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## Use of Psychotropic Medications among Youth in Treatment Foster Care

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### Abstract

We describe the use of psychotropic medications among youth in treatment foster care (TFC). Data from 240 youth were coded to examine rates of medication use, including polypharmacy and an indicator of “questionable polypharmacy.” Fifty-nine percent of youth in TFC had taken a psychotropic medication within the past two months. Of the youth taking psychotropics, 61% took two or more and 22% met criteria for questionable polypharmacy. The majority of youth taking psychotropics also received psychosocial mental health services and were more likely to receive such services than youth not taking medication. Use of psychotropic medication use was not significantly related to demographic factors, maltreatment history, or custody. However, youth with more severe symptoms were more likely to be on medications and to be on multiple medications. Youth with “questionable polypharmacy” were less likely than other youth on multiple medications to have a recent visit to a psychiatrist.

### Keywords

mental health services; psychotropic medication; polypharmacy; treatment foster care; children

### Introduction

There is currently a great deal of both promise and uncertainty around use, rates, and patterns of psychotropic medication for youth with mental health disorders (Bentley &

Collins, 2013). Rates of psychotropic medication use by children and adolescents have risen steadily since the early 1990s (Olfson, Blanco, Liu, Moreno, & Laje, 2006; Safer, Zito, & dosReis, 2003; Zito, et al., 2003). In particular, prescriptions for stimulants, anti-convulsant mood stabilizers, antidepressants, and atypical antipsychotics have increased among those 18 and under (e.g., Rushton & Whitmire, 2001; Olfson, et al., 2006; Zito, et al., 2003). This is despite the absence of clear data supporting the safety and efficacy of many of these medications in children or adolescents particularly when prescribed “off-label” without Food and Drug Administration (FDA) approval for a particular diagnoses or age group (e.g., Brown & Sammons, 2002; Jensen, et al., 1999; Riddle, Kastelic, & Frosch, 2001). While a number of psychotropic medications have documented benefits across a range of mental disorders in children and adolescents (Finding, et al., 2010; Fontanella, Bridge, & Campo, 2009; Swanson, Arnold, & Kraemer, 2008; The TADS Team, 2007; Walkup, et al., 2008), these medications also have serious side effects and medical risks (e.g., Boyer & Shannon, 2005; Jerrell, 2009; Jerrell & McIntyre, 2008; Malone, 1999; Morrato, et al., 2010; Safer et al., 2003). In addition to the overall rate of increase in psychotropic medications among youth, there has been an increase in use of concomitant psychotropic medications – or polypharmacy (Olfson, Marcus, Weissman, & Jensen, 2002; Constantine, Boaz, & Tandon, 2010; Dean, McDermott, & Marshall, 2006; dosReis, et al., 2005).

These data and concerns have raised particular interest about rates of psychotropic medication among youth who are in out-of-home care. Several studies have suggested that youth in foster care and other residential settings have elevated rates of psychotropic medication use (Connor, et al., 1998; Leslie, et al., 2010; Ryan, et al., 2008; Zima, et al., 1999; Zito, et al., 2008) and have raised concerns about whether these rates are clinically warranted or therapeutically beneficial. For instance, Zito and colleagues (2008) found a 37.9% annual prevalence rate of psychotropic medication use for youth in foster care. Among those taking medications, 72% took two or more psychotropic medications, while 41.3% took three or more medications. Data on residential care have shown substantially higher rates of psychopharmacology, with an average of 75-79% of youth in these settings taking psychotropic medications and high rates of polypharmacy (Conner, et al., 1998; Huefner, et al., 2012; Ryan, et al., 2008).

Research on medication use in out-of-home care has, to date, rarely included Treatment Foster Care (TFC), a community-based intensive treatment-focused intervention for youth with emotional, behavior, and mental health problems (Farmer, et al., 2002). Youth in TFC often have severe and complex behavioral, emotional, and mental health needs. In response to these problems and issues, youth in TFC tend to receive a wide range of services (both within the TFC home and from the broader child-serving community) and show high rates of psychotropic medication use (Breland-Noble, et al., 2002). In a study examining psychotropic medication use among adolescent youth in TFC and group homes from 1999-2001, 67% of youth in TFC had taken a psychotropic medication within the past four months (Breland-Noble, et al., 2004). However, no studies have examined more recent psychotropic medication use or polypharmacy rates among TFC youth, and little is known about patterns of psychotropic medication use among youth in TFC settings.

Overall, the existing data, gaps in knowledge, and trends raise questions on a number of fronts. First, because of concerns over high rates of polypharmacy and off-label use of psychotropic medications across clinical and residential treatment settings, researchers and policymakers are working to establish indicators of questionable psychotropic polypharmacy (e.g., Essock, et al., 2009). Second, although adherence to best practice for many child and adolescent mental disorders suggests the potential benefits of combining medication with other psychosocial/behavior interventions, (Burns, Hoagwood, & Mrazek, 1999; Walkup, et al., 2008; TADS Team, 2007; Swanson, et al., 2008), there has been concern that some data may suggest increasing numbers of patients are receiving medications without concurrent mental health services (Olfson & Marcus, 2010). Third, there is concern that increasingly psychotropic medications are prescribed by general medical practitioners rather than psychiatrists (Mark, Levit, & Buck, 2009). Whether or not psychiatrists and general practitioners differ in prescribing practices is clear (Chen, et al., 2006; Olfson, 2010), so the long-term effect on polypharmacy and questionable polypharmacy rates is unknown. Fourth, there have been concerns raised about rates of psychotropic medication use in foster care and other out-of-home placements, but relatively sparse data to examine patterns, predictors, or outcomes of psychotropic medication use in these settings.

The purpose of the current article is to explore the prevalence of psychotropic medication use and polypharmacy among youth in treatment foster care. In an effort to paint a broad picture of this issue in TFC and explore key issues in the field, we examine individual-level factors related to medication use and provide a preliminary examination of “questionable polypharmacy.” To examine whether medication is being used in conjunction with or as a substitute for other types of interventions, we compare other services for emotional and behavioral problems among youth who are taking psychotropic medication versus those who are not, as well as among youth with monopharmacy versus polypharmacy.

## Method

Data came from a randomized trial to test the effectiveness of an enhanced TFC model conducted in “usual care” agencies between 2003 and 2008 in a southeastern state (Farmer, Burns, Wagner, Murray, & Southerland, 2010a). Fourteen TFC agencies were recruited for the study, and randomization was done at the agency level (with half receiving the intervention training and consultation and half serving as control agencies providing care as usual).

## Participants

Participants were 247 youth (ages 2 to 21 years) and their foster care parent. Of these 247 youth, baseline data on psychotropic medication use was missing for 7 youth, so this article reports on the 240 participants with available data. As described in Table 1, the sample was 45.4% female with a mean age of 13.0 years ( $SD = 3.8$ ). The racial/ethnic composition included 77 white youth (32.1%), 138 African American youth (57.5%), and 25 youth (10%) from other racial/ethnic groups. Youth were primarily in state custody (83.3%), and 71.1% had a history of maltreatment. The majority of youth (73.8%) entered TFC from a prior out-of-home placement.

All data in the current analyses come from interviews with treatment parents. In TFC, treatment parents are viewed as both primary caregivers and as front-line treatment providers. Hence, they receive more training, support, and supervision than “traditional” foster parents and are responsible for daily implementation of all aspects of the youth's treatment plan, including medication administration. For this study, treatment parents had a mean age of 48 ( $SD = 10$ ), 74% were African American, and they had been serving as a treatment parent for the focal youth for an average of 20 months.

## Data

Data come from in-person interviews conducted at baseline with treatment parents. All data reported in this article were collected as part of the baseline assessment before implementation of the intervention; therefore, randomization is not accounted for in the data reported. (See Farmer, Burns, et al., 2010a and Murray, Southerland, Farmer, & Ballentine, 2010 for a description of the intervention.) All study procedures were approved by the Duke University Institutional Review Board.

As part of the interview, treatment parents were asked if their TFC youth had taken any type of medicine for emotional or behavioral issues in the past two months. Since these individuals were responsible for daily administration of medications, as well as documentation of such use, they were quite knowledgeable about the youth's medications. All interviews were conducted in treatment foster homes. Therefore, if the treatment parent was not sure or if the interviewer was not clear about the medication responses, the treatment parent was asked to show the medication container to the interviewer, so that information could be recorded from the label. Treatment parents were asked to report all medications that the youth had taken in the past 2 months and to indicate whether he/she was still taking any reported medications.

To assess other service use, treatment parents completed a modified version of the Child and Adolescent Services Assessment (CASA) to determine the use of services for emotional and behavioral problems (Ascher, Farmer, Burns, & Angold, 1996; Farmer, Angold, Burns, & Costello, 1994). The CASA collects data on use of an extensive array of behavioral health services, including inpatient, outpatient, volunteer (informal), school based, and ancillary services. The version used in this study collected information on whether a service was used within the past two months. A dichotomous “yes” or “no” dummy-coded variable was created for each CASA service sector indicating whether or not the service had been used within the past two months. The CASA parent report version has good to excellent test-retest reliability ( $K = .62$  to  $1.0$  for professional services) and very good correspondence with provider records (Ascher, et al., 1996; Bussing, Mason, Leon, & Sinha, 2003).

Treatment parents completed the 25-item Strengths and Difficulties Questionnaire (SDQ; Goodman, Ford, Simmons, Gatward, & Meltzer, 2000) to assess severity of psychopathology among sample youth. Responses to 20 of the 25 items generate a total difficulties score, based on subscale scores for emotional symptoms, conduct problems, hyperactivity, and peer problems (Bourdon, Goodman, Rae, Simpson, & Koretz, 2005). The total difficulties score has good internal consistency ( $\alpha = .82$ ; Goodman, 2001) and has been normed for general population samples.

## Data analysis

**Data reduction**—Using guidelines reported in previous studies of medication use in children and adults (e.g., Essock, et al., 2009; Fontanella, et al., 2009; Ferguson, Glesener, & Raschick, 2006), psychotropic medications were coded into five possible categories: (1) antidepressants; (2) Attention-Deficit/Hyperactivity Disorder (ADHD)/stimulants; (3) antipsychotics; (4) non-antipsychotic mood stabilizers/antimanic agents; and (5) anxiolytics (antianxiety medication). (Appendix I in Essock et al., 2009 provides a list of most medications and classifications for further reference.) Psychotropic medication use was coded dichotomously as a single “yes” (1) or “no” (0) dummy-coded variable if youth took a medication from any of the categories above. No youth were taking anxiolytic medication and so medications were coded only into the other four categories. A second dummy-coded dichotomous variable was created for polypharmacy indicating “yes” or “no” for youth taking two or more psychotropic medications.

Indicators of questionable polypharmacy in the current sample were derived from the description by Essock and colleagues (2009) of the guidelines for children developed by psychopharmacology experts serving on a scientific advisory committee in New York. Based on these criteria, a third dichotomous “questionable polypharmacy” variable was created when an indicator of questionable polypharmacy was present, including two or more medications within the same class, and/or three or more psychotropic medications. These designations were established for children because of the potential for negative drug interactions and metabolic side effects (Essock et al., 2009). The designation of questionable polypharmacy was coded conservatively in this study so that it did not include two or more stimulants or a stimulant and antihypertensive since these combinations are often included in “usual care” to adequately address inattention throughout the day without insomnia at bedtime (e.g., Ferguson, 2006). In addition, data about whether the youth was “still taking the medication” was utilized to assure that all questionable pharmacology referred to concomitant medications, not sequences of medications across the 2-month reporting period. Thus, current coding of questionable pharmacology followed established guidelines and provides a conservative indicator of this phenomenon.

A dichotomous “yes” or “no” dummy-coded variable was created for each CASA service sector indicating whether or not the service had been used within the past two months. Because youth often receive services from multiple additional sources while in TFC, these service categories are not mutually exclusive. The focal categories of service type were: case management; outpatient mental health; school services; social services; and psychiatrist visits.

**Analytic Methods**—All analyses were run in StataSE 11 (StataCorp., 2009) and included logistic regression, chi-squares, and t-tests. Results reported here focus on bivariate relationships. More complex and multivariate approaches were also run (and confirm the results reported here), but the relatively small sample size made parameter estimates questionable and unstable. Therefore, reported results focus on bivariate analyses.

## Results

Among the sample youth, 142 (59.1%) took a psychotropic medication within the two months preceding the interview. Of these youth, 86 (60.6%) took two or more medications. No use of anxiolytics was reported. Within the two months prior to the baseline interview, 21.9% of youth took an antidepressant, 38.5% took a stimulant or medication for ADHD, 27.5% took an antipsychotic, and 11.7% took a mood stabilizer (Table 1). All youth taking antipsychotic medications were taking second generation (atypical) antipsychotics.

Table 2 shows the distribution of youth taking psychotropic medication, multiple psychotropics, and questionable polypharmacy. Among youth on psychotropic medication, approximately 40% were on one medication, 36% were on two, and 25% were on three or more. Questionable polypharmacy was coded for 13% of the total sample and 36% of those who were on multiple medications.

Table 3 shows bivariate relationships between youth characteristics/history and medication use. Youth taking psychotropic medication had significantly higher SDQ scores ( $M = 17.2$ ,  $SD = 6.2$ ) compared to youth not taking medication ( $M = 14.1$ ,  $SD = 7.4$ ;  $t = -3.04$ ,  $p < .01$ ). SDQ was also significantly higher for youth on multiple medications than for those on a single psychotropic ( $t = -1.98$ ,  $p < .05$ ). There were no differences in SDQ for youth on “any polypharmacy” vs. “questionable polypharmacy.”

Race and sex were not significantly related to medication use. Most indicators of a youth's history also were not related to medication use (e.g., custody, maltreatment). However, time in the TFC home was related, with youth who were on psychotropic medications having an average length of stay of 25 months (at the time of the baseline interview) compared to 14 months for those who were not on psychotropic medication.

The continuous measure of age was not related to medication use. However, analyses with age as a categorical measure suggested some broad age-graded differences. There were very few pre-school aged children in the sample ( $n=14$ ) and only one child aged 2-5 was taking psychotropic medication. Among youth ages 6-12, 77% took a psychotropic medication compared to 55% of youth ages 13-21. Logistic regression analyses with any psychotropic medication use entered as the dependent variable indicated that the odds of psychotropic medication use were significantly higher among youth 6-12 relative to those aged 13-21 ( $OR = 2.71$ , 95% CI: 1.25 – 5.10,  $p < .01$ ); odds of ADHD medication use among 6-12 year olds were also significantly higher relative to those 13 and above ( $OR = 4.12$ , 95% CI: 2.29 – 7.43,  $p < .0001$ ). No other medication categories were different across these age groups. The odds of polypharmacy ( $OR = 1.50$  CI: 0.85 – 2.65,  $p = .16$ ) or questionable polypharmacy ( $OR = 1.59$ ,  $p = .24$ ) also were not significantly different for those aged 6-12 years compared with those 13 and above. Because only one child aged 2-5 was taking a psychotropic medication, all subsequent analyses only include the 226 youth age 6 years and older.

We explored whether medications appeared to part of a multi-faceted approach to treatment or if medications appeared to be related to less use of other services. In general, youth who were taking psychotropic medication were also more likely to be receiving other types of

services. Each service use sector was examined for youth ages 6 and above taking psychotropic medications, and compared to rates for youth who had not taken psychotropic medication within the past two months (see Table 4). A chi-square test of goodness-of-fit was performed to examine whether or not each service sector was distributed similarly for those taking psychotropic medications compared to those who were not. Tests indicated significant differences for case management ( $X^2(1) = 9.92, p < .01$ ), social services/community support ( $X^2(1) = 3.97, p = .05$ ), services within the school ( $X^2(1) = 12.04, p < .01$ ), and outpatient treatment ( $X^2(1) = 5.09, p < .05$ ), with a higher percentage of youth taking psychotropic medication receiving services.

Chi-square analyses were also run to compare services for those taking only one psychotropic medication with those taking two or more medications. Although youth taking two or more psychotropic medications were more likely to be receiving most types of services, only school services ( $X^2(1) = 4.72, p < .05$ ) and outpatient treatment ( $X^2(1) = 4.00, p < .05$ ) were significantly higher.

For most types of services, youth with questionable polypharmacy did not significantly differ from others on polypharmacy. The only area where these two groups were significantly different was on visits to a psychiatrist, with youth on questionable polypharmacy less likely to have visited a psychiatrist in the past two months ( $X^2(1) = 3.78, p < .05$ ). Overall, 42% of youth with questionable polypharmacy had seen a psychiatrist in the past 2 months, compared to 64% of other youth on polypharmacy. Given this finding, visits to a general medical practitioner were also examined. Only seven youth taking psychotropic medication had seen such a general practitioner for emotional or behavioral problems within the last two months. No significant associations were found between visits to these physicians and any type of medication use.

## Discussion

This paper provides a preliminary examination of medication use and associated factors among youth in treatment foster care (TFC). There have been concerns in recent years about rates and patterns of medication use among youth in out-of-home placements, but there has been very sparse knowledge about what occurs in TFC, a residential option that occupies a space on the residential continuum between traditional foster care and congregate care settings.

Psychotropic medication use was prevalent among the youth in this TFC sample, with 59% of youth reported to have taken one or more psychotropic medications within the past two months. This is consistent with the rate of use reported by Breland-Noble and colleagues (2004) for youth in TFC in the late 1990s. It also appears to reflect TFC's role in the continuum of residential settings, with rates of medication use that are higher than traditional foster care but lower than in more restrictive congregate care settings.

Regarding psychotropic polypharmacy, 60% of youth on psychotropic medication were taking two or more medications. This means that 36% of the overall sample was taking multiple psychotropic medications.

Rates of medication use varied by age, and the highest rate of use (77%) was among youth ages 6-12. This was almost entirely accounted for by higher rates of medications for ADHD. Although those 6-12 had higher rates of medication use, they did not have higher polypharmacy rates compared to youth who were 13-21. Recent reports suggest that toddlers and preschool-age children are receiving prescriptions for psychotropic medication at increasing rates (Olfson et al., 2010; Zito, et al., 2007); however, in the current sample, only one young child (age 5) was taking a psychotropic (an atypical antipsychotic), with no use reported among the very small sample of preschool-aged youth.

We conducted preliminary analysis of questionable polypharmacy rates. Among the youth taking psychotropics, 22% met criteria for the indicator of questionable polypharmacy. This is approximately 13% of the youth in TFC, and is comparable to the rate found by Essock and colleagues (2009) in their examination of questionable polypharmacy prescribing practices using New York State Medicaid claims.

In examining other services to address mental health/behavioral issues, youth taking psychotropic medication were more likely to be receiving other mental health services compared to youth who did not take medication. The range of service use among TFC youth taking psychotropic medication in this sample is encouraging, since optimal treatment often includes both pharmacological and psychosocial interventions. Overall, the use of services by youth in this TFC sample is consistent with previous studies showing high utilization of mental health services in school and outpatient settings by youth in TFC, group homes, and general foster care (Breland-Noble, et al., 2005; Farmer, et al., 2010b). These preliminary findings also suggest a gradation in services that mirrors complexity of medications, with youth who were on multiple medications showing, on average, higher service use than youth on a single medication.

The current study also examined recent visits to a psychiatrist (occurring within the past two months). Medication use, polypharmacy and all categories of psychotropic medication were associated with psychiatrist visits, with the percentage of youth on medication who had seen a psychiatrist recently ranging from 42-64%. Visits to non-psychiatrist medical doctors for emotional or behavioral problems were infrequent in this sample. Thus, youth in this TFC sample appear to be seeing psychiatrists at higher rates compared to a recent study of youth in outpatient settings, which found that the majority of youth received psychotropic medication from nonpsychiatrists (Comer, Olfson, & Mojtabai, 2010). These data suggest some concerns about the rates of psychiatric visits for youth on questionable psychopharmacologic combinations. Youth with questionable psychopharmacology patterns were less likely than other youth on multiple medications to have seen a psychiatrist in the past two months. Given usual intervals for psychiatrist visits, it is very likely that some youth had psychiatric visits that fell slightly outside of the reporting period. However, it is not clear why this would be more true for youth with questionable polypharmacy than for youth with other polypharmacy. Hence, this finding suggests that need for additional work on medication prescribing, oversight, and monitoring.

It is also interesting to note that, while not significant (perhaps because of the relatively small sample in these categories), nearly all service use (except for involvement with social



services) is lower for the questionable polypharmacy group. This suggests the need for additional research to explore the overall mix of services for this subset of youth, not just their use of medications.

### Study Limitations

The current study examines a relatively small sample of youth in TFC limited to one state, and the findings may not generalize to other youth in TFC across the country. Medication use was based on caregiver report, which is not as accurate as medical records or insurance claim data. In particular, examination of questionable polypharmacy was limited by the available data. In addition, more information is needed about psychiatric diagnoses and the quality, intensity, and duration of mental health services before it is clear whether or not the services are clinically adequate. Information about psychiatry visits across a longer time span would be helpful for understanding differences among youth receiving psychotropic medication from psychiatrists compared with other medical practitioners, and a longer observational period would provide more information about whether or not physician visits fall within recommended timeframes for pediatric psychotropic medications. The sample size (particularly of the polypharmacy subgroups) precluded multivariate analyses to more fully explore the reported relationships.

### Future Directions

Overall, we found moderately high rates of psychotropic medication use among youth in TFC. These rates are higher than those found in outpatient clinical settings or traditional foster care but slightly lower than rates found in more restrictive residential settings. TFC youth, however, appear to receive clinically questionable combinations of psychotropic medications at rates similar to those of other Medicaid populations, but this needs corroborating in future studies. The current paper simply describes rates and patterns of medication use at a point in time. Additional work is needed to more fully model factors that appear to increase or decrease use of medication, polypharmacy, and questionable polypharmacy.

While practice parameters exist for pediatric psychotropic medication prescribing (Walkup & The AACAP Work Group on Quality issues, 2009; Crismon & Argo, 2009), these guidelines are not binding and state and other regulatory agencies are typically ill-equipped to keep up with rapidly changing trends in the psychiatric field (Leslie, et al., 2010). In addition, the American Academy of Child and Adolescent Psychiatry practice parameter was written for child psychiatrists, and may not be adequately disseminated to other providers. Further discussion is needed about balancing access to care versus the risks of psychotropic medications when they are prescribed in a way that does not meet best practice guidelines or are prescribed off-label outside of FDA approval (Mark, et al., 2009).

These findings also reiterate the point that key mechanisms of change need to be carefully assessed and modeled in studies of comprehensive mental health treatments. It is important to understand the role of psychotropic medications in observed outcomes for youth and to examine the potential combined and interactive effects of multiple intervention approaches/modalities on youth outcomes across treatment settings. Given the high rates of medication

use by youth in many interventions, including TFC, it is critical to include such information in our understanding of outcomes, trajectories, and predictors as the field attempts to more fully understand active ingredients of treatment.

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**Table 1**  
**Baseline Characteristics of Youth in Treatment Foster Care**

Variable	Total (N=240)	
	N	%
Age (years; M±SD)	13.0±3.8	
Race		
White	77	32
African American	138	58
Other	25	10
Female	109	45
State custody	200	83
History of maltreatment	172	71
Months in current TFC home (M±SD)	20.4±25.5	
SDQ (M±SD)	16.1±6.8	
Any psychotropic medication	142	59
Antidepressants	54	22
ADHD/Stimulant medication	95	38
Antipsychotics	68	26
Mood stabilizers	29	12

**Table 2**  
**Percentage of youth taking one or more medications among full sample (N = 240) and among youth on medication (N = 142)**

N = 240	N = 240    N = 142		
	n	%	%
One medication	56	23.3	39.4
Two medications	51	21.2	35.9
Three medications	22	9.2	15.5
Four or more medications	13	5.4	9.2
Questionable Polypharmacy	31	12.9	21.8

**Table 3**  
**Bivariate relationships between youth characteristics and medication use**

	Means and Percents					
	Any medication (versus none)		Polypharmacy (versus one medication)		Questionable Polypharmacy (versus polypharmacy)	
	None	Any med	One med	Polypharm	Polypharm	Questionable
Age (years)	14.1	13.1	13.1	13.3	13.3	13.2
Months in TFC home	14.8**	25.1	20.5	28.2	24.7	34.3
SDQ Total Score	14.1**	17.2	15.8*	18.2	18.2	17.8
Sex (female)	51.0	41.5	46.3	39.5	43.6	32.2
State custody	88.4	81.7	83.3	80.2	80.0	80.6
Maltreatment	62.9	70.4	77.8	65.1	61.8	71.0

\*  $p < .05$ ;

\*\*  $p < .01$ ;

\*\*\*  $p < .001$



**Table 4**  
**Other service use by medication subgroups**

	Percent Using Service					
	Any medication (versus none)		Polypharmacy (versus one medication)		Questionable Polypharmacy (versus other polypharmacy)	
	None	Any med	One med	Polypharm	Polypharm	Questionable
Case Management	50.6 <sup>**</sup>	70.9	63.6	75.6	79.6	71.0
Social Services	38.8 <sup>*</sup>	51.8	52.7	52.3	49.1	54.8
School Services	36.5 <sup>**</sup>	60.3	49.1 <sup>*</sup>	67.4	76.4	58.0
Outpatient Treatment	47.0 <sup>*</sup>	62.4	52.7 <sup>*</sup>	68.6	72.7	64.5
Psychiatrist visit	6.1 <sup>***</sup>	51.4	44.4	55.8	63.6 <sup>*</sup>	41.9

\*  $p < .05$ ;

\*\*  $p < .01$ ;

\*\*\*  $p < .001$