Differences in Utilization of Mental Health Treatment Among Children and Adolescents With Medicaid or Private Insurance

Mir M. Ali, Ph.D., Laura J. Sherman, Ph.D., Sean Lynch, Ph.D., L.C.S.W., Judith Teich, M.S.W., Ryan Mutter, Ph.D.

Objective: Children and adolescents with diagnosed mental disorders may require developmentally tailored interventions. However, little is known about the difference in mental health treatment utilization among children by age group and health insurance coverage.

Methods: Using the 2016 MarketScan database, the study examined treatment utilization patterns by health insurance coverage (private and Medicaid) and developmental age group (preschool-age children, ages 3–5; young children, ages 6–11; and adolescents, ages 12–17).

Results: Psychiatric medication only was the most common form of treatment utilization among all children, regardless of developmental age group or insurance coverage. Specifically, psychiatric medication only was received by 38% of preschool-aged children with Medicaid and 42% of those with private insurance, 43% of young children with Medicaid and 39% of those with private insurance, and 55% of adolescents with Medicaid and 49% of those with private insurance.

Conclusions: Given that evidence-based practices suggest that combined treatment with psychiatric medications and psychotherapy may be the recommended treatment, the study's findings raise potential concerns about the high use of medication-only treatment.

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Studies have shown that a significant portion of children and adolescents in the United States experience mental health problems (1–3). As a consequence, the importance of early identification and treatment of mental disorders among young children and adolescents has gained recognition (3, 4). The types of problems that children experience can differ by age, and a majority of children with mental health problems do not receive services for those problems (2, 3). The awareness that children may have unique, sometimes severe, psychiatric problems requiring developmentally tailored evaluation and intervention has underscored the need to investigate and understand the types of mental health services received by children in various age groups. Moreover, children's access to mental health services varies by insurance coverage (2, 4).

Clinical guidelines recommend active monitoring of symptoms and psychotherapy as a first line of treatment for many common childhood mental health problems, particularly as an alternative to the use of medication only for treatment of depression among young children and adolescents (5, 6). Yet research has documented increasing trends in the use of antipsychotic medications for treatment of aggressive and disruptive behavior among very young children (7, 8). Past studies that utilized either large, employer-sponsored databases or Medicaid data to examine mental health services utilization among children documented that significant proportions of children receive medication without psychotherapy or neither form of treatment (3, 7). To date, no studies have focused on differences in treatment utilization between children with different insurance coverage and at different developmental ages.

The purpose of this study was to extend what is known about mental health treatment utilization among children and adolescents in two important ways. First, we examined

HIGHLIGHTS

- Psychiatric medication only was the most common form of treatment utilization among children of all ages.
- Utilization of psychiatric medication only was higher among young children and adolescents with Medicaid coverage compared with those with private health insurance.

treatment utilization patterns by developmental age group (preschool-age children, ages 3 to 5; young children, ages 6 to 11; and adolescents, ages 12 to 17). Second, given evidence that the type of health insurance coverage influences mental health treatment utilization (2), we analyzed recent data drawn from two extensive databases of private insurance and multistate Medicaid claims. In doing so, we added to the literature by combining these two important components (utilization pattern by developmental age group and health insurance type) in children's mental health care.

METHODS

The study utilized health insurance claims data from the 2016 Truven Health Analytics MarketScan Multi-State Medicaid and Commercial Claims databases. These databases contain detailed, patient-level claims paid by health plans and offer the largest convenience samples available in proprietary databases, with more than 66 million unique patients per year. In order to understand mental health service utilization among children ages 3 to 17, we included individuals with any mental disorder diagnosed in 2016, as classified in their claims as a mental and behavioral disorder in *ICD-10*, excluding disorders that typically occur only among adults (F00–F09 and F60–F69), that are related to substance use (F10–F19 and F55) or sexual/reproductive issues (F52 and F53), and that are classified as disorders of psychological development (F80–F89) because they include those typically treated by other specialties (e.g., pervasive developmental disorders and disorders of speech and language, scholastic skills, or motor function). (A full list of *ICD-10* codes by age group and insurance coverage is available in Appendix 1 in the online supplement to this report.) Separate data sets were created for enrollees in Medicaid (N=314,806) and private insurance (N=685,422).

The mental health treatment indicator is a categorical variable with four mutually exclusive categories describing treatment received during 2016: psychotropic prescription medication filled only; psychotherapy only; both psychotropic prescription medication filled and psychotherapy; and no mental health treatment. Psychotropic prescription medication use was defined by using the pharmacy claims file as having filled one or more psychotropic drug prescriptions during the year; the file contains the therapeutic class of the medication. The following therapeutic classes, which are commonly used to treat behavioral disorders, were included to indicate usage of psychotropic medication: antidepressants, antipsychotics, anticonvulsants, antimanic agents, antiparkinsonian agents, anxiolytics/sedatives, hypnotics, benzodiazepines, barbiturates, central nervous system agents–miscellaneous (CNS miscellaneous), and stimulants (see online supplement). Psychotherapy was defined by using the following Current Procedural Terminology (CPT) codes: 90804–90819, 90821–90824, 90826–90829, 90832–90834, 90836–90840, 90845–90847, 90849, 90853, 90857, 90862, 90875, 90876, and 99605. Children with claims for neither psychotropic medication nor psychotherapy were categorized as receiving no mental health treatment.

This report focuses on a descriptive analysis. Given that the data on privately and publicly insured enrollees came from two distinct databases with unique population characteristics and that large sample sizes result in statistically significant results even for small differences, we utilized the Cohen's h (9) measure of effect size ($h \geq .2$) to interpret meaningful differences in treatment utilization.

RESULTS

The types of mental health treatment utilized by the children and adolescents with a mental disorder diagnosis in 2016 are displayed by age group and insurance type in Figure 1. Among preschool-age children, over one-quarter (28%) of those covered under Medicaid received both psychotropic medication and psychotherapy, compared with less than one-fifth (18%) of those with private insurance ($h \geq .2$). Psychotherapy only was received by 18% of preschool-age children with Medicaid compared with 22% of children with private insurance. Psychotropic medication only was received by 38% of preschool-age children with Medicaid compared with 42% of children with private insurance, making it the largest category of treatment utilization among preschool-age children, under both insurance types. Last, 16% of preschool-age children with Medicaid insurance and 18% with private insurance did not receive any mental health treatment.

Similar percentages of young children with Medicaid or private insurance received psychotropic medication only (43% versus 39%), both psychotherapy and psychotropic medication (23% versus 26%), or no treatment (22% versus 15%). The percentage of young children who received psychotherapy only was lower among those with Medicaid than among those with private insurance (12% versus 20%, $h \geq .2$).

Adolescents with Medicaid were less likely than those with private insurance to use psychotherapy only (6% versus 11%, $h \geq .2$). Only 16% of adolescents insured under Medicaid received both psychotherapy and psychotropic medication, compared with 25% of privately insured adolescents ($h \geq .2$). Psychotropic medication only was the largest treatment category among adolescents, with a utilization rate of 55% for adolescents with Medicaid coverage and 49% for adolescents covered under private insurance. Finally, 23% of adolescents with Medicaid received no treatment compared with 15% of adolescents with private insurance.

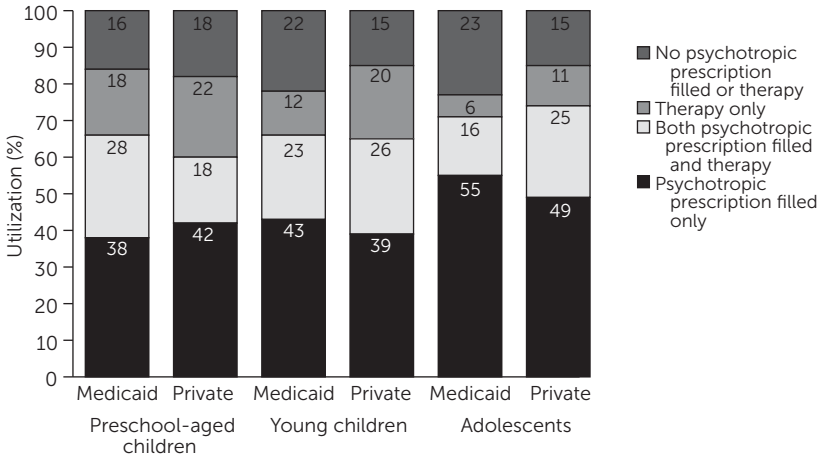
DISCUSSION

By analyzing recent data from extensive databases of private insurance and Medicaid claims, we have identified the rate at which various types of mental health services, including both psychotropic medication and psychotherapy, were utilized by children and adolescents with psychiatric

diagnoses. Consistent with existing literature, the findings from this study suggest that only a small proportion of children receive psychosocial interventions in conjunction with a psychiatric medication. Specifically, between 38% and 55% of all children and adolescents who filled a prescription for a psychotropic medication received it with no psychotherapy.

This study adds to the literature by documenting an important difference in treatment among children by developmental age and health insurance coverage. The difference between utilization of both psychotropic medication and psychotherapy among young children (ages 6–11) with Medicaid or private insurance was minimal. However, differences in rates of utilization by children with different insurance coverage were much larger for preschool-age children and adolescents. In particular, adolescents covered under Medicaid were less likely to receive both types of treatment compared with those with private insurance, and they also had a lower rate of receiving psychotherapy only. The opposite pattern was observed for preschool-age children—those with Medicaid had a higher rate of utilizing both therapy and medication compared with those with private insurance. Researchers have raised concerns about the high rate of psychotropic medication utilization among publicly insured children (6).

FIGURE 1. Utilization of mental health treatment among children and adolescents with Medicaid (N=314,806) or private insurance (N=685,422), by age group[a]



[a] Preschool-aged children, ages 3 to 5; young children, ages 6 to 11; adolescents, ages 12 to 17.

Despite the rich data set utilized in this study, the results should be interpreted in the light of a few limitations applicable to administrative claims data. First, this study examined prescriptions filled, which may differ from prescriptions written and medications taken. Rates of prescribing could be higher and actual medication use might be lower than described in the study. Studies of children's medication adherence have shown varying rates of medication discontinuation by mental health condition (10). Second, the analysis was confined to 2016 data. It is possible, for example, that patients filled a prescription for a psychotropic medication in 2015 and continued to take that medication in 2016 while also receiving psychotherapy in 2016. Future research could identify a child or adolescent's first mental health encounter and track his or her treatment trajectory by identifying the full episode of care and then analyzing the intensity of various types of treatment modalities that are initiated (11).

Third, the data used here do not capture treatment received in other settings or paid for by sources other than insurance, such as school mental health services (12) for which no claims were submitted or insurance claims were denied. Fourth, the analysis in this study was conducted on commercial and Medicaid claims from a select group of states and health plans that contribute to the MarketScan database and thus may not be generalizable to all children and adolescents in the United States with a mental disorder. Future studies may wish to explore how state-level variation in insurance eligibility (e.g., Medicaid expansion status, Children's Health Insurance Program, and eligibility via foster or social care system) affects utilization of mental health services and whether differences in service utilization between individuals with private insurance and Medicaid persist after taking such state-level variation into account. Given the differences in reimbursement between behavioral health providers and other medical professionals (13), future studies could also explore the role of reimbursement in utilization of mental health services. Future studies could also explore the relationship between diagnosis and prescription of psychotropic medication (including frequency of prescription), given the high rates of off-label prescribing (5–7).

CONCLUSIONS

The study's findings raise potential concerns about the high rate of using medication only among children and adolescents with a mental health condition, given that evidence-based practices suggest that combined treatment with psychiatric medications and psychotherapy may be appropriate for the most common disorders among children. The difference in treatment utilization patterns by health insurance status and the infrequent use of both psychiatric medications and psychotherapy, particularly among adolescents covered under Medicaid and preschoolers covered under private insurance, indicate the importance of mental health programs and services targeted toward children, adolescents, and their families (14). The findings also highlight the importance of implementing evidence-based practices and the need for a more integrated and comprehensive approach in treating children with mental health conditions.

AUTHOR AND ARTICLE INFORMATION

Office of the Assistant Secretary for Planning and Evaluation (ASPE), U.S. Department of Health and Human Services (DHHS), Washington, D.C. (Ali); Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration (SAMHSA), Rockville, Maryland (Sherman, Lynch, Teich [now retired]); Retirement and Long-Term Analysis Division, Congressional Budget Office (CBO), Washington, D.C. (Mutter). Send correspondence to Dr. Ali (ali.mir.m@gmail.com).

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