Ethnic and racial groups, similar or different, and how do we measure?

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Abstract:

During the twentieth century, we were excited by the increase in life expectancy, which grew from 47 years in the early 1900s to 76.5 years in 1997 (Kramarow et al. 1999). Now, at the beginning of the twenty-first century, the excitement of longer life has turned to studied concern as the needs for resources and services required by this longer life emerge. Policy innovation and new avenues to health services are in demand as the nation faces a steep growth in the number of older persons from 13% to 20% of the total population (*Profile of Older Americans* 1999). The heterogeneity contained behind and within these figures has increased remarkably.

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Article:

During the twentieth century, we were excited by the increase in life expectancy, which grew from 47 years in the early 1900s to 76.5 years in 1997 (Kramarow et al. 1999). Now, at the beginning of the twenty-first century, the excitement of longer life has turned to studied concern as the needs for resources and services required by this longer life emerge. Policy innovation and new avenues to health services are in demand as the nation faces a steep growth in the number of older persons from 13% to 20% of the total population (*Profile of Older Americans* 1999). The heterogeneity contained behind and within these figures has increased remarkably.

Table 1. Percentage Growth of the Older Population by Race and Hispanic Origin, 1998-2030

Race or Ethnicity	Percentage
Non-Hispanic White	79
African American	130
Native American, including Eskimo and Aleut	150
Asian and Pacific Islander	323
Hispanic	341

SOURCE: *Profile of Older Americans* (1999).

Table 1 shows the dramatic growth of minority older persons in comparison with Whites expected between 1998 and 2030. Because of the size of the non-Hispanic White segment, this group will remain the majority, but its share will drop from 90% to 82% of the older population (Siegel 1996).

The complexity of issues dealing with a diverse population of older persons is challenging and demands that societal institutions adopt a variety of strategies and plans. No one size fits all. The issues to be solved are difficult and deeply embedded in our social life, so much so that it is even difficult to arrive at a consensus with regard to vocabulary. Much is glossed over by these labels, as one considers diverse cultures, historical alliances, and conflicts, issues so profound that consensus on labels is unlikely to emerge and perhaps unnecessary. As each broad racial or ethnic group grows in numbers, we may be able to consider cultural or linguistic subgroups hitherto masked by their inclusion within a broader category. For example, we can examine Mexican Americans or Cuban Americans distinct from all Hispanics. We have not sought consensus on labels in the special issue, believing that the authors write from a context and are using the labels that express the meanings they hope to convey.

As we face the new mosaic of American society, we quickly realize that diverse groups encounter unique challenges to health and have developed different health behaviors and coping strategies, as will be pointed out by the authors in the two special issues of Age and Health in a Multiethnic Society. Life expectancy is longer for Whites than for African Americans at birth (White women live approximately five years longer than African American women, and White men live seven years longer than African American men do). A small advantage for Whites continues to age 65 (1.7 years for White women versus African American women and 1.8 years for White men versus African American men). By age 85, African Americans have a slightly higher life expectancy (Kramarow et al. 1999). Among all persons 65 and older, heart disease, cancer, stroke, chronic obstructive pulmonary disease, and pneumonia and influenza are the five leading causes of death, but within racial and/or ethnic groups there are differences. For example, diabetes is the sixth leading cause of death for older Whites and Asian Americans, but the third leading cause of death among American Indians 65 and older, and fourth for older African Americans and Hispanics.

The unique challenges to health arise from the fact that along with the ethnic diversity of seniors, there is socioeconomic inequality coupled with persistent disparities in mortality and health status (e.g., Fein 1995; Feinstein 1993). There is some debate whether persistent health disparities are attributable more to socioeconomic inequality or racial/ethnic group membership (e.g., Schoenbaum and Waidmann 1997; Williams, Lavizzo-Mourey, and Warren 1994). Specifically, socioeconomic inequality and health disparities persistently occur along ethnic lines. Some studies show that in multivariate statistical analyses, controlling for socioeconomic status diminishes, but does not fully account for, racial/ethnic differences in health (House et al. 1994; Sorlie, Backlund, and Keller 1995).

Societal institutions providing care for elderly persons have had to take up the challenge of providing acceptable and appropriate care for diverse groups. Trends over this century include declining mortality and fertility and an increasing proportion of elders living alone, especially at older ages (Schoeni 1998). These trends present complex policy challenges: how to provide suitable care for seniors while containing costs.

Social science theories of gerontology are also challenged to frame adequate approaches, explanations, and predictions of health patterns among diverse elderly persons. To fulfill these aims, there is an ongoing need to document trends and patterns of health outcomes, health

behavior, and health service access and use among different ethnic groups. We also need to confront the basis of persistent ethnic disparities in health outcomes and health service use, especially in a society that has a history of racial tensions even though it strives to provide equitable care.

These two volumes of *Research on Aging* are an attempt to meet these goals. We include articles that document ongoing health disparities across a variety of ethnic groups, pointing out the sometimes cross-cutting distinctions between immigrant status and ethnic group membership. Other articles delve deeply into the associations of health and mortality within one ethnic group. As our studies of health in diverse groups expands, we must also be aware and question the methodology that is used. An important focus of this issue is the question of methods: Are research materials and methods developed and tested within the majority populations suitable and sufficiently sensitive to capture the experiences of minority groups?

Trends and Outcomes

The patterns of immigration into the United States during the past three decades have done their part to shape the ethnically diverse profile of older persons in America. Changes in the immigration rules of the 1960s permitted immigration and naturalization of persons from most countries of the world, especially non-European (e.g., Asian) cultures that had previously been limited. The immigrants who arrived in the late 1960s and 1970s are now approaching old age; additionally, many of them sponsor their parents or other older relatives to immigrate to the United States. These newer groups of elderly persons present important challenges to society. They invite comparison with long-established ethnic minority elders in the United States in terms of their needs and resources. Most studies of immigrants have focused on younger families and children, while the experiences of midlife and elderly foreign-born persons have received less attention.

Hao and Johnson's article addresses this gap in the literature by comparing the emotional well-being of foreign-born and native-born Americans at midlife. The authors integrate perspectives from human capital and social capital theory, with social stratification approaches, to examine emotional health outcomes. The authors discuss how varying levels of educational qualifications, and vertical and horizontal familial networks that have reciprocal ties of exchange and obligation, act to buffer the stresses of migrant status among immigrants of different ethnic groups from Asia and Latin America. The authors focus on individuals at midlife (age 51 to 61) who have had substantial work history in the United States rather than immigrant elderly persons who have participated to a lesser extent in this system.

Hao and Johnson's results suggest that the overall differences in emotional health between immigrants and natives in midlife appear less than ethnic differences in emotional health *within* immigrant and native groups. Overall, however, emotional problems appear least for native Whites and greatest within minority (non-White) groups, whether immigrant or native. Economic and human capital factors were among the most significant predictors of emotional well-being. In fact, once these are controlled for, most ethnic differences in emotional health disappear. The effects of economic factors are similar for immigrants and natives, but education exercises a greater protective effect on intrapersonal affective problems for immigrants. Most

notable among the other significant factors predicting emotional well-being is the regular attendance at religious services, which is particularly important for immigrants.

The contribution by Ellison and colleagues also stresses the theme of socioreligious involvement having a protective effect on health. It examines the relationships in depth within one ethnic group: African American adults. This relationship has, surprisingly, been less studied among ethnic minorities, which is a significant omission because of the centrality of cultural and religious ties in the lives of minority persons. The article examines the impact of degrees of religious attendance on mortality during a nine-year follow-up among noninstitutionalized adults age 18 and older. That is, it does not focus exclusively on older-age persons but, rather, examines associations among different age groups. The results show that compared with African Americans who attend religious services more than once a week, those who never attend are at a greater risk of dying. This effect holds across all subgroups of the study population. Selection or mediation effects, including sociodemographic and socioeconomic factors, health status, distinctive social ties, and health behaviors do not account for these religious differentials in mortality. The authors suggest that the explanation for the impact of religious participation on mortality must lie elsewhere. Possibilities include psychosocial benefits such as increased self-esteem, mastery, or emotional catharsis, or other unmeasured types of health behavior or social networks.

Method and Measures

These persistent ethnic gaps in health outcomes may be seen as reflecting the fact that minorities are underrepresented in clinical research. Nápoles-Springer and colleagues point out that although the National Institutes of Health have mandated the inclusion of minority group members in research, there is poor participation among minorities, especially older persons. The reasons for low participation include historical, attitudinal, economic, and cultural factors, such as concerns about racism, lack of perceived relevance, and past histories of exploitation. The article is an investigation of self-identified health research priorities and attitudes toward participating in research among older African American and Latino residents of California. The authors explore these issues using a mail survey of representatives of randomly sampled community-based organizations serving these populations, and focus group interviews with members of these ethnic communities. The authors find that socioeconomic needs and concerns assume priority over health concerns among their respondents. Although health issues are very important, they are secondary to basic daily requirements of affordable housing and transportation, safe neighborhoods, and money. Notwithstanding this, the study participants supported furthering scientific knowledge that might be applied to improve the health of their communities. However, their participation would necessitate their basic concerns and fears being openly addressed. This study did not find any substantial differences in these underlying attitudes across African American and Latino participants.

The methods used to study racial and ethnic disparities in health have included both qualitative and quantitative methodologies. The article by Nápoles-Springer and colleagues uses interviews with key informants and focus groups, whereas the article by Angel and colleagues uses self-reported items in comparison to actual behavior- or performance-based assessments. The article by McFall, Solomon, and Smith describes the use of the Dartmouth Primary Care COOP chart in

encapsulating the health-related quality of life of older Native American outpatients (age 55 and older) in five clinics sponsored by the Cherokee nation of Oklahoma. Many studies use social psychological scales in which the psychometric properties have been assessed on samples that are predominantly, if not exclusively, White. This leaves unanswered whether the items used in the scales are appropriate in a multiethnic society. Each of the articles presented in this section seeks to find improved ways of studying health-related constructs among diverse groups.

Turning to the article by McFall and colleagues, an instrument for assessing the quality of life in a Native American population is presented and partially validated. The authors describe the sociodemographic and health status of Native American elders, pointing out the severe limitations in current data. Even the largest national surveys are not likely to have sufficient representation of Native Americans to characterize the health and functional status of the older population. The authors identify the Dartmouth Primary Care COOP charts as useful in filling this gap.

The COOP charts have been used in a variety of cultures and languages and are used in McFall and colleagues' study to generate health-related quality of life scores for elderly Native Americans. The Health Related Quality of Life is a multidimensional construct covering many physical and psychosocial domains and has proven useful for diagnosing, monitoring, and communicating with older patients. In addition, the authors provide evidence of its construct validity by examining the relationship of the scores with selected diagnoses, as well as other health-related and socioeconomic variables. The authors find substantial, although partial, association between COOP scores and specific sociodemographic and health variables, mostly the latter, in line with prior research.

Angel and colleagues examine the concordance between a self-reported measure of the ability to walk across a small room to one that is performance based. Using a sample of older Mexican Americans from the Hispanic Established Population for Epidemiological Studies of the Elderly, the authors find that two assessment strategies lead to similar conclusions, but the types of concordance or disagreement also contribute information. First, the two measurement strategies assess somewhat different constructs. The authors demonstrate that self-reports are complex. A self-report of one's ability to walk across a small room is a mediated assessment of one's actual physical capacity, that is, persons may think of ways to accomplish the task even if physical functioning is declining. They might lean on furniture, take their time, and so on. Hence, whereas the performance assessment is objective and a better predictor of mortality, self-report is mediated by personal, social, and cultural factors. In an effort to maintain a sense of well-being, individuals may cognitively emphasize what they are able to do rather than what they cannot do. The authors speculate that self-reported functional capacity may be least reliable among groups for which accurate assessment is most needed. One might also question whether the other ethnic groups would provide similar self-reports or have a greater or lesser concordance between task performance and self-report.

While the articles above deal with the measurement of physical functioning, Teresi and colleagues demonstrate a methodology to examine whether the tools used to assess cognitive functioning have equal reliability among Latino, African American, and White, non-Latino elderly persons. This is an important research question, since researchers have reported

differences in classification rates (lower specificities and false positives) of commonly used cognitive screening measures. If the diagnostic criterion variable that is used is biased for education and ethnic or racial background, then the diagnostic classification itself will be biased, often in the direction of an overdiagnosis of dementia among people with low education or from minority groups. The authors point out that the psychometric properties of measures must be adequate for minority as well as for majority populations in order to increase the likelihood of accurate assessment across all groups. To this end, the authors demonstrate the way item response theory provides a method for examining items for their relative precision, information, and differential item functioning across subgroups.

The items examined in Teresi and colleagues' article form the Comprehensive Assessment and Referral Evaluation (CARE) diagnostic scale (Gurland et al. 1992). The authors demonstrate the advantages of item response theory in detecting the items that are less reliable, are sensitive to change, and measure ability across the entire latent attribute spectrum, as well as items that function differentially. In this particular example of the CARE diagnostic scale, the authors conclude that overall reliability, although adequate, was lower among the African American and high education groups relative to other ethnic, racial, and education subgroups. However, the measure is relatively free of differential item functioning.

Ford and colleagues give us a third example of measurement issues in a heterogeneous population. Their objective is to examine the reliability of measures of physical health and mental health in a sample of African Americans and Caucasians age 50 and older. The measures used are the IADL and ADL scales, the SF-12, the multidimensional health locus of control scale, and the John Henryism scale. Although factor analysis reveals that the overall reliability of each scale, as measured by Cronbach's alpha, was near or above .70, the item-to-scale correlations of many of these scales are low.

Ford and colleagues use both exploratory and confirmatory factor analyses to compare model fit and item-to-scale correlations across racial groups. In a number of instances, the item-to-scale correlations were significantly different. The authors work highlights the importance of considering whether often-used scales have the same meaning for African Americans and Whites.

Summary

This issue of *Research on Aging* therefore sets forth the basic themes and issues that address enduring ethnic disparities in health. The articles in this volume explore some specific domains in which inequalities in health outcomes persist among ethnic groups. These articles support the notion that ethnic minority group membership has an independent effect net of other socioeconomic factors, including immigrant status. They also point out that research on disparities in health among ethnic groups are hampered by the fact that minorities are underrepresented in health research, despite institutional efforts to encourage more diversity. Finally, the articles explore in detail the methodological issues that arise when measures developed in the majority population are applied to minority groups.

Research on Aging will publish a second issue on health issues among older persons, in January 2001, focusing on the differential use of health services in our multiethnic society. The rates of health insurance coverage, identification of symptoms, and communication between physicians and patients differ across groups. Health care use and satisfaction with that care also varies. These and related topics will appear in the second special issue on Age and Health in a Multiethnic Society.

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