

Use of Psychotropic Medications by Youths in Therapeutic Foster Care and Group Homes

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This article examines the use of psychotropic medications among youths in residential community-based placements. Data are from a study funded by the National Institute of Mental Health of therapeutic foster care (June 1999 through May 2001) and group homes (January through June 2001). Data were collected from staff by means of in-person interviews. Many youths in both settings received psychotropic medications, and approximately one-half were taking multiple psychotropic medications. After the authors controlled for demographic and clinical factors, the youths in group homes were nearly twice as likely as the youths in therapeutic foster care to receive medication. However, residential setting was not related to polypharmacology. Additional work is needed to study the appropriateness of use and implications of such patterns for research on intervention outcomes. (*Psychiatric Services* 55:706–708, 2004)

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Many youths in the United States receive psychotropic medications, and this number has increased over time (1). The use of multiple psychotropic medications has also been reported to have increased among youths (2). The efficacy and short- and long-term safety knowledge base for pediatric psychopharmacology has increased in recent years but remains limited (3).

This article describes rates of use and factors associated with pediatric psychopharmacology for youths in community-based residential treatment settings: therapeutic foster care and group homes. Given the overall literature on the use of medication by children, we expected to find high rates of both psychopharmacology and polypharmacology in both settings. Given the paucity of previous data, we explored whether the rates of psychopharmacology and polypharmacology were similar in the therapeutic foster care and group homes. We also examined the role of setting type, combined with demographic and clinical factors, for the use of medication.

Methods

The data for this study came from a statewide study funded by the National Institute of Mental Health of therapeutic foster care and group home care in North Carolina (4). All youths in the study group were receiving residential services through mental health referrals, and their care

was supervised and provided by local mental health agencies, with auxiliary services provided by other child-serving agencies. Institutional review board approval was obtained from the Duke University School of Medicine, and the principles of the Declaration of Helsinki were followed. Therapeutic foster parents, group home staff, and the youths provided informed consent and assent before involvement with the study. All youths were Willie M. class members—that is, seriously disturbed youths with violent or assaultive behaviors. All data for these analyses came from the baseline interview with the adult respondent—that is, treatment foster parents or group home staff.

The interview protocol included the Child Behavioral Checklist (CBCL) (5) and the Child and Adolescent Services Assessment (CASA) (6). The CASA contains detailed questions about prescribed medications for emotional and behavioral problems in the previous four months, including medication name, dosage, and current use. Up to four medications were recorded. In addition, scores for the Brief Psychiatric Rating Scale for Children (BPRS-C), administered near the time of entry into the current setting, were available from centralized files.

Results

The study group included 304 youths: 184 in therapeutic foster care and 120 in group homes. The sampling ap-

proach included both ongoing and new patients who were served in the respective settings during the enrollment periods: June 1999 through May 2001 for therapeutic foster care, and January through June 2001 for group homes. Youths in the two settings were similar on nearly all factors (mean±SD age of 14.1±2.5 years), racial composition (42 percent African American, or 130 youths), and emotional or behavioral problems (CBCL total T=64.8±11.4), but group homes served significantly fewer girls than therapeutic foster care: 136 youths, or 74 percent, compared with 104 youths, or 87 percent ($\chi^2=6.59$, $df=1$, $p<.01$). At the time of the relevant interview, the youths had been in their respective settings for approximately 15 months (range, 2 to 125). The study group is described in detail elsewhere (7).

During the four focal months, 123 youths, or 67 percent of the youths in therapeutic foster care, and 92 youths, or 77 percent of the youths in group homes, had taken at least one type of psychotropic medication ($\chi^2=3.40$, $df=1$, $p=.07$). Among the youths for whom medication was prescribed, the youths in group homes tended to use more medications ($\chi^2=9.10$, $df=1$, $p=.06$). At the extreme, 11 youths in therapeutic foster care (6 percent) and 18 youths in group homes (15 percent) took four or more psychotropic medications.

Stepwise logistic regression was used to determine predictors of youths' taking any medication. This set of models showed that youths in group homes were significantly more likely than youths in therapeutic foster care to take medication (odds ratio [OR]=1.8; 95 percent confidence interval [CI]=1.03 to 3.2, $p<.05$). In addition, use of medication was more likely among youths who were younger (less than 13 years) (OR=.14, CI=.06 to .41, $p<.01$), were white (OR=1.89, CI=1.04 to 3.06, $p<.05$), or had a score in the clinical range on the externalizing CBCL subscale (OR=2.41, CI=1.12 to 5.2, $p=.02$) or on both the externalizing and internalizing subscales (OR=2.66, CI=1.33 to .36, $p<.001$).

Among the youths who did take medication, stepwise logistic regres-

sion was used to predict whether the youths were taking multiple medications. This set of models showed that setting—therapeutic foster care or group homes—was not significant in explaining the use of multiple medications. Instead, such use was related to being younger (OR=.28, CI=.1 to .59, $p=.002$) and having scores in the clinical range on both the externalizing and the internalizing CBCL scales (OR=2.66, CI=1.11 to 5.85, $p=.02$).

Analyses of specific medications showed no differences between settings in the percentage of youths taking antidepressants, stimulants, or anxiolytics. However, the youths in therapeutic foster care were significantly less likely to be taking antipsychotics ($\chi^2=3.96$, $df=10$, $p=.05$) and mood stabilizers ($\chi^2=8.65$, $df=10$, $p=.003$). These setting differences remained even after demographic and clinical variables, including the BPRS-C, were added to the model.

Discussion and conclusions

Approximately 67 percent of the youths in therapeutic foster care and 77 percent of the youths in group homes took psychotropic medications during the four-month focal period. Youths in group homes were more likely to be taking any psychotropic medications than youths in therapeutic foster care. However, when we controlled for clinical status and demographic characteristics, residential setting was not a significant predictor of polypharmacy.

Our findings also show covariates for use of medication and of polypharmacy. Regardless of setting, the youths who were white, were younger, and had clinical CBCL scores on the externalizing or combined subscales were more likely to be taking some type of psychotropic medication. Polypharmacy, although unrelated to residential setting, was related to age (younger) and being in the clinical range of the combined internalizing and externalizing CBCL subscales (8).

At this point, we can only speculate about the apparent difference in use of psychotropic medications in therapeutic foster care and group homes. It may be that the community-based, family-oriented approach of thera-

peutic foster care, with its focus on treatment parents and the parent-child relationship, stresses psychosocial and social learning approaches rather than medication (9). In contrast, group homes may adhere to a more "medicalized" model of residential treatment (8).

The study group we used was representative of youths with psychiatric diagnoses and aggressive behavior in therapeutic foster care and group homes in North Carolina. However, it was relatively small, had a high concentration of the more severely disturbed youths in these settings, and may not be comparable to samples from residential settings in other states. It is difficult to ascertain the appropriateness of the prescription of medications without data from the prescribing physicians on clinical indications. Our data do not include detailed information on previous use of psychotropic medications, concurrent clinical status during treatment, and responsiveness to previous combined pharmacotherapy.

Despite these limitations, the findings suggest high rates of use of psychotropic medication and polypharmacy among youths in therapeutic foster care and group homes (2). These findings point to the importance of future research in the area of the effectiveness of current practices in pediatric psychopharmacology and polysychopharmacology (10). They also suggest the necessity of including the full range of interventions—for example, medication, residential treatment, outpatient therapy, and inpatient hospitalizations—in studies of effective treatment for childhood mental health disorders. ♦

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