SPECIAL ARTICLE

Trends in Mental Health Care among Children and Adolescents

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ABSTRACT

BACKGROUND

Increasing mental health treatment of young people and broadening conceptualizations of psychopathology have triggered concerns about a disproportionate increase in the treatment of youths with low levels of mental health impairment.

METHODS

We analyzed the 1996–1998, 2003–2005, and 2010–2012 Medical Expenditure Panel Surveys, which were nationally representative surveys of U.S. households, for trends in outpatient use of mental health services by persons 6 to 17 years of age; 53,622 persons were included in the analysis. Mental health impairment was measured with the use of the Columbia Impairment Scale (range, 0 to 52, with higher scores indicating more severe impairment); we classified youths with scores of 16 or higher as having more severe impairment and those with scores of less than 16 as having less severe impairment.

RESULTS

The percentage of youths receiving any outpatient mental health service increased from 9.2% in 1996–1998 to 13.3% in 2010–2012 (odds ratio, 1.52; 95% confidence interval, 1.35 to 1.72). The proportionate increase in the use of mental health services among youths with more severe impairment (from 26.2% to 43.9%) was larger than that among youths with less severe or no impairment (from 6.7% to 9.6%). However, the absolute increase in annual service use was larger among youths with less severe or no impairment (from 2.74 million to 4.19 million) than among those with more severe impairment (from 1.56 million to 2.28 million). Significant overall increases occurred in the use of psychotherapy (from 4.2% to 6.0%) and psychotropic medications (from 5.5% to 8.9%), including stimulants and related medications (from 4.0% to 6.6%), antidepressants (from 1.5% to 2.6%), and antipsychotic drugs (from 0.2% to 1.2%).

CONCLUSIONS

Outpatient mental health treatment and psychotropic-medication use in children and adolescents increased in the United States between 1996–1998 and 2010–2012. Although youths with less severe or no impairment accounted for most of the absolute increase in service use, youths with more severe impairment had the greatest relative increase in use, yet fewer than half accessed services in 2010–2012. (Funded by the Agency for Healthcare Research and Quality and the New York State Psychiatric Institute.)

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In the past several years, there has been an increase in outpatient mental health treatment of children and adolescents in the United States.[1-3] Between 1995–1998 and 2007–2010, the number of mental health visits by young people to U.S. office-based physicians nearly doubled.[2] It is not known, however, whether the increase in outpatient mental health treatment has been driven primarily by an expansion in the care of youths with more severe mental health impairment or by an expansion in the care of those with less severe mental health impairment.

Mental health impairment, which refers to the degree to which psychiatric symptoms impede the performance of various key activities of daily living, is central to the assessment of the severity of child and adolescent mental health problems.[4] For determination of mental health disability and of the need for special-education placement, the federal government requires that the mental disorder result "in functional impairment, which substantially interferes with or limits the child's role or functioning in family, school, or community activities."[5] The diagnosis of most disorders in the fifth edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-5) also requires that the disorders cause "clinically significant distress or impairment in social, occupational, or other important areas of functioning."[6] The requirement of substantial functional impairment reduces the lifetime prevalence of mental disorders among U.S. adolescents from 49.5% to 22.2%.[7]

The range of mental health impairment among young people who receive mental health care in the United States is wide. Such youths range from ostensibly healthy adolescents who seek mental health care to improve their academic performance[8] to children with early-onset schizophrenia and severe impairment. Some observers worry that psychotropic and other mental health treatment of young people with less impairing conditions has increased disproportionately as a result of the recent broadening of conceptualizations of child and adolescent psychiatric disorders.[9-11] Yet this concern has not been subject to empirical evaluation.

We examined national trends in the use of outpatient mental health services by children and adolescents, focusing on the severity of mental health impairment. We examined trends in the treatment of young people with higher levels of mental health impairment as compared with those with lower levels of impairment to determine whether there has been a recent disproportionate increase over time in the treatment of youths with less severe impairment.

Methods

Sources of Data

Data were derived from the household component of the 1996–2012 Medical Expenditure Panel Surveys (MEPS) conducted by the Agency for Healthcare Research and Quality. Technical information concerning the survey sampling design and nonresponse adjustment of the MEPS is provided elsewhere.[11-13] The MEPS oversampled blacks, Hispanics, Asians, and persons with a predicted low income.

Study Samples

The analytic sample included all persons 6 to 17 years of age. A common variance structure that treats each response as independent permitted pooling of responses into three cross sections (1996–1998, 2003–2005, and 2010–2012).[14] The 53,622 study participants included 15,307 in the 1996–1998 cohort, 19,450 in the 2003–2005 cohort, and 18,865 in the 2010–2012 cohort. The analyses, which relied exclusively on deidentified data, were exempted from human-subjects review by the institutional review board at the New York State Psychiatric Institute.

Impairment

Mental health functioning was assessed with the use of the parent version of the Columbia Impairment Scale (CIS; scores range from 0 to 52, with higher scores indicating more severe impairment),[15] a 13-item measure of child and adolescent interpersonal relations, psychopathologic symptoms, functioning in school, and use of leisure time (Table S1 in the Supplementary Appendix, available with the full text of this article at NEJM.org). As a single factor, the CIS has high internal consistency (Cronbach's alpha, 0.89) and excellent test–retest reliability (intraclass correlation coefficient, 0.89) and is correlated with clinician-rated impairment.[15] A discriminant-function analysis of a youth epidemiologic sample revealed that a CIS score of 16 was the most appropriate cutoff score for more severe impairment (Wilk's lambda, 0.668; canonical correlation, 0.576; eigenvalue, 0.497), with number of psychiatric symp-

toms, use of mental health services in the past year, school performance, and a competence-scale score used as criteria for determining the most appropriate CIS cutoff score.[16] At this cutoff score, the CIS had moderate agreement with structured DSM diagnoses in a pediatric sample (kappa, 0.48; sensitivity, 0.44; specificity, 0.96; positive predictive value, 0.79).[17] Our analysis involved only CIS ratings that included responses to all 13 items (97.6% of all the CIS ratings).

USE OF MENTAL HEALTH SERVICES

Outpatient use of mental health services was defined by an outpatient visit with a mental disorder diagnosis (*International Classification of Diseases, 9th Revision*, codes 290–319), use of psychotherapy, or use of psychotropic medications. The MEPS asked respondents what type of care was provided during each outpatient visit; response categories included psychotherapy or mental health counseling. One or more psychotherapy visits defined psychotherapy use. The MEPS also collected information directly from households on prescription medications obtained by respondents. Psychotropic medications included stimulants and other medications to treat attention deficit–hyperactivity disorder (atomoxetine and alpha$_2$-adrenergic agonists), antidepressants, antipsychotic agents, anxiolytic agents or sedatives, and mood stabilizers. The prescription of one or more medications defined medication use.

STATISTICAL ANALYSIS

For each survey period, the estimated percentage of youths with more severe mental health impairment was determined overall and according to age (6 to 11 years [children] or 12 to 17 years [adolescents]), sex, race (white or nonwhite) as reported by the household respondent, and use of mental health services. In some analyses, race or ethnic group was defined as white, black, Hispanic, or other. Age-adjusted and sex-adjusted logistic regressions assessed the strength of associations between study period, which was defined with a value of 0 for 1996–1998, 0.5 for 2003–2005, and 1.0 for 2010–2012, and severity of mental health impairment. The odds of severe impairment across the entire period was the outcome of interest.

Corresponding unadjusted models assessed the strength of associations between study period and use of mental health services. Results are presented as odds ratios and 95% confidence intervals. P values were calculated for the interaction between the severity of mental health impairment and change in service use over time. In this large, exploratory study, no adjustments have been made to the many P values for the multiple comparisons; therefore, the P values should be interpreted with caution.

All statistical analyses were performed with the use of SAS software, version 9.4. The PROC SURVEYFREQ and SURVEYLOGISTIC procedures were used to accommodate the complex sample design and weighting of observations.

RESULTS

MENTAL HEALTH IMPAIRMENT

The percentage of young people with more severe mental health impairment (CIS score ≥16) declined from 12.8% in 1996–1998 to 11.9% in 2003–2005 to 10.7% in 2010–2012 (Table 1). Similar trends occurred with the use of other CIS cutoff scores (Table S2 in the Supplementary Appendix). Significant declines in the odds of more severe mental health impairment were observed among children, adolescents, male youths, female youths, and Hispanics (Table 1). During each study period, the odds of more severe mental health impairment were greater among adolescents than among children, among male youths than among female youths, and among non-Hispanic white youths than among Hispanic youths (Table S3 in the Supplementary Appendix).

Among users of outpatient mental health services, the percentage with more severe mental health impairment did not change significantly between 1996–1998 and 2010–2012 (Table 1). Similarly, when the analysis was limited to youths who began receiving mental health treatment during the 3 months after their CIS assessment, the percentage with more severe impairment did not change significantly between 1996–1998 and 2010–2012 (35.7% and 33.4%, respectively; chi-square test with 1 degree of freedom, 0.73; P=0.39).

USE OF MENTAL HEALTH SERVICES

The percentage of young people using any outpatient mental health service increased significantly between 1996–1998 and 2010–2012. Significant increases were evident among children and adolescents, male youths and female youths, and

Table 1. Trends in the Percentage of Young People with More Severe Mental Health Impairment.*

Variable	More Severe Mental Health Impairment			Adjusted Odds Ratio (95% CI)
	1996–1998 (N=15,307)	2003–2005 (N=19,450)	2010–2012 (N=18,865)	
	percent of young people			
Total	12.8	11.9	10.7	0.81 (0.72–0.92)
Age				
6–11 yr	10.6	9.6	8.9	0.82 (0.69–0.98)
12–17 yr	15.0	14.1	12.4	0.81 (0.69–0.94)
Sex				
Female	11.3	10.3	9.7	0.84 (0.72–0.98)
Male	14.2	13.4	11.6	0.79 (0.68–0.92)
Race or ethnic group†				
White	13.4	12.8	11.8	0.86 (0.74–1.01)
Black	14.0	13.2	11.8	0.80 (0.64–1.01)
Hispanic	10.2	8.4	8.1	0.78 (0.63–0.97)
Other	6.1	10.7	7.7	1.08 (0.68–1.70)
Any outpatient mental health service				
Use	36.3	40.1	35.2	0.92 (0.75–1.12)
No use	10.4	8.6	6.9	0.64 (0.55–0.74)
Any psychotherapy				
Use	49.5	53.0	46.7	0.86 (0.65–1.15)
No use	11.2	9.7	8.4	0.73 (0.63–0.83)
Any psychotropic medication				
Use	41.2	45.2	38.3	0.84 (0.66–1.08)
No use	11.1	9.4	8.0	0.69 (0.61–0.79)

* Data are from the Medical Expenditure Panel Surveys (MEPS) and are presented as annualized percentages. The analysis was limited to persons 6 to 17 years of age. More severe mental health impairment was defined by a score of 16 or higher on the Columbia Impairment Scale (range, 0 to 52, with higher scores indicating more severe impairment). Adjusted odds ratios of logistic regression represent the odds of young people having severe mental health impairment in 2010–2012, with 1996–1998 as reference. The regressions controlled for age and sex, except analyses stratified according to sex, which controlled only for age, and analyses stratified according to age group, which controlled only for sex.

† Race or ethnic group was determined by the household respondent.

whites and nonwhites (Table 2). As compared with youths with less severe or no mental health impairment, those with more severe impairment had a greater relative increase in service use, with more than 40% accessing services in 2010–2012 (Table 2). Between 1996–1998 and 2010–2012, the estimated number of youths above the impairment threshold who received any outpatient mental health service increased from 1.56 million annually (95% confidence interval [CI], 1.34 to 1.78) to 2.28 million annually (95% CI, 1.95 to 2.60), whereas the corresponding number of youths below the threshold who received treatment increased by approximately twice as much, from 2.74 million annually (95% CI, 2.45 to 3.02) to 4.19 million annually (95% CI, 3.72 to 4.66).

During all three study periods, the percentage of young people who used any outpatient mental health service was significantly higher among whites than among nonwhites and among male youths than among female youths. In 2003–2005, it was also significantly higher among adolescents than among children (Table S4 in the Supplementary Appendix).

Table 2. Trends in the Use of Any Outpatient Mental Health Service by Young People.*

Variable	Use of Any Outpatient Mental Health Service			Period Effect†	P Value for Interaction‡
	1996–1998	2003–2005	2010–2012		
	percent of young people			*odds ratio (95% CI)*	
All youths	9.2	10.6	13.3	1.52 (1.35–1.72)	0.002
More severe mental health impairment	26.2	35.5	43.9	2.20 (1.76–2.75)	
Less severe or no mental health impairment	6.7	7.2	9.6	1.51 (1.31–1.73)	
Youths 6–11 yr of age	9.4	9.6	12.6	1.40 (1.18–1.66)	0.02
More severe mental health impairment	28.0	35.8	44.6	2.06 (1.53–2.78)	
Less severe or no mental health impairment	7.2	6.8	9.5	1.37 (1.12–1.68)	
Youths 12–17 yr of age	9.0	11.5	14.0	1.64 (1.40–1.92)	0.06
More severe mental health impairment	24.9	35.4	43.5	2.31 (1.70–3.13)	
Less severe or no mental health impairment	6.2	7.5	9.8	1.66 (1.38–1.99)	
Female youths	6.9	8.8	10.4	1.56 (1.29–1.88)	0.02
More severe mental health impairment	21.6	29.8	38.3	2.24 (1.60–3.16)	
Less severe or no mental health impairment	5.0	6.3	7.4	1.50 (1.22–1.84)	
Male youths	11.5	12.2	16.1	1.51 (1.29–1.76)	0.02
More severe mental health impairment	29.8	39.7	48.5	2.13 (1.61–2.82)	
Less severe or no mental health impairment	8.4	8.0	11.9	1.52 (1.26–1.83)	
White youths	11.1	12.4	16.1	1.54 (1.33–1.79)	0.02
More severe mental health impairment	31.0	39.4	49.7	2.19 (1.66–2.90)	
Less severe or no mental health impairment	8.0	8.4	11.6	1.52 (1.28–1.80)	
Nonwhite youths	5.6	7.9	9.8	1.81 (1.50–2.18)	0.01
More severe mental health impairment	15.5	28.6	34.6	2.73 (2.02–3.68)	
Less severe or no mental health impairment	4.3	5.4	7.3	1.78 (1.42–2.23)	

* Data are from the MEPS and are presented as annualized percentages. The analysis was limited to persons 6 to 17 years of age. More severe mental health impairment was defined by a Columbia Impairment Scale score of 16 or higher.
† Period effects represent the unadjusted odds ratios of any outpatient mental health service in 2010–2012, with 1996–1998 as reference.
‡ P values are for the interaction between the severity of mental health impairment and changes in the use of outpatient mental health services over time.

PSYCHOTHERAPY

The percentage of youths who received psychotherapy increased from 4.2% in 1996–1998 to 5.0% in 2003–2005 to 6.0% in 2010–2012 (odds ratio, 1.46; 95% CI, 1.21 to 1.75). As a benchmark, the percentage of youths with any outpatient medical visit was 65.2% in 1993–1996, 67.9% in 2003–2005, and 70.0% in 2010–2012 (odds ratio, 1.24; 95% CI, 1.14 to 1.36).

The use of psychotherapy increased significantly both among youths with more severe impairment and among those with less severe or no impairment. (Table 3). The percentage of young people who received psychotherapy also increased in each demographic stratum (Tables S5, S6, and S7 in the Supplementary Appendix). The use of psychotherapy was significantly more prevalent among white youths than among nonwhite youths in 1996–1998, 2003–2005, and 2010–2012, among adolescents than among children in 2003–2005 and 2010–2012, and among male youths than among female youths in 2010–2012 (Table S8 in the Supplementary Appendix).

PSYCHOTROPIC MEDICATIONS

The use of psychotropic medications, including stimulants, antidepressants, and antipsychotic agents, increased significantly over the course of the three periods (Fig. 1). These increases were observed both among youths above the impair-

Table 3. Trends in the Use of Psychotropic Medication and Psychotherapy by Young People.*

Variable	Use of Specific Mental Health Service			Period Effect†	P Value for Interaction‡
	1996–1998	2003–2005	2010–2012		
	percent of young people			*odds ratio (95% CI)*	
Any psychotropic medication	5.5	7.0	8.9	1.68 (1.45–1.94)	0.12
Youths with more severe mental health impairment	17.7	26.4	31.8	2.14 (1.70–2.71)	
Youths with less severe or no mental health impairment	3.7	4.3	6.1	1.73 (1.46–2.05)	
Stimulants§					0.82
Youths with more severe mental health impairment	13.0	19.0	22.6	1.92 (1.48–2.49)	
Youths with less severe or no mental health impairment	2.6	3.0	4.6	1.85 (1.49–2.31)	
Antidepressants					0.15
Youths with more severe mental health impairment	6.2	12.0	13.4	2.22 (1.63–3.03)	
Youths with less severe or no mental health impairment	0.8	1.2	1.4	1.66 (1.24–2.24)	
Antipsychotics					0.23
Youths with more severe mental health impairment	1.1	5.6	7.5	4.85 (3.29–7.15)	
Youths with less severe or no mental health impairment	0.1	0.3	0.4	3.02 (1.46–6.26)	
Psychotherapy	4.2	5.0	6.0	1.46 (1.21–1.75)	0.25
Youths with more severe mental health impairment	16.1	22.5	26.1	1.82 (1.39–2.38)	
Youths with less severe or no mental health impairment	2.4	2.7	3.6	1.51 (1.20–1.90)	

* Data are from the MEPS and are presented as annualized percentages. The analysis was limited to persons 6 to 17 years of age. More severe mental health impairment was defined by a Columbia Impairment Scale score of 16 or higher.
† Period effects represent the unadjusted odds ratios of the specific mental health services in 2010–2012, with 1996–1998 as reference.
‡ P values are for the interaction between the severity of mental health impairment and changes in the use of any psychotropic medication, stimulants, antidepressants, antipsychotics, or psychotherapy over time.
§ Included in this category are stimulants, atomoxetine, and the alpha$_2$-adrenergic agonists guanfacine and clonidine.

ment threshold and among those below the threshold (Table 3). Significant increases in the use of any psychotropic medication were also evident in all demographic strata and impairment subgroups (Tables S5, S6, and S7 in the Supplementary Appendix). The use of stimulants and related medications exhibited similar trends. The use of antidepressants increased significantly in all demographic and impairment strata except in the strata for children. During each study period, the use of psychotropic medications was more prevalent among male youths than among female youths and among white youths than among nonwhite youths. In each of the three periods, antidepressant use was also more prevalent among adolescents than among children (Table S8 in the Supplementary Appendix).

DISCUSSION

Over the past several years, an increasing percentage of young people in the United States received outpatient mental health care. The increase in the percentage of youths receiving mental health treatment was greater among more severely impaired youths than among less severely impaired youths, even as the percentage of more severely impaired youths in the general population declined. Confounding with unmeasured nontreatment factors, such as a decrease in problematic alcohol use,[18] complicates the determination of whether and to what extent the increase in treatment contributed to the decline in impairment.

The findings of this analysis partially support the view that treatment of less severely impaired youths has driven the recent increase in child and adolescent outpatient mental health care.[9,10,19] The increase in outpatient mental health treatment included approximately twice as many young people with less severe impairment as young people with more severe impairment, and roughly two thirds of new treatment episodes continued to involve youths without severe impairment. Revisions to the DSM and pharmaceu-

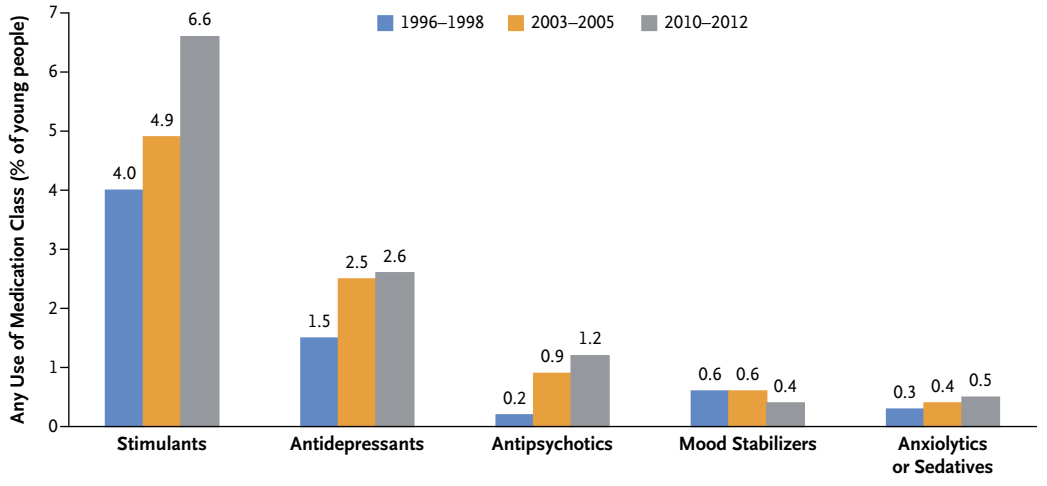

Figure 1. Trends in the Use of Psychotropic Medications.

tical marketing have been hypothesized to contribute to the increase in the treatment of less severely impaired young people.[9,10] An increasing public acceptance of psychotropic medications[20] may also have been a contributing factor.

Youths above the CIS impairment threshold were far more likely than those below that threshold to use outpatient mental health services. The increase in the percentage of youths receiving treatment was also greater among more severely impaired youths than among the less severely impaired. A disproportionate increase in the treatment of severely impaired youths was observed among children, male youths and female youths, and white youths and nonwhite youths. Previous research suggests that even when young people with impairment do not meet the criteria for a DSM disorder, they are more likely than their peers with mental disorders, but without impairment, to receive mental health care.[21] The 2009 Children's Health Insurance Program (CHIP) Reauthorization Act, which raised quality standards for mental health services for Medicaid and CHIP beneficiaries, and the Mental Health Parity and Addiction Equity Act of 2008 might have led to preferential increases in outpatient mental health treatment of more severely impaired children.

Treatment with psychotropic medications was considerably more common among youths with more severe impairment than among those with less severe impairment. A concentration of stimulant use among youths with severe impairment accords with the importance that physicians assign to child impairment in their decisions to initiate treatment with these medications.[22] However, the increase in the odds of receiving stimulants was similar among young people with more severe impairment and those with less severe or no impairment. The parallel increase in stimulant use across levels of impairment severity provides clinical context to reports of increasing treatment with stimulants of young people by office-based psychiatrists[2] and of youths in privately[3] and publicly[23] insured populations.

The use of antidepressants also increased among youths. Although the increase in the odds of antidepressant treatment was larger among youths with more severe impairment than among those with less severe impairment, the between-group difference in the increase was not significant. Because clinical guidelines recommend active monitoring rather than the use of antidepressants as an initial approach to the care of children and adolescents with depression who have mild-to-moderate symptoms and impairment,[24] the increase in antidepressant use among youths with less severe impairment merits clinical attention. Despite the 2004 Food and Drug Administration (FDA) black-box warning that antidepressants are associated with an increased risk of suicidality among young people, antidepressant use increased among adolescents, although not among children, during the study period. The increase in antidepressant use by adolescents but not by children may be related to the more robust effectiveness of antidepressants

for the treatment of depressive disorders and several anxiety disorders in adolescents than in children.[25] An increasing incidence of depression during adolescence[26] combined with increased clinical surveillance[27] may have also played a role.

As antipsychotic agents have gained popularity in the mental health treatment of young people, concern has been raised about the risk–benefit trade-offs of the use of antipsychotic agents outside of FDA-approved indications.[28] Although a much larger percentage of more severely impaired youths than less severely impaired youths received antipsychotic agents, the increase in antipsychotic treatment among less severely impaired children and adolescents nevertheless suggests an area of potential concern about the quality of care.

Psychotherapy use increased roughly in parallel among children and adolescents with more severe impairment and those with less severe impairment. A general rise in the use of psychotherapy by children and adolescents may be related to the development of effective forms of psychotherapies for a wide range of common psychiatric conditions in young people.[29-32] Even with the increase in psychotherapy use, however, only approximately one quarter of severely impaired young people received any psychotherapy during the most recent survey period.

Treatment with psychotherapy and with most psychotropic medications was significantly less common among minority youths than among nonminority youths. Minority youths may have less access to mental health services than their white non-Hispanic counterparts.[33] Racial or ethnic variation in parental identification of child mental health problems,[34] perceived need for professional care,[35] perceived treatment benefits,[36] and insurance status[37] may contribute to racial or ethnic disparities in the use of mental health services. Despite persisting disparities, the use of mental health treatment among minority youths with more severe mental health impairment increased during the study period.

The estimated prevalence of severe mental health impairment was higher among male youths than among female youths, among adolescents than among children, and among white non-Hispanic youths than among Hispanic youths. These patterns resemble previously reported demographic profiles of parent-reported persistent emotional and behavioral problems in children and adolescents.[38] Interpretation of racial or ethnic variation in the prevalence of severe impairment, however, is confounded by a tendency for Hispanic and black parents to have a higher threshold than white non-Hispanic parents for assessing mental health impairment in their children.[34]

An unexpected finding was a decline between 1996–1998 and 2010–2012 in the percentage of young people with severe mental health impairment. This trend contrasts with a recent report from the Centers for Disease Control and Prevention (CDC), which indicated that the percentage of U.S. children and adolescents with a mental disorder increased from 1994 to 2011.[1] The CDC report, however, was based largely on results from the National Health Interview Survey and the National Survey of Children's Health, which indicated that an increasing percentage of parents have been told by a health professional that their child or adolescent has attention deficit–hyperactivity disorder, autism, or other mental disorders. The trends reported by the CDC could be confounded by a coincident increase in mental health treatment of young people. The focus in our analysis on parental assessment of mental health impairment in their child or adolescent in major areas (interpersonal relations, psychopathological domains, school, and leisure time) yields a more optimistic view of recent trends in mental health impairment among young people in the United States.

The current analyses have several limitations. First, the MEPS rely on respondent recall and diaries that may underestimate the use of mental health care, although a medical-provider survey supplements and validates the reported use of services. Second, the MEPS lack the statistical power to evaluate detailed trends in less commonly prescribed classes of psychotropic medications. Third, although CIS scores correlate with several key markers of child and adolescent dysfunction, it is not a diagnostic measure, and parent–child discordance may exist, especially with respect to the detection of internalizing conditions (e.g., depression) that tend to be more salient for children and adolescents than for their parents.[39] Finally, the MEPS provide no information on the quality or effectiveness of care.

The decision to seek help for mental health problems in children and adolescents involves individual, parental, social, economic, cultural, and sometimes legal determinants. Between 1996–1998 and 2010–2012, an increasing percentage

of U.S. children and adolescents received outpatient mental health care even as the number of young people assessed by their parents as having more severe mental health impairment declined. Despite the increase in treatment, many young people with severe mental health impairment received no care. In schools and primary care settings, improvements in the identification and referral of young people in the greatest need of treatment could provide community benefit.

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