

A Collaborative Care Approach to Depression Treatment for Asian Americans

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Objective: This study examined effectiveness of collaborative care for depression among Asians treated either at a community health center that focuses on Asians (culturally sensitive clinic) or at general community health centers and among a matched population of whites treated at the same general community clinics. **Methods:** For 345 participants in a statewide collaborative care program, use of psychotropic medications, primary care visits with depression care managers, and depression severity (as measured with the nine-item Patient Health Questionnaire) were tracked at baseline and 16 weeks. **Results:** After adjustment for differences in baseline demographic characteristics, all three groups had similar treatment process and depression outcomes. Asian patients served at the culturally sensitive clinic (N=129) were less likely than Asians (N=72) and whites (N=144) treated in general community health clinics to be prescribed psychotropic medications. **Conclusions:** Collaborative care for depression showed similar response rates among all three groups. (*Psychiatric Services* 64:487–490, 2013; doi: 10.1176/appi.ps.001742012)

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Asian Americans are the fastest growing racial-ethnic group in America (1). Although Asian Americans may have lower rates of depression compared with other racial-ethnic groups, they face challenges in receiving effective mental health care (1,2), including refugee status, cultural barriers, and disparities in access to care (3). More than 40 randomized controlled trials have demonstrated effectiveness of collaborative care for depression in primary care (4–6). This model of care has been shown to be effective in general populations (4) and in certain racial-ethnic minority groups (African American or Latino) (7,8), but there is little information about effectiveness of collaborative care with Asian Americans.

The Mental Health Integration Program (MHIP) is a collaborative care program serving safety net populations in over 100 community health centers (CHCs) in Washington State (9). Since January 2008, MHIP has served more than 24,000 patients, including patients from diverse racial-ethnic groups. One participating community health center (CHC) focuses primarily on immigrant populations. As the largest CHC serving Asian Americans and Pacific Islanders in Washington State, this culturally sensitive CHC has a multicultural and multilingual staff that provides culturally appropriate and in-language health services to patients.

We used data from MHIP to examine differences in the patterns and outcomes of care among Asian patients served at the culturally

sensitive clinic and among Asian and white patients treated in clinics that serve predominantly non-Asian patients. We hypothesized that collaborative care would be effective at engaging Asian-American patients and that patients served in the culturally sensitive clinic would be more likely to be engaged in treatment.

Methods

Funded by the State of Washington and King County and administered by the Community Health Plan of Washington State in collaboration with Public Health of Seattle and King County, MHIP provides integrated mental health services for safety net populations through a network of CHCs (integratedcare-nw.org). The CHCs use a collaborative team approach that includes a primary care provider, care coordinator based in the primary care clinic, and consulting psychiatrist. Care coordinators and consulting psychiatrists use a Web-based care management tracking system (CMTS) adapted from an earlier research trial (6) to monitor the care and outcomes of patients. Validated questionnaires, such as the nine-item Patient Health Questionnaire (PHQ-9) (10), are used to track clinical outcomes. For non-English-speaking patients, either the care coordinator or a clinic translator works with the patient to complete the PHQ-9 ratings. Intake and follow-up contacts are documented in the tracking system in real time, which allows for a prospective examination of treatment processes and clinical outcomes.

Treatment is standardized across participating clinics through shared training materials and processes and documentation of initial and follow-up care in structured encounter forms presented by CMTS. All clinics are evaluated with a shared set of quality aims that have been associated with improved treatment outcomes (9).

We included all eligible adult Asian patients and a comparison sample of white patients who participated in MHIP between 2008 and 2010 and had significant depression (an intake PHQ-9 score of ≥ 10) (10,11). The final sample comprised 129 Asian patients served in the culturally sensitive clinic, 72 Asian patients served in 12 general clinics that serve the general population, and 144 age- and gender-matched white patients served in the same general clinics. Our analyses were conducted with deidentified data extracted from the CMTS in early 2011 to ensure that each patient had at least 16 weeks of potential observation time after MHIP enrollment. The data were collected for quality improvement activities that were not considered research; thus individual patient consent was not required by the University of Washington's Institutional Review Board.

Treatment processes examined included psychiatric case reviews, receipt of psychotropic medications, and number of follow-up contacts with a care coordinator during a 16-week period after program enrollment. The PHQ-9 (10,11) was used to measure depression severity at baseline and follow-up assessments. Depression improvement at 16 weeks—a sufficient amount of time to support at least one complete treatment trial (10)—was examined with a last-observation-carried-forward approach. Depression improvement was defined as achieving a PHQ-9 score < 10 or a $\geq 50\%$ reduction from baseline at 16-week follow-up assessment.

Other sample characteristics, based on self-report at intake, included age, gender, problems with social support, and unstable housing. A probable anxiety disorder was defined as a score ≥ 10 on the seven-item Generalized Anxiety Disorder scale (10) or a pre-

viously documented anxiety disorder diagnosis. Data on thoughts of suicide or death were obtained through self-report or an endorsement at baseline of a score ≥ 1 on item 9 of the PHQ-9 (“thoughts that you would be better off dead, or of hurting yourself in some way”).

Descriptive analyses included chi square tests and t tests for comparison of baseline characteristics. To examine whether there were differences in treatment process and depression outcomes between Asians served in the culturally sensitive clinic and Asian patients served in the general clinics and between Asian patients and white patients served in general clinics at follow-up, adjusted means of outcome measures were estimated and tested (any follow-up contact in four weeks of treatment, number of follow-up contacts in 16 weeks, and depression improvement at 16 weeks). Estimates were adjusted for baseline age, gender, PHQ-9 score, anxiety, suicidal thoughts, problems with social support and housing, and length of treatment. We applied mixed-effects logistic modeling for binary outcomes and mixed-effects Poisson modeling for count of follow-up contacts, taking into account nesting of patients within participating CHCs. Analysis was completed with Stata, version 11.

Results

There were no significant differences in baseline PHQ-9 depression scores among the three populations studied (Table 1). Asians served at the culturally sensitive clinic were significantly older than Asians in the general clinics and somewhat less likely to have comorbid anxiety. There were no significant differences between groups with regard to gender, suicidal thoughts, problems with social support, or unstable housing.

After adjustment for differences in baseline characteristics, all three groups had similar treatment processes and depression outcomes (Table 2). Depression improvement was achieved at 16 weeks for an average of 28% of the patients evaluated in this study. The rate of improvement was slightly higher for Asians in the culturally sensitive clinic (35%) than

for Asians served in general clinics (24%) or for age- and gender-matched whites (22%), but these differences were not statistically significant. Asians served in the culturally sensitive clinic were significantly less likely to receive psychotropic medications than Asians served in general clinics (51% versus 67%; $p \leq .05$).

Discussion

Our study demonstrates that collaborative care in CHCs was similarly effective for Asian Americans and whites. This finding is consistent with other studies showing that persons in racial-ethnic minority groups benefit from collaborative care in community health clinics (7,8,12). The overall response rate observed at 16 weeks is slightly higher than published depression response rates from patients receiving treatment at public-sector clinics (13) and slightly lower than improvement rates reported from private psychiatry practices (14). A longer observation time in future studies may result in higher response rates, according to a recent study that used the same data source and reported that depression improvement did not occur until an average of 24 weeks (9).

Study limitations include the fact that we were not able to characterize the diversity of Asian-American groups represented in this sample, which makes generalization to Asian populations imprudent. The fact that the population of patients served in the culturally sensitive clinic included approximately 40% Chinese and 25% Vietnamese patients, who spoke mainly Cantonese (30%), Vietnamese (25%), and English (22%), would suggest that a large percentage of patients included in this study were Chinese and Vietnamese and that the collaborative care program was able to engage non-English-speaking clinic patients. Future research in which more detailed racial-ethnic data are collected would be useful.

Despite the limitations of this study, several important findings emerged in regard to providing mental health care for Asian populations. For example, Asians in the culturally sensitive clinic were less likely to

Table 1

Baseline sample characteristics of Asians and a matched group of whites treated for depression at community health centers, by clinic type

Variable	Total (N=345)		Culturally sensitive clinic (N=129 Asians)		General clinics				P	
					Asians (N=72)		Whites (N=144)			
	N	%	N	%	N	%	N	%	Asians: culturally sensitive vs. general clinics	Asians vs. whites at general clinics
Age (mean±SD)	44.9±14.3		51.4±16.1		41.4±11.8		40.9±11.3		<.001	.74
Sex									.36	1.00
Male	107	31	35	27	24	33	48	33		
Female	238	69	94	73	48	67	96	67		
PHQ-9 score (mean±SD) ^a	16.8±4.6		17.1±5.0		16.4±4.6		16.7±4.3		.33	.64
Depression severity ^a									.04	.91
Moderate	249	72	47	36	16	22	33	23		
Severe	96	28	82	64	56	78	111	77		
Anxiety diagnosis									.02	.003
Yes	180	52	42	33	36	50	102	71		
No	165	48	87	67	36	50	42	29		
Suicidal thoughts									.79	.77
Endorsed	186	54	69	54	40	56	77	54		
Not endorsed	159	46	60	46	32	44	67	46		
Problems with social support ^b									.21	.27
Endorsed	124	40	61	49	23	39	40	31		
Not endorsed	190	60	64	51	36	61	90	69		
Unstable housing ^c									.06	.53
Endorsed	148	46	76	60	28	46	67	51		
Not endorsed	171	54	50	40	33	54	65	49		

^a With cutoffs defined by Kroenke and colleagues (10) for the nine-item Patient Health Questionnaire (PHQ-9), scores ≥10 and <20 indicate moderately severe depression and scores ≥20 indicate severe depression.

^b A total of 31 patients did not provide information on social support problems, including four Asian patients from the culturally sensitive clinic, 13 Asian patients from general clinics, and 14 white patients from general clinics.

^c A total of 26 patients did not provide information on housing problems, including three Asian patients from the culturally sensitive clinic, 11 Asian patients from general clinics, and 12 white patients from general clinics.

Table 2

Treatment process and depression outcomes for Asians and a matched group of whites, by clinic type^a

Variable	Total (N=345)		Culturally sensitive clinic (N=129 Asians)		General clinics				p	
	M	SE	M	SE	Asians (N=72)		Whites (N=144)		Asians in culturally sensitive vs. general clinic	Asians vs. whites at general clinics
					M	SE	M	SE		
Any follow-up contacts										
4 weeks	.63	.09	.61	.20	.71	.09	.60	.08	.62	.20
16 weeks	.79	.07	.77	.17	.87	.06	.78	.07	.53	.15
Outcome at 16 weeks										
Number of follow-up contacts	2.91	.95	2.92	2.17	2.68	.65	3.00	.69	.91	.23
≥5 follow-up contacts	.26	.05	.24	.10	.27	.07	.27	.06	.83	.98
Any psychiatric case review	.55	.09	.59	.20	.45	.10	.54	.09	.52	.27
Any psychiatric medication receipt	.60	.03	.51	.05	.67	.06	.66	.05	.05	.88
Achieved depression improvement ^b	.28	.03	.35	.06	.24	.07	.22	.05	.28	.75

^a Estimates were adjusted for age, gender, baseline nine-item Patient Health Questionnaire score, anxiety disorder, suicidal thoughts, problems with social support, problems with housing, and length of treatment in the model.

^b Defined as achieving a score <10 or a ≥50% reduction from the baseline score on the nine-item Patient Health Questionnaire

receive psychotropic medications than those in general clinics but had clinical outcomes that were at least as good as those served in other clinics. Asian Americans may be less comfortable than white Americans with the notion of taking a psychotropic medication (15), and providers in the culturally sensitive clinic may be sensitive to this preference. Alternatively, Asian Americans served in general clinics may have been somewhat more acculturated than Asians served in the culturally sensitive clinic and thus more accepting of medications.

Although all three groups had similar reductions in depression, the larger group of Asian patients received treatment at the culturally sensitive clinic (129 versus 72), indicating that the specialty clinic was able to engage almost twice as many Asian Americans as engaged by the equivalent of nearly ten general community health clinics in the same geographic area. Our findings are consistent with a recent study (12) that showed that collaborative care was effective in engaging and treating Chinese Americans. The culturally sensitive clinic has a strong commitment to community outreach programs to engage Asian and other immigrant populations in primary care, and it provided care that was at least as effective as that provided in other clinics. Future research and quality improvement efforts might explore prescribing practices in the culturally sensitive clinic and encourage use of psychotropic medications for patients who are not improving with psychosocial interventions alone. On the other hand, lessons from engagement and treatment approaches at the culturally sensitive clinic might provide important strategies for the engagement

and care of Asian Americans in other community health clinics.

Conclusions

Collaborative care for depression in community health clinics was equally effective for Asian Americans as for age- and gender-matched whites. Culturally sensitive clinics that treat Asian Americans may be particularly well positioned to engage and care for this population.

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