Comorbid Depression and Substance Abuse Among Safety-Net Clients in Los Angeles: A Community Participatory Study

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Objective: Depression and substance abuse are common among low-income adults from racial-ethnic minority groups who receive services in safety-net settings, although little is known about how clients differ by service setting. This study examined characteristics and service use among depressed, low-income persons from minority groups in under-resourced communities who did and did not have a substance abuse history.

Methods: The study used cross-sectional baseline client data (N=957) from Community Partners in Care, an initiative to improve depression services in Los Angeles County. Clients with probable depression (eight-item Patient Health Questionnaire) from substance abuse programs were compared with depressed clients with and without a history of substance abuse from primary care, mental health, and social and community programs. Sociodemographic, health status, and services utilization variables were examined.

Results: Of the 957 depressed clients, 217 (23%) were from substance abuse programs; 269 (28%) clients from other sectors had a substance abuse history, and 471 (49%) did not. Most clients from substance abuse programs or with a substance abuse history were unemployed and impoverished, lacked health insurance, and had high rates of arrests and homelessness. They were also more likely than clients without a substance abuse history to have depression or anxiety disorders, psychosis, and mania and to use emergency rooms.

Conclusions: Clients with depression and a substance abuse history had significant psychosocial stressors and high rates of service use, which suggests that communitywide approaches may be needed to address both depression and substance abuse in this safety-net population.

Psychiatric Services 2015; 66:285–294; doi: 10.1176/appi.ps.201300318

Comorbid depression and substance abuse are common among low-income adults in minority communities (1–5). These individuals' health care is often uncoordinated and of variable quality and high cost (6). Prior work has shown substantial unmet need among clients with comorbid depression and substance abuse in safety-net primary care, mental health, substance abuse, and social services sectors (1,6–17). Depending on the sector, this population may receive screening, treatment, or referral for either depression or substance abuse, but rarely for both (18–21). Few reports describe individuals with comorbidities across sectors (primary care, mental health, substance abuse, and social services). However, such data may inform the implementation of Medicaid behavioral health homes (22–24) and integrated care models (24–32).

This cross-sectional, exploratory study described demographic and clinical characteristics and services use for depressed adult clients with and without a history of substance abuse who were served in diverse service sectors. The goal was to support agencies in underresourced communities with program planning. With input from partner agencies, we defined a client with a comorbid substance abuse history as either a depressed person who received services in a substance abuse agency or as a depressed person who received services in other health care or community sectors and who had recent substance abuse, substance dependence, or use of substance abuse services. This broad definition is relevant for services planning. The study questions were as follows: How common is a substance abuse history among depressed clients of diverse community-based sectors? How similar are depressed clients in substance abuse programs and depressed clients with a recent substance abuse history in other community sectors? In non–substance abuse sectors, how do depressed clients with and without a recent substance abuse history differ in health status and services utilization? How satisfied with community mental health services are depressed clients with and without a substance abuse history?

METHODS

The study used baseline client data from Community Partners in Care (CPIC) (33,34), a group-level, randomized comparative effectiveness trial to improve depression services in Los Angeles. CPIC was implemented by using community-partnered participatory research (35,36), which emphasizes power sharing and joint planning among academic and community partners in all research phases. The lead community partners for these analyses were Behavioral Health Services and Los Angeles Christian Health Center. Institutional review boards at RAND and at participating agencies approved all study procedures. The study design has been described elsewhere (33,34,37,38). [A figure in the online data supplement to this article illustrates agency, program, and participant enrollment.]

Communities

South Los Angeles (SLA) (1.5 million people) and Hollywood-Metro (HM) (500,000 people) were selected by convenience on the basis of established partnerships (39,40). SLA and HM are geographically defined, Los Angeles County service planning areas (41,42). Community stakeholders nominated service sectors important for depressed clients (33) and prioritized populations for oversampling. SLA nominated substance abuse clients and African Americans, and HM nominated homeless persons and seniors.

Participating Agencies

County directories were combined with community nominations to identify agencies in five sectors: outpatient primary care and public health, outpatient mental health, substance abuse (residential and outpatient), social and housing services, and other social and community-based services (for example, family preservation, prisoner reentry, senior centers, hair salons, exercise clubs, parks, and churches). Eligible agencies provided services for adults or for parents of child clients and were expected to continue operations over the study period. Of 149 agencies approached for participation, 50 agreed, 47 refused, 33 were ineligible, and 19 were unreachable and lost to follow-up. Participating and non-participating agencies were comparable in average household characteristics (age, sex, race-ethnicity, population density, and income) by zip code (37).

Programs

Fifty agencies had 122 programs, of which 16 were ineligible, 11 declined, and 95 enrolled. Eligible programs served 15 or more clients per week, had at least one staff member, were financially stable, and were not exclusively focused on psychotic disorders or home services. At two programs, no clients were screened, which left a total of 93 programs.

Clients

Within programs, consecutive clients were screened in waiting rooms or at events from March to November 2010.

Over the course of two or three days at each program, RAND survey staff approached 4,649 adults (age ≥18 and English or Spanish speaking); of these, 4,440 clients were screened. Of those screened, 3,118 were ineligible: 153 did not provide contact information, and 2,965 were not depressed as defined by a score <10 on the eight-item Patient Health Questionnaire (PHQ-8) with and without the word "depression," based on community input (Pearson correlation coefficient of the standard and community-modified versions was .99). The PHQ-8 has the same scoring characteristics and cut-point as the PHQ-9 (43).

Of 1,322 eligible clients, 1,246 consented. Between April 2010 and January 2011, a total of 981 (74%) of these clients completed baseline telephone surveys with RAND staff. Reasons for noncompletion were as follows: two were deceased, 36 refused, and 227 were unreachable. The response rate of 74% is acceptable for depression quality improvement studies (44–47). The analysis included 957 clients with standard PHQ-8 scores of ≥10, indicating moderate to severe depression. We excluded the 24 clients who entered the study because of a positive community-modified PHQ-8 but had a standard PHQ-8 score of <10.

Measures

All measures were client self-report, from instruments administered at the initial screening or from telephone-administered baseline surveys.

Sociodemographic Variables

We assessed age, gender, marital status, family income, education, housing, employment status, and race-ethnicity (Latino, African American, non-Hispanic white, and other) by using screening instruments.

Dependent Variables

Other than PHQ-8 scores, which were assessed at the initial screening, all other dependent variables were from telephone-administered client surveys. Measures of general medical and psychosocial need were as follows: life difficulties (that is, evicted, arrested, or on probation); physical component summary score (PCS-12) and mental component summary score (MCS-12) from the 12-item Short-Form Health Survey (48); probable 12-month major depressive or dysthymic disorder, current manic episode, anxiety disorder (one-month panic or posttraumatic stress disorder or six-month generalized anxiety disorder), and past 12-month alcohol abuse or illicit drug use—all measured using the Mini International Neuropsychiatric Interview (MINI) (49); and alcohol use items from the Alcohol Use Disorders Identification Test (AUDIT-C) (50).

Service utilization measures were length of inpatient or substance abuse rehabilitation stay for alcohol, drug, or mental health problems; emergency room visits for alcohol, drug, or mental or emotional problems; and outpatient visits to mental health providers, social service agencies, faith-based agencies, and parks and community centers six months before the baseline survey. We coded outpatient encounters as

depression-related if the client reported that any provider suggested visiting a specialist or a program for depression, taking medications, or staying in treatment for depression or offered at least five minutes of counseling about depression, stress, emotions, or coping strategies.

Binary indicators of satisfaction were constructed: satisfied or very satisfied versus neutral to very dissatisfied with health services and social services available for emotional health concerns.

Independent Variable

Substance abuse history status (three categories) was categorized as being screened in a substance abuse agency, being screened in another sector but having a recent substance abuse history, or being screened in another sector but not having a recent substance abuse history. Recent substance abuse history was defined as any of the following: 12-month substance abuse or substance dependence diagnosis on the basis of the MINI, stayed overnight in an alcohol or drug abuse residential treatment program, or attended any outpatient substance abuse agency or self-help meeting for drug or alcohol use in the past six months.

Covariates

Age and gender were assessed with screening instruments.

Analyses

The distribution of sample characteristics was described by using means and standard deviations for continuous variables and percentages for categorical variables. Each dependent variable was cross-tabulated with substance abuse history status. To examine differences in dependent variables by substance abuse history status, we fit linear regression models for continuous variables, logistic regression models for dichotomous variables, and log-linear models for counts of visits with substance abuse status as the primary predictor adjusted for age and gender. We conducted two pairwise comparisons between clients with and without a recent substance abuse history who were screened in substance abuse agencies versus other community sectors. We present results using standardized predictions with 95% confidence intervals from fitted regression models (51).

To control for potential response bias, attrition weights were constructed by fitting logistic regression models stratified by intervention condition to predict enrollment status and baseline completion from screener predictors (52,53). For item-level missing data, we used extended hot-deck multiple imputation based on the predictive mean matching method (54). We imputed five data sets, averaged results, and adjusted standard errors for imputation uncertainty (55). All variables had missingness rates of <5%, except income and MINI variables (10%–15%). All percentages reported in the results represent weighted estimates; percentages may not add to 100% because of rounding. All analyses were conducted using SUDAAN software (56). Analyses accounted for clustering (clients within programs) and weighting and were conducted

to obtain parameter estimates, confidence intervals, and significance levels for the contrasts of interest.

For sensitivity analyses, we conducted parallel analysis using a version of substance abuse history status that excluded receipt of outpatient substance abuse services and self-help services, with similar conclusions. We also conducted stratified analysis for two sector subgroupings: health care (primary care and public health settings, and mental health clinics), and social-community (social services, faith-based agencies, and parks and community centers). Results had consistent direction but some changes in significance relative to main analyses. [Tables presenting results of these analyses are available in the online supplement.]

RESULTS

Of 957 depressed participants, 217 (23%) were screened in substance abuse agencies. Of these individuals, 136 (63%) stayed overnight in a residential treatment center in the past six months, 170 (78%) had received any outpatient or self-help service for substance abuse in the past six months, 136 (63%) had drug dependence, 11 (5%) had drug abuse, 49 (23%) had alcohol dependence, and 13 (6%) had alcohol abuse.

Of the 740 participants screened in sectors other than substance abuse agencies, 269 (36%, weighted) had a recent substance abuse history. Of these, 76 (29%, weighted) had an overnight residential treatment stay in the past six months, 148 (56%, weighted) had any outpatient or self-help visit for substance abuse in the past six months, 116 (44%, weighted) had drug dependence, 15 (5%, weighted) had drug abuse, 74 (27%, weighted) had alcohol dependence, and 12 (6%, weighted) had alcohol abuse.

Sociodemographic Characteristics

Table 1 summarizes data for the depressed sample; the mean age was 45.8, and 57% were women. Race-ethnicity was as follows: Latino, 41%; African American, 46%; and white or other, 13%. Of the 957 participants, 44% had less than a high school education, and 74% had incomes under the federal poverty level. When stratified by substance abuse history status, clients varied significantly across categories on all sociodemographic characteristics other than age and income.

Social and Clinical Needs

Table 2 shows that participants screened in substance abuse agencies had lower rates of homelessness, higher rates of arrests or probation, and greater physical health–related quality of life (PCS-12) than clients with a recent substance abuse history who were screened in other sectors. However, no significant differences were found between these groups in a wide range of socioeconomic, social, or health indicators. Overall physical, mental, and social needs were high for both groups.

Among clients screened at non–substance abuse sites, clients with a substance abuse history reported lower rates of health insurance and employment than those without a substance abuse history; they also had higher rates of homelessness,

TABLE 1. Demographic characteristics of clients with depressive symptoms, by setting in which they were screened and substance abuse history status[a]

	Overall (N=957)		Clients from substance abuse agencies (N=217)		Clients from other sectors				p[b]
					With a substance abuse history (N=269)		Without a substance abuse history (N=471)		
Characteristic	N	Weighted %	N	Weighted %	N	Weighted %	N	Weighted %	
Age (M±SD)	45.8±12.8		42.5±12.0		45.9±11.3		47.2±13.6		ns
Female	560	57	101	46	123	44	336	70	<.001
Married or living with partner	216	23	49	23	33	12	134	28	<.001
Race-ethnicity									<.001
Latino	386	41	67	32	78	29	241	52	
Black or African American	456	46	126	57	151	54	179	36	
Non-Hispanic white	83	9	16	8	31	13	36	8	
Other[c]	32	4	8	4	9	4	15	3	
Less than high school	423	44	88	40	100	37	235	50	.005
Born in the U.S.	680	70	189	87	229	85	262	54	<.001
Income under poverty level	706	74	162	75	207	77	337	72	ns

[a] Substance abuse history (abuse or dependence) as measured by the Mini International Neuropsychiatric Interview or by use of substance abuse services in the prior 6 months from an outpatient substance abuse agency, self-help group, or residential treatment program. Data were multiply imputed at item level and percentage, and means were weighted to account for enrollment and survey response. Percentages may not add to 100% because of rounding.
[b] Wald chi square test for comparison of differences across three categories, accounting for clustering (clients within programs); df=2 for all characteristics except race-ethnicity (df=6)
[c] Asian or Pacific Islander, Native American, or other

arrests or probation, and witnessing violence; higher rates of tobacco use; higher rates of depression, anxiety, and lifetime psychosis or mania; and lower self-rated general health. But the two groups did not differ in mean depressive symptoms (PHQ-8), number of chronic conditions, and quality of life related to physical health or mental health (PCS-12 and MCS-12). As expected by definition, those with substance abuse histories were more likely to have substance misuse, higher AUDIT-C scores, and hazardous drinking (AUDIT-C ≥3 for women and ≥4 for men).

Use of Health Care and Depression Services
As shown in Table 3, rates of any emergency room visits and number of emergency room visits and rates of behavioral health hospitalizations were similar between clients who were screened in substance abuse agencies and those with substance abuse histories who were screened in other sectors. However, those screened in substance abuse agencies were less likely than those with substance abuse histories who were screened in other sectors to visit mental health, primary care, and social services agencies, with fewer depression-related visits in each sector.

In sectors other than substance abuse, clients with a recent history of substance abuse were more likely than those without such a history to visit emergency rooms and to have behavioral health hospitalizations in the past six months. Those with a recent substance abuse history were also more likely to visit mental health and social services and less likely to have faith-based visits and had

more depression-related visits in all sectors other than faith-based.

Satisfaction
Most of the 957 depressed clients were satisfied with health services (N=609, 64%) and community services (N=573, 60%) that were available for emotional or mental health problems. No significant differences were found on the basis of substance abuse history or screening sector.

DISCUSSION
CPIC provided a unique opportunity to compare social and health needs, patterns of services use, and satisfaction among clients with depressive symptoms and recent substance abuse histories in underresourced communities of color across diverse services sectors. To our knowledge, CPIC is the only study that frames depression in the context of service sectors (that is, primary care, mental health, substance abuse, homeless, and social and community services) that have been deemed by our community partners as supporting depressed clients. Most studies focus on only one or two settings.

The depressed clients in this sample were from a range of participating programs. About half of the overall sample had substance abuse histories; one quarter of the sample were identified from substance abuse sectors, and one quarter were from other sectors. Depressed clients with comorbid substance abuse made up over half of all depressed clients

TABLE 2. Social and clinical characteristics of clients with depressive symptoms, by setting in which they were screened and substance abuse history status[a]

| | Clients from substance abuse agencies (a) | | Clients from other sectors | | | | p | |
| | | | With a substance abuse history (b) | | Without a substance abuse history (c) | | | |
Variable	Estimate	95% CI	Estimate	95% CI	Estimate	95% CI	(b) versus (a)	(c) versus (b)
Social								
Has health insurance (%)	34.5	21.9–47.1	42.5	33.8–51.1	52.6	45.3–59.9	ns	.011
Homeless (%)	9.0	3.8–14.3	28.1	16.6–39.5	16.0	8.8–23.1	.002	.006
Currently employed (%)	10.1	5.8–14.4	15.1	9.4–20.8	27.2	22.1–32.4	ns	<.001
Arrested or on probation at any time in past 6 months (%)	42.5	33.6–51.3	21.2	14.1–28.2	6.9	3.5–10.3	<.001	<.001
Evicted or had house foreclosed in past 6 months (%)	21.2	13.9–28.6	14.3	9.0–19.7	12.6	8.7–16.4	ns	ns
Witnessed someone being beaten, abused, or killed in past 6 months (%)	19.4	13.2–25.6	21.0	16.1–25.9	10.8	7.2–14.3	ns	.001
Lost custody of any children in past 6 months (%)	9.1	4.6–13.6	4.2	.8–7.6	1.7	.6–2.8	ns	ns
Clinical								
PHQ-8 score (mean)[b]	15.2	14.6–15.9	15.4	14.8–16.0	14.9	14.4–15.4	ns	ns
Number of chronic conditions (from list of 18) (mean)	3.1	2.6–3.6	3.4	3.1–3.8	3.5	3.1–3.9	ns	ns
N cigarettes smoked per day in past 7 days (mean)	6.9	5.3–8.5	6.6	5.4–7.8	3.4	2.4–4.4	ns	<.001
Quality of life and functioning (mean)[c]								
General	3.4	3.2–3.6	3.5	3.4–3.6	3.8	3.6–3.9	ns	.001
PCS-12	40.4	39.4–41.4	38.7	37.9–39.6	39.1	38.3–39.9	.008	ns
MCS-12	39.0	38.1–39.9	38.8	38.0–39.5	39.6	38.8–40.4	ns	ns
Probable mental health diagnosis								
Current major depressive episode or dysthymia (%)[d]	53.7	45.4–61.9	62.7	56.6–68.7	45.5	39.6–51.4	ns	<.001
12-month depressive disorder (%)[d]	64.6	57.5–71.7	73.6	67.3–79.8	54.8	48.7–60.8	ns	<.001
Lifetime psychosis or mania (%)[e]	54.7	46.8–62.6	53.4	45.7–61.2	27.7	20.3–35.1	ns	<.001
Any current or recent anxiety disorder (%)[f]	55.6	50.1–61.1	56.8	48.0–65.7	38.9	33.2–44.7	ns	<.001
Probable substance abuse diagnosis								
Misused any drugs in past 12 months (%)	66.8	59.3–74.2	53.7	47.3–60.0	9.7	6.3–13.0	.012	<.001
AUDIT-C score (mean)[g]	2.4	1.9–2.9	2.2	1.8–2.6	1.2	.9–1.4	ns	<.001
Hazardous drinker or alcohol use disorder (%)	29.3	24.3–34.4	32.9	25.7–40.0	15.4	11.3–19.5	ns	<.001

[a] Adjusted analyses used multiply imputed data; data were weighted to account for enrollment and survey response. Logistic regression models for binary variables or linear regression models for continuous variables adjusted for age and sex and accounted for clustering (clients within programs).
[b] Eight-item Patient Health Questionnaire. Possible scores range from 0 to 24, with higher scores indicating increased depression symptoms.
[c] As measured by the 12-item Short-Form Health Survey. PCS, physical component summary; MCS, mental component summary. For general health, possible scores range from 1 to 5, with higher scores indicating poorer self-rated general health. For the PCS and MCS, possible scores range from 0 to 100, with higher scores indicating better health.
[d] As measured by the Mini International Neuropsychiatric Interview (MINI)
[e] As measured by the MINI and from information provided at the baseline interview
[f] As measured by the MINI. Panic attacks, posttraumatic stress disorder, and social anxiety disorder
[g] Alcohol Use Disorders Identification Test (screen for hazardous drinking). Hazardous drinking is indicated by a score of ≥4 for males and ≥3 for females.

from other sectors. Because of the high prevalence of substance abuse histories among depressed clients, descriptive data were important to CPIC partners for services planning.

Individuals with depression and substance abuse histories in these communities had high clinical and psychosocial needs, regardless of the location in which they were screened. Most were unemployed, over half lacked health insurance, and about one-fifth had witnessed violence in the past six months. Participants had moderate to high rates of

psychiatric and medical comorbidities, including tobacco use, depression, anxiety, psychosis, or mania. Of clients screened in substance abuse agencies, almost half had been arrested or had been on probation in the past six months. Of note, clients from substance use agencies had lower rates of homelessness (9%) than those from other sectors—both those with a substance abuse history (28.1%) and those without (16.0%). Our findings may reflect the impact of policy initiatives in California during the study time period

TABLE 3. Use of health services by clients with depressive symptoms, by setting in which they were screened and substance abuse history status[a]

Variable	Clients from substance abuse agencies (a)		Clients from other sectors				p	
			With a substance abuse history (b)		Without a substance abuse history (c)			
	Estimate	95% CI	Estimate	95% CI	Estimate	95% CI	(b) versus (a)	(c) versus (b)
Emergency room								
Any visit for any health problem in past 6 months (%)	59.2	50.5–67.8	54.5	48.0–61.1	45.7	39.8–51.6	ns	ns
N of visits for any health problem in past 6 months (among 488 clients with visits) (mean)	3.7	2.8–4.6	3.4	2.7–4.0	3.2	2.7–3.7	ns	ns
Any visit for alcohol, drug, or mental or emotional problem in past 6 months (%)	35.9	29.0–42.7	35.4	29.4–41.5	18.4	13.8–22.9	ns	<.001
N of visits for alcohol, drug, or mental or emotional problem (among 259 of 488 with visits) (mean)	3.1	2.4–3.7	2.9	2.4–3.4	2.8	2.1–3.5	ns	ns
Hospitalization for alcohol, drug, or mental or emotional problem								
Any overnight stay in past 6 months (%)	20.9	13.8–28.0	21.4	16.4–26.4	7.0	4.5–9.4	ns	<.001
Length of stay in past 6 months (among 134 clients with stays) (mean)	10.6	2.9–18.3	9.7	7.2–12.3	9.8	5.1–14.5	ns	ns
Mental health specialty								
Any visit in past 6 months (%)	56.6	49.5–63.7	73.2	64.8–81.5	48.7	39.4–58.0	.005	<.001
N of visits (among 554 clients with visits)	16.5	11.3–21.7	14.0	11.1–16.8	11.0	9.4–12.7	ns	.04
Any medication or counseling for emotional or mental health problem in past 6 months (%)	55.6	48.6–62.5	69.5	60.9–78.1	44.7	35.7–53.7	.017	<.001
Primary care								
Any visit for any problem in past 6 months (%)	58.7	48.3–69.1	72.2	64.7–79.6	72.7	68.2–77.1	.034	ns
N of visits in past 6 months (among 659 clients with visits) (mean)	7.2	3.6–10.8	6.8	5.7–7.9	5.0	4.4–5.6	ns	.006
Any visit that included a service for depression (among 659 clients with visits) (%)	59.5	49.7–69.3	69.0	62.5–75.6	55.9	47.9–63.9	ns	.009
Social services agency								
Any visit in past 6 months (%)	53.1	47.2–59.0	66.2	58.4–74.0	48.9	42.7–55.2	.012	<.001
Any visit that included a service for depression (among 522 clients with visit (%)	47.4	36.4–58.3	62.8	56.1–69.4	45.0	37.3–52.7	.02	.001
Faith based (for example, church or temple)								
Any visit in past 6 months (%)	54.8	43.6–66.0	54.9	48.9–60.8	64.0	59.2–68.8	ns	.014
Any visit that included a service for depression in past 6 months (among 568 clients with visits) (%)	46.3	35.0–57.6	43.0	34.1–51.8	33.5	27.5–39.5	ns	ns
Parks and community centers (including senior centers)								
Any visit in past 6 months (%)	48.5	43.8–53.1	50.0	42.8–57.2	46.2	40.7–51.7	ns	ns
Any visit that included a service for depression (among 462 clients with visits) (%)	11.7	7.3–16.1	22.7	14.6–30.8	13.4	8.5–18.3	.011	.047

[a] Adjusted analyses used multiply imputed data; data were weighted to account for enrollment and survey response. Logistic regression models for binary variables or log-linear regression models for count variables adjusted for age and sex and accounted for clustering (clients within programs).

decriminalizing substance abuse. This reduced recidivism by diverting individuals convicted of nonviolent drug possession from prisons into substance abuse treatment and post-incarceration programs offering supportive housing and employment (57).

As expected, depressed clients who were screened in substance abuse agencies and those who were screened in other sectors who had substance abuse histories had higher rates of use of emergency rooms (58–61) and were hospitalized at higher rates (62–64) than depressed clients without substance abuse histories. However, individuals screened in substance abuse agencies had higher rates of service use from substance abuse agencies and lower rates of service use from other sectors. This finding may be attributable to the design of the study, which screened consecutive clients in each location, resulting in oversampling of frequent users of that location. As found in prior studies (65–67), this study found that clients with substance abuse histories who were screened in other sectors were more likely than those without such histories to visit outpatient mental health clinics for depression. However, we are not aware of prior studies that have reported increased use of depression services in social services and other sectors among clients with substance abuse histories compared with those without such histories. Differences in utilization patterns within and across sectors may be attributable to distinct services referral networks in a given sector or differences in clients' needs (6). However, it is noteworthy that the overall services utilization pattern differed depending on whether a client with a substance abuse history was identified in a substance abuse agency (a pattern of increased substance use services) or non–substance use sectors (a pattern of increased depression-related services across sectors). This suggests that each sector's networks may be complementary.

These findings may be important as safety-net health care systems work to provide care for the complex psychosocial (for example, legal, employment, and housing), behavioral health, and general medical (6,29) needs of new Medicaid enrollees under health care reform, because the demographic profiles of these new enrollees are similar to those of clients described here. Initiatives such as accountable care organizations and Medicaid behavioral health homes (22,24) provide incentives to support collaborations across historically siloed sectors to improve outcomes (23) through evidence-based integration strategies, such as collaborative care for depression, while addressing social determinants of health, such as housing and employment. Although published models of depression care and substance abuse care that focus on primary care–mental health integration (11,29,31,68,69) have demonstrated improved patient health outcomes, they may be more difficult to implement in Health Resources and Services Administration–defined medically underserved areas with health care service shortages (70). Medically underserved communities may consider implementing models that extend clinical care through collaborations between health care, substance abuse, and other social and community sectors to

deliver evidence-based depression care while also addressing clients' social, general medical, and substance abuse needs. It is not yet known, however, whether delivery of linked services is better accomplished through centralized models (colocated services) or through distributive models (referrals) and which models enhance client outcomes (11). To implement depression or substance abuse care models across health care and non–health care settings, future research should explore whether service use and outcomes for those with depression and comorbid substance abuse differ by a client's "home" sector and by the quality of program linkages and services within networks.

Linking general medical sectors to substance abuse and social and community sectors to increase detection and treatment of depression and substance use may be useful, particularly for case management initiatives in medically underserved communities. Clients with depression and substance abuse histories have high rates of acute care utilization (71), accounting for a disproportionately high percentage of visits and costs (72). Case management innovations for this population are currently an area of intense investigation (73,74). For example, case management services linking homeless persons to stable housing have been shown to reduce emergency room visits, hospitalizations, and costs (75). Community engagement may be one strategy to link sectors and facilitate an innovative approach to and evaluation of such efforts (33).

This study had several limitations. Generalizability of these findings to other program types or communities may be limited. We included financially stable programs in two underresourced communities of color in Los Angeles. Study recruitment was limited to programs listed in county resource guidebooks and partners' recommendations. Although participating and nonparticipating programs served similar populations, we did not include all programs in each community. Response rates were moderate for agencies. We oversampled high users by sector, and results may not generalize to less frequent users. Data are limited to client self-report (claims data were not used). The study had a diverse sample of community services sectors and used a unique participatory approach involving agency coleadership, which may be useful as a model for communitywide health assessment and quality improvement initiatives.

CONCLUSIONS

Overall, this exploratory study showed that comorbid depression and substance abuse are common across diverse sectors that serve safety-net populations. These individuals have complex psychosocial, general medical, mental health, and substance abuse needs, and services are fragmented across sectors. Future work may utilize these findings within the context of Medicaid behavioral health homes by providing incentives for collaboration between health care and community agencies to improve access to and quality of high-value services across a network to address the complex needs of clients with comorbid depression and substance abuse.

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Submissions Invited for Column on Integrated Care

The integration of primary care and behavioral health care is a growing research and policy focus. Many people with mental and substance use disorders die decades earlier than other Americans, mostly from preventable chronic medical illnesses. In addition, primary care settings are now the gateway to treatment for behavioral disorders, and primary care providers need to provide screening, treatment, and referral for patients with general medical and behavioral health needs.

To stimulate research and discussion in this critical area, *Psychiatric Services* has launched a column on integrated care. The column focuses on services delivery and policy issues encountered on the general medical–psychiatric interface. Submissions are welcomed on topics related to the identification and treatment of (a) common mental disorders in primary care settings in the public and private sectors and (b) general medical problems in public mental health settings. Reviews of policy issues related to the care of comorbid general medical and psychiatric conditions are also welcomed, as are descriptions of current integration efforts at the local, state, or federal level. Submissions that address care integration in settings outside the United States are also encouraged.

Benjamin G. Druss, M.D., M.P.H., is the editor of the Integrated Care column. Prospective authors should contact Dr. Druss to discuss possible submissions (bdruss@emory.edu). Column submissions, including a 100-word abstract and references, should be no more than 2,400 words.