Mental health and substance abuse treatment utilization among individuals served by multiple public agencies in 3 states

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Abstract:

Patterns of mental health (MH) and substance abuse (SA) treatment utilization among populations receiving services through multiple public programs are not well known. This study examines to what extent populations with MH and/or SA conditions utilize treatment services through Medicaid and State MH/SA Agencies. Data are from the Substance Abuse and Mental Health Services Administration Integrated Database, a multiyear file for 3 states combining Medicaid and State MH/SA Agency administrative data into a uniform database. Although populations with co-occurring conditions and those served by both Medicaid and State MH/SA Agencies have substantial contact with the public treatment system, a majority of the MH/SA populations examined here utilize few services over brief periods of time. Utilization is most limited among individuals with MH-only conditions and those served exclusively by Medicaid. While a lack of data on clinical outcomes prevents us from drawing conclusions about the effectiveness of MH/SA services, results of this analysis indicate that public programs in the states examined here do not provide services that are primarily utilized on a frequent or chronic basis.

Keywords: mental health treatment | substance abuse treatment | Medicaid | State MH/SA Agencies | public treatment system

Article:

Introduction

A common belief among many healthcare professionals is that individuals with mental health and/or substance abuse (MH/SA) conditions utilize treatment services frequently over long periods of time. Studies suggest, however, that the majority of privately insured individuals utilize relatively few behavioral health services over brief, discrete periods of time)[1-8] Cohen and

Cohen [9] refer to the discrepancy between the perceived and actual use of MH/SA services as the "clinician's illusion," whereby long-term patients dominate clinicians' time, use the vast majority of services, and thus create an unrepresentative impression of the general MH/SA population with regard to treatment frequency and duration. Moreover, characterizations that MH/SA populations remain in public treatment for long periods of time do not support the recovery-based approach in both the MH and SA fields--that persons seeking MH/SA services often receive effective treatment and do not need treatment chronically.[10,ll]

Although limited service utilization has been shown for Medicaid beneficiaries with MH conditions, [12] few studies have examined the use of MH/SA services among populations covered by multiple public agencies. The lack of research on these populations is due primarily to limited data. Because state organizations managing the delivery of MH/SA services often operate in isolation of one another, information about MH/SA service utilization resides with each individual agency. [13] Databases containing information on individuals receiving MH/SA services through multiple public agencies are therefore rare and typically incomplete. Fragmented data have impeded the efforts of researchers and policymakers to determine whether service utilization varies between public agencies and between individuals with single and co-occurring MH/SA conditions. Such information may greatly benefit state policymakers in making difficult decisions about the distribution of scarce resources for the provision of MH/SA services.

The purpose of this study is to describe patterns of utilization of MH/SA treatment services provided through Medicaid and State MH/SA Agencies. A unique data source, the Integrated Database (IDB), is used to examine the length of time MH/SA patients in 3 states remain in the public treatment system, how often they utilize services, and through which agencies (Medicaid, State Agencies, or both) they receive services over a 3-year study period. This study also examines to what extent service utilization varies between individuals with single or both MH and SA conditions. To the authors' knowledge, this study is the first to present this information for populations receiving MH/SA services through multiple public agencies over a multiyear period.

Data and Methods

Overview

To address the lack of complete information on populations receiving public MH/SA services, the Substance Abuse and Mental Health Services Administration (SAMHSA) initiated an effort in 1996 to integrate disparate sources of data on MH/SA services. The result of this effort, the IDB, assembles information from 3 types of state organizations: State Medicaid programs, State MH Agencies, and State SA Agencies. The IDB links service record information on MH/SA treatment utilization for each person into a uniforrn database. Because the IDB combines information for individuals who receive services under multiple public programs, the IDB thus provides a more complete picture of the MH/SA clients seen in more than 1 part of the state-supported MH/SA treatment system. The IDB contains person- and service-level data for all such clients within a state (for a full description of the methodology used to link IDB service records across state organizations, see Whalen et al[l4]).

The IDB contains administrative service records for individuals receiving public MH/SA services through Medicaid and/or State MH/SA Agencies and encompasses 3 full calendar years (1996- 1998) for 3 states: Delaware, Oklahoma, and Washington. The 3 participating states were chosen on the basis of their availability of electronic data, the ability of their data systems to link clients across agencies, and state interest in the IDB project. The IDB also contains information on patient demographics, such as age, sex, race, and urban/rural location, as well as information on Medicaid eligibility status, MH/SA diagnosis codes, providers, and Medicaid drug prescriptions and other Medicaid medical records.

Study population

The study population for this analysis consists of individuals who had a primary MH or SA diagnosis or who received any MH or SA service during the study period. MH/SA diagnoses are defined using codes on the basis of the International Classification of Diseases, 9th Revision, Clinical Modification (ICD-9-CM). MH/SA diagnoses are identified using ICD-9-CM codes listed in Coffey et al.[3] Clients with missing diagnoses were selected for the study population on the basis of evidence of having received an MH/SA service. MH/SA service categories were created using several criteria, including source of record and service description, [13] After identifying the study population on the basis of diagnosis or use of service, persons older than 64 years and persons who changed age category (youth to adult or adult to elderly) during the study period are excluded. Excluding persons older than 64 years eliminates 7.9% of all clients in the IDB study population while exclusion of persons who changed age category eliminates an additional 1.2%. After making these exclusions, roughly 70% of the study population in each state is classified as adult (ages 18 to 64 years), with the remaining 30% classified as youth (ages less than 18 years).

Beginning in 1998, State MH Agency records from Washington did not include information on specific outpatient service dates, but rather only the month of service and the number of service encounters within a month. As a result, encounter dates are evenly assigned to individuals within each month to approximate service use patterns similar to those seen in 1996 and 1997. Although this method does not reflect the true date-specific service use of Washington service users in 1998, it is more realistic than the alternative of assigning all observed encounters within a month to a single date. Service encounter dates created in this manner account for roughly 35% of all MH/SA service dates from Washington across the 3-year study period.

Client classification

Individuals included in the analysis are classified and examined on 2 major domains: (1) service agency and (2) MH/SA category. Service agency refers to the data source (Medicaid or State MH/SA Agency) from which each IDB record was obtained and allows us to generally identify individuals who receive MH/SA services through Medicaid only, through State Agencies only, or through both Medicaid and State Agencies. Individuals classified as having MH/SA service records in both Medicaid and State Agency databases, however, do not necessarily receive services through both auspices concurrently. A client with one Medicaid record at the beginning of the study period and one State Agency record at the end of the study period, for example, is classified as having received services through both auspices. In some cases, the same MH/SA

service record appears on both the Medicaid and State Agency databases. Overlapping records may occur if Medicaid reimburses a bill but the State Agency provides the service. To avoid overstating utilization rates, only one service date is counted for cases in which a service user, provider, service, and service date are reported on both the Medicaid and State Agency databases. Additionally, individuals with these types of records are classified as receiving services through both Medicaid and State Agencies (for further information on the reconciliation of overlapping service records in the IDB, see Coffey et al [13]).

The second domain on which individuals are classified and analyzed is MH/SA category, which is used to identify individuals who had services for only MH conditions (MH-only), only SA conditions (SA-only), or co-occurring (both MH and SA) conditions during the study period. Service users are assigned to MH-only and SA-only categories on the basis of primary diagnosis, but secondary diagnostic information was considered for co-occurring conditions. Individuals are classified as having co-occurring conditions if they had any of the following within the 3-year study period: (1) both a primary MH and SA diagnosis, (2) a primary MH and secondary SA diagnosis, or (3) a primary SA and secondary MH diagnosis. In the absence of diagnosis information, MH-only and SA-only classifications were assigned on the basis of the type of service received during the study period. For cases in which diagnosis information was not available, individuals were classified as having co-occurring conditions on the basis of evidence of receiving both an MH and SA service. Individuals classified as having co-occurring conditions did not necessarily have MH and SA conditions concurrently. A client with an MH record at the beginning of the study period and an SA record at the end of the study period, for example, is classified as having co-occurring conditions.

Individuals served exclusively by Medicaid make up 20% to 40% of the study population across all 3 states, whereas 45% to 66% are served exclusively by State Agencies. The proportion of individuals served by both Medicaid and State Agencies varies from 12% to 36% across the 3 states. Most service users (55%-70% across all 3 states) in the study population are classified as MH-only, while a much smaller proportion of clients (16%-28%) are classified as SA-only. Individuals classified as having co-occurring conditions make up 10% to 17% of the study population across all 3 states.

Utilization measures

Medians and frequency distributions of individuals' length of service window, number of total MH/SA encounter dates, and frequency of MH/SA service use are presented to examine the level of contact individuals in the study population have with the public treatment system. A service window is defined as the number of days between an individual's first and last observed MH/SA service record during the 3-year study period. An individual's total number of service encounter dates is defined as the count of unique dates over the entire study period on which they had an administrative record with at least 1 MH/SA diagnosis or service. Service encounter dates occurring within a single inpatient stay are considered to be distinct and separate encounter dates.

To present a more comprehensive picture of public MH/SA service utilization, the concepts of service window length and number of encounter dates are combined to create 4 mutually

exclusive categories of service utilization: (1) single encounter date, (2) short-term, (3) occasional, and (4) frequent utilizers of the public MH/SA treatment system. Single encounter date utilizers are defined as persons with only 1 encounter date during the entire study period. Short-term utilizers are defined as individuals with a service window of 3 months or less but more than 1 encounter date. Occasional utilizers are defined as those with a service window greater than 3 months but fewer than 10 encounter dates. Frequent utilizers are defined as persons with a service window greater than 3 months and 10 or more encounter dates.

Results are presented for each state side-by-side to aid readers' comprehension of state-specific results and to identify within-state trends that appear similar across the 3 states. However, comparisons of MH/SA utilization between states should not be made because state programs managing the delivery of MH/SA services differ in many dimensions (eg, MH/SA program financing, organization, benefits, provider payment arrangements, available settings for care, and provider networks). For further information on the organizational framework of MH/SA service delivery in each state, see Coffey et al. [13]

Results

Because the IDB spans a 3-year period, individuals appear in the database in different years and for varying lengths of time. A basic but important result of this analysis is that the majority of MH/SA service users (between 60% and 73% across all 3 states) appear in the IDB during 1 and only 1 year of the study period, while a much smaller proportion of individuals (11%-17%) appear in all 3 years. Between 14% and 20% of service users across all 3 states have MH/SA service records in 2 consecutive years of the study period, while a very small proportion of individuals (less than 3% across all 3 states) have service records in 1996 and 1998 but no records in 1997. These results are consistent with patient tumover rates estimated in other studies of Medicaid populations (eg, reference 15).

Length of service window

Table 1 presents the distribution of service windows and suggests that the majority of MH/SA service users in the states examined here have relatively brief contact with the public treatment system. Half of all MH/SA service users in each state, for example, are present in the treatment system for 139 days or less over a 3-year period while one quarter of all individuals has service windows of 8 days or less. Contact with the treatment system is particularly brief for those served exclusively by Medicaid, as one quarter of these individuals have a service window of only 1 day. Persons receiving services through both Medicaid and State Agencies, however, appear to have a substantially longer period of contact with the treatment system than those receiving services through Medicaid or State Agencies alone. Among all service users, for example, 50% of those receiving services through both auspices have a service window of at least 344 days compared to only 135 days for individuals served by Medicaid alone or by State Agencies alone.

Table 1 also indicates that service window length varies by MH/SA category. Individuals with co-occurring conditions, for example, generally have a lengthy service window (ranging from 302 to 465 days at the median across all 3 states) and remain in treatment more than 4 times

longer (at the median) than individuals with single MH or SA conditions. For individuals with MH-only conditions, however, contact with the treatment system is particularly brief as one quarter of these individuals in each state are present in the treatment system for only 1 day. Finally, individuals with MH-only conditions in 2 states have a shorter period of contact with the treatment system at the median than SA-only service users.

Total service encounter dates

Table 2 presents the distribution of total service encounter dates. Half of all service users in each state have 12 or fewer MH/SA service dates over the 3-year study period. While individuals served by both Medicaid and State Agencies have the greatest number of encounter dates over the study period, those served exclusively by Medicaid appear to have the fewest. Low intensity of utilization among Medicaid-only service users is further pronounced in that 75% of these individuals across the 3 states have fewer than 23 encounter dates over the 3-year study period.

Table 2 also shows that the number of service dates varies by MH/SA category. As expected, individuals with co-occurring conditions have a higher median number of service encounter dates than those with a single MH or SA condition. Individuals with co-occurring conditions in each state, for example, have at least 20 more service dates at the median than those with MH-only conditions and at least 11 more at the median than those with SA-only conditions. Moreover, 3 quarters of individuals with co-occurring conditions have at least 8 encounter dates over the study period, and in 2 states 3 quarters of individuals with SA-only conditions have at least 6 encounter dates. Additionally, MH-only patients in 2 states have at least 20 fewer encounter dates at the median than those with SA-only conditions. Limited utilization among MH-only service users relative to those with both co-occurring and SA-only conditions is further pronounced in that one quarter of all MH-only service users in each state have only 1 service encounter date over the study period. When MH-only patients are served by both Medicaid and State Agencies, however, service encounter dates for this group rise substantially (to at least 11 encounter dates) in 2 of the 3 states.

Table 1

Distribution of MH/SA service window length*,† (in days) by MH/SA category, service agency,‡ and state over the period 1996–1998, ages 0 to 64 years§

	Delaware				Oklahoma				Washington			
Service window percentiles by MH/SA category	**All service users**	**Medicaid only**	**State MH/SA Agency only**	**Medicaid + Agency**	**All service users**	**Medicaid only**	**State MH/SA Agency only**	**Medicaid + Agency**	**All service users**	**Medicaid only**	**State MH/SA Agency only**	**Medicaid + Agency**
All service users												
N	35,009	14,011	15,618	5380	195,513	47,305	124,887	23,321	325,608	62,059	146,258	117,291
25%	8	1	23	264	2	1	1	199	5	1	3	100
50% (median)	139	45	135	629	66	82	36	537	103	1	58	344
75%	507	325	394	1021	361	394	207	975	352	126	215	765
MH Only												
N	19,367	11,987	4682	2698	130,177	43,049	71,246	15,882	227,987	52,191	95,725	80,071
25%	1	1	23	193	1	1	1	174	1	1	1	77
50% (median)	98	41	141	562	59	78	24	493	72	1	33	297
75%	498	307	687	1019	337	378	157	954	316	122	168	728
SA Only												
N	9879	881	8550	448	31,719	1008	30,605	106	64,695	7011	45,950	11,734
25%	11	1	18	248	1	1	1	39	22	1	25	101
50% (median)	113	8	117	502	14	3	15	204	107	1	102	271
75%	366	89	366	896	86	48	86	417	314	56	288	559
MH + SA												
N	5763	1143	2386	2234	33,617	3248	23,036	7333	32,926	2857	4583	25,486
25%	116	57	45	366	70	44	49	276	179	17	99	241
50% (median)	432	301	255	723	302	265	220	643	465	162	274	557
75%	856	623	687	1039	743	702	615	1009	836	444	540	903

*A *service window* is defined as the number of days between an individual's first and last observed service encounter date over the 3-year study period.

†Because the IDB spans a 3-year period (1996–1998), the maximum service window length MH/SA clients may have is 1096 days.

‡*Service agency* refers to the agency (Medicaid and/or State Agency) from which each IDB record is obtained.

§MH/SA indicates mental health/substance abuse.

Table 2

Distribution of MH/SA service encounter dates* by MH/SA category, service agency,† and state over the period 1996–1998, ages 0 to 64 years‡

Service date percentiles by MH/SA category	Delaware				Oklahoma				Washington			
	All service users	Medicaid only	State MH/SA Agency only	Medicaid + Agency	All service users	Medicaid only	State MH/SA Agency only	Medicaid + Agency	All service users	Medicaid only	State MH/SA Agency only	Medicaid + Agency
All service users												
N	35,009	14,011	15,618	5380	195,513	47,305	124,887	23,321	325,608	62,059	146,258	117,291
25%	2	1	6	17	2	1	1	15	2	1	2	7
50% (median)	12	3	22	62	7	5	6	40	8	1	7	24
75%	56	11	70	263	29	22	22	99	36	3	29	77
MH Only												
N	19,367	11,987	4682	2698	130,177	43,049	71,246	15,882	227,987	52,191	95,725	80,071
25%	1	1	3	11	1	1	1	12	1	1	1	5
50% (median)	5	2	12	34	5	4	4	35	5	1	4	16
75%	27	10	40	155	23	21	14	88	18	3	13	53
SA Only												
N	9879	881	8550	448	31,719	1008	30,605	106	64,695	7011	45,950	11,734
25%	6	1	8	31	1	1	1	7	6	1	7	17
50% (median)	26	2	29	119	5	2	5	15	26	1	28	45
75%	83	9	84	383	19	6	20	35	67	6	67	109
MH + SA												
N	5763	1143	2386	2234	33,617	3248	23,036	7333	32,926	2857	4583	25,486
25%	8	3	6	32	8	5	7	22	13	2	14	18
50% (median)	37	9	29	99	25	15	20	54	46	3	45	56
75%	143	28	94	344	65	52	51	124	123	8	106	140

*_Service encounter dates_ are the number of unique dates of service over the 3-year period.

†_Service agency_ refers to the agency (Medicaid and/or State Agency) from which each IDB record is obtained.

‡MH/SA indicates mental health/substance abuse.

Levels of MH/SA service utilization presented in Table 2 are somewhat lower than those found at the national level in previous studies. Two recent studies by Olfson et al, [16,17] for example, examined national trends in outpatient treatment for depression and found that adults and adolescents had on average 8 to 9 annual encounters for depression over the 1996-1999 period. While still brief in duration, the number of annual behavioral health encounters found by Olfson et al is somewhat higher than the 3-year levels found in the IDB.

MH/SA service utilization categories

Table 3 combines the concepts of service window length and number of encounter dates to classify MIMSA patients in the study population into 4 mutually exclusive categories. These categories consist of single encounter utilizers (individuals with a single encounter date), short-term utilizers (individuals with a service window of 3 months or less), occasional utilizers (individuals with a service window greater than 3 months, but less than 10 encounter dates), and frequent utilizers (individuals with a service window greater than 3 months and more than 10 encounter dates). Table 3 presents the percentage of individuals in the study population that fall into each category.

Additional evidence presented in Table 3 suggests that the majority of MH/SA service users in the states examined here do not receive frequent care over long periods of time. Specifically, a substantial proportion of all MH/SA service users (at least 18% across all 3 states) have only 1 service encounter date over the entire 3-year study period. Additionally, after combining single encounter and short-term utilizers, roughly half of all persons (44%-54% across all 3 states) are in the public treatment system for 3 months or less.

Table 3 also provides additional evidence that individuals served by both Medicaid and State Agencies have the most contact with the public treatment system while those served by only Medicaid have the least contact. Across all 3 states, for example, roughly 65% to 81% of individuals served by both auspices are classified as frequent utilizers while only 5% or less are classified as single encounter utilizers. In contrast, only 35% or less of individuals served by Medicaid only across all 3 states are frequent utilizers while as many as 52% of individuals served exclusively by Medicaid have only a single encounter date.

Finally, Table 3 provides further evidence supporting the finding that individuals with co-occurring conditions have substantially more contact with the public treatment system than individuals with single MH or SA conditions. Specifically, individuals with co-occurring conditions are less likely to have a single encounter date and are more likely to be frequent utilizers of public MH/SA services than individuals with MH-only or SA-only conditions. Results presented in Table 3 also support the finding that SA-only service users generally have greater contact with the public treatment system than MH-only service users. In 2 states, for example, those with SA-only conditions are substantially less likely to have only a single encounter date over the 3-year study period than those with MH-only conditions. Moreover, roughly half of all individuals with SA-only conditions in 2 states are classified as frequent utilizers compared to only one third of MH-only service users classified as frequent utilizers during the 3-year study period.

Sensitivity analysis

Service window and encounter date distributions presented in Tables 1 and 2 are potentially inflated as a result of individuals who are institutionalized or receive services in an inpatient or other long-term setting. Tables 1 and 2 were reproduced (available upon request from the authors) excluding those who received treatment in long-term settings and found only a minimal decrease in the median and upper percentiles of service window length and total encounter dates. The potentially confounding effect of long-term service users is therefore quite small.

Table 3

Distribution of service use by MH/SA diagnosis category, service agency,* and state over the period 1996–1998, ages 0 to 64 years†

Service use category	Delaware				Oklahoma				Washington			
	All service users	Medicaid only	State MH/SA Agency only	Medicaid + Agency	All service users	Medicaid only	State MH/SA Agency only	Medicaid + Agency	All service users	Medicaid only	State MH/SA Agency only	Medicaid + Agency
All service users												
N	35,009	14,011	15,618	5380	195,513	47,305	124,887	23,321	325,608	62,059	146,258	117,291
Single encounter utilizers	17.6%	35.7%	7.2%	0.6%	24.5%	27.1%	27.9%	1.2%	21.9%	51.6%	22.8%	5.1%
Clients with ≤3 months in the system (short-term utilizers)	26.0%	21.8%	34.9%	10.9%	29.8%	24.4%	35.1%	12.6%	26.3%	20.1%	35.0%	18.7%
Clients with >3 months in the system but <10 encounter dates (occasional utilizers)	10.3%	18.7%	3.7%	7.4%	9.8%	16.3%	7.7%	7.9%	11.3%	20.2%	7.5%	11.3%
Clients with >3 months in the system and >10 encounter dates (frequent utilizers)	46.2%	23.8%	54.2%	81.2%	35.9%	32.2%	29.3%	78.3%	40.5%	8.1%	34.6%	64.9%
MH Only												
N	19,367	11,987	4682	2,698	130,177	43,049	71,246	15,882	227,987	52,191	95,725	80,071
Single encounter utilizers	26.7%	37.8%	13.0%	0.9%	27.5%	28.2%	32.9%	1.6%	28.5%	53.0%	32.9%	7.3%
Clients with ≤3 months in the system (short-term utilizers)	22.3%	20.9%	29.7%	15.9%	28.2%	24.0%	33.9%	13.9%	24.9%	19.2%	31.6%	20.5%
Clients with >3 months in the system but <10 encounter dates (occasional utilizers)	14.7%	18.7%	7.2%	9.8%	10.9%	16.5%	8.1%	8.6%	13.6%	21.1%	9.7%	13.4%
Clients with >3 months in the system and >10 encounter dates (frequent utilizers)	36.3%	22.6%	50.0%	73.4%	33.3%	31.4%	25.0%	75.9%	33.0%	6.7%	25.8%	58.8%
SA Only												
N	9879	881	8550	448	31,719	1008	30,605	106	64,695	7011	45,950	11,734
Single encounter utilizers	6.8%	40.6%	3.7%	0.0%	34.5%	44.9%	34.2%	0.9%	9.0%	55.8%	3.9%	0.9%
Clients with ≤3 months in the system (short-term utilizers)	38.3%	35.0%	40.4%	4.5%	41.5%	37.3%	41.6%	37.7%	37.5%	25.0%	43.5%	21.9%
Clients with >3 months in the system but <10 encounter dates (occasional utilizers)	2.3%	9.9%	1.3%	7.6%	4.7%	7.1%	4.6%	12.3%	3.7%	5.9%	3.1%	4.6%
Clients with >3 months in the system and >10 encounter dates (frequent utilizers)	52.5%	14.5%	54.6%	87.9%	19.3%	10.6%	19.5%	49.1%	49.8%	13.3%	49.5%	72.7%
MH + SA												
N	5763	1143	2386	2234	33,617	3248	23,036	7333	32,926	2857	4583	25,486
Single encounter utilizers	5.4%	9.7%	8.0%	0.3%	3.3%	6.7%	3.8%	0.4%	1.8%	15.1%	1.5%	0.3%
Clients with ≤3 months in the system (short-term utilizers)	17.0%	20.7%	25.3%	6.1%	25.2%	26.4%	30.1%	9.2%	14.2%	25.2%	21.8%	11.6%
Clients with >3 months in the system but <10 encounter dates (occasional utilizers)	9.0%	25.5%	5.3%	4.4%	10.1%	16.7%	10.3%	6.4%	10.3%	40.4%	6.6%	7.6%
Clients with >3 months in the system and >10 encounter dates (frequent utilizers)	68.7%	44.0%	61.3%	89.1%	61.4%	50.1%	55.7%	84.0%	73.7%	19.3%	70.0%	80.5%

*Service agency refers to the agency (Medicaid and/or State Agency) from which each IDB record is obtained.
†MH/SA indicates mental health/substance abuse.

Tables 1 to 3 were also reproduced separately for youths (ages 0-17 years) and adults (ages 18-64 years) to detect differences in service utilization by age. Service window length and number of total encounter dates were found to be lower among youths than among adults. In 2 states, youths were also found to be more likely to have a single encounter date and less likely to be frequent utilizers of public MH/SA services. Utilization among individuals served by Medicaid

alone, however, was found to be higher for youths than for adults, a result that may reflect the youth-specific focus of many outreach initiatives implemented by state Medicaid programs.

Limitations

Results presented in this article should be interpreted with caution, as this study has several limitations. First, comparisons of service utilization between states should not be made because the organizational framework and policies under which services are delivered vary considerably across the states. Second, the limited time frame of the IDB prevents us from observing data on individuals who utilized MH/SA services either before 1996 or after 1998. As a result, it is possible that some individuals who appear in the treatment system briefly at the beginning or end of the study period are in fact high utilizers of MH/SA services but are not captured as so in the 3-year window. A third limitation of this study is that information on prescription drug utilization is not considered. It is thus possible that some individuals in the study population have few encounters because they are receiving treatment in the form of a medication-based maintenance program. Finally, because this analysis focuses on only discrete events of service utilization without respect to clinical MH/SA outcomes or prevalence and severity of MH/SA conditions, conclusions about the adequacy of treatment services provided in the states examined here cannot be drawn. Despite these limitations, results presented in this study have important implications that may aid states in the delivery and management of public MH/SA services.

Implications for Behavioral Health

Previous studies have shown that privately insured MH/SA patients generally receive few treatment services over brief periods of time. [1-8] Results of this analysis indicate a similar pattern for individuals receiving MH/SA services through multiple public agencies. These results may support those from previous studies that promote a recovery model--that persons seeking MH/SA services often receive effective treatment and therefore do not need treatment on a continual basis. While a lack of data on clinical outcomes prevents us from drawing conclusions about the effectiveness of MH/SA services, the results do indicate that public treatment programs in the states examined here do not primarily provide services that are utilized on a frequent or chronic basis.

The results presented in this study also indicate that MH/SA service use varies across funding agencies, as individuals served by both Medicaid and State Agencies have substantial contact with the treatment system while those served only by Medicaid have very limited contact. Specifically, individuals served by both Medicaid and State Agencies are generally the most likely to be frequent utilizers and the least likely to have a single encounter date while those served by Medicaid alone are the most likely to have a single encounter date and the least likely to be frequent utilizers.

A major implication of the results presented here relates to the general finding that the majority of the MH/SA populations in the states examined here display limited use of public MH/SA services over brief periods of time. Given such transitory patterns of service use, it is likely that state organizations managing the delivery of MH/SA services are not funding treatment of the same individuals from year to year. While most individuals do not remain engaged in public

treatment from year to year, they appear much more likely to do so when they have co-occurring conditions. Service use among clients with MH-only conditions was shorter than that for those with co-occurring conditions but still of significant duration. With little data on the severity of client conditions, it is difficult to determine whether the level of service use observed here is adequate for favorable client outcomes.

Analysis results also indicate that treatment utilization for individuals with SA-only conditions was more intense for a brief initial period of time, but continuity of services after the initial time period was relatively absent. Greater intensity of initial service use is encouraging, as it may indicate successful treatment engagement. The lack of subsequent treatment utilization after an initial period of intense service use among clients with SA-only conditions may be the result of several factors that cannot be detected in the IDB data, including patient follow-up with nonbilling services such as Alcoholics Anonymous. Given the relapsing nature of addictions, however, the lack of continuing care observed in this study may raise the possibility that needed services are not being utilized and further study is thus warranted.

The generally limited level of treatment utilization among the MH/SA populations examined here may be the result of several factors that have not been accounted for, such as state-specific managed care restrictions[18] or participation in Aid to Families with Dependent Children or Temporary Assistance for Needy Families (TANF), criminal justice programs, nonbilling programs such as Alcoholics Anonymous, or other Federal programs that provide resources for the use of medical services. It is also unclear what effect evaluation and consultation visits have on utilization rates. Preliminary analyses suggest that evaluation visits may account for a substantial number of the single encounter date utilizers observed in this study. It may also be possible that some MH/SA patients require fewer service encounters because of participation in medication-based maintenance programs in addition to therapy. To the extent that a combination of medication and therapy is more efficacious than either treatment alone,[19-21] short treatment durations and few encounter dates may be the preferred scenario among clinicians and policymakers. Investigating the impact of managed care penetration, participation in other Federal programs, the use of medications, and other factors on MH/SA service use is an important direction for future studies.

An additional implication relates to the interpretation given to the lower levels of treatment utilization found among individuals served by Medicaid alone. Specifically, differences in utilization between Medicaid and State Agencies may in part be accounted for by differences in the populations covered. For instance, Medicaid populations have a large number of TANF-eligible families who access MH/SA services at a lower rate and may need only 1 or a few service encounter dates in the public specialty treatment system. Low utilization among those served only by Medicaid may also be the result of Medicaid providers engaging State MH/SA Agencies for individuals with more intensive treatment needs. Low utilization among Medicaid-only service users may also reflect differences in the types of services covered under Medicaid. Moreover, low utilization among Medicaid-only service users may be even less of a concern considering the relatively high rate of utilization found among individuals receiving services through both Medicaid and State Agencies.

Finally, results of this analysis also indicate that individuals with co-occurring conditions have a higher level of contact with the public MH/SA treatment system than those with only MH or only SA conditions, and those with SA-only conditions have higher levels of service use than those with MH-only conditions. It is reassuring to find, however, that individuals who are potentially the most severely ill (eg, those with co-occurring conditions) have more extensive contact with the public treatment system than individuals with a single MH or SA condition.

Although several important findings are presented in this article, further research is needed to gain a more complete understanding of the delivery, financing, and utilization of public sector MH/SA service utilization. In light of previous research documenting the cost offsets associated with both MH and SA treatment (references 22 and 23, respectively), one area of future research would be to examine the subsequent general healthcare utilization of clients in the IDB. The IDB is a unique and rich data source that may support such studies.

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