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Race/Ethnicity and Other Social Determinants of Psychological Well-being and Functioning in Mental Health Clinics

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Conflicts of Interest

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Abstract

Significant racial and ethnic differences exist in the receipt of psychiatric care and help-seeking. We examined the relationship between race/ethnicity and psychological well-being and functioning in psychiatric outpatients. We analyzed intake data for 8,697 adult patients in psychiatry clinics in New England between 2008 and 2010. Patients rated psychological wellbeing using the Schwartz Outcome Scale (SOS-10); clinicians rated the Global Assessment of Functioning (GAF). In an analysis of variance with covariates, race/ethnicity exhibited a small but statistically significant association with GAF ($F(4,8481)=17.902$, $p<.001$) and SOS-10 scores ($F(4,8165)=7.271$, $p<.001$). However, after adjustment for physical health and socioeconomic variables, these differences became insignificant or were reversed. Our findings suggest that the relationship between race/ethnicity and mental health may be confounded by other socioeconomic or health differences and may be small compared with the effect of those variables. Future studies on race and psychological well-being should take social determinants of health into consideration.

Keywords

Mental health; minority health; health status disparities; social determinants of health

The existence of disparities between different racial or ethnic groups in the receipt of mental health care in the U.S. is well established.¹ Research has found that members of racial and ethnic minority groups are less likely than Whites to be seen in specialty mental health services,^{2,3} take antidepressants,^{3,4} receive adequate and/or guideline-concordant care,⁵ or follow up with mental health treatment.⁶

Furthermore, there is evidence that members of different racial groups show different patterns of help-seeking for psychiatric problems from Whites. For example, Asians may delay longer before seeking help for mental illness^{6,7,8} and are less likely to receive mental health services even when they have a probable DSM-IV diagnosis.⁹ Perhaps for related reasons, Asians who use mental health services tend to be more psychiatrically ill than Whites.¹ Perception of need may be affected by race/ethnicity as well. Kimerling and Baumrind found that Asian and Latina women were less likely to perceive a need for mental health services than White women; among women with perceived need, Asians and African American women were less likely to seek help.¹⁰ Similarly, in a study in which parents and providers rated the perceived impairment and need for treatment of children with Latino or Anglo names in patient vignettes, among patients with higher severity of illness, those with Anglo names were rated more in need of services by both parents and providers.¹¹ Other research has found that members of racial and ethnic minority groups are less likely than Whites to prefer to seek initial mental health treatment from specialists as opposed to their primary care provider.¹²

Based on these findings, we hypothesized that members of certain racial or ethnic minority groups might be more psychiatrically ill by the time they are seen in specialty mental health clinics. If they are more reluctant to visit psychiatric clinics, perhaps they experience more severe symptoms before deciding (or being advised) to seek specialty care. Alternatively, if

they experience longer delays before being referred,⁶ their psychiatric condition might have deteriorated more by the time they are seen in specialty clinics.

To investigate this hypothesis, the current study examined data from the specialty mental health clinics of a large, urban, multi-hospital system to compare self-reported psychological well-being and clinician-reported functioning at the time of intake between racial or ethnic groups. We also evaluated the relationship of these measures to other demographic, socioeconomic, and health-related variables.

Methods

Data were drawn from a preexisting institutional review board (IRB)-approved data set, consisting of questionnaires administered to patients in the outpatient psychiatry departments of a large urban integrated delivery system in New England. Starting between 2005 and 2006, in response to a brief payer-mandated outcome measurement program, new patients were asked at baseline and every three months thereafter to fill out a questionnaire that included items on demographics, socioeconomic status, and health-related variables, as well as the 10-item Schwartz Outcome Scale (SOS-10), which was offered in English and Spanish. Their clinicians provided a corresponding Global Assessment of Functioning (GAF) score as well as information about the patient's diagnosis, treatment modality and the provider's discipline/training level.

For this investigation, we used a convenience sample including data for intake visits from January 2008 (several months after the initial roll-out of the program, so that data would be available from all the outpatient sites) to December 2010, the most recent data available at the time of analysis. All data were deidentified.

This data analysis was approved by the hospital's IRB (protocol 2008P001729).

Subjects

We examined data from patients aged 18 or older. We drew data only from outpatient psychiatric clinics and not from partial hospitalization programs, residential programs, or inpatient settings.

Settings

The patients were seen at seven outpatient clinics affiliated with four hospitals, which were in turn part of a larger health care delivery system in an urban area of New England and its immediate environs. At the majority of clinics, patients were required to have a primary care provider (PCP) within the corresponding hospital network and either were referred by the PCP or requested a mental health appointment directly. At one clinic, which was affiliated with a freestanding psychiatric hospital, patients were most often self-referred. Patients generally needed to have health insurance to be seen at the clinics, although a small number of clinics accepted uninsured or underinsured patients who were enrolled in a safety-net program, through which their health care was funded by a state-run pool. Partway through the data collection period, the state required that all residents have health care insurance and

established lower-cost insurance plans for low-income residents, increasing the pool of patients who could be seen.

Measures

Socioeconomic/health information—Patients were asked whether they belonged to one of the following racial/ethnic groups: American Indian or Alaskan Native, Asian, Black or African American, White, Native Hawaiian or other Pacific Islander, Caribbean Islander, Latino/Latina, multiracial, or “do not know.” Patients who considered themselves Latino/a were asked to indicate their place of ancestry.

Patients also answered questions about other socioeconomic information (such as age and gender), socioeconomic status, and physical health. Categorical yes/no measures included education, employment status in the last 30 days, student status, history of homelessness, marital status, living situation and living status, history of psychiatric hospitalization in the previous six months, self-rated physical health, and whether the patient had a PCP. Patients who reported that they were unemployed were also asked whether their unemployment was due to a disability (yes/no).

Insurance information was provided by the clinic staff or the hospital’s records, depending on the clinic. Health insurance plans could generally be divided into public insurance (Medicare, a federally funded program for elderly or disabled patients; Medicaid, a program funded by the state and federal governments for low-income patients) and private insurance. After the introduction of the state requirement for health insurance, a third set of state-subsidized insurance plans appeared, offered on a sliding scale based on income.

Ten-item Schwartz Outcome Scale—As a self-rated measure of psychological well-being, patients completed the 10-item Schwartz Outcome Scale (SOS-10)¹³ in English or Spanish. Designed as a brief measure of the effectiveness of mental health treatment across a range of mental health services and populations, the SOS-10 differentiates between psychiatric inpatients, outpatients, and non-patients;¹⁴ is sensitive to treatment changes in psychiatric inpatients and outpatients;¹⁴ and has been validated in Spanish.¹⁵ The scale comprises 10 items, with such statements as, “I have peace of mind” and “I have confidence in my ability to sustain important relationships,” rated on a seven-point Likert scale (from 0 to 6) for a total score range from 0 to 60. Higher scores reflect better psychological well-being; change of eight points or more is considered clinically significant. For their SOS-10 scores to be considered valid, subjects had to have completed at least eight of the 10 items. For those who completed eight or nine but not 10 items, scores were imputed by dividing by the number of items answered and multiplying by 10. Scores of 0 (respondent endorsed the lowest score for all items) and 60 (respondent endorsed the highest score for all items) were excluded as invalid.

Global Assessment of Functioning—At the same time that patients filled out the SOS-10 scale, the clinicians conducting the evaluation (usually psychiatrists, psychologists, or social workers) provided a Global Assessment of Functioning score, a standard DSM-IV-based assessment of function based on overall clinical judgment and anchored to specific examples of levels of functioning.¹⁶ It encompasses psychological, social, and occupational

functioning, excluding impairments “due to physical (or environmental) limitations,” and is based on the lowest level of functioning in the past week. The scale is scored from 0 to 100, divided into deciles on the basis of symptom severity or level of functioning.

Statistical analyses

We used descriptive statistics to characterize the sample. We used ANOVAs (for continuous variables) and chi-square tests of independence (for categorical variables) to assess whether racial/ethnic groups differed upon intake on the following measures: age, gender, race/ethnicity, education level, employment status, disability status, student status, living status, living situation, history of homelessness, history of psychiatric hospitalization in the past six months, self-rated physical health, having a PCP, or primary insurance. We used ANOVAs and Pearson’s correlation coefficients to evaluate whether each of these variables was associated with SOS-10 or GAF scores at baseline without adjusting for the other variables.

We then transformed several categorical baseline variables into dichotomous variables. We dichotomized marital status as married *versus* all other responses, following previous research indicating better psychological health among married subjects. We dichotomized education as up to high school *versus* at least some college (the categories were chosen *a priori*). For insurance, we compared those with commercial insurance with those with public or no insurance, following the finding by Blais *et al.* that this variable was a strong predictor of outcomes in this sample.¹⁴ Self-rated physical health, which was rated on a scale from 1 to 5, was treated as a continuous variable.

To evaluate predictors of SOS-10 and GAF, we used ANOVA to compare the mean SOS-10 and GAF in each racial/ethnic group against non-Hispanic Whites, using *post-hoc* Tukey testing to ascertain which groups differed significantly. We then constructed a model to estimate the relative contribution of race/ethnicity and other baseline variables to SOS-10 and GAF scores. To compare each minority group individually against non-Hispanic Whites, we performed a one-way ANCOVA on SOS-10 scores and GAF scores with race/ethnicity and hospital clinic system as fixed factors, using the other baseline variables as covariates.

In addition, to address concerns about the comparability of groups of different sizes, we repeated the ANOVAs and ANCOVAs using a random subsample of the non-Hispanic Whites (using a sample twice the size of the next largest group, the Hispanics).

All analyses were conducted using SPSS v. 17.0.¹⁷

Results

Data were available for a total of 10,798 unique initial outpatient visits at the seven clinics. Of the patients seen in these intakes, 102 self-identified as American Indian/Alaskan Native, 194 as Asian, 553 as Black, 795 as Latino, and 7053 as White. No other racial/ethnic group included more than 100 respondents, so they were not included in the analyses. Thus the total sample size used for descriptive analyses was N=8,697. Because of the large variation in the number of patients seen at each clinic (ranging from one to more than 5,000), we analyzed clinics from the same hospital together.

The mean GAF score was 57.45 (SD=10.224), and the mean SOS-10 score was 31.54 (SD 12.780). Racial/ethnic groups showed significant differences on numerous baseline variables measuring socioeconomic status, health, or health care (Table 1).

The relationships between race/ethnicity and both SOS-10 and GAF scores at baseline were examined using analysis of variance (Table 2). Without controlling for other factors, there was a statistically significant (though clinically minimal) relationship between race/ethnicity and GAF scores ($F(4,8481)=17.902, p<.001$) and between race/ethnicity and SOS-10 scores ($F(4,8165)=7.271, p<.001$). *Post-hoc* testing using the Tukey test revealed that the significant differences in GAF scores were between Whites and Latinos or Blacks, with Whites receiving higher GAF scores. The significant differences in SOS-10 scores were between Whites compared with Blacks, with Whites scoring higher; in the analysis of the full sample, though not in the analysis using the smaller subsample of Whites, there was also a significant difference between SOS-10 scores of Whites and Latinos, with Whites receiving higher scores.

Baseline variables that were significantly associated with SOS-10 or GAF were then included as covariates or factors in models using ANCOVA to evaluate the overall relationship of race and other demographic, socioeconomic, and health variables to psychological well-being or functioning in each minority group compared with Whites. Those covariates were age, gender, employment status, student status, history of homelessness, recent psychiatric hospitalization, self-rated physical health, having a PCP, insurance status, education, marital status, site, and race x site. While living situation was significantly associated with GAF and SOS-10 scores, it was not included in this model because nearly all subjects lived in the same kind of housing situation. Disability status was excluded because it was available only for patients who were unemployed. For analyses involving GAF scores, the sample size was $N=6,467$ (out of the original sample of 8,697 patients) due to missing data; for analyses involving SOS-10 scores, the sample size was $N=6,292$. Cases with complete data and cases with missing data were compared on these demographic variables using independent samples *t* tests (for continuous variables) and chi squares (for categorical variables). Cases with complete data tended to be younger ($t[8695]=-3.251, p=.001$), male ($\chi^2[1, 8595]=4.801, p<.05$), non-Hispanic White ($\chi^2[1, 8597]=96.852, p<.001$), married ($\chi^2[1, 86462]=21.373, p<.001$), and in better physical health ($t[8348]=7.490, p<.001$) and to have private insurance ($\chi^2[1, 7842]=49.930, p<.001$) and least some college education ($\chi^2[1, 8444]=18.867, p<.001$).

After adjustment for these factors in the analysis of variance with covariates, race/ethnicity remained significantly associated with GAF ($F[4,6436]=3.317, p=.010$) and with SOS-10 scores ($F[4,6261]=3.258, p=.011$; $p=.056$ in the analysis using the subsample of Whites), but the direction of the differences changed (Table 3). In pairwise comparisons, Asians exhibited lower adjusted GAF scores than Whites ($F[1,5516]=11.368, p<.01$), while Latinos had higher adjusted SOS-10 scores than Whites ($F[1,5718]=9.540, p<.01$). The overall effect size of race/ethnicity remained very small (partial $\eta^2=.002$ for both analyses).

We repeated the ANCOVAs stratified by race/ethnicity to evaluate different patterns of relationships between baseline variables and well-being or functioning within each racial/

ethnic group (Tables 4 and 5). For GAF scores, type of insurance was relevant only for Blacks (partial $\eta^2=.015$, $p<.05$). Asians were the only group for whom GAF scores were *not* significantly associated with self-rated physical health (partial $\eta^2=.010$, $p=.250$). For SOS-10 scores, the relationship to self-reported physical health was significant for all groups.

Discussion

This analysis provided partial evidence for our hypothesis that members of racial/ethnic minority groups would evince worse psychological well-being and functioning upon intake in a specialty mental health clinic. As predicted, our initial analysis found a statistically significant relationship between race/ethnicity and both GAF and SOS-10 scores, with Whites scoring higher on the GAF compared with Blacks and Latinos, and with Blacks scoring lower on the SOS-10 than Whites. However, after controlling for other demographic, socioeconomic, and health-related variables, the magnitude and sometimes even the direction of the differences changed substantially: Asians had lower adjusted GAF scores than Whites, while Latinos had higher adjusted SOS-10 scores than Whites. Overall, effect sizes were small, though the models did account for almost 20% of the variance in scores on both scales. The absolute difference between adjusted GAF and SOS-10 scores for each racial/ethnic group was also modest, with a maximum difference of fewer than five points for GAF and fewer than three points for the SOS-10.

On one hand, the minimal relationships between these mental health measures and race/ethnicity, especially compared with the relationship to other health or demographic factors, could be viewed as surprising given that a number of other studies have found persistent differences by race/ethnicity even after adjusting for a variety of socioeconomic factors.^{2,5,18} In another study, even after adjusting for SES, Asians and Latinos reported worse overall health than did non-Hispanic Whites.¹⁹ On the other hand, the importance of other socioeconomic and health-related factors to mental health has been well established. Dunlop *et al.* found that disability status was one of the two factors most responsible for racial/ethnic differences in depression rates.²⁰ Marital status also is associated with psychological health, with research showing greater happiness and less depression among married subjects.²¹ Surveys for the Behavioral Risk Factor Surveillance System have demonstrated higher prevalence of “frequent mental distress” among those of lower SES, regardless of race/ethnicity.²² Thus, the reason for the disparate, even inconsistent, findings between studies of racial/ethnic disparities may lie partly in the different ways in which studies incorporated socioeconomic variables into their analyses.

These findings contribute to our understanding of the complex relationship between socioeconomic status, race, and mental health and highlight the importance of considering multiple socioeconomic variables when designing interventions to reduce racial/ethnic disparities. They illustrate that race/ethnicity is just one of many predictors of psychological health. In addition, the strong effect on the relationship between race/ethnicity and psychological health of adjusting for those other variables shows that the relationship is not robust and is significantly confounded by other socioeconomic factors. Nevertheless, the different patterns of relationships between socioeconomic/health factors and functioning *vs.*

well-being points to the importance of stratifying by race when possible and of examining these interactions further.

The results also highlight the different patterns of relationships for patient-rated well-being and clinician-rated functioning. The two scales measure different sides of mental health, and psychological well-being may depend largely on measures other than those indexed by GAF; for example, physical health is much more strongly associated with SOS-10 than with GAF scores. For groups with relatively high SOS-10 scores compared with their GAF scores, it is possible that patients may minimize or do not recognize their psychological distress, that their self-perceived well-being does not depend on traditional measures of “functioning,” or that their clinicians do not recognize their strengths. Conversely, for those with comparatively high GAF scores and low SOS-10 scores, it would be important to make sure that first-line clinicians are not missing their patients’ distress and possibly failing to refer people to appropriate specialty care.

There are a number of limitations to this analysis. The geographical setting and catchment area of the clinics in our sample are not representative of the area or the nation, limiting generalizability. The Asians in this sample were relatively well educated and affluent (as suggested by higher employment rates) compared with other patients in this sample. Because the questionnaires required the ability to complete questionnaires in English or Spanish, populations with low literacy or low English or Spanish proficiency were not represented. Low English proficiency has been associated with lower perceived need for mental health services, longer duration of untreated illness, and lower utilization of mental health services.²³ We were also limited by the measures available. Neither GAF nor SOS-10 is a direct measure of symptom severity; thus global statements about illness severity could not be made on intake. Our data set did not contain measures of income, one of the most direct ways to assess socioeconomic status, or of acculturation, which may moderate the relationship between race/ethnicity and mental health.²⁴ We could not analyze the effects of place of ancestry, either because of low sample size (for Latinos) or lack of information (for other groups); evidence suggests that differences may exist among subgroups of patients within racial or ethnic groups.²⁵ In the case of global functioning, because many of the socioeconomic factors included in the multivariate analysis (such as employment and interpersonal relationships) are also indexed by the GAF score, adjustment for those factors may have led to overcorrection. Furthermore, the process of data collection itself may have introduced error, as some visits may have been misclassified as initial or follow-up visits. In addition, the regression models assumed a linear relationship between the socioeconomic variables and outcome measures. By dichotomizing certain variables (marital status, education, living situation, insurance), we might not have fully captured their complexity. Thus, we could have missed some significant relationships between socioeconomic status and health. It is difficult to say in which direction this may have biased our results, given that the relationship between race/ethnicity and mental health may be confounded or obscured by SES. The analyses also necessitated the omission of cases with missing data. Our analysis suggested that the pattern of missing data may have been non-random, possibly associated with markers of lower SES; this pattern may have biased our analysis in the direction of not finding significant differences.

In summary, we found some evidence of racial/ethnic differences in the functioning and psychological well-being of new patients in specialty mental health clinics. However, the magnitude and direction of those differences depended greatly on the inclusion of other variables related to poor physical health and social disadvantage, and overall were small in comparison with the relationship between certain other variables and mental health. These findings support the need to investigate why the specialty mental health care of minority patients might be delayed and to create interventions that address these obstacles. However, they also underscore the importance of considering the role of socioeconomic and health-related variables in any research on racial or ethnic differences in mental health care, because such confounders may explain much of the difference attributed to race or ethnicity. Future researchers should investigate how socioeconomic factors moderate or mediate the relationship between race or ethnicity and mental health and should take these factors into account when designing interventions to reduce racial and ethnic disparities in mental health and health care.

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Table 1
DEMOGRAPHIC CHARACTERISTICS BY RACE/ETHNICITY

	White	American Indian/ Alaskan Native	Asian	Black	Hispanic	Total
Mean age	41.5 (SD 15.4)	46.6 (SD 16.0)	36.2 (SD 12.8)	41.0 (SD 13.4)	36.2 (SD 12.2)	40.92 (SD 15.0)
Gender						
Male	2800 (40%)	44 (44%)	63 (33%)	174 (32%)	211 (27%)	3292 (38%)
Female	4713 (60%)	56 (56%)	131 (67%)	375 (68%)	568 (73%)	5303 (62%)
Education						
Up to HS/GED	1710 (25%)	40 (40%)	31 (16%)	214 (42%)	461 (61%)	2456 (29%)
Some college or more	5172 (75%)	61 (60%)	157 (84%)	301 (58%)	297 (39%)	5988 (71%)
Employed	3645 (53%)	36 (37%)	112 (60%)	210 (40%)	331 (43%)	4434 (51%)
Unemployment is due to disability	1502 (42%)	46 (69%)	24 (27%)	212 (63%)	221 (45%)	2005 (45%)
Student	850 (13%)	8 (8%)	29 (16%)	88 (17%)	105 (14%)	1080 (13%)
Ever homeless	1006 (15%)	29 (31%)	13 (7%)	196 (39%)	202 (27%)	1446 (18%)
Marital status						
Married	2270 (33%)	33 (33%)	87 (46%)	104 (20%)	176 (23%)	2670 (32%)
Hospitalized psychiatrically in last 6 months	782 (11%)	14 (14%)	32 (17%)	64 (13%)	79 (10%)	971 (12%)
Physical health						
Very poor (1)	20 (2%)	6 (6%)	2 (2%)	12 (4%)	36 (5%)	209 (3%)
Poor (2)	179 (13%)	24 (25%)	18 (15%)	64 (22%)	181 (27%)	1280 (15%)
Good (3)	695 (52%)	35 (37%)	57 (49%)	145 (51%)	335 (50%)	4107 (49%)
Very good (4)	340 (25%)	19 (20%)	28 (24%)	49 (17%)	97 (14%)	1999 (24%)
Excellent (5)	116 (9%)	11 (12%)	12 (10%)	16 (6%)	23 (3%)	755 (9%)
Mean rating	3.3 (SD .9)	3.05 (SD 1.1)	3.3 (SD .8)	2.9 (SD .9)	2.9 (SD .9)	3.2 (SD .9)
Has PCP	6512 (96%)	94 (98%)	181 (94%)	489 (94%)	713 (94%)	7989 (96%)
Insurance						
Commercial	3859 (57%)	28 (29%)	125 (67%)	183 (37%)	230 (31%)	4425 (54%)

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	White	American Indian/ Alaskan Native	Asian	Black	Hispanic	Total
Total N	7053	102	194	553	795	8697

Table 2
MEAN SOS-10 AND GAF BY RACE/ETHNICITY, UNADJUSTED^a

	Mean GAF*	Mean SOS-10**
AI/AN	55.3	30.6
Asian	58.2	32.3
Black	55.7	29.2
Latino	55.2	30.4
White	57.9	31.9
Overall	57.5	31.5

*
 $F(4,8481)=17.9$, $p<.000$

**
 $F(4,8165)=7.3$, $p=.000$

^a Covariates include race/ethnicity, age, gender, employment status, student status, history of homelessness, recent psychiatric hospitalization, self-rated physical health, having a PCP, insurance status, education, marital status, site and site $\times$ race interaction.

Table 3
MEAN GAF AND SOS-10 COMPARED WITH WHITES USING ANCOVA

	Adjusted GAF		Adjusted SOS-10	
	Minority Group	Whites	Minority Group	Whites
AI/AN	54.5	57.3	32.6	31.7
Asian	52.6	57.3 *	34.2	31.7
Black	56.9	57.2	30.7	31.6
Latino	57.3	57.1	33.4	31.5 **

* F(1,5516)=11.368, p<.01; partial eta squared=.002

** F(1,5718)=9.540, p<.01; partial eta squared=.002

Table 4
RELATIONSHIP BETWEEN DEMOGRAPHIC VARIABLES AND GAF SCORES FOR
EACH RACIAL/ETHNIC GROUP (partial η^2)

	Overall	White	AI/AN	Asian	Black	Latino
Age	.001 **	.001 ****	.017	.005	.000	.000
Gender	.016 ****	.017 ****	.041	.033 **	.019 **	.009 **
Employment	.018 ****	.022 ****	.000	.005	.002	.008 **
Student	.001 **	.001 **	.013	.014	.006	.006 *
Homeless	.003 ****	.003 ****	.000	.008	.016 **	.002
Hospitalized	.008 ****	.008 ****	.021	.040 **	.000	.006 *
Physical health	.031 ****	.034 ****	.076 *	.010	.019 *	.016 ***
PCP	.000	.001	.002	.001	.010 **	.002
Insurance status	.000	.000	.000	.001	.015 **	.001
Marital status	.018 ****	.024 ****	.014	.003	.000	.003
Education	.004 ****	.004 ****	.000	.003	.010 *	.001
R/E	.002 **					
Hospital	.002 ***	.007 ****	.054	.073 **	.003	.019 **
Site race	.005 ***					

*
p<.10

**
p<.05

p<.01

p<.001

RELATIONSHIP BETWEEN DEMOGRAPHIC VARIABLES AND SOS-10 SCORES FOR EACH RACIAL/ETHNIC GROUP (partial η^2)

Table 5

	Overall	White	AI/AN	Asian	Black	Latino
Age	.003 ****	.002 ****	.045 ****	.000	.025 ***	.002
Gender	.000	.000	.002	.002	.015 **	.001
Employment	.006 ****	.007 ****	.012 ****	.004	.002	.006 *
Student	.006 ****	.007 ****	.016 ****	.000	.004	.004
Homeless	.007 ****	.004 ****	.068 **	.001	.003	.053 ****
Hospitalized	.002 ****	.004 ****	.126 ***	.011	.000	.000
Physical health	.124 ****	.115 ****	.202 ****	.088 ****	.175 ****	.142 ****
PCP	.000	.000	.000	.002	.006	.000
Insurance status	.000	.000	.001	.001	.001	.007 *
Marital status	.009 ****	.011 ****	.002 ****	.002	.007	.006 *
Education	.001 *	.000	.004	.002	.000	.002
Hospital	.001	.002 **	.039	.014	.015	.017 **
R/E	.002 **					
Site race	.002					

* p<.10

** p<.05

*** p<.01

**** p<.001