicians often prescribe only stimulants for ADHD (9,10), and mental health providers use more nonstimulant psychopharmacologic treatments (10–12). Among youths enrolled in Medicaid, ADHD prevalence and mental health service use is higher among youths in foster care than among those with a disability or in families with low income (13–17).

Stimulants have a well-established short-term efficacy, are a first-line treatment (18,19), and have a relatively safe profile (20)—with the exception of a black-box warning for hepatotoxicity with pemoline (21)—yet symptoms persist for about 20 to 30 percent of stimulant-treated youths (20,22,23). This persistence of symptoms can be higher in the presence of comorbid psychopathology or developmental delays (24). Stimulants do

not necessarily improve self-esteem (25), and the two studies that reported an association between stimulants and improved self-esteem (26,27) involved small samples and newly diagnosed, never-medicated children in mainstream classrooms. Also, medications for behavior problems often do not improve peer relations (28,29).

Limited success with pharmacotherapy or psychotherapy alone warrants combined use of both treatments, that is, multimodal treatment (23,30). Children with comorbid internalizing disorders (anxiety and depression) (22,31)—which commonly occur with ADHD (10,32–35) and often are related to age of onset and symptom severity (36)—may benefit from multimodal treatment. Although results of the Multimodal Treatment Study of Children With ADHD (MTA) favored medication management, multimodal treatments led to better outcomes than medication management for children with comorbid anxiety disorder (32,37).

Previous research has focused on access (10,12,14,38–42) or the cost of care (43,44) rather than on the use of multimodal treatment. Consequently, relatively little is known about the variety of treatments that youths with ADHD receive in community outpatient practice settings. Medicaid-enrolled youths who have disabilities, are in foster care, or are in a low-income group represent youths with very different mental health needs. Despite the known differences in mental health service use patterns, to our knowledge no other study has explored the use of multimodal treatments among these three groups. Therefore, our study examined the use of psychopharmacologic and multimodal treatments in community practice and examined the variation in treatment among Medicaid-enrolled youths with ADHD who were disabled, in foster care, or met income qualifications for Medicaid.

Methods
Study design and sample
Medicaid administrative data from one Mid-Atlantic state were used for a one-year cross-sectional study of mental health services for child and adolescent enrollees. This article fo-

cuses on a continuously enrolled cohort who received ADHD services in 1998. The institutional review board at the Johns Hopkins Bloomberg School of Public Health approved the study.

All continuously (ten or more months) Medicaid-enrolled youths who were younger than 20 years in 1998 and had two or more medical encounters related to ADHD were identified (N=1,296). The criterion of two or more ADHD visits was used to identify individuals who were actively in treatment. The sample included 494 out of 4,828 Medicaid-enrolled youths who were eli-

ADHD prevalence and mental health service use is higher among youths in foster care than among those with a disability or in families with low income.

gible because of disability (10.2 percent), 87 of 1,211 who were eligible because they were in foster care (7.2 percent), and 715 of 48,576 who were eligible because of low family income (1.5 percent). Youths were assigned to the category with the longest period of enrollment in 1998. Multiprogram enrollment affected only 19 youths (1.5 percent): ten who were in both the low-income and disabled groups (.8 percent) and nine who were in both the low-income and foster care groups (.7 percent).

Data sources
Data on Medicaid eligibility, medical encounters, and medication use were used for our study. Eligibility files included information on the individual's age, gender, race and ethnicity, enrollment dates, and state-assigned eligibility category, which related to disability, foster care, and low-income status. Data on disabling conditions were not available from Medicaid claims, but disability eligibility was determined by federal standards.

Medical encounter files produced service use variables, including service date, provider type, medical diagnosis, medical procedures, and service setting. Provider categories were mental health (psychiatrists, psychologists, mental health and substance abuse clinics, and psychiatric clinics), primary care (physicians, pediatricians, managed care, nurse practitioners, Early and Periodic Screening, Detection, and Treatment providers, and general health clinics), or other specialty (home or personal care providers, outpatient hospital clinics, neurology, and rehabilitation).

International Classification of Disease, 9th Edition (ICD-9) codes represented clinician-reported diagnoses. Claims-based diagnostic information has been found to be fairly complete, with 54 to 100 percent corresponding with the medical record data (45–48). The three-digit major category code has been found to be more reliable than specific five-digit codes (49). Organized by major group, diagnoses found in our study included ADHD, adjustment disorder, anxiety, autism, bipolar disorder, conduct disorder, depression, developmental disability, learning disability, mental retardation, oppositional defiant disorder, personality disorders, psychoses, substance use disorders, and tic disorders. All other codes were categorized as "other psychiatric disorders."

Procedures, recorded as *Current Procedural Terminology 1998, Standard Edition* (*CPT*), were classified as mental health, developmental, and general medical. Mental health–related procedures included *CPT* codes 90801 to 90899, methadone drug level testing, psychological testing, and several state-specific codes, including individual and group mental health

treatments, substance abuse counseling and services, psychiatric rehabilitation, residential treatment-based behavioral therapy, and day treatment services. These codes were classified further as psychopharmacologic management, psychotherapy, school-based services, substance abuse and mental health treatment, and "all other" (for example, psychiatric evaluations). Developmental procedures included speech and language as well as physical and occupational therapy. General procedures were all other evaluation and management visits.

Psychopharmacologic medications were identified from the pharmacy claims. The major therapeutic classifications were stimulants, antidepressants, antipsychotics, antiparkinsonian medications, sedatives and hypnotics, anxiolytics, anticonvulsants, and lithium. Antidepressants were also identified as selective serotonin reuptake inhibitors (SSRI) and tricyclic antidepressants, given the more frequent use of SSRIs for ADHD (50). Because carbamazepine and valproic acid are used in treating patients with psychiatric disorders, these medications were subgrouped as mood-stabilizing anticonvulsants.

Analytic plan

Descriptive statistics were used to characterize the population, and bivariate chi square analyses were used to test associations between demographic characteristics, mental health services, and psychopharmacologic treatments by Medicaid subgroup. Three polytomous logistic regression models were used to test the associations between Medicaid subgroup and each dependent variable: number of different classes of psychopharmacologic medications (model 1), psychopharmacologic regimen (model 2), and single versus combined pharmacotherapy and psychotherapy treatment (model 3). Use of medications from different classes was the basis for identifying receipt of none, one, two, or three or more psychopharmacologic medications. Psychopharmacologic regimen was stimulant only, stimulant with at least one other medication, or nonstimulant only. Psychopharmacologic medication only, psychotherapy only, or both

was used to define single versus multimodal treatment. No psychopharmacologic treatments (model 1 and 2) and multimodal treatments (model 3) were the reference groups. The independent variable was Medicaid subgroup, as defined by disability (referent), foster care, and low-income. Models adjusted for age, gender, race and ethnicity, psychiatric diagnoses, and provider specialty. To avoid small cell sizes, diagnostic categories were collapsed as externalizing disorder (conduct and oppositional defiant disorders), internalizing disorder (depression and anxiety), severe mental illness (psychoses and bipolar disorder), developmental disorder (mental retardation, autism, developmental delays, and tics), adjustment disorder, and all other disorders.

Variables were added sequentially to the model on the basis of original hypotheses and significant bivariate associations. Model fit was ascertained by using log-likelihood tests. Medicaid subgroup was entered first, followed

by demographic variables (age, gender, and race and ethnicity), mental health service use indicators, provider specialty, and co-occurring diagnoses, retaining only variables that improved the model fit. A two-tailed, 5 percent significance level with a Bonferroni correction (p<.002) for multiple comparisons was used. All analyses were performed by using SAS version 8.2.

Results
Demographic and clinical description

As Table 1 shows, the ADHD cohort (N=1,296) differed significantly across Medicaid subgroups in terms of age (p<.001) and race and ethnicity (p=.001). Most youths were five to 14 years old, but the proportion of youths who were younger than ten years was higher in the low-income group (60 percent) than in the foster care (35 percent) or disabled (44 percent) groups. African Americans accounted for a larger proportion of the disabled and foster care groups than

Table 1

Demographic and clinical characteristics of youths with attention-deficit hyperactivity disorder by Medicaid subgroup (N=1,296)

Demographic and clinical characteristics	Disabled (N=494)		Foster care (N=87)		Low income (N=715)		p
	N	%	N	%	N	%	
Gender							.01
Male	393	80	57	66	534	75	
Female	101	21	30	35	181	25	
Age group (years)							<.001
Younger than 5	19	4	1	1	31	4	
5 to 9	200	41	29	33	398	56	
10 to 14	221	45	49	56	252	35	
15 to 19	54	11	8	9	34	5	
Race							.001
White	205	42	38	44	372	52	
African American	229	46	44	51	289	40	
Hispanic	50	10	5	6	38	5	
Other	6	1	0	0	11	2	
Missing data	4	1	0	0	5	1	
Number of psychiatric diagnoses							<.001
1	162	33	28	32	420	59	
2	179	36	34	39	207	29	
3 or more	153	31	25	29	88	12	
Co-occurring disorders							
Externalizing disorder	121	25	22	25	94	13	<.001
Internalizing disorder	35	7	14	16	37	5	<.001
Severe mental illness	14	3	1	1	4	1	.005
Developmental disorder	201	41	19	22	111	16	<.001
Adjustment disorder	102	21	25	29	117	16	.009
All other	19	4	3	4	14	2	.135

Table 2

Medicaid subgroup comparisons of mental health services for youths with attention-deficit hyperactivity disorder (N=1,296)

Key mental health services variables	Disabled (N=494)		Foster care (N=87)		Low-income (N=715)		p
	N	%	N	%	N	%	
Provider							
Any mental health	401	81	78	90	534	75	<.001
Any primary care	364	74	41	47	423	59	<.001
Any other provider	85	17	13	15	83	12	.021
Mental health							
Any psychopharmacologic management	160	32	24	28	192	27	.109
Any psychotherapy	213	43	40	46	277	39	.191
Any school-based service	100	20	6	7	87	12	<.001
Any substance abuse service	176	36	51	59	138	19	<.001
Any other mental health service	186	38	32	37	241	34	.356
No mental health services	113	23	14	16	262	37	<.001
Psychopharmacologic treatments							na[a]
Any psychopharmacologic	464	94	78	90	626	88	
Any antidepressant	134	27	33	38	130	18	
Selective serotonin reuptake inhibitor	89	18	24	28	77	11	
Tricyclic antidepressant	31	6	6	7	31	4	
Any anticonvulsant	66	13	11	13	31	4	
Mood-stabilizer	58	12	11	13	26	4	
Lithium	8	2	1	1	2	0	
Antiparkinsonian	6	1	0	0	2	0	
Antipsychotic	137	28	25	29	97	14	
Atypical antipsychotic	119	24	22	25	86	12	
Anxiolytic	31	6	3	4	16	2	
Sedative or hypnotic	1	0	0	0	1	0	
Stimulant	436	88	70	81	591	83	
Number of different classes of psychopharmacologic agents							<.001
1	243	49	38	44	452	63	
2	122	25	19	22	118	17	
3 or more	99	20	21	24	56	8	
No psychopharmacologic treatment	30	6	9	10	89	13	
Psychopharmacologic regimen							<.001
Stimulant only	236	48	33	38	436	61	
Stimulant and nonstimulant	200	41	37	43	155	22	
Nonstimulant only	28	6	8	9	35	5	
Mode of therapy							<.001
Medication only	261	53	43	49	393	55	
Psychotherapy only	10	2	5	6	44	6	
Multimodal	203	41	35	40	233	33	

[a] Statistical tests were not performed because of the small cell sizes.

of the low-income group. The disabled group contained more Hispanics than the other groups.

As shown in Table 1, youths in the disabled and foster care groups were more likely than youths in the low-income group to have psychiatric diagnoses other than ADHD (p<.001). Fifty-nine percent of youths from the low-income group had a diagnosis of ADHD only, compared with 33 percent and 32 percent of those in the disabled group and the foster care group, respectively. One quarter of youths with disabilities and an equal proportion of youths in foster care also had an externalizing disorder. A larger proportion of youths in foster care had an internalizing disorder compared with the disabled and low-income groups (p<.001).

Mental health service use

As Table 2 shows, youths in the low-income group were significantly less likely than youths in the other groups to see a mental health provider (p<.001). Also, youths in the foster care group were significantly less likely than those in the other groups to have had a visit with a primary care provider (p<.001). Psychopharmacologic management and psychotherapy visits did not differ across groups (Table 2), but school-based services did. Youths in the disabled group were significantly more likely than youths in the other groups to use school-based services (p<.001). Use of substance abuse services also differed between groups (p<.001): youths in foster care (59 percent) were 1.5 to three times as likely as those in the disabled group (36 percent) or the low-income group (19 percent) to receive a substance abuse service (p<.001). Moreover, 37 percent of youths in the low-income group did not have a visit associated with a specific mental health service, compared with 23 percent of youths in the disabled group and 16 percent of youths in the foster care group.

Psychopharmacologic treatment

Approximately 90 percent of youths in each of the three Medicaid subgroups received at least one psychopharmacologic medication in 1998 (Table 2). Stimulants were the most common psychopharmacologic medication prescribed across all groups. Antidepressant use was greater in the disabled (27 percent) and foster care (38 percent) groups than in the low-income group (18 percent). SSRI use in the foster care group (28 percent) was considerably higher than in the disabled (18 percent) and low-income (11 percent) groups. Although antipsychotic use was more common in the disabled (28 percent) and foster care (29 percent) groups than in the low-income group (14 percent), more than 85 percent of antipsychotic use across all groups involved an atypical agent. Mood-stabilizing anticonvulsant use was similar in the disabled (12 percent) and foster care (13 percent) groups, but both groups had higher use than the low-income group (4 percent).

Use of multiple classes of psychopharmacologic medication differed significantly across Medicaid

Table 3

Odds ratio comparisons of psychopharmacologic treatment regimens of youths with attention-deficit hyperactivity disorder, by Medicaid subgroup (N=1,296)

Dependent measures	Independent measures	OR	95% CI
Number of different classes of psychopharmacologic medication			
3 or more classes versus no psychopharmacologic medication	Low-income group versus disabled group[a]	.24	.13–.43
	Foster care group versus disabled group	.39	.14–1.03
2 classes versus no psychopharmacologic medication	Low-income group versus disabled group[a]	.39	.23–.66
	Foster care group versus disabled group	.39	.15–1.02
1 class versus no psychopharmacologic medication	Low-income group versus disabled group	.71	.44–1.14
	Foster care group versus disabled group	.62	.26–1.47
Psychopharmacologic regimen			
Nonstimulant only versus no medication	Low-income group versus disabled group	.74	.36–1.53
	Foster care group versus disabled group	.6	.18–1.94
Stimulant and nonstimulant versus no medication	Low-income group versus disabled group[a]	.33	.2–.54
	Foster care group versus disabled group	.44	.18–1.08
Stimulant only versus no medication	Low-income group versus disabled group	.68	.42–1.11
	Foster care group versus disabled group	.56	.24–1.34
Mode of treatment			
Other mental health service treatment only versus multimodal treatment	Low-income group versus disabled group	.77	.35–1.72
	Foster care group versus disabled group	1.84	.54–6.29
Psychopharmacologic treatment only versus multimodal treatment	Low-income group versus disabled group	1.26	.96–1.65
	Foster care group versus disabled group	1.32	.79–2.21
Psychotherapy treatment only versus multimodal treatment	Low-income group versus disabled group[a]	3.09	1.44–6.63
	Foster care group versus disabled group	2.61	.81–8.44

[a] Significant differences were found between groups.

subgroups (p<.001) (Table 2). A larger proportion of the foster care group (46 percent) and disabled group (45 percent) received psychopharmacologic medications from multiple classes compared with the low-income group (24 percent). The low-income group (61 percent) was more likely than the disabled (48 percent) and foster care (38 percent) groups to receive stimulant monotherapy. The disabled (41 percent) and foster care (43 percent) groups were more likely than the low-income group (22 percent) to receive stimulants along with other psychopharmacologic agents. Nonstimulant psychopharmacologic therapy alone was more common in the foster care group than in the other groups.

Odds ratios (ORs) and 95 percent confidence intervals (CIs) were adjusted for age, gender, race and ethnicity, co-occurring psychiatric diagnoses, and provider specialty. Table 3 shows that the odds of receiving more than one psychopharmacologic medication were 60 to 75 percent lower among youths in the low-income group than among youths in the disabled group. The low-income group was one-third as likely as the disabled group to receive stimulants along with other psychopharmacologic agents. Notably, psychopharmacologic treatment did not differ significantly among the disabled and foster care groups.

Use of multimodal treatment

Multimodal treatment differed significantly (p<.001) across groups (Table 2); the adjusted ORs and CIs are presented in Table 3. The only significant difference was that the odds of receiving psychotherapy alone, instead of receiving multimodal treatment, was three times as great in the low-income group as in the disabled group. In general, multimodal treatment was more frequent in the disabled group than in the other groups.

Discussion

This study offers new information about psychopharmacologic and multimodal treatment for ADHD in community-based practice. Compared with youths in the low-income Medicaid eligibility group, youths who were disabled or in foster care had similar rates of mental health services, were more likely to have a co-existing psychiatric disorder, and were more likely to receive more complex psychopharmacologic treatment. The disabled group was significantly more likely than the low-income group to receive multimodal treatment instead of psychotherapy alone, even after the analysis controlled for comorbid psychopathology. Although 33 to 41 percent of youths in all three groups received multimodal treatment, nearly 90 percent received at least one psychopharmacologic medication.

The findings reported here corroborate previous reports of mental health service use by Medicaid-enrolled youths in foster care and disabled eligibility groups (14–17,51,52). Several researchers have reported higher use and costs for youths in foster care compared with youths in other Medicaid-insured groups (15,16). Studies have also found that services increased for youths who are disabled

after policies in child disability qualifications were changed (51). On the basis of southwestern Pennsylvania Medicaid claims data, higher rates of psychiatric diagnoses and mental health service use were reported for youths in foster care compared with youths in the Aid to Families with Dependent Children (AFDC) category, but rates among youths in the foster care group and in the disabled group were similar (17). In a countywide population of Medicaid-enrolled youths in a Mid-Atlantic state, the prevalence of psychiatric diagnoses and psychopharmacologic treatment was higher among those in foster care than among those who were disabled or in another Medicaid category (largely AFDC) (14).

Our study extends our earlier work (14) by including mental health treatments provided during medical visits; however, the findings across Medicaid groups in the current study are different from those reported earlier. This may be due to differences in the definition of mental health services, the criterion of more than one ADHD-related visit, the inclusion of continuously enrolled youths, and variation in state Medicaid programs and provider practices. Even so, the general trends across the low-income, foster care, and disabled groups coincide with those found in earlier studies (14,17).

Variation in multimodal treatment is likely to be related to different mental health needs across the three groups. Youths in foster care use more mental health services given the multiple placements (53) and the abuse and neglect that are associated with psychological and behavioral problems in this population (54–56). Furthermore, youths with an identified disability have frequent contact with a health care provider for ongoing management of chronic illnesses (52,57). By comparison, multimodal treatment was less common in the low-income group, which also has less psychological impairment.

Less than half of the ADHD cohort received multimodal treatment; yet recent evidence supports the use of multimodal treatment for ADHD and co-existing psychiatric disorders. About one-third of youths with ADHD have a co-existing psychiatric disorder (32,34). Some of the initial analyses from the MTA study reported the beneficial effects of combined treatments for ADHD and comorbid anxiety disorder, particularly when oppositional or conduct disorder also were present (32,37). Post-hoc analysis of MTA findings that used a single composite outcome instead of the 19 individual measures revealed a statistically significant improvement for the combined treatment group compared with the group that received medication management alone (58). Because evidence of the effectiveness of multimodal treatment in community practice is limited and because certain factors—such as family support and financial resources—may enhance combined treatment, further research is warranted (23).

Because our study is a descriptive analysis of community standards of care for youths with ADHD, the data cannot address the appropriateness or effectiveness of treatment. However, the data do highlight important differences in the complexity of psychopathology across the Medicaid subgroups. The association between psychopharmacologic complexity and co-existing psychiatric disorders has been reported elsewhere. In a managed care population of three- to 17-year-olds in the Pacific Northwest region of the United States, Guevara and colleagues (34) reported that among those with ADHD and an internalizing disorder, 18 percent received only an SSRI and 26 percent received a stimulant plus an SSRI. Using automated medical record data for five- to 12-year-olds in the Kaiser Permanente Northwest Region health plan, Boles and colleagues (59) reported that youths with ADHD and a comorbid mental illness were more likely to receive nonstimulant psychopharmacologic agents, with or without stimulants, and to be given a prescription for two or more psychopharmacologic agents.

Notably, 28 to 29 percent of youths in the disabled and foster care groups received antipsychotics; yet the prevalence of severe mental illness (psychoses or bipolar disorder) for which these medications are used clinically was relatively low. Furthermore, more than 85 percent of antipsychotic use involved atypical agents, which suggests that their use is primarily for the management of aggressive behavior (60,61). Given the associated risk of weight gain and of diabetes with the atypical antipsychotics (62,63), our findings emphasize the need for systematic side effect monitoring. This issue is worthy of further study in a larger sample and with more detailed information on the indication, dosing, and duration of treatment.

It is important to consider several limitations in light of the study findings. First, these data were derived from cross-sectional data and do not speak to the continuity of care or individual trajectories. Nonetheless, this work identified areas for future longitudinal studies on the patterns and use of multimodal treatment in community practice settings. Second, although this study is specific to one state Medicaid program and may not be representative of other states, corroboration of previously reported findings is encouraging. Third, these data are from reimbursement claims for conditions that prompted a medical encounter and may underestimate the prevalence of chronic mental disorders in the community, particularly if professional help for the chronic condition was not sought (64). However, our study examined mental health service use for a one-year period by continuously enrolled individuals, which should be adequate time to detect the extent of mental illness in this population. Finally, these data do not include services rendered in the specialty mental health carve-out plan when the maximum 30 unit-hours of mental health care allowed in the fee-for-service and managed care capitated system were exceeded. Although the intensity of mental health service use may be underestimated, the data accurately represent youths who received psychopharmacologic and psychotherapy interventions for ADHD in the community.

Conclusions

The findings of this study can be usefully applied to future community-based child mental health services re-

search, particularly in examinations of possible differences in use among a privately insured population. Previous studies reported more stimulant monotherapy treatment (12,59,65) and fewer mental health, psychotherapy (65,66), and multimodal treatments (10) in primary care compared with community mental health practices. According to MTA findings, community-based physicians prescribed lower stimulant dosages and their patients had fewer follow-up visits than physicians participating in the other active treatment arms (67). A patient-oriented and need-driven model has been proposed to improve ADHD management (68). Future studies should explore effective dissemination of evidence-based treatments in community settings. ♦

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First-Person Accounts Invited for Column

Patients, former patients, family members, and mental health professionals are invited to submit first-person accounts of experiences with mental illness and treatment for the Personal Accounts column of Psychiatric Services. Maximum length is 1,600 words. The column appears every two months.

Material to be considered for publication should be sent to the column editor, Jeffrey L. Geller, M.D., M.P.H., at the Department of Psychiatry, University of Massachusetts Medical School, 55 Lake Avenue North, Worcester, Massachusetts 01655. Authors may publish under a pseudonym if they wish.