Health Advantages of Ethnic Density for African American and Mexican American Elderly Individuals

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Research suggests that greater ethnic density correlates with worse health among African Americans but better health among Hispanic Americans. These conflicting patterns may arise from Hispanic American samples being older than African American samples. We found that among 2367 Mexican American and 2790 African American participants older than 65 years, ethnic density predicted lower rates of cardiovascular disease and cancer, adjusting for covariates, showing that the health benefits of ethnic density apply to both minority communities. (Am J Public Health. 2012;102:2240–2242. doi:10.2105/AJPH.2012.300787)

Two conflicting results in the literature exist concerning the relationship between health and ethnic density. Studies of Hispanic Americans have demonstrated that high ethnic density is associated with positive health effects, termed the “barrio advantage.” Studies of African Americans living in their own highly dense communities have found negative health effects, consistent with much of the research on African American health that has focused on disadvantages.

However, studies involving African American participants tend to concentrate on young adults and children rather than older participants, as in the barrio advantage studies, and look at between-group rather than within-group variability in ethnic density. By contrast, we examined the health implications of within-group ethnic density for Mexican American and African American elderly persons.

The biopsychosocial model of aging predicts that cultural factors may be particularly likely to benefit the health of ethnic minority elderly persons. African American and Mexican American communities tend to share characteristics that have been found to promote older individuals’ health (e.g., intergenerational links and positive age stereotypes).

To examine the relative effect of ethnic density on health among African American and Mexican American elderly persons, we focused on the 2 most common chronic conditions and the major causes of death among minority elderly persons: cardiovascular disease and cancer. We hypothesized that greater ethnic density would be associated with lower levels of cardiovascular disease and cancer in both groups.

METHODS

The cohort consisted of African American and Mexican American participants, aged 65 years and older, drawn from the Established Populations for Epidemiologic Studies of the Elderly (EPESE) sites with the highest percentage of African Americans—New Haven, Connecticut, and north central North Carolina—and the 5 Southwestern states of the Hispanic Established Populations for Epidemiologic Studies of the Elderly (H-EPESE). The EPESE and H-EPESE used similar sampling and data collection methods.

There were 2790 African American and 2367 Mexican American individuals in the cohort, living in 65 counties. Inclusion criteria were self-classification as African American or Mexican American and provision of relevant health information. The Mexican American sample was significantly younger, had higher income, and had more women than did the African American sample. We included these factors as covariates in all models.

We defined ethnic density as the ethnic population divided by the total population of the participants’ counties, a definition used in previous studies. The use of counties allowed us to geocode by mapping individual-level information from the EPESE and H-EPESE baselines of 1982 and 1993 to the relevant years of the US Census, 1980 and 1990. We stratified ethnic density into 3 divisions: less than 25%, 25% to 49%, and 50% or greater.

Participants reported physician-diagnosed cardiovascular disease and cancer. There were 2590 cases of cardiovascular disease and 348 cases of cancer. Baseline sociodemographic covariates included age (<75 years, ≥75 years), gender, and income (<$5000, $5000–$9999, ≥$10,000).

Analyses included all covariates and clustered participants in counties. We used multivariate logistic regression models to estimate odds ratios (ORs) for prevalence of cardiovascular disease and cancer in samples stratified by ethnic group. To compare the ethnic groups’ association of ethnic density with disease outcomes, we conducted a 1-way analysis of covariance with an ethnic density–ethnic group interaction with the total sample.

RESULTS

As predicted, there were health advantages to greater ethnic density for both African American and Mexican American elderly persons (Table 1). Among African Americans, greater ethnic density predicted lower levels of cardiovascular disease (F=23.19; P<.001) and lower levels of cancer (F=6.34; P<.001). Specifically, those who lived in an area with an ethnic density of 50% or greater were significantly less likely to experience both cardiovascular disease (OR = 0.54; 95% confidence interval [CI] = 0.38, 0.77) and cancer (OR = 0.23; 95% CI = 0.11, 0.50) than were those who lived in an area with an ethnic density of less than 25%.

Among Mexican American elderly persons, greater ethnic density compared with lower ethnic density predicted lower levels of cardiovascular disease (F=6.14; P<.001) and lower levels of cancer (F=3.78; P=.001). Specifically, those who lived in an area with an ethnic density of 50% or more were significantly less likely to experience both cardiovascular disease (OR = 0.67; 95% CI = 0.47, 0.95) and cancer (OR = 0.38; 95% CI = 0.19, 0.76) than were those who lived in an area with an ethnic density of less than 25%. The effects of living in areas with low (<25%)
and high (≥ 50%) ethnic density on chronic conditions by race are illustrated in Figure 1. A significantly greater protective association of ethnic density with health emerged for cardiovascular disease among the African American elderly persons than among the Mexican American elderly persons (χ² = 42.54; P < .001). By contrast, the association between ethnic density and cancer was equally strong for both groups.

**DISCUSSION**

Ethnic density significantly reduced the risk of older African Americans and Mexican Americans experiencing cardiovascular disease and cancer. We have reported the protective effect among both groups for the first time to our knowledge. Our findings highlight the need for future research to identify the mechanisms in the 2 communities that contribute to the association of ethnic density and health. This could facilitate interventions aimed at reducing the health risks of older minority populations.

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**Contributors**

Both authors contributed to the study design, data analysis, and writing of the article.

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**Human Participant Protection**

The institutional review board at Yale University approved the study as exempt because data were obtained from secondary sources without participant identifying information.

**References**


18. Cooper GS, Yuan Z, Rimm AA. Racial disparity in the incidence and case-fatality of colorectal cancer.
We examined the relationship between trust in the medical system, medication adherence, and hypertension control in Southern African American men. The sample included 235 African American men aged 18 years and older with hypertension. African American men with higher general trust in the medical system were more likely to report better medication adherence (odds ratio [OR] = 1.06), and those with higher self-efficacy were more likely to report better medication adherence and hypertension control (OR = 1.08 and OR = 1.06, respectively). (Am J Public Health. 2012;102:2242–2245. doi: 10.2105/AJPH.2012.300777)

Trust remains an important issue with African Americans (AAs), particularly in the South where its history of mistreatment and racial discrimination at times were highly