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Preferences for Professional Assistance for Distress in a Diverse Sample of Older Adults

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Abstract

Older adults (N=140; 68.6% minority) participating in community health screenings reported their use and preferences for various professionals and services to deal with distress. Race/ethnicity was recorded based on self-report. A third of participants had discussed distress with some professional within the past year. Compared to Whites, Asian and Black elders were less likely to see a mental health professional or receive counseling in the past year. Almost all participants (89.3%) were willing to discuss distress with some professional; most preferred medical (37.9%) or religious professionals (21.4%). Fewer Asians expressed willingness across most professionals and services. Findings support efforts to integrate mental health with other services, and suggest the need for additional strategies to enhance willingness to use mental health services, especially for Asian elders.

Keywords

mental health services; treatment preferences; race/ethnicity; older adults

Mental health problems affect a significant number of community-dwelling older adults, including approximately 11.4% with an anxiety disorder, 3.8% with major depressive disorder and an additional 10-20% with clinically significant depressive symptoms (DHHS, 1999). Fortunately, effective treatments for these problems exist, in the forms of psychotropic medication and psychotherapy (Charney et al., 2003). Mental health needs go unmet for the majority of older adults, however (Klap, Unroe, & Unützer, 2003). Left

untreated, these disorders can have devastating effects, including increased morbidity, all-cause mortality, and the highest suicide rate of any age group (Charney et al., 2003).

As with other health conditions, disparities across racial and ethnic backgrounds exist for mental health service use. Compared to White older Americans, older minority Americans are significantly less likely to have their mental health needs met (Crystal et al., 2003; Wang, Schneeweiss, et al., 2005). This disparity in mental health service utilization likely is influenced by a number of factors. One issue is cost; among Medicare recipients, lack of supplemental insurance is related to lower rates of depression diagnosis and treatment (Crystal et al., 2003). Also important are professionals' attitudes, such as beliefs in treatment efficacy and professionals' expectations about older adults' willingness to use services (Areán, Alvidrez, Feldman, Tong, & Shermer, 2003).

In addition to practical barriers and professional characteristics, older adults' preferences for services may partially contribute to elders' service use. Older adults are more likely than younger adults value self-reliance in managing mental health issues (Wetherell et al., 2004), although many older adults report being accepting of mental health services (Areán, Alvidrez, Barrera, Robinson, & Hicks, 2002). Older adults are more likely to use services that match their preferences (Rokke, Tomhave, & Jovic, 1999; Thompson & Scott, 1991). It is now well documented that most older adults prefer to initiate discussions about mental health problems with their primary care provider (Areán, Hegel, & Reynolds, 2001). Many older adults will accept both psychotherapy and medications (Areán et al., 2002), but they generally prefer psychotherapy (Unützer et al., 2002), which is rarely offered in primary care settings.

Research on older minorities' preferences is limited. One study reported that, compared to Whites, older African Americans had a greater preference for seeking support from a spiritual leader and family and friends (Dupree, Watson, & Schneider, 2005). In another study of older primary care patients in a depression treatment study, no racial or ethnic difference in preference for counseling or medication was found (Gum et al., 2006). Research with younger minorities has suggested greater stigma compared to Whites (Cooper-Patrick et al., 1997) and, among those willing to participate in some form of treatment, a preference for counseling (Cooper et al., 2003; Dwight-Johnson, Sherbourne, Liao, & Wells, 2000; Givens, Houston, Van Voorhees, Ford, & Cooper, 2007).

Most studies have focused on African American and Hispanic minority groups, although Asian American groups also demonstrate underutilization of services (Chen, Sullivan, Lu, & Shibusawa, 2003). Moreover, few studies have examined minority elders' use and preferences for complementary or alternative medicine approaches, despite high use of some methods by older adults for various purposes (Ness, Cirillo, Weir, Nisly, & Wallace, 2005), and emerging evidence in recent years of non-prescription herbal remedies that may have an impact on mood (Linde, Berner, Egger, & Mulrow, 2005). Therefore, the main objective of the current study was to investigate recent service use (i.e., within the past year) and future treatment preferences in relation to race/ethnicity for a diverse sample of older adults regarding a wide range of service professionals and treatment modalities, including alternative medicine and other nontraditional interventions. A better understanding of service use and preference patterns across racial and ethnic groups could lead to more effective pre-treatment strategies to improve elders' service use.

Methods

Sample and Recruitment

A total of 140 older adults (age 60+) were recruited from free community health screening programs for older adults in the cities of Albany, Berkeley, El Cerrito, and Oakland, California. Older adults voluntarily attended the health screening at senior centers, community centers, or their residential facilities. Both English- and Spanish-speaking elders were recruited. This study was approved by the Institutional Review Board of the University of California, San Francisco.

Measures

Demographics—Participants' age, sex, education, marital status, living arrangements (alone or not), and poverty status (above or below limit; \$738.33/month if single, \$995.00/month if married) were recorded. Participants were grouped into four categories based on their self-reported race/ethnicity: White, Black, Asian, and "other".

Health information—Participants reported their perceived overall health status (poor, fair, good, very good, excellent; coded 1-5). During the health screening that preceded this study's survey administration, the nurse recorded information regarding participants' medical diagnoses and medications as well as limitations in activities of daily living (ADLs) and instrumental ADLs (IADLs).

Distress—Participants rated frequency of distress ("sadness or stress") within the past week: rarely or none of the time (<1 day), some or little of the time (1-2 days), occasionally or moderate amount of the time (3-4 days), or most or all of the time (5-7 days).

Recent service use—"Recent" use of mental health services was defined as use of any services within the past 12 months, using an author-constructed survey (available upon request from the first author). To assess recent service use, participants were asked about treatment experience with a variety of health care and social service professionals to deal with stress or sadness. The list of professionals included the following: psychologist/therapist/counselor, psychiatrist, social worker, case manager, physician (non-psychiatrist), nurse, emergency room personnel, religious/spiritual leader, alternative medicine practitioner, and volunteer. For each professional, the participant responded "yes/no" to whether they had ever seen that professional to deal with stress or sadness. For all professionals that the participant had seen, they were then asked about treatment modalities used: prescribed medications, over-the-counter medications, counseling or talk therapy, case management, referral to a mental health professional, or "brief support" (defined as brief encouraging communication lasting a few minutes). Participants also had the option to specify "other" professionals and treatment modalities.

Prior service use—"Prior" service use was defined as use of any mental health services prior to the past 12 months, using the same questions as for "recent" service use described previously.

Future treatment preferences—Next, participants were asked about their future preferences. Using the same list of professionals and treatment modalities from the "Recent" and "Prior Service Use" sections, participants first indicated willingness to use each option. Then, for each option they were willing to try, they were asked to rank their preference (1st choice, 2nd choice, etc.). Participants had the opportunity to specify "other" professionals. The first choice for professional and treatment modality was then defined as the "most preferred".

Procedures

First, the survey was pilot tested with older adults from the same source as the sample. Feedback about phrasing of questions and suggestions for additional questions were incorporated into the final survey. The final survey was translated into Spanish by a professional translator and back-translated to English by a second professional translator, with minor modifications as needed. The Spanish survey was pilot tested and revised according to feedback from three Spanish-speaking adults, one of whom works with the sample population.

At the end of the regular health screening, the nurse conducting the screening asked each participant to consider participating in the study. For interested individuals, the research interviewer completed the informed consent process. All survey questions were administered orally in a quiet, separate area at the health screening location. Other than education level and overall perceived health, all other demographic and health related information was recorded from the nurse's health screening forms (with participants' written permission).

Data analyses

Descriptive statistics were calculated for all variables. Professionals were grouped into four categories: mental health (psychologist/therapist/counselor, psychiatrist); medical (doctor, nurse, emergency room personnel); social service (social worker, case manager); and religious. These categories have been used in prior research, including the Epidemiological Catchment Area study (Narrow, Regier, Rae, Manderscheid, & Locke, 1993). "Formal mental health treatment" was defined as use of prescribed psychotropic medication or counseling. These two treatment modalities were chosen because they are the two forms of treatment that evidence has shown to be effective in general (Charney et al., 2003).

There were three categories of outcome variables that were examined in detail in relation to race: recent service use, future willingness to use and most preferred. "Recent service use" variables included use of the following professionals and treatment modalities within the past 12 months (dichotomized as yes/no): any professional; mental health professional; medical professional; social service professional; religious professional; any formal treatment; psychotropic medications; and counseling. "Future willingness to use" variables included willingness to use each of the following professionals and treatment modalities (dichotomized as yes/no): any professional; mental health professional; medical professional; social service professional; religious professional; any formal treatment; psychotropic medications; and counseling. "Most preferred" variables were most preferred professional and treatment modality.

To examine each outcome variable from the "recent service use" and "future willingness" categories in relation to race, chi-square analyses were conducted including all racial categories simultaneously. Fisher's exact tests were conducted instead of chi-square for variables in which any observed or expected values were <5. Inferential statistics were not conducted with the "most preferred" modality or location, given the large number of cells and small sample size.

Next, multivariate logistic regression analyses were conducted to examine the independent association between race and "future willingness" to seek treatment from particular professionals (any, medical, mental health) and to use particular treatment modalities (any formal treatment, counseling), after adjustment for potential confounders. In addition to race, potential confounders were selected for inclusion as covariates in regression models if they were related to the outcome variable in question in bivariate analyses (chi-square for dichotomous variables and t-tests for continuous variables) at the $p < .05$ level.

Results

Description of Sample

Table 1 provides a description of the sample ($N = 140$), which was primarily female (72.1%) and racial and ethnic minorities (68.6%). Most participants were Black (41.4%), White (31.4%), or Asian (17.9%). The “other” category (9.3%) included eight Hispanic participants and five individuals whose race was listed as “other”. A total of 37 individuals refused to participate in the study (64.9% female; 54.1% Black, 18.7% White, 16.2% Asian, 10.8% other). Most common reasons reported were lack of time (51.4%), not interested (16.2%), or did not want to discuss mental health (10.8%). One person who declined to provide race/ethnicity information was excluded from the analyses, resulting in $N = 140$.

Despite being recruited from primarily lower income locations, the sample was relatively well-educated; 80.9% had at least a high school education. A sizeable minority experienced distress at least three days during the previous week (22.1%), with 12.1% experiencing distress most days during the previous week.

Racial/Ethnic Differences in Recent Service Utilization

Table 2 provides a description of professionals and services that participants had recently used for stress or sadness by race/ethnicity. Overall, approximately one-third (32.9%) had addressed stress or sadness with a professional within the past year, and 16.4% had received formal treatment (prescribed medication or counseling). In Fisher’s exact tests, race differences were found for having seen a mental health professional (psychologist/therapist/counselor or psychiatrist; $p = .004$) and use of counseling ($p = .009$). For these variables, the highest use was reported by the “other” group, with Whites intermediate, and Blacks and Asian Americans reporting the lowest service use. The two “other” professionals seen included a psychic and someone who had attended a health related retreat.

Racial/Ethnic Differences in Future Preferences

Table 3 presents information on participants’ future willingness to receive services. Nearly 90% of participants stated they would be willing to see a professional if they were having problems with stress or sadness. Only three individuals identified “other” professionals they would be willing to see: physical therapist, social health coordinator, and psychic. Significant race differences were found for willingness to see any professional in Fisher’s exact tests ($p = .004$), as well as each professional category ($p < .05$) except volunteers. Likewise, race differences were significant for willingness to try any formal treatment and specifically for counseling and support groups ($p < .01$ for both). The predominant pattern across all significant results for future preferences was that Asian elders were less likely than other races to be willing to use various professionals and treatments, except for volunteers, which was low for all groups, and medications. Black elders were more likely to be willing to see spiritual professionals than other elders, and the “other” group tended to be less willing to see medical professionals, compared to White and Black elders.

Figures 1 and 2 depict most preferred providers and modalities by race/ethnicity. Most participants selected a medical professional (non-psychiatrist) as first choice (37.9%), with the second largest group selecting religious leader as their first choice (21.4%). The most preferred treatment modality was counseling (32.1%), with prescription medications as second choice (19.3%). Over-the-counter medications were rarely preferred (3.6%). Alternative medicine was not included as a major category because of the low preferences ($N = 5$ listed alternative medicine as “most preferred”). For the most preferred professional, descriptive statistics (Figure 1) suggest that Asians were more likely to prefer medical professionals and that Black elders more often preferred a religious leader.

Table 4 displays the results from multiple logistic regression analyses investigating associations between race and specific outcomes associated with race in bivariate analyses: willingness to see any professional, medical professional, mental health professional, use of any formal treatment, and counseling. The following covariates were included in different regression models, based on associations with model-specific outcomes in bivariate analyses: age, sex, education, marital status, living arrangements, poverty status, health status, distress, and “any past” service use (“prior service use” or “recent service use” combined). Results of multivariate analyses indicated that any past use of each service, except “mental health professional”, was related to each “future willingness” outcome. Fewer Asian elders than Whites were willing to see a mental health professional, medical professional, or use counseling. The only other race difference was that the “other” group had lower willingness to see a medical professional. In bivariate analyses, older age was related to lower willingness to see any professional, a mental health professional, and to seek any formal treatment and counseling, although results of multivariate analyses indicated that only a trend remained between age and willingness to see a mental health professional and to seek any formal treatment and counseling. The associations between age and willingness to see any professional or a medical professional were nonsignificant. Individuals with higher education were more likely to be willing to see a mental health professional. In multivariate analyses, distress did not predict willingness across any of the professionals or modalities, even for any formal treatment, for which it was related in a bivariate relationship.

Discussion

The current study extends previous findings on minority elders’ preferences for mental health services by including a wide range of professionals and treatment modalities. A number of participants reported discussing distress with a professional in the past year (33%), and 16% had received either prescription medications or counseling. Differences by racial groups for service use within the past year were limited to mental health professionals and counseling, with lower use by Blacks and particularly low use by Asians, compared to Whites. The fact that there were no racial differences for medical professionals, the most commonly seen type of professional, was encouraging. Adults tend to receive higher quality care from mental health professionals (Wang, Lane, et al., 2005), however, suggesting that these elders who receive less specialty mental health care may receive lower quality care. Efforts to integrate mental health into primary care and other medical settings (e.g., Unützer et al., 2002) may significantly reduce this health disparity while providing high quality care.

Almost all participants reported willingness to discuss distress with some type of professional. The overall pattern of preferences replicates prior research, showing the highest preferences for primary care physicians, religious professionals, and counseling. Fewer participants preferred alternative medicine or other types of professionals than was expected, suggesting that most older adults prefer to rely on more traditional sources for mental health care, even though they may use alternative medicine approaches for other purposes (Ness et al., 2005). Prior service use was the primary predictor of most preferences, consistent with past research (Gum et al., 2006). This suggests additional efforts likely are necessary for older adults with no prior experience in mental health treatment to socialize them to the rationale and nature of mental health services.

Racial differences were found for future willingness to use various services, particularly for Asian elders, who were least likely to report willingness to use a variety of professionals or treatments. Due to their lower past service use, they may require additional efforts at psychoeducation and motivational techniques to accept mental health services. Although Black elders tended to use fewer services than Whites, they did not express lower

willingness for services. Thus, efforts to improve Black elders' service use may need to focus on other potential barriers, such as finances and lack of insurance coverage, as well as collaboration with religious leaders, who were a more highly preferred professional for this group, replicating past research (Dupree et al., 2005).

Based on these findings and previous research, primary care physicians and religious leaders serve as important "gatekeepers" to formal mental health services, given that many older adults prefer to seek assistance from these and other health professionals, rather than mental health professionals. Thus, they are important collaborators to assist with delivering psychoeducation and motivational strategies when mental health services are indicated. A few studies have evaluated psychoeducational pre-treatment programs to motivate older adults to accept mental health services. These programs should include a brief overview of what to expect in treatment (Alvidrez, Areán, & Stewart, 2005); another important element seems to be identifying and addressing individual barriers to treatment (Sirey, Bruce, & Alexopoulos, 2005). Current programs appear to improve older adults' retention in mental health services but not initial entry (Alvidrez et al., 2005; Sirey et al., 2005). This type of information can be delivered through personal conversations or the various brochures and videos that have been developed. More research is needed on motivational strategies to modify attitudinal barriers, such as stigma. Given the different patterns of prior service use and preferences across racial groups found in this study, it likely will be important to tailor these interventions for different cultural groups.

Unfortunately, despite the availability of Spanish surveys and a fluent Spanish-speaking interviewer, very few Hispanic elders were in the sample. This likely is due to the convenience nature of the sample, and the fact that Spanish-speaking staff was not always available to conduct health screenings in predominantly Spanish-speaking locations, thus limiting our access to this population. Given the growing numbers of Hispanic elders in the United States, this is an important group worthy of more extensive research. Another limitation is that the actual quality of mental health services received by participants in this study is unknown, although we chose to limit our definition of formal mental health treatment to prescription medications and psychotherapy, as they are the two forms of treatment that evidence has shown to be effective in general (Charney et al., 2003).

In conclusion, overall the findings are positive in that the vast majority of elders expressed willingness to use some type of service for distress. This observation suggests that, whereas some groups may require additional psychoeducation and motivation, other factors may serve as larger barriers to service use than preferences. Perhaps the most important limitation to note is that people frequently do not do what they say they will do. Thus, future study of the decision-making process of older adults actually considering mental health services is critical. For example, one important factor may be whether older adults recognize their distress and believe it severe enough to warrant treatment. Older adults who believe that depression is a "normal" part of aging are less likely to seek services (Sarkisian, Lee-Henderson, & Mangione, 2003). With a better understanding of these decision-making processes, we can refine pre-treatment motivational strategies that address the most pertinent issues for distressed elders in need of assistance.

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Biography

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Figure 1. Most preferred professional by race/ethnicity

Note: None = not willing to see any. No preference = willing to see some professionals, but refused to identify preferences.

Figure 2. Most preferred treatment modality by race/ethnicity

Note: None = not willing to use any. No preference = willing to try some treatment types, but refused to identify preferences.

Table 1

Sample Description (N = 140)

Characteristic	M ± SD or N(%)
Sex	
Male	39 (27.9)
Female	101 (72.1)
Age	76.48 ± 7.56
Race	
White	44 (31.4)
Black	58 (41.4)
Asian	25 (17.9)
Other	13 (9.3)
Education (years)	12.98 ± 3.38
Live alone (yes)	107 (76.4)
Married (yes)	24 (17.1)
Poverty (yes)	25 (17.9)
Self-rated health	
Poor	11 (7.9)
Fair	43 (30.7)
Good	52 (37.1)
Very Good	26 (18.6)
Excellent	8 (5.7)
ADL limitations	
0	128 (91.4)
1	8 (5.7)
2-3	3 (2.1)
4+	1 (0.7)
IADL limitations	
0	89 (63.6)
1	19 (13.6)
2-3	15 (10.8)
4+	17 (12.1)
# of prescription meds	3.17 ± 2.3
# of OTC meds	1.61 ± 1.5
# of health conditions	2.06 ± 1.6
Frequency of distress	
<1 days/week	77 (55.0)
1-2 days/week	31 (22.1)
3-4 days/week	14 (10.0)
5-7 days/week	17 (12.1)

Table 2

Professionals and services utilized within the past year by race (N = 140)

Variable N(%) [†]	Total (N=140)	White (N=44)	Black (N=58)	Asian (N=25)	Other (N=13)
Professional: Any	46 (32.9)	15 (34.1)	20 (34.5)	6 (24.0)	5 (38.5)
Mental health *	12 (8.6)	6 (13.6)	2 (3.4)	0	4 (30.8)
Medical	30 (21.4)	10 (22.7)	12 (20.7)	6 (24.0)	2 (15.4)
Social	14 (10.0)	4 (9.1)	6 (10.3)	2 (8.0)	2 (15.4)
Spiritual	13 (9.3)	6 (13.6)	5 (8.6)	1 (4.0)	1 (7.7)
Alternative medicine	6 (4.3)	4 (9.1)	2 (3.4)	0	0
Volunteer	2 (1.4)	0	1 (1.7)	0	1 (7.7)
Other	2 (1.4)	2 (4.5)	0	0	0
Treatment: Prescribed med	16 (11.4)	6 (13.6)	6 (10.3)	1 (4.0)	3 (23.1)
OTC med	3 (2.1)	1 (2.3)	1 (1.7)	1 (4.0)	0
Counseling *	12 (8.6)	7 (15.9)	2 (3.4)	0	3 (23.1)
Case management	10 (7.1)	1 (2.3)	5 (8.6)	2 (8.0)	2 (15.4)
Referral to MH prof	7 (5.0)	4 (9.1)	1 (1.7)	1 (4.0)	1 (7.7)
Brief support only [‡]	12 (8.6)	4 (9.1)	6 (10.3)	2 (8.0)	0
Any formal [§]	23 (16.4)	10 (22.7)	8 (13.8)	1 (4.0)	4 (30.8)

* p .01 in Fisher's exact tests.

[†] All percentages are across race/ethnicity category. Some participants reported receipt of services from more than one category.

[‡] "Brief support" was defined as encouraging communication of a minute to a few minutes.

[§] "Any formal" treatment was defined as prescribed medication or counseling.

Table 3

Future willingness to use professional or treatment modality (N = 140)

Variable N(%) [†]	Total (N=140)	White (N=44)	Black (N=58)	Asian (N=25)	Other (N=13)
Professional: Any**	125 (89.3)	42 (95.5)	55 (94.8)	18 (72.0)	10 (76.9)
Mental health***	89 (63.6)	31 (70.5)	44 (75.9)	6 (24.0)	8 (61.5)
Medical**	117 (83.6)	40 (90.9)	53 (91.4)	17 (68.0)	7 (53.8)
Social*	74 (52.9)	24 (54.5)	35 (60.3)	7 (28.0)	8 (61.5)
Spiritual**	83 (59.3)	24 (54.5)	44 (75.9)	7 (28.0)	8 (61.5)
Alternative med**	47 (33.6)	19 (43.2)	23 (39.7)	2 (8.0)	3 (23.1)
Volunteer	48 (34.3)	17 (38.6)	24 (41.4)	3 (12.0)	4 (30.8)
Other	3 (2.1)	1 (2.3)	1 (1.7)	1 (4.0)	0
Treatment: Prescribed med	85 (60.7)	23 (52.3)	43 (74.1)	12 (48.0)	7 (53.8)
OTC medication	40 (28.6)	12 (27.3)	17 (29.3)	8 (32.0)	3 (23.1)
Counseling***	97 (69.3)	34 (77.3)	47 (81.0)	8 (32.0)	8 (61.5)
Support group**	81 (57.9)	30 (68.2)	37 (63.8)	7 (28.0)	7 (53.8)
Case management	60 (42.9)	22 (50.0)	25 (43.1)	8 (32.0)	5 (38.5)
Any formal [‡]	113 (80.7)	38 (86.4)	52 (89.7)	14 (56.0)	9 (69.2)

*
p .05,

**
p .01,

p .001 in chi-square (or Fisher's exact if any cells had expected or observed values <5).

[†] All percentages are across race/ethnicity category. Some participants reported receipt of services from more than one category.

[‡] Any formal treatment was defined as prescribed medication or counseling.

Table 4

Logistic regression results for future willingness to use services

Variable	OR (95% CI)	p
<i>Any professional</i>		
Age	.95 (.87-1.04)	.281
Past professional (any) [†]	5.83 (1.18-28.9)	.031
Race (Ref = White)		.047
Black	1.14 (.17-7.54)	.895
Asian	.20 (.04-1.12)	.067
Other	.18 (.02-1.45)	.107
<i>Med professional</i>		
Past Med Professional [†]	13.51 (1.7-107.83)	.014
Race (Ref = White)		.005
Black	1.36 (.33-5.55)	.673
Asian	.22 (.06-.89)	.034
Other	.16 (.03-.75)	.020
<i>MH professional</i>		
Age	.95 (.89-1.01)	.096
Education (years)	1.18 (1.03-1.36)	.020
Past MH Professional [†]	2.14 (.74-6.22)	.163
Race (Ref = White)		.005
Black	2.62 (.87-7.88)	.087
Asian	.28 (.08-.99)	.048
Other	.77 (.19-3.21)	.720
<i>Counseling</i>		
Age	.94 (.89-1.00)	.053
Past Counseling [†]	4.87 (1.44-16.45)	.011
Race (Ref = White)		.003
Black	1.91 (.66-5.52)	.235
Asian	.23 (.07-.76)	.016
Other	.54 (.13-2.29)	.404
<i>Formal treatment[‡]</i>		
Age	.94 (.88-1.01)	.084
Distress	1.28 (.74-2.20)	.381
Past Formal Treatment [†]	4.61 (1.18-17.20)	.028
Race (Ref = White)		.025
Black	2.14 (.58-7.92)	.256
Asian	.39 (.11-1.38)	.143
Other	.37 (.07-1.81)	.218

* The covariates listed in the table were significantly related to the outcome at $p .05$ in bivariate analyses. All other covariates were not significant in bivariate analyses.

[†]“Past” use refers to any past use (prior to past year or within past year combined) of the professional or service.

[‡]“Any formal” treatment was defined as prescribed medication or counseling.