Published in final edited form as:

Int J Geriatr Psychiatry. 2009 March ; 24(3): 313–318. doi:10.1002/gps.2123.

Access to Public Mental Health Services Among Older Adults with Severe Mental Illness

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Abstract

Objective—Limited data are available on how older adults access public mental health systems. This study examines how uninsured or publicly insured older adults with severe mental illness in San Diego County initially accessed the public mental health system, as well as their subsequent use of public mental health services, as compared to younger adults.

Methods—Data from San Diego County, 2002–2006, was used to examine how older adults initially accessed the public mental health system, and their utilization over the subsequent 90 days. Multivariate regression models were used to control for demographic and clinical characteristics.

Results—Older adults (age 60+) were more likely to access the public mental health system through the Psychiatric Emergency Response Team (PERT), a combined law-enforcement and psychiatric service that responds to psychiatric related 911 calls. Older adults were also less likely to receive follow-up care. This lower rate of follow-up was due to both the initial site of service – and an associated lower rate of follow-up among PERT clients – as well as a lower rate of follow-up among older adult clients initiating services in other sectors.

Conclusions—This paper suggests two areas for intervention that would improve access to care for older adults: improving linkages and referrals between PERT and outpatient providers; and additional efforts to retain older adults at outpatient programs.

INTRODUCTION

Limited data are available to describe how older adults with severe mental illness access public mental health systems. San Diego County Adult and Older Adult Mental Health Services (AOAMHS) provides specialty mental health services to adults and older adults who are primarily uninsured (indigent) or who have Medicaid coverage through a system of outpatient clinics and inpatient and emergency facilities.(1) In California, 11.1% of adults age 60–64 are uninsured and 6.5% have Medicaid coverage only (without Medicare); among adults age 65+, 0.7% are uninsured and 0.9% have Medicaid only.(2) According to Census forecasts, there were approximately 477,600 adults age 60+ in San Diego County in 2007, 78,440 of whom (16%) were uninsured or covered by Medicaid only.(3) Among those older adults who are uninsured or covered by Medicaid only, 24% (approximately 18,800) have likely psychological distress.(2) In fiscal year 2007–08, AOAMHS provided services to approximately 4,200 older adults (age 60+). Thus, the number of older adults with severe

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mental illness who are uninsured or have Medicaid only is nontrivial, and the public mental health system provides an important safety net for persons who might otherwise forgo mental health services.

Despite the importance of public services for this population, some evidence exists that the services currently available do not adequately meet the needs of seniors. A recent needs assessment of older adults receiving services, their providers, and caregivers in San Diego County involved conducting semi-structured interviews and focus groups with 165 clients, providers, caregivers, family members, and client advocates.(4) Major themes included unmet need for mental health, physical health, and social services; the need for age and culturally appropriate services to overcome barriers to mental health services use and quality; and the need for coordinated programs that address prevention as well as treatment, including socialization and social support, transportation, housing, and physical health care. A consensus among the stakeholder groups determined that age and culturally appropriate solutions that address both prevention and treatment would represent the best strategies for meeting the challenges of mental illness among older adults.

Other research has shown differential access to services by age. Jin et al. (2003) and Depp et al. (2005) found that older clients with schizophrenia or bipolar disorder, respectively, were more likely to use specialized case-management services and less likely use other services compared to younger adults. (5,6). Gilmer et al. (2006) examined use and costs of public mental health services from a system perspective and found that expenditures were related to age and clinical diagnosis: outpatient expenditures declined with age while the use of emergency services increased, particularly among older adults with cognitive disorders (7).

Missing from these analyses is any information regarding how older adults first access the public mental health system. An understanding of where older adults are more likely to initiate services would inform interventions to improve coordination of care. For example, assuming older adults are more likely to initiate service in the emergency sector, interventions might be aimed at improving linkages between emergency services and outpatient care. In contrast, an approach aimed at improving linkages to community supports might be appropriate if services are typically initiated in the outpatient sector, but with retention declining or emergency service use increasing over time. The present study fills this gap by examining how indigent or publicly insured older adults with mental illness in San Diego County initially accessed the public mental health system, as well as their access to services over the subsequent 90 days, in comparison to younger adults.

METHODS

Data, Sample, and Independent Variables

Data from San Diego County AOAMHS encounter-based Management Information System (MIS) were used to identify adults who utilized public mental health services and lived in the community during 2002–2006. We analyzed two age groups: age 18–59 and age 60+. An age of 60+ years is used to define older adults in AOAMHS. Other definitions have been proposed for older adults, yet we find very similar results when they are defined as either age 55+ or age 65+. Diagnoses were derived from the MIS using an algorithm that provides more weight to diagnosis in outpatient vs. emergency settings and to more vs. less severe diagnoses. We included an additional indicator variable for any substance use disorder. We additionally classified clients by the report living situation reported at admission to service. Additional demographic information captured by the MIS includes gender, self-reported race/ethnicity, preferred service language (English, Spanish, and Asian languages are commonly reported as preferred languages for services), and Medi-Cal (California's Medicaid program) coverage. The UCSD Institutional Review Board and the San Diego

County Mental Health Services Research Committee approved the use of this data for the purpose of this study in accordance with the Privacy Rule of the Health Insurance Portability and Accountability Act of 1996.

Dependent Variables

We examined use of four types of services: 1) outpatient visits (including case management, individual or group therapy, and medication management), 2) admissions to acute psychiatric inpatient and crisis residential facilities (the latter are a community-based alternative to psychiatric hospitalization), and use of two types of emergency services: 3) admissions to the psychiatric emergency unit (EPU) and 4) engagement by the psychiatric emergency response team (PERT). San Diego County PERT teams are comprised of specially trained officers or deputies who are paired with mental health professionals who respond to situations involving people with mental illness. The goal of the program is to refer people with mental illness who come into contact with police to the most appropriate service available and in the least restrictive environment possible. Participating officers, deputies, and mental health professionals receive training in on-scene assessment, emergency response, mental illness, community-based organizations and the programs and services available throughout San Diego, and other topics related to mental health, substance abuse, homelessness and crisis response. The 21 PERT teams represent a partnership between San Diego County Police and Sheriff departments and all of their divisions and San Diego County Mental Health, in addition to PERT, Inc, a non-profit organization.

We identified clients at their initial point of contact with the mental health system. We classified the location of this service (i.e. outpatient, inpatient, EPU, PERT) as the point of first contact. We excluded persons who had an initial contact with the mental health system while they were in jail, as well as those who received an emergency assessment in the EPU or PERT on their way to jail. We then computed the cumulative utilization of inpatient, outpatient, EPU, and PERT services over the following 90 days.

Statistical Analyses

We first compared clients by age group on demographic, clinical, and insurance coverage characteristics at the initial utilization of service using chi-square tests to assess the significance of differences. Second, we analyzed point of first contact by age group using multinomial logistic regression and adjusting for gender, race/ethnicity, preferred language, clinical diagnosis, substance use disorder, and insurance coverage. Predicted probabilities were calculated for each group and set of first contact points. These probabilities were standardized to the underlying population characteristics. For example, the predicted probability of initial inpatient use among older adults (age 60+) was calculated as the mean predicted probability of inpatient use among all persons as if all were older adults. Standard errors of these estimates were calculated using the nonparametric bootstrap, and P-values for pair-wise comparisons were computed from these empirical distributions (8).

Third, we analyzed cumulative mental health services utilization over the next 90 days. The cumulative probability of service use in the 90 days following initial service was compared by type of mental health service and age group. Forth, in an attempt to better understand difference in continuity of care by age group, we analyzed the probability of receiving any additional service by type of first service and age group. These two sets of analyses employed multivariate logistic regressions, adjusting for the above-mentioned differences in demographic and clinical characteristics. As described above, predicted probabilities, standardized to the underlying population characteristics, were calculated for each age group and type of service. Standard errors were calculated using the nonparametric bootstrap; while P-values were computed from the empirical distributions.

RESULTS

Table 1 summarizes the socio-demographic characteristics of AOAMHS clients by age group. We identified 36,887 adults (32,949 Age 18–59, and 3,938 age 60+) living in the community and initiating public mental health services during 2002–2006. Compared to younger clients, older (age 60+) adult clients were more likely to be female, non-Latino white, and to live independently. Older adult clients were more likely than younger clients to report a preference for treatment in a language other than English. Older adult clients were less likely to be diagnosed with bipolar disorder, major depression, other depression or anxiety, or substance use disorder, and were more likely to receive a diagnosis of cognitive disorder, other psychotic disorder, or a depression due to a medical disorder. Older adults had similar rates of Medi-Cal coverage as younger adults.

Standardized estimates of point of first contact by age group are shown in Table 2. We found that older adult (age 60+) clients were significantly less likely than younger clients to first access the public mental health system through the Emergency Psychiatric Unit (EPU) (18% vs. 41%,), and more likely to access the system through Psychiatric Emergency Response Teams (PERT) (36% vs. 12%, $p < .001$ each). Overall, older adults were similarly likely as younger adults to first access the mental health system through outpatient vs. inpatient/emergency services: 42% vs. 58% for older adults compared to 43% vs. 57% for younger adults.

Table 3 shows the probability of utilizing outpatient, inpatient, EPU and PERT services within the first 90 days past the initial visit. Older adults were substantially less like than younger adults to have an additional outpatient visit (38% vs. 51%), inpatient admission (3% vs. 7%), or EPU admission (4% vs. 10%). Older adults were more likely to have an additional PERT encounter (6% vs. 2%). Overall, older adults were substantially less likely to receive an additional service after their first service: 48% of older adults received a follow-up service compared to 61% of younger adults.

Table 4 shows the probability of having any additional service by type of first service and age group. This analysis shows that clients initiating services in the outpatient sector are most likely to receive any additional service, while those initiating services with PERT are the least likely to receive and additional service. Among clients initiating services in outpatient, inpatient, and EPU, older adult are less likely than younger adults to receive a follow-up service. Thus, the lower rate of receiving any additional service among older adults is driven by two factors. First, older adults are more likely to initiate services in PERT, which has the lowest rate of follow-up. Second, among clients initiating in other sectors, older adults are less likely to receive a follow-up service. For example, among older adult clients initiating services in an outpatient setting, only 80% had a second visit compared to 90% of younger adults.

DISCUSSION

This paper examined access to public mental health services among older adults with severe mental illness. We found that older (age 60+) adults were more likely than younger adults to access the public mental health system through the Psychiatric Emergency Response Team (PERT). First accessing services through PERT is not necessarily a worse outcome for older adults. The increased access through PERT was largely offset by reduced access through the EPU, and may reflect less mobility or less access to transportation among older adults. However, older adults were also less likely to receive follow-up care. This lower rate of follow-up was due to both the initial site of service – there was lower follow-up among PERT clients – as well as a lower rate of follow-up among clients initiating services in other

sectors. Although previous research has demonstrated differences in specialty mental health services use by age,^(5–7) this is the first study to demonstrate a specific pathway for these differences, thus helping to inform interventions that may improve access to services among older adults.

Several new programs are in the process of being implemented in San Diego County to assist in bridging the gap in access to mental health services for older adults. Full Service Partnerships (FSPs) are a combination of assertive community treatment and wrap-around services and supports. AOAMHS has recently implemented several FSPs, one of which is specifically designed for older adults. However, FSP programs are expensive and therefore have a limited reach: San Diego County's currently has a single program for older adults with a caseload of 100 clients. Also being implemented are senior peer counseling and/or senior peer promotora programs which have potential to improve outreach, engagement and education, especially among Latino older adults and the communities where they live. Primary care based programs will identify older adults with mental illness who might otherwise never encounter a specialty mental health provider. Anti-stigma campaigns will target older adults, their family/caregivers, providers, and the public at large, help family members recognize mental health issues in older adults and motivate them to seek earlier treatment.

Additional crisis services are available to older adults through San Diego County's Aging and Independent Services. These include Senior Mobile Outreach Teams and Adult Protective Services. Senior Mobile Outreach Teams assist in improving access to care by providing 24-hour, age appropriate crisis intervention, short term mental health services, evidence-based and culturally appropriate care provider and family education, and addressing issues related to isolation and lack of transportation that are common among older adults. Senior Teams are similar to PERT teams, although they consist of a psychiatric nurse and social worker rather than a police officer and clinician, and may therefore be less threatening and stigmatizing than a PERT Team. Adult Protective Services provides a similar role for seniors without mental illness but who experience abuse, neglect, self-neglect, or severe financial hardship. Older adults with severe mental illness who use these services may be referred to a county mental health program.

In addition to these ongoing efforts, this paper suggests two areas for intervention that would improve access to care for older adults. First, improved linkages and referrals could be developed between the PERT Teams and the outpatient providers. These efforts would improve access for all clients accessing PERT, but would provide a relatively larger benefit to older adults who are more likely to access the public mental health system through his service. Second, additional efforts could be made at outpatient programs to retain older adults. These efforts might include treatment plans or programs that are specialized for older adults.

Our results are limited by the use of administrative data, which lack all dimensions needed to fully study issues related access to public mental health services among older adults with severe mental illness. In addition, services received outside AOAMHS were not captured including Medicare covered services, pharmaceuticals, nursing home services, and mental health services provided by public clinics not contracted or affiliated with AOAMHS. Another limitation is a lack of detailed information on illness severity. We were also unable to measure differences in service quality, improvements in functioning and quality of life, or client satisfaction with services received.

Despite these limitations, we believe these findings to be both important and timely. Counties in California are currently planning for additional funding for prevention and early

intervention services under the Mental Health Services Act. In these planning efforts, the counties and their stakeholder planning groups must decide both what additional services to provide and how to deliver them. A system of care for older adults could be enhanced with improved access to care and effective linkage between the numerous existing community supports. A mental health service delivery system that addresses transportation, supportive housing, and wraparound services that are located in community settings that are accessible to older adults may be expensive to develop and sustain, but are expected to result in better clinical outcomes.

Acknowledgments

The authors gratefully acknowledge the County of San Diego Health and Human Services Agency Adult and Older Adult Mental Health Services for access to the management information systems. Financial support was provided NIMH grant P30MH066248 and NIDA grant 3R01DA019829-S1.

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Table 1
Comparison of Demographic and Clinical Characteristics of Adult Clients (36,887)

	Age 18–59 (N=32,949)		Age 60+ (N=3,938)		P-Value
	N	%	N	%	
Female	17780	54	2280	58	<.001
<i>Race/ethnicity</i>					
White	17051	52	2304	59	<.001
Latino	7944	24	590	15	
Black	3125	9	206	5	
Asian	1794	5	308	8	
Other	1472	4	201	5	
Unknown	1563	5	329	8	
<i>Preferred Language</i>					
English	26963	82	2983	76	<.001
Spanish	2763	8	342	9	
Other	1289	4	317	8	
Unknown	1934	6	296	8	
<i>Living Situation</i>					
Independent	19169	58	2469	63	<.001
Board-and-Care	350	1	60	2	
Homeless	3114	9	210	5	
Unknown	10316	31	1199	30	
<i>Psychiatric Diagnosis</i>					
Schizophrenia	1730	5	209	5	<.001
Bipolar Disorder	2147	7	122	3	
Major Depression	5777	18	459	12	
Other Psychotic Disorders	2278	7	425	11	
Other Depression/Anxiety	7827	24	712	18	
Substance Use Disorder	3640	11	131	3	
Cognitive Disorders	53	0	319	8	

	Age 18-59 (N=32,949)		Age 60+ (N=3,938)		P-Value
	N	%	N	%	
Other Medical Disorders	1561	5	671	17	
No Diagnosis/Dx Deferred	7936	24	890	23	
Any Substance Use Disorder	6560	20	169	4	<.001
<i>Insurance Coverage</i>					
Medicaid Coverage	11603	35	1443	37	.077

Table 2
Point of first contact among clients first entering the AOAMHS system (N=36,887)

	Age 18–59 (N=32,949)		Age 60+ (N=3,938)		P-Value
	Mean Percentage	SE	Mean Percentage	SE	
Outpatient	42.5	.3	42.0	.7	.084
Inpatient	5.1	.1	3.7	.3	.002
EPU	40.6	.3	17.9	.7	<.001
PERT	11.8	.2	36.3	.7	<.001

Note: Percentages are predicted probabilities and are adjusted for gender, race/ethnicity, preferred language for services, clinical diagnosis, substance use disorder diagnosis, and insurance coverage. Standardized estimates are calculated using the non-parametric bootstrap. P-values are calculated from the resulting empirical distributions.

Table 3

Probability of receiving each type of service within 90 days of first service (N=36,887)

Type of Service	Age 18-59 (N=32,949)		Age 60+ (N=3,938)		P-Value
	Mean Percentage	SE	Mean Percentage	SE	
Outpatient	50.5	.3	37.9	.7	<.001
Inpatient	6.5	.1	3.0	.3	<.001
EPU	10.1	.2	3.6	.3	<.001
PERT	2.2	.1	5.8	.4	<.001
Any additional service within 90 days	61.1	.3	48.2	.7	<.001

Note: Percentages are predicted probabilities and are adjusted for gender, race/ethnicity, preferred language for services, clinical diagnosis, substance use disorder diagnosis, and insurance coverage. Standardized estimates are calculated using the non-parametric bootstrap. P-values are calculated from the resulting empirical distributions.

Table 4

Probability of any additional service within 90 days by type of first service (N=36,887)

Type of First Service	Age 18-59 (N=32,949)		Age 60+ (N=3,938)		P-Value
	Mean Percentage	SE	Mean Percentage	SE	
Outpatient	90.2	.2	79.7	1.1	<.001
Inpatient	60.4	1.2	41.5	3.5	<.001
EPU	42.2	.4	32.0	1.6	<.001
PERT	21.2	.7	19.1	1.0	.092

Note: Percentages are predicted probabilities and are adjusted for gender, race/ethnicity, preferred language for services, clinical diagnosis, substance use disorder diagnosis, and insurance coverage. Standardized estimates are calculated using the non-parametric bootstrap. P-values are calculated from the resulting empirical distributions.