Perceived Discrimination in Health Care and Mental Health/Substance Abuse Treatment Among Blacks, Latinos, and Whites

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Background: Experiences of discrimination in health care settings may contribute to disparities in mental health outcomes for blacks and Latinos. We investigate whether perceived discrimination in mental health/substance abuse visits contributes to participants' ratings of treatment helpfulness and stopped treatment.

Research Methods: We used data from 3 waves of the California Quality of Life Survey, a statewide population-based telephone survey assessing mental health/substance disorders and their treatment. In a sample of 1099 adults (age 18–72) who indicated prior year mental health/substance abuse visits, we examined: experiences of discrimination that occurred during health care and mental health/substance abuse visits, ratings of treatment helpfulness, and reports of stopping treatment early.

Results: Fifteen percent of California adults reported discrimination during a health care visit and 4% specifically during mental health/substance abuse visits. Latinos, the uninsured, and those with past year mental disorders were twice as likely as others to report health care discrimination [adjusted odds ratio (AORs) = 2.08, 2.77, and 2.51]. Uninsured patients were 7 times more likely to report discrimination in mental health/substance abuse visits (AOR = 7.27, $P < 0.01$). The most commonly reported reasons for health care discrimination were race/ethnicity for blacks (52%) and Latinos (31%), and insurance status for whites (40%). Experiences of discrimination in mental health/substance abuse visits were associated with less helpful treatment ratings for Latinos (AOR = 0.09, $P < 0.05$) and whites (AOR = 0.25, $P < 0.01$), and early treatment termination for blacks (AOR = 13.38, $P < 0.05$).

Conclusions: Experiences of discrimination are associated with negative mental health/substance abuse treatment experiences and stopped treatment, and could be a factor in mental health outcomes.

Key Words: race/ethnicity, provider discrimination, mental health, substance abuse

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Significant attention is focused on racial/ethnic disparities in mental health status and mental health services use.[1,2] Blacks and Latinos are less likely than whites to receive mental health or substance abuse services and are more likely than whites to delay seeking care.[3–5] Even when blacks and Latinos do receive mental health/substance abuse services, they are more likely than whites to obtain inappropriate diagnoses,[6,7] drop out of treatment early,[8] report less satisfaction with treatment,[9] and receive inadequate or substandard care.[10] Untreated, mental health/substance use disorders lead to economic instability,[11] disruptions in education and employment,[12,13] and premature mortality due to suicide, chronic disease, and poor physical health outcomes.[14,15] For blacks and Latinos specifically, disparities in treatment may be a factor in why these groups experience elevated levels of psychological distress,[16] more chronic psychiatric disorders,[17] and more frequent use of emergency psychiatric services[18] compared with whites. Given the significant personal and societal costs of untreated mental health/substance use disorders, there is a need to determine modifiable factors within the health care system that may be leveraged to better meet the care needs of racial/ethnic minorities.

To date, researchers have identified a number of barriers that contribute to higher levels of unmet behavioral health needs among racial/ethnic minorities.[19] These include access due to a lack of insurance,[20] unavailability of services in their native language,[21] greater burden of stigma,[22,23] and historical mistreatment in health care settings that may engender distrust of mental health professionals.[24] Another possible barrier to care that has received relatively less attention is whether experiences of discrimination in mental health/substance abuse services contribute to the greater level of unmet mental health needs of racial/ethnic minorities.

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Previous research on discrimination in physical health care settings has shown that racial/ethnic minorities report experiencing discrimination more frequently than whites,[25–27] with common reasons being race/ethnicity, insurance type, ability to pay, and language.[28,29] These experiences of discrimination in the medical setting are associated with negative ratings of provider communication,[26,30] treatment dissatisfaction,[30] avoiding or delaying treatment,[25,31] and poor physical health outcomes.[25,32] Two studies in the United Kingdom found that experiences of discrimination occur frequently in mental health service settings, contributing to patients' mistrust with mental health services and disruptions to the therapeutic relationship.[33,34] Less known is the extent to which negative health care outcomes occur as a function of experiences of discrimination in mental health/substance abuse treatment for blacks and Latinos. Therefore, one area ripe for exploration is to determine whether, for blacks and Latinos, there is a relationship between perceived experiences of discrimination, treatment noncompliance, dissatisfaction, dropout, and seeking of future treatment.

The purpose of this study is to investigate the prevalence of discrimination occurring in mental health/substance abuse service visits and to examine associations of perceived discrimination in mental health/substance abuse visits with treatment experiences in an ethnically diverse population-based sample of adults. We hypothesize that racial/ethnic minorities will report more experiences of discrimination in the general health care and mental health/substance abuse visits than whites. Moreover, we hypothesize that experiences of discrimination in a mental health/substance abuse service visit will be associated with racial/ethnic minorities reporting less helpful treatment ratings and stopping treatment early.

METHODS

Data

We use data from the California Quality of Life Surveys (Cal-QOL) I–III, 3 cross-sectional population-based mental health surveys of English-speaking and Spanish-speaking adults in California.[35] The Cal-QOLs are follow-backs to the 2003, 2007, and 2011 waves of the California Health Interview Survey (CHIS), a biennial population-based random-digit dial telephone survey of >40,000 adults in California, age 18 or older.[36] The CHIS collects data on a range of health-related topics including health status, chronic conditions, health-related behaviors, health care access, and use of health services. The Cal-QOLs interviewed a subset of CHIS participants to obtain detailed information on mental health and substance abuse disorders, treatment, and experiences of discrimination. The Cal-QOL sampling frames selected by probability methods are a subset of adults who are age 18–72 at the time of their CHIS participation. Stratification methods were used to oversample African Americans in the last 2 waves. All eligible CHIS respondents were originally interviewed in English or Spanish and agreed to recontact. The Cal-QOL collected data between October 2004 and February 2005 (Wave I, n = 2322), October 2007 until February 2008 (Wave II, n = 2815), and January 2012 until February 2013 (Wave III, n = 2449). The response rate for each survey was 56%.

Sample

For this study, participants included adults, age 18–72, who indicated they used mental health or substance abuse services in the past year and answered a series of questions on discrimination in health care (Fig. 1). Overall, 7586 adults participated in the Cal-QOL I–III. We excluded 356 participants who received a shortened interview lacking critical study variables. Of the remaining 7228 participants, 15% reported past year use of mental health or substance abuse services, leaving a final sample of 1099 individuals: 817 non-Latino white, 136 Latino, 89 non-Latino black, and 57 participants classified as "other" race/ethnicity (40 Asian American and 17 Native American).

Measures

Discrimination in Health Care Visits

Three items assessed discrimination occurring in a health care setting visit in the 12 months before the interview. Participants were asked whether: (1) a health care worker or provider acted as if they were uncomfortable with the respondent, (2) a health care worker or provider made negative, hostile, or disrespectful comments, or (3) the respondent felt discriminated against, treated disrespectfully, or given less good care than other people. These items originated from the Healthcare for Communities Survey, a Robert Wood Johnson Foundation–sponsored national study of mental health and substance abuse services.[37]

Individuals who endorsed any of the discrimination items were asked what they thought was the reason for the disparate treatment, and whether any of their experiences with discrimination occurred at a visit for emotional, mental health, or alcohol/drug problems. We coded respondents who did not report any discrimination in the initial 3 questions as also not experiencing discrimination in services directed toward health, mental health, or substance use concerns.

Treatment Experiences

Individuals receiving mental health or substance abuse services in the year before the interview were also asked to rate the helpfulness of their care on a Likert scale: "very helpful," "somewhat helpful," "neither helpful nor not helpful," or "not helpful at all."[37] Early treatment termination was assessed through self-report. Patients who reported that they stopped or chose to get less treatment than recommended by their provider for their mental health or substance use concerns were considered to have stopped treatment early. These items were administered in Cal-QOL II and III only (n = 745).

Participant Characteristics

Several demographic characteristics were measured including age, sex, education, income, and insurance status. We divided age into 4 cohorts (18–29, 30–44, 45–59, 60–72), and education into 4 levels (less than high school education, high school degree or some college, ≥ 4 y

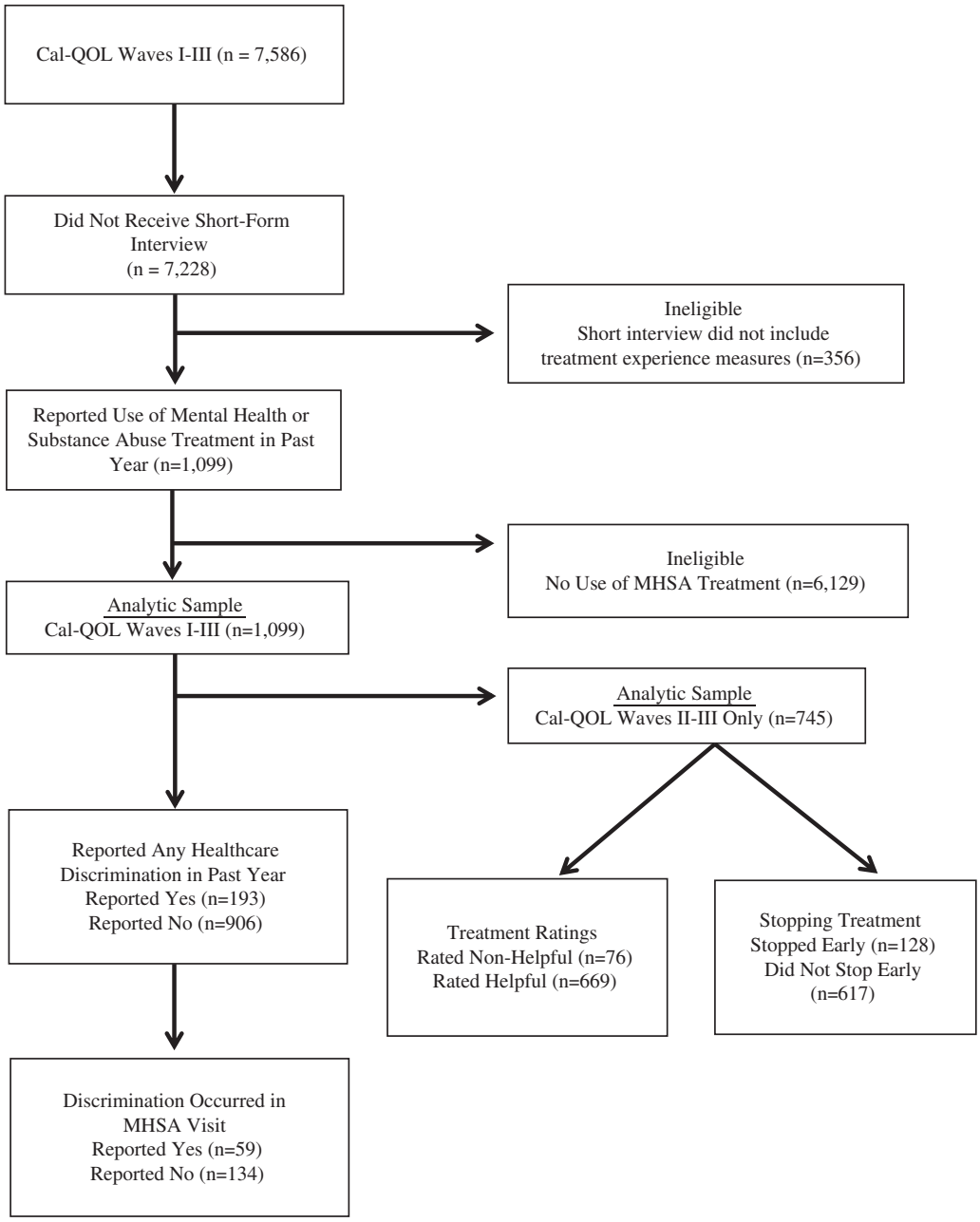

FIGURE 1. Discrimination in California Quality of Life (Cal-QOL) survey waves I–III health care and mental health/substance abuse (MHSA) service visits study eligibility criteria.

college), and households with low income were determined by those earning <200% of the Federal Poverty Level adjusted for survey year. We coded insurance coverage into 3 categories: public, private, or uninsured. Public insurance included Medicare, Medi-Cal, and Healthy Families, as well as the military care programs (VA, Tricare). Private insurance included employer-based or privately purchased coverage. As described elsewhere, the Cal-QOL used the Composite International Diagnostic Interview Short Form (CIDI-SF) and other screening measures to determine the prevalence of 8 past year mental health and substance use disorders: Major Depressive Disorder, Generalized Anxiety Disorder, Panic Attack, Posttraumatic Stress Disorder, Alcohol Abuse or Dependence, or Drug Abuse or Dependence.[38]

Statistical Analyses

We used Stata version 13.1 to conduct all statistical analyses. Sampling weights were applied to adjust for the probability of selection, nonresponse, and for poststratification

to generate estimates representative of the California population.

We first used cross-tabulations to examine the overall prevalence of any health care discrimination and then experiences of discrimination in mental health/substance abuse visits. Next, to test our hypothesis that racial/ethnic minorities will be more likely to report experiencing discrimination compared with whites, we used logistic regression models to examine the association between race/ethnicity and reports of discrimination in any health care and in a mental health/substance abuse visit. Using multivariate methods, we controlled for age, sex, sexual orientation, education, income, insurance status, and positive screenings for a mental health/substance abuse disorder to obtain adjusted estimates.

We used multivariate methods to test our hypothesis that perceived discrimination during a mental health/substance abuse visit would be associated with ratings of treatment as less helpful and early termination for blacks and Latinos. To test the association between experiences of discrimination and ratings of treatment helpfulness we used multivariate ordinal regression, and multivariate logistic regression were used to test the association between experiences of discrimination and stopping treatment early. We ran these models separately for blacks, Latinos, and whites. Also, because the treatment questions were only administered in Cal-QOL II–III (n = 745), these final analyses were restricted to this group only.

As only 5% of participants (n = 59) had missing data on one of the variables of interest, we used multiple imputation procedures to estimate the missing data with the assumption that missing values were missing at random. Analyses were conducted using the mim package in Stata, which averages the model estimates across imputed datasets and produces pooled SEs according to Rubin's rules.[39]

RESULTS

Prevalence of Perceived Discrimination in Health Care or Mental Health/Substance Abuse Visits

We began by investigating the prevalence of perceived discrimination during any health care or mental health/substance abuse visits (Table 1). The results showed that, overall, approximately 1 in 7 participants (14.9%) reported that they had experienced discrimination in a health care visit in the past year. Approximately 1 in 4 black and Latino patients reported experiences of discrimination in the health care setting (24% and 25%, respectively) compared with 1 in 9 whites (12%) and participants of other race/ethnicity (11%) ($P = 0.02$). Discrimination in a health care visit was also frequently reported among those with less than high school education (24%), some college education (21%), and those with no insurance (27%) or public insurance (19%). Moreover, participants who met the criteria for a psychiatric disorder were more likely to report health care discrimination than those without a psychiatric disorder (19% vs. 7%, $P < 0.001$). In particular, we found elevated reports of health care discrimination among adults who met criteria in the past year for Generalized Anxiety Disorder (27%), Panic Attack (24%), Posttraumatic Stress Disorder (24%), or Major Depressive Disorder (21%).

Among participants who reported any health care discrimination, 27% also reported that the discrimination occurred in a mental health/substance abuse visit. Thus, 4% of adults who used mental health or substance abuse services in the past year reported an experience of discrimination in a visit for mental health or substance abuse concerns. As shown in Table 1, the prevalence of discrimination in a mental health/substance abuse visit was 3 times higher for blacks (9%) and Latinos (8%) than whites (3%) ($P < 0.01$). Discrimination in a mental health/substance abuse visit was more frequently reported by uninsured participants (16%) than by those with public (4%) or private insurance (2%) ($P < 0.01$). In addition, participants who met screening criteria for a psychiatric disorder reported discrimination in a mental health/substance abuse visit more frequently than participants who did not meet screening criteria (6% vs. 1%, $P < 0.01$). Higher reporting of discrimination in a mental health/substance abuse visit was found in those with Generalized Anxiety Disorders (8%) and Posttraumatic Stress Disorder (9%).

Predictors of Perceived Discrimination in Health Care and Discrimination in a Mental Health/Substance Abuse Visit

Multivariate models were used to test for racial/ethnic disparities in health care discrimination after controlling for other sociodemographic characteristics (Table 2). In the adjusted analyses, the only significant race/ethnicity findings was for Latinos who had 2 times greater odds of experiencing health care discrimination than whites [adjusted odds ratio (AOR) = 2.08; 95% CI, 1.02, 4.25]. Significant difference in experiences of health care discrimination were also observed for the uninsured (AOR = 2.51; 95% CI, 1.19, 5.29), and those with a mental health disorder in the past year (AOR = 2.77; 95% CI, 1.50, 5.11).

We did not find support for the hypothesis of black-white or Latino white differences in discrimination in a mental health/substance abuse visit after controlling for sociodemographic characteristics. However, we did find that patients of other races compared with whites had a significantly lower odds of reporting discrimination experiences in a mental health/substance abuse visit (AOR = 0.01; 95% CI, 0.00, 0.12). The uninsured had 7 times greater odds of experiencing discrimination in a mental health/substance abuse visit than those with private insurance (AOR = 7.27; 95% CI, 2.27, 23.30).

Perceived Basis of Discrimination in Health Care Visits

Racial/ethnic differences were found in perceived attributes for the discrimination (Table 3). Although specific reasons for discrimination during a mental health/substance abuse were not asked in this study, we did, however, find that among blacks the most commonly reported reason for discrimination during a health care visit was race/ethnicity (52%), followed by insurance type (30%) and income (29%).

TABLE 1. Participant Characteristics and Prevalence of Perceived Discrimination in Health Care and Mental Health/Substance Abuse Service Visits in the California Quality of Life Survey, I–III (n = 1099)

	Wave I–III (N = 1099)	Wave II–III (N = 745)	Percent Who Reported Any Health Care Discrimination, Waves I–III		Percent Who Reported Discrimination in MH/SA Visit, Waves I–III	
	Weighted [N (%)]		Weighted % (SE)	*F*	Weighted % (SE)	*F*
Race/ethnicity						
Latino	225 (20.5)	138 (18.5)	24.1 (5.4)		7.9 (3.0)	
Non-Latino white	723 (65.8)	487 (65.4)	12.0 (1.6)		3.0 (0.8)	
Non-Latino black	52 (4.8)	48 (6.4)	24.6 (6.9)		8.8 (4.3)	
Other	99 (9)	72 (9.7)	10.7 (5.1)	3.33*	0.1 (0.1)	8.72***
Age (y)						
18–29	211 (19.2)	157 (21)	13.5 (3.8)		5.7 (2.4)	
30–44	363 (33)	246 (33)	16.1 (3.0)		3.7 (1.5)	
45–59	399 (36.4)	259 (34.7)	16.2 (2.8)		4.2 (1.4)	
60–72	126 (11.4)	84 (11.2)	10.2 (3.8)	0.54	1.4 (1.2)	0.78
Sex						
Male	414 (37.6)	185 (38.2)	13.4 (2.8)		3.0 (1.1)	
Female	685 (62.4)	460 (61.8)	15.6 (2.1)	0.26	4.7 (1.2)	0.99
Sexual orientation						
Heterosexual	981 (89.2)	665 (89.2)	14.4 (1.8)		4.1 (1.0)	
Sexual orientation minority	118 (10.8)	80 (10.8)	19.5 (3.6)	1.76	3.7 (0.9)	0.06
Education						
Less than high school	70 (9.2)	38 (6.8)	23.8 (7.2)		7.7 (3.9)	
High school	166 (19.2)	119 (19.5)	14.4 (3.8)		1.6 (1.4)	
Some college	303 (31.2)	202 (30.8)	21.3 (3.4)		8.0 (2.2)	
≥ 4 y college	560 (40.4)	386 (42.9)	8.2 (1.8)	4.85**	1.3 (0.6)	4.93**
Household income						
>200% FPL	779 (70.9)	507 (68.1)	13.0 (1.8)		3.7 (1.0)	
<200% FPL	320 (29.1)	238 (31.9)	19.6 (3.6)	3.10	4.7 (1.8)	0.31
Insurance status						
Uninsured	128 (11.7)	78 (10.5)	27.4 (6.4)		15.5 (5.2)	
Private insurance only	648 (58.9)	428 (57.4)	10.5 (1.7)		1.8 (0.7)	
Any public insurance	323 (29.4)	239 (32.1)	19.0 (3.5)	6.04**	3.9 (1.4)	8.77***
Screening for psychiatric disorder						
Screened negative for all disorders	397 (36.1)	276 (37)	7.1 (1.9)		1.2 (0.6)	
Screened positive for any disorder	702 (63.9)	469 (63)	19.4 (2.3)	13.05***	5.6 (1.3)	7.00**
Psychiatric disorder†						
Major depressive disorder	436 (39.6)	286 (38.4)	21.4 (3.0)	9.59**	6.0 (1.7)	3.52
Generalized anxiety disorder	302 (27.5)	191 (25.7)	26.9 (3.9)	18.92***	7.7 (2.3)	6.25*
Panic attack	209 (19)	136 (18.2)	23.8 (4.7)	6.38*	6.3 (2.4)	1.55
Posttraumatic stress disorder	189 (17.2)	123 (16.5)	24.2 (4.8)	6.44*	9.4 (3.2)	7.07**
Alcohol or drug use disorder	190 (17.3)	124 (16.6)	16.4 (4.0)	0.17	5.4 (2.2)	0.59

*$P < 0.05$.
**$P < 0.01$.
***$P < 0.001$.
†Some participants met criteria for >1 psychiatric disorder. Participants who met criteria for each disorders are included and therefore do not add to 100%.
FPL indicates federal poverty level; MH/SA, mental health or substance abuse.

TABLE 2. Predictors of Perceived Health Care Discrimination Reported by Users of Any Health Care and Mental Health/Substance Abuse Services in the Past Year, California Quality of Life Survey Waves I–III (n = 1099)

	Any Past Year Health Care Discrimination		Discrimination Occurring During A Mental Health or Substance Abuse Visit	
	AOR	95% CI	AOR	95% CI
Race/ethnicity				
Non-Latino white (reference)	1.0		1.0	
Latino	2.08*	1.02, 4.25	2.38	0.77, 7.34
Non-Latino black	2.02	0.80, 5.10	2.97	0.86, 10.26
Other	0.81	0.26, 2.53	0.01***	0.00, 0.12
Age (y)				
18–29 (reference)	1.0		1.0	
30–44	1.75	0.80, 3.80	1.05	0.31, 3.64
45–59	1.72	0.79, 3.76	1.34	0.48, 3.75
60–72	1.09	0.35, 3.38	0.58	0.08, 3.94
Sex				
Male	1.0		1.0	
Female	1.02	0.5, 1.91	1.31	0.51, 3.34
Sexual orientation				
Heterosexual	1.0		1.0	
Nonheterosexual	1.44	0.78, 2.66	0.81	0.33, 2.01
Education				
High school or less (reference)	1.0		1.0	
Some college	1.47	0.75, 2.90	2.52	0.67, 9.49
4 y college degree	0.65	0.30, 1.44	0.67	0.15, 2.94
Household income				
>200% FPL	1.0		1.0	
<200% FPL	0.93	0.52, 1.68	0.80	031, 2.08
Insurance status				
Private insurance (reference)	1.0		1.0	
Public insurance	1.45	0.73, 2.90	1.74	0.52, 5.79
Uninsured	2.51*	1.19, 5.29	7.27**	2.27, 23.30
Past year mental health disorder				
No	1.0		1.0	
Yes	2.77**	1.50, 5.11	3.37	0.98, 11.55
Past year substance use disorder				
No	1.0		1.0	
Yes	1.07	0.51, 2.22	1.37	0.46, 4.03

*$P < 0.05$.
**$P < 0.01$.
***$P < 0.001$.
AOR indicates adjusted odds ratio; CI, confidence interval; FPL, federal poverty level.

Latinos reported race/ethnicity (31%) most often, followed by income (22%) and insurance (15%). Among whites, a different pattern emerged with insurance (40%) as the most reported reason for discrimination, followed by not-specified reasons (22%) and age (11%).

Associations of Perceived Discrimination in Mental Health/Substance Abuse Visits With Treatment Helpfulness and Stopped Treatment

In determining the role of discrimination in participants treatment behaviors using data from only Cal-QOL II and III, 9% of the participants rated their mental health/substance abuse treatment as "not helpful at all" or "neither helpful nor not helpful": 25% blacks, 8% Latinos, and 7% of whites. Those Latinos and whites who reported experiencing discrimination in their mental health/substance visit rated their treatment as less helpful than those who did not report discriminatory experiences (AOR = 0.09; 95% CI, 0.01, 0.84 and AOR = 0.25; 95% CI, 0.09, 0.67) (Table 4). For blacks, no significant relationship was found relative to their experiences of discrimination in mental health/substance abuse visits (AOR = 0.19; 95% CI, 0.03, 1.48).

Last, we examined participants' reports of stopping treatment early. One in 5 participants (19.6%) in Cal-QOL II–III reported that they stopped their mental health/substance abuse treatment in the past year earlier than recommended: 21% for blacks, 21% for Latinos, and 18% for whites. Blacks who reported discrimination during a mental health/substance abuse visit times had 13 times greater odds of stopping treatment early compared with blacks who did not report such experiences of discrimination (AOR = 13.38; 95% CI, 1.36, 131.99). These same types of experiences of discrimination were not found to be statistically associated with stopping treatment early for Latinos (AOR = 2.06; 95% CI, 0.08, 51.97) or whites (AOR = 0.66; 95% CI, 0.09, 5.09).

DISCUSSION

The results of our study, which investigated patients reporting of discrimination in general health care and mental health/substance abuse visits in a population-based sample of California adults, found support for our hypothesis that patient reporting of discrimination is associated with stopping treatment early and perceptions that treatment is not helpful. The most frequently given attributions for blacks and Latinos for the basis of their discrimination was race/ethnicity, whereas for whites it was their insurance status. Within the context of mental health/substance abuse services, our results demonstrate that experiences of discrimination are associated with negative perceptions of treatment helpfulness for Latinos and whites and early treatment termination for blacks. Importantly, our findings suggest that health care discrimination may contribute to disparities in mental health/substance abuse treatment outcomes for marginalized populations.

Although the overall rates of discrimination in a mental health or substance abuse visit seem to be relatively low, these experiences occur 2–3 times more frequently in populations who already experience inequities in the access to and quality of mental health/substance abuse services.[19,20] Indeed, Latinos, individuals who were uninsured, and those who suffered from a mental health disorder, such as Generalized Anxiety Disorder, experienced the highest prevalence of health care discrimination. In addition, the results suggest that the uninsured, many of whom are racial and ethnic minorities, are at greater risk for experiencing discrimination specifically during a mental health/substance abuse service visit. As increasing numbers of blacks and Latinos enter integrated primary care services through the Affordable Care Act (ACA)'s Medicaid expansion,[40] our results caution that the hoped for reduction in mental health

TABLE 3. Reasons for Perceived Health Care Discrimination Reported by Black, Latino, and White Users of Mental Health/Substance Abuse Services in the Past Year, California Quality of Life Surveys Waves I–III (n = 193)

Reason For Discrimination	Weighted % (SE)*		
	Non-Latino Black	Latino	Non-Latino White
Race or ethnic origin	52.2 (16.7)	30.5 (10.9)	5.7 (3.1)
Insurance type	30.2 (16.0)	15.3 (10.1)	40.0 (7.2)
Income level	29.1 (16.6)	22.4 (11.5)	8.0 (3.6)
Health or disability	0.2 (0.2)	0.3 (0.3)	6.6 (3.1)
Age	19.0 (16.0)	0.2 (0.2)	11.3 (5.0)
Sex	13.8 (11.5)	1.9 (2.2)	3.1 (1.9)
Language/accent	0	1.6 (4.2)	3.0 (2.8)
Religion	0	6.7 (7.1)	2.0 (1.8)
Sexual orientation	0	2.1 (1.4)	2.3 (0.8)
Body weight	0.6 (0.6)	1.3 (1.0)	9.5 (4.5)
Physical appearance	0	0.3 (0.3)	5.1 (4.7)
Other	11.3 (10.7)	11.1 (7.6)	22.3 (6.1)

*Some participants reported >1 reason for discrimination. All participant responses are included and therefore do not add to 100%.

disparities could be compromised in the face of perceived discrimination in the health care visit.

Prior studies of experiences of discrimination during physical health services indicate that discriminatory experiences damage the patient/provider relationship,[26,30] contribute to patients' treatment dissatisfaction,[30] medication noncompliance,[29] and contribute to poor health outcomes.[25,32] In mental health, our findings indicate that experiences of discrimination in a mental health/substance abuse visit also can contribute to negative perceptions of treatment for Latinos and whites, and even worse to early treatment discontinuation for blacks. This has important implications for possible health outcomes as prior research indicates that mental health treatment satisfaction and treatment continuation are associated with better physical and mental health outcomes.[41,42] Therefore, improving the treatment experiences of vulnerable populations in mental health and substance abuse services may be a critical step in reducing mental health disparities, particularly for uninsured and racial/ethnic minority patients.

Our findings are also important in the context of the ACA where patient satisfaction is an important measure of the quality of care, particularly in the hospital setting where 30% of hospitals' Medicare reimbursements are tied to patient satisfaction survey scores.[43] Future research is needed to better understand patient preferences and systems of care dynamics that contribute to enhanced treatment experiences for racial/ethnic minorities, those with public insurance, and those with psychiatric disorders.[44] Incorporating patient-centered approaches that are culturally sensitive to the treatment of mental disorders in primary and specialty mental health care settings may be one strategy to improve treatment experiences and mental health outcomes for these vulnerable populations.[45] In addition, implementing training programs to increase the cultural competence of providers has been shown to improve patient satisfaction with care.[46] Educating providers about the negative effects of discrimination that occurs

TABLE 4. Associations of Perceived Discrimination in Past Year Mental Health/Substance Abuse Service Visits With Treatment Helpfulness and Stopped Treatment, California Quality of Life Survey II–III (n = 745)

	Non-Latino Black		Latino		Non-Latino White	
	AOR	95% CI	AOR	95% CI	AOR	95% CI
Ratings of treatment helpfulness†						
Discrimination in MH/SA Visit	0.19	0.03, 1.48	0.09*	0.01, 0.84	0.25**	0.09, 0.67
Age (y)						
18–44 (reference)	1.0		1.0		1.0	
45–72	1.30	0.39, 4.36	4.31	1.00, 18.60	0.63	0.38, 1.03
Female sex	1.12	0.22, 5.62	2.88	0.81, 10.33	1.75*	1.05, 2.92
High school or less education	1.63	0.42, 6.34	0.78	0.15, 4.01	0.61	0.32, 1.15
Private insurance	2.18	0.53, 8.96	0.42	0.08, 2.09	1.43	0.85, 2.39
Past year psychiatric disorder	0.95	0.24, 3.81	1.83	0.46, 7.25	0.57*	0.32, 0.99
Stopped treatment early‡						
Discrimination in MH/SA visit	13.38*	1.36, >100	2.06	0.08, 51.97	0.66	0.09, 5.09
Age (y)						
18–44 (reference)	1.0		1.0		1.0	
45–72	0.75	0.20, 2.84	1.18	0.23, 6.11	0.58	0.28, 1.20
Female sex	2.58	0.67, 9.99	45.47	0.20, >100	1.25	0.60, 2.63
High school or less education	0.46	0.07, 2.37	0.93	0.15, 5.82	0.64	0.24, 1.73
Private insurance	5.46*	1.34, 22.19	1.74	0.26, 11.79	0.59	0.28, 1.25
Past year psychiatric disorder	2.96	0.67, 13.03	3.22	0.49, 21.06	1.86	0.85, 4.08
Treatment rated nonhelpful	2.80	0.68, 11.42	8.83	0.14, >100	3.14*	1.02, 9.62

*$P < 0.05$.
**$P < 0.01$.
†Ordered logistic regression of treatment helpfulness on discrimination during a mental health or substance abuse visit. A coefficient >1.0 indicates increased odds of rating treatment as more helpful.
‡Logistic regression of stopped treatment on discrimination during a mental health or substance abuse visit. A coefficient >1.0 indicates increased odds of stopping treatment early.
AOR indicates adjusted odds ratio; MH/SA, mental health or substance abuse.

during mental health/substance abuse services delivery, as well as the subtle and often unconscious nature of bias, should be incorporated into such training programs.[47] In addition to cultural competency and bias reduction training, increasing the number of providers from diverse backgrounds, including racial/ethnic minorities, may increase utilization of treatment services and decrease rates of perceived discrimination and premature treatment dropout.[48] Collectively, these efforts may hold promise for reducing mental health/substance abuse services disparities not only for racial/ethnic minorities but also for others who encounter discrimination in mental health/substance abuse services.

Study limitations deserve consideration in contextualizing our results. First, we note factors that limit generalizability. CHIS (and, therefore, the Cal-QOL) excluded adults unreachable by telephone (eg, homeless, incarcerated, or institutionalized) at the time of the CHIS survey. Consequently, our estimates do not generalize to these marginalized populations who are known to experience discrimination in health care services.[49] Further, individuals who changed phone numbers in the intervening time between CHIS and Cal-QOL interview were generally lost to follow-up. Although we used a weighting approach to adjust for this occurrence, it may not have fully remedied loss to follow-up effects. Second, despite the population base of our sample, we had relatively small sample sizes for all of the racial/ethnic minority groups who reported use of mental health or substance abuse services in the past year. Although the small sample sizes are not surprising given the well-known racial/ethnic disparities in access to and use of mental health services,[20] this may have limited our ability to observe effects that would have been more apparent with a larger sample size. Moreover, the relatively small number of minorities reduces our ability to make statements specific to some racial/ethnic subgroups. For example, we were unable to examine separately the service experiences of Asians, American Indians, and Latino subpopulations in California. Third, some experiences of discrimination were not measured in the Cal-QOL that would inform our understanding of the mental health and substance abuse services of racial/ethnic minorities. Thus, additional research is needed that focuses on both the experiences and consequences of discrimination associated with criminal justice involvement, homelessness, or serious mental illness.[50] And finally, due to the cross-sectional nature of the data, we are unable to establish a causal link between discrimination in mental health/substance abuse services and reports of treatment dissatisfaction and stopped treatment. It may be the case that clients who are unhappy with their care are more likely to perceive that the provider is discriminating against them and to stop treatment early.

Despite these limitations, this study is among the few that provides empirically based insights into how perceptions of discrimination may be related to mental health/substance abuse treatment outcomes in a population-based sample. Our findings represent an important consideration for the implementation of ACA with its requirements to monitor patient satisfaction and well-being and to use comparative effectiveness research to aid in eliminating health disparities in those who use mental health or substance abuse services.

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