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Anxiety Disorders in a Public Mental Health System: Clinical Characteristics and Service Use Patterns

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Abstract

Background— Anxiety disorders are among the most common forms of psychiatric disorder, yet few investigations have examined the prevalence or service use of clients with anxiety disorders in the public mental health sector.

Methods— We examined demographics, clinical information, and service use in clients with anxiety disorders enrolled in San Diego County Adult and Older Adult Mental Health Services in fiscal 2002–2003.

Results— Almost 15% of the sample had a diagnosis of an anxiety disorder based on administrative billing data. Most anxiety disorder clients had additional psychiatric diagnoses, most commonly depression. Clients with both anxiety disorders and depression were more likely than those with anxiety or depression alone to use emergency psychiatric services and outpatient services than those with depression alone. Those with anxiety disorders alone used more outpatient services than those with depression alone. Limitation: Data were taken from an administrative database.

Conclusions— Data indicate that anxiety disorders are not uncommon in public mental health settings and are associated with higher utilization of outpatient mental health services.

Keywords

Anxiety; Depression; Mental health service use; Public sector

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Conflict of Interest

No authors have any conflict of interest with respect to this project.

Contributors

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Introduction

Although anxiety disorders constitute one of the most common forms of psychiatric disorder (Kessler et al., 2005a), relatively few investigations have examined the prevalence or service use of anxiety disorder patients in the public health sector. In addition, most of this research has focused on treatment within primary care as opposed to specialty mental health clinics (Olfson et al., 2000, Roy-Byrne et al., 2003). Although patients with anxiety disorders are more often seen in general medical settings, particularly primary care clinics and emergency departments, than in mental health settings, data suggest that only 13.4% of patients with anxiety disorders receive minimally adequate health services in general medical settings, compared to 51.5% of patients with these disorders seen in mental health (Wang et al., 2005). Thus, an examination of the health service use of patients with anxiety disorders in public mental health clinics may represent a more accurate perspective on the mental health needs of low-income anxiety disorder patients than studies conducted in primary care settings.

To date, no published studies have, to our knowledge, systematically examined the treated prevalence, clinical characteristics, or service use of clients with all types of anxiety disorders in an entire public mental health system. The present investigation, which examines anxiety disorders treated over the course of one year in a county-wide public mental health system, can potentially contribute valuable information on this understudied yet important group.

Based on data suggesting that anxiety in addition to depression represents a more severe illness than depression or anxiety alone, we hypothesized that clients with anxiety disorders in addition to depression would show more impairment in functioning as demonstrated by lower rates of independent living and employment and lower Global Assessment of Functioning (GAF) scores. We also hypothesized that clients with both anxiety and depression would use more services than those with depression or anxiety alone.

Method

We examined the clinical characteristics and mental health service use of adults receiving care from the San Diego County Adult and Older Adult Mental Health Services (AOAMHS). The AOAMHS provides mental health care directly and through contracts with independent subcontractors. Services are provided primarily to patients enrolled in Medi-Cal and the uninsured. The San Diego County is the sixth largest county in the United States and is ethnically and geographically diverse.

Data for this study were extracted from the AOAMHS administrative billing database for fiscal year 2002–2003. This database includes demographic and clinical information, such as psychiatric diagnoses and GAF scores, as well as information on number and types of County mental health services used. Data were aggregated by individual across episodes of care. Previous publications by our research team have examined service use of various groups within this administrative database (e.g., Lindamer et al., 2003). Only the principal diagnosis was recorded for each episode of care. For purposes of the present analyses, we assigned multiple diagnoses for clients who had different principal diagnoses assigned during different episodes of care. For example, a client who was diagnosed with major depression during an inpatient hospitalization and with PTSD during outpatient treatment was included as a client with both depression and PTSD during fiscal 2002–2003.

Service use in this study was defined as the presence of at least one billable encounter in a service category for the given year. Services examined included case management, which provides coordination of care for the most complex patients and those with heavy service needs; outpatient treatment in individual or group services at county clinics or county-contracted providers; inpatient hospitalization in any participating fee-for-service or county-operated

psychiatric hospital; services in a crisis residential facility, a short-term, acute residential alternative to hospitalization for patients not requiring a locked facility; day treatment, rehabilitation, or services in a partial hospitalization program; and the San Diego County Emergency Psychiatric Unit. Services that might have been provided by emergency departments of local community hospitals were not included in the data. We examined the proportion of clients receiving each service during fiscal 2002–2003.

An outside agency linked service files with unique client identifiers in order to preserve confidentiality in the creation of this database. This study complied with HIPAA requirements and was approved by the Institutional Review Boards of both the University of California, San Diego and the AOAMHS.

Univariate analyses were conducted using chi-square tests and analyses of variance. The dependent variable in each model was the particular service used by the participant during fiscal 2002–2003. The independent variable of interest was the presence or absence of an anxiety disorder. The class of anxiety disorders included the following DSM-4 TR conditions: PTSD, panic disorder with and without agoraphobia, agoraphobia without history of panic disorder, GAD, OCD, social phobia, specific phobia, acute stress disorder, and anxiety disorder not otherwise specified (anxiety NOS) (American Psychiatric Association., 2000). All relevant tests were 2-tailed and the alpha value was set at $p < .05$.

Results

Of the 14,714 individuals included in these analyses, 2,144 (14.6%) had a diagnosis of an anxiety disorder. Table 1 presents information on diagnoses for public mental health clients with and without anxiety disorders. The most common anxiety disorders in this sample were PTSD (28.4%), panic disorder with or without agoraphobia (26.5%), GAD (16.2%), and anxiety disorder NOS (19.9%). Although the groups were comparable in the prevalence of major depressive disorder, the prevalence rates of schizophrenia, other psychotic disorders, bipolar disorder, other depressive disorders, and alcohol or other substance use disorders were lower among those diagnosed with an anxiety disorder. Most (61.8%) clients with anxiety disorders had at least one other psychiatric diagnosis over the course of the year. Over 40% of individuals diagnosed with an anxiety disorder were also diagnosed with major depression or other depressive disorder.

Because many clients with anxiety disorders in this sample were also diagnosed with depression during the index year, we compared demographic characteristics and service use among clients with major depression or other depressive disorder but not anxiety ($n = 5,093$), those with anxiety disorders only ($n = 946$), and those with both depression and anxiety ($n = 856$). Of group with depression alone, 72.9% were diagnosed with major depression, and of the group with both depression and anxiety, 76.4% were diagnosed with major depression. Clients with diagnoses of bipolar disorder, schizophrenia, or other psychotic disorders were excluded from these analyses.

AOAMHS clients with both depression and anxiety disorder diagnoses were more likely to be female and enrolled in Medi-Cal than clients with depression or anxiety alone. Those with anxiety alone were less well educated, more likely to be Latino and community dwelling, less likely to be divorced, and were younger and had higher mean GAF scores (Table 2).

Comparisons of service use are presented in Figure 1. Significant differences among the groups were found for all services except day treatment. Individuals with anxiety disorders alone had lower rates of inpatient, emergency psychiatric, crisis residential, and case management utilization and higher rates of outpatient service utilization than those with depression alone. Individuals with both depression and anxiety had higher rates of emergency psychiatric and

outpatient service utilization and lower rates of inpatient utilization than those with depression alone.

Discussion

We found demographic and clinical differences among clients with anxiety disorders alone, depression alone, and both depression and anxiety enrolled in the public mental health system in San Diego County. Contrary to expectations, clients with both depression and anxiety did not show more impairment in functioning as measured by living situation, employment, or GAF scores than those with depression alone. Clients with anxiety disorders alone did show less impairment in functioning than those with depression alone. They were also younger, less well educated, and more likely to be Latino.

Clients anxiety disorders alone were less likely to use most types of services than those with depression alone, with the exception of outpatient services. Clients with both depression and anxiety were more likely to use emergency psychiatric and outpatient psychiatric services than those with depression alone. Surprisingly, they were less likely to use inpatient psychiatric services. We performed a logistic regression analysis in which we controlled for demographic and other variables that predict inpatient service use, such as living situation and Medi-Cal enrollment, and found that clients with both depression and anxiety were still less likely to use inpatient services than those with depression alone even after potentially confounding variables were controlled. It is possible that anxiety disorders are less often recognized in inpatient settings than in other settings; for example, no individuals with anxiety disorders alone are recorded as having received inpatient services in fiscal 2002–2003.

Overall, results indicate that a substantial proportion, 14.6%, of public mental health clients in San Diego County have an anxiety disorder diagnosis, more than those who are diagnosed with bipolar disorder, psychotic disorders other than schizophrenia, or alcohol abuse. Given the higher prevalence rates of anxiety disorders typically found in mental health settings, it is likely that many anxiety disorders have gone unrecognized in this setting. Many of these clients also have a depressive disorder, but about 40% have an anxiety disorder alone. It is also noteworthy that whereas most clients with depression, with or without anxiety, are Caucasian, the majority of those with anxiety alone are members of other ethnic groups, predominantly Latinos.

Overall, anxiety disorders appear to be more highly prevalent in the public mental health system than might be expected given the lack of attention in research and program policy statements to anxiety disorders, and the corresponding emphasis given to what are generally considered the serious mental illnesses (schizophrenia, bipolar disorder, and major depressive disorder). They also have higher rates of outpatient mental health services utilization. This finding suggests that more attention should be paid to establishing clear treatment guidelines and use of evidence-based practices for anxiety disorders in public systems of care. Services targeting Latinos with anxiety disorders may be particularly helpful in this sector.

The present study represents a preliminary investigation of anxiety disorders in a public mental health setting. The chief limitation of this study is the fact that it was based on analysis of an administrative database. Diagnoses were based on billing records rather than structured diagnostic interviews, and only the principal diagnosis during a given episode of care was recorded. Other investigators have noted that billing data diagnoses of psychiatric disorders, despite their excellent specificity, have relatively poor sensitivity for the provision of mental health services (Steele et al., 2004). Moreover, despite increasing rates of service utilization, anxiety disorders remain frequently under-diagnosed and under-treated (Kessler et al., 2005b). The net result is that the prevalence and impact of anxiety disorders are almost certainly underestimated by the data presented here.

Additionally, no data were collected directly from patients regarding their symptomatology. Data on level of distress and severity of illness were very limited and no data were available for services that might have been provided in emergency departments of local community hospitals or in primary care or other medical settings. Finally, these data come from residents of only one county, and may not be representative of public mental health clients elsewhere in the United States. However, as one of the first studies of clients with anxiety disorders in the public mental health setting, and with the largest sample to date, this investigation provides useful data on a group about which little is currently known.

Future investigations should collect data on mental health symptoms, associated impairment, and services received by public mental health sector clients with anxiety disorders in order to determine whether their special needs are being adequately addressed by existing systems of care.

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Figure 1.

Comparison of Service Use between Public Mental Health Clients with Major Depression or Other Depressive Disorder ($n = 5,093$), Those With Depression and Anxiety ($n = 856$), and Those With Anxiety Only ($n = 946$).

Table 1

Diagnoses Assigned to Public Mental Health Clients During Fiscal 2002–2003.

Variable:	Other Diagnosis (n=12,570)	Anxiety Disorder (n=2,144)	χ^2 (df)	p
Schizophrenia	29.8%	5.3%	566.29 ₍₁₎	<.001
Other Psychotic Disorder	7.8%	3.7%	46.08 ₍₁₎	<.001
Bipolar Disorder	11.8%	6.9%	42.94 ₍₁₎	<.001
Major Depressive Disorder	32.3%	32.9%	0.28 ₍₁₎	.60
Other Depressive Disorder	13.9%	10.5%	18.01 ₍₁₎	<.001
Alcohol Abuse	10.2%	6.4%	30.60 ₍₁₎	<.001
Other Substance Abuse	21.1%	11.9%	97.16 ₍₁₎	<.001

Note: Percentages do not add to 100 because clients can carry more than one diagnosis.

Table 2

Demographic Differences between Public Mental Health Clients With Depression Alone, Depression and Anxiety Disorders, and Anxiety Disorders Alone.

Variable:	Depression (n=5,093)	Depression and Anxiety Disorder (n=856)	Anxiety Disorder (n=946)	F or χ^2 (df)	p
Gender (% female)	67.9%		65.8%	9.13 ₍₂₎	.01
Age (years)	42.1 (12.9)	41.3 (12.4)	38.6 (12.2)	29.91 _(2,6892)	<.001
Education (years)	11.6 (3.6)	11.7 (3.5)	11.2 (3.5)	4.67 _(2,6892)	.009
Ethnicity:					
Caucasian	56.9%	55.5%	45.1%		
African American	8.9%	6.9%	5.6%		
Latino	25.3%	23.8%	39.0%		
Asian	5.4%	8.8%	6.8%		
Native American	0.5%	0.4%	0.4%		
Other	3.0%	4.7%	3.1%		
Marital Status:					
Never married	42.9%	41.0%	47.0%	49.54 ₍₈₎	<.001
Married	16.7%	19.9%	22.3%		
Widowed	4.5%	3.4%	2.2%		
Divorced	26.6%	25.9%	19.1%		
Separated	9.3%	9.8%	9.3%		
Living Situation:					
Community dwelling	86.3%	91.7%	94.0%		
Board and care	4.3%	2.2%	3.0%	61.66 ₍₄₎	<.001
Homeless	9.4%	6.1%	3.1%		
% enrolled in Medi-Cal	33.2%	37.1%	24.9%	34.14 ₍₂₎	<.001
% with conservator	0.2%	0.1%	0.0%	2.33 ₍₂₎	.31
% in competitive employment during past year	14.7%	19.0%	18.8%	17.62 ₍₂₎	<.001
% ever worked in competitive employment	51.9%	56.1%	51.2%	5.78 ₍₂₎	.06
GAF score on admission	45.3 (11.2)	45.9 (9.6)	50.0 (9.9)	8957.82 _(2,6892)	<.001

Note: GAF = Global Assessment of Functioning.