

A Longitudinal Study of Black–White Differences in Social Resources

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Objectives. This study examined the differences in levels of social networks and social engagement between older Blacks and Whites and racial differences in rates of change in social resources over time.

Methods. The sample consisted of 5,102 Blacks and Whites, aged 65 and older, from the Chicago Health and Aging Project, who underwent up to three interviews during an average of 5.3 years of follow-up. Repeated measures of social networks were based on the number of children, relatives, and friends seen at least once a month. Social engagement was measured at each interview with four items related to social and productive activity. Random effects models were fitted to test the effect of race on social resources and change in resources over time.

Results. Blacks had smaller social networks and lower levels of social engagement than Whites. Racial differences in these resources were stable during follow-up. Socioeconomic status reduced racial differences in social engagement but not social networks.

Discussion. The findings provide evidence for lower levels of social resources among older Blacks. There was little evidence that racial differences were the result of greater decline during old age itself.

SUBSTANTIAL disparities in health exist between non-Hispanic Blacks and Whites in U.S. society, and these disparities persist into old age (U.S. Department of Health and Human Services, 2000; Williams & Collins, 1995). The exact reasons for these disparities remain poorly explained and, indeed, are the subject of continuing debate. So far, most attention has been focused on structural inequalities in income, wealth, employment, and education that are large and unfavorable for minority populations, especially Blacks. Although these inequalities undoubtedly account for a substantial part of the racial disparities in health outcomes (Sorlie, Backlund, & Keller, 1995; Williams, 1998), they often fail to fully explain all of the observed racial differences in health (Geronimus, Bound, Waidmann, Hillemeier, & Burns, 1996; Singh & Yu, 1996).

The concept of human capital offers a useful framework for a more expansive view of the various resources that may be involved in the development of health disparities. Human capital refers to resources that derive from personal attributes, skills, and knowledge that facilitate productive activity (Coleman, 1988; Rosen, 1998). These resources are often conceptualized in terms of assets that have particular value for the labor market, such as education or occupational skills. In health research, these assets are usually referred to as markers of socioeconomic status (SES). However, human capital is not restricted to merely socioeconomic assets but allows for a consideration of important social assets as well, such as social skills or social connectedness. The accumulation of a broader array of resources, whether economic, social, or political in nature, may have implications for a variety of life course outcomes, including those related to health. In this study, we will focus on two types of social resources: the size of

a person's social network and the degree of participation in social activity, or social engagement.

Several lines of research suggest that older adults who have high levels of social resources tend to enjoy better physical (Bosworth & Schaie, 1997) and mental (Krause, 1997) health and live significantly longer (Glass, Mendes de Leon, Marottoli, & Berkman, 1999) than people who are not as socially integrated. Recent research has begun to explore the availability of two types of social resources that are accumulated throughout life and have been linked with important health benefits: social networks and social engagement. Social networks are usually defined on the basis of the structural qualities of personal networks that enable the exchange of resources between individuals, such as network size. Social engagement can be thought of as a resource itself and is designated by participation in socially meaningful or productive activity (Glass et al., 1999). Our specific purpose in this report is to compare the size of social networks and the level of social engagement among older Blacks and Whites. This is motivated by the need to acquire a better understanding of the differential availability of these resources across racial groups, before they can be evaluated as a potential source of health disparities among older adults.

There is considerable evidence that social networks are associated with important health benefits to older adults. For example, larger social networks have been associated with increased longevity (Seeman, Berkman, Kohout, Lacroix, Glynn, & Blazer, 1993), reduced risk for disability (Mendes de Leon, Gold, Glass, Kaplan, & George, 2001), and reduced risk of cognitive decline and Alzheimer's disease (Fratiglioni, Wang, Ericsson, Maytan, & Winblad, 2000). More recent

research suggests that social engagement may have a similarly beneficial effect on health. Indicators of social engagement have been found to be associated with a reduced risk of mortality (Bygren, Konlaan, & Johansson, 1996; Glass, et al., 1999), dementia (Wang, Karp, Winblad, & Fratiglioni, 2002), and disability (Mendes de Leon, Glass, & Berkman, 2003). In the following section, we summarize previous findings on Black–White differences in these two social resources.

BLACK-WHITE DIFFERENCES IN SOCIAL NETWORKS AND SOCIAL ENGAGEMENT

Earlier studies commonly depicted older Blacks as having larger and more extended social networks than older Whites (Gibson & Jackson, 1987; Taylor, Chatters, Tucker, & Lewis, 1990). Older Blacks tended to report more active support networks than older Whites (Lee, Peek, & Coward, 1998; Mindel, Wright, & Starrett, 1986), which has been attributed to higher levels of integration within extended family structures (Gibson & Jackson, 1987; Taylor et al., 1990) and greater involvement in church-related activity (George, 1988).

More recent reports, however, have begun to call into question the apparent “advantage” of older Blacks in social integration and participation. For example, Pugliesi & Shook (1998) determined that Blacks reported a lower average network size than other ethnic groupings, although the differences were relatively small. In a study of the larger metropolitan Detroit population, Blacks were found to have smaller social networks than Whites, although they reported a higher proportion of kin in their social networks (Ajrouch, Antonucci, & Janevic, 2001). Overall, these and other recent findings suggest that older Blacks have similar-sized if not smaller social networks than Whites, but that their networks tend to include more kinship-based relationships (Cantor, Brennan, & Sainz, 1994; Mendes de Leon et al., 2001).

There has been much less research on racial differences in social engagement. Some research suggests that Blacks may have lower levels of social engagement, owing in part to restricted access to social groups as a result of racial discrimination, cultural differences in preferred levels of social participation, and socioeconomic obstacles that discourage social participation (Miner & Tolnay, 1998). Indeed, studies have shown that older Blacks are less involved in volunteer work (Kincade et al., 1996), have lower participation rates in social or work-related organizations (Cutler & Hendricks, 2000; Miner & Tolnay, 1998), and are less likely to have paid employment (Fillenbaum, George, & Palmore, 1985) than older Whites. An exception to this general trend is the higher degree of involvement in church-related activity among older Blacks (George, 1988; Levin, Taylor, & Chatters, 1994).

In summary, our overall goal was to examine differences in the size of social networks and in the level of social engagement in older Blacks and Whites. Using longitudinal data from a population-based study, we first examined racial differences in the *average* level of each social resource. We then examined differences in the *rate of change* in social resources over time. It is generally thought that social networks tend to shrink as people age, with greater losses among more peripheral than closer network members (Antonucci & Akiyama, 1987; Martire, Schulz, Mittelmark, & Newsom, 1999). We aimed to determine whether one racial group exper-

enced more change as they aged relative to the other group. A differential rate may indicate that racial differences in social resources emerge or widen in old age itself. Alternatively, similar rates of change may be suggestive of a continuation of differences that existed earlier in life. Although the previous literature has provided somewhat conflicting evidence with regard to these questions, we generally expected older Blacks to have smaller social networks, with the exception of networks related to kinship ties, and lower levels of social engagement.

METHODS

Study Population

Participants were residents of a geographically defined community of the south side of Chicago and were enrolled in the Chicago Health and Aging Project, an ongoing population-based longitudinal study of risk factors for Alzheimer’s disease. All of the residents aged 65 years and older in the community area were asked to participate. Of the 7,813 eligible residents, 6,158 (78.9%) were enrolled. Participation rates were slightly higher among Blacks (81.4%) than Whites (75.1%). For this report, we excluded persons reporting Hispanic ethnicity ($n = 56$, <1%). Details of the study design have been described previously (Bienias, Beckett, Bennett, Wilson, & Evans, 2003; Wilson et al., 1999). In brief, baseline data collection took place during the course of about 3 years, starting in 1993, and consisted of in-home, face-to-face interviews. This interview was followed by two follow-up in-home interviews of all survivors at approximately 3-year intervals, ending in 2002, for an average of 5.3 years. The interviews included structured questions on a wide range of sociodemographic characteristics, psychosocial variables, medical history, and physical and cognitive performance tests.

Study Variables

Each interview includes a series of questions about social relationships derived from the Established Populations for Epidemiologic Studies of the Elderly Studies (Comoni-Huntley, Brock, Ostfeld, Taylor, & Wallace, 1986). These questions ascertain the number of children, relatives, and friends a person has as well as the frequency of interaction the respondent has with each type of relationship. A psychometric analysis of these questions revealed that information on social networks clusters by type of relationship (Glass, Mendes de Leon, Seeman, & Berkman, 1997). Following procedures used in previous studies (e.g., Mendes de Leon et al., 2001), three variables were constructed based on the number of children (children network), relatives (relatives network), and friends (friends network) each respondent reported seeing at least once a month. Scores on each variable ranged from 0 to 20 (mean = 2.17) for children network, from 0 to 55 (mean = 2.55) for relatives network, and from 0 to 15 (mean = 2.93) for friends network. A composite measure consisting of the sum of the three role-specific networks was created to obtain a total network score (range = 0–81, mean = 7.66). Because of skewed distributions, the square root of each social network measure was computed and then centered at the mean for use in the longitudinal analysis.

Social engagement was measured by four questions on social and productive activities. These questions were not designed to

refer to some underlying “latent” construct of social engagement but rather to provide a characterization of the type of activities that are common among older persons. Hence, there were no a priori assumptions about the intercorrelations between the items. Participants were asked to indicate (a) how often they attended religious services, (b) how often they went to the museum, (c) whether they participated in activities or groups outside the home, and (d) whether they currently worked a part-time or full-time job. Similar to procedures used previously (Glass et al., 1999; Mendes de Leon et al., 2003), we recoded each variable to have a 3-point ordinal frequency scale (0–2). These scores were summed across items, yielding a total score ranging from 0 to 8, with higher scores indicating greater social engagement. Total social engagement scores were set to missing if two or more items were missing ($n = 36$, $<1\%$); otherwise, missing responses were recoded to 0 (no participation). The social engagement measure was centered at the mean for the analysis.

Other variables used in the analysis included age at baseline (based on date of birth and centered at age 75), sex, race (non-Hispanic Black or non-Hispanic White, hereinafter referred to as “Black” and “White”), education (years of schooling completed), marital status (married or not, measured at each interview and entered as a time-varying covariate), and income. Income refers to total annual income and was categorized into dummy variables for high ($> \$30,000/\text{year}$) and middle ($\$15,000\text{--}30,000/\text{year}$) income, with low income ($< \$15,000/\text{year}$) as the referent. So as not to exclude subjects from the analysis who did not report income data (15%), a third dummy variable was created and included for missing income.

Statistical Analysis

We first described the overall (average) levels of social networks and engagement at baseline. We then used t tests and χ^2 tests to analyze Black–White differences in baseline demographic (sex, age, education, income, and marital status) and outcome (social networks and social engagement) variables.

For the main analysis, random effects models were used to test the effect of race on overall social networks and social engagement using data from all three interviews (Laird & Ware, 1982). Two random effects were specified: a random intercept, representing the heterogeneity that exists across subjects with regard to initial level on each outcome variable, and a random effect for slope, representing the heterogeneity across subjects with regard to the rate of change in outcomes over time. Each outcome was analyzed in three sequential models. In the first, or base, model, we first tested the average, or cross-sectional, effect of race, adjusting for the main effects of age and sex. Additional terms were specified to allow for different rates of change in outcomes by age and gender by including their respective interaction terms with follow-up time. The base model is aimed at testing Black–White differences in *average* level of each outcome variable. We also tested whether this average effect of race on outcomes varied as a function of age or sex by including the age- and sex-by-race interaction terms in these models.

The second model tested the longitudinal effect of race by adding an interaction term between race and follow-up time. This model tests whether there are differential rates of change in outcomes between Blacks and Whites. In the third model, we added control variables for education, income, and marital

Table 1. Descriptive Statistics for Baseline Demographic and Outcome Variables (Total $N = 6,102$)

Variables	Blacks ($N = 3,781$)	Whites ($N = 2,321$)	p Value
% female	59.8	62.1	.08
Age (years)	73.9	76.7	$<.001$
Education (years)	10.7	13.5	$<.001$
Marital status (% married)	45.5	45.4	.95
Income			$<.001$
% income (low)	41.3	19.8	
% income (medium)	35.6	29.7	
% income (high)	23.1	50.5	
Missing income category	13.4	15.0	$<.01$
Overall social networks	7.1	8.5	$<.001$
Children network	2.2	2.1	.54
Relatives network	2.4	2.8	$<.001$
Friends network	2.6	3.5	$<.001$
Social activity	2.1	2.5	$<.001$

status. This model was done to examine the degree to which racial differences in social resources were independent of the differential distribution across race of other important resources related to human capital, in particular, socioeconomic assets (education and income) and marital status. We followed up significant findings by checking relevant interactions. The primary analysis is focused on the total social networks and social engagement variables, followed by the analysis of the role-specific network (children, relatives, and friends) variables.

All random effects models were fitted in SAS PROC MIXED® (SAS Institute Inc., 2000). Model assumptions about linearity, normality, and independence and homoscedasticity of errors were assessed graphically and analytically and were adequately met.

RESULTS

The baseline cohort for our analyses consisted of 6102 persons, of whom 2321 (38%) were White and 3781 (61%) were Black. Three years later, on average, 4282 of these participants were reinterviewed, representing 86.8% of the survivors ($n = 4933$). At the next cycle 3 years later, 2913 were reinterviewed, representing 72.9% of the survivors ($n = 3994$).

Baseline characteristics of the sample are presented in Table 1. Average age at baseline was 75.0 years, and 61% were female. Crude examination of the social network and engagement variables showed significantly lower levels of total social networks, relatives network, friends network, and social engagement among Blacks. There were no differences on the children network variable.

Racial Differences in Social Networks and Social Engagement

Preliminary random effects models showed that being Black was significantly associated with smaller social networks ($b = -0.225$, $p < .001$) and lower levels of social engagement ($b = -0.509$, $p < .001$) (data not shown). Further analysis revealed that these effects were moderated by a significant race-by-age interaction ($b = 0.021$, $p < .001$) for social networks and a significant race-by-sex interaction ($b = -0.333$, $p < .001$) for

Table 2. Results from Random Effects Models of Racial Differences in Social Networks ($n = 4,322$) and Social Engagement ($n = 4,366$)

Results	Overall Social Networks ^a			Social Engagement		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
Cross-sectional effects						
Age (years) ^b	-.043***	-.044***	-.039***	-.045***	-.045***	-.027***
Male sex	-.011	-.012	-.069	-.072	-.072	-.271***
Longitudinal effects						
Time	-.053***	-.058***	-.062***	-.092***	-.091***	-.092***
Age × Time	-.002***	-.002***	-.003***	-.006***	-.006***	-.006***
Male × Time	-.015*	-.015*	-.011	-.009	-.009	-.008
Race effect ^c						
Black	-.211***	-.234***	-.180***	-.384***	-.380***	.006
Black × Age	.021***	.021***	.020***	—	—	—
Black × Male sex	—	—	—	-.333***	-.333***	-.183*
Black × Time	—	.008	.007	—	-.001	-.002

Note: Model 1 tests the main effect of race on each outcome variable. Model 2 tests the main effect as well as the interaction with follow-up time (longitudinal). Model 3 controls for education, income, and marital status.

^aSquare root transformed.

^bCentered at age 75.

^cNon-Hispanic Black versus non-Hispanic White.

* $p < .05$; ** $p < .01$; *** $p < .001$.

social engagement (see Table 2, Model 1). The race-by-age interaction for social networks indicates that racial differences in social networks were smaller at older ages at baseline, whereas the race-by-sex interaction for social engagement indicates that racial differences in social engagement were greater among men than women.

Other terms in the model indicate that the size of social networks and level of social engagement tended to decrease with increasing age at baseline as well as during follow-up and that the decrease during follow-up was greater among older

subjects at baseline (see Table 2, Model 1). There were no consistent associations of sex with either social resource.

Tests of a differential rate of change over time in social networks or social engagement between older Blacks and Whites were negative, as both race-by-time interaction terms were nonsignificant (see Table 2, Model 2). To graphically illustrate racial differences in social networks and social engagement at baseline, predicted scores were computed at each interview for each variable, based on this second series of models. Figure 1 shows that for a typical 75-year-old person at

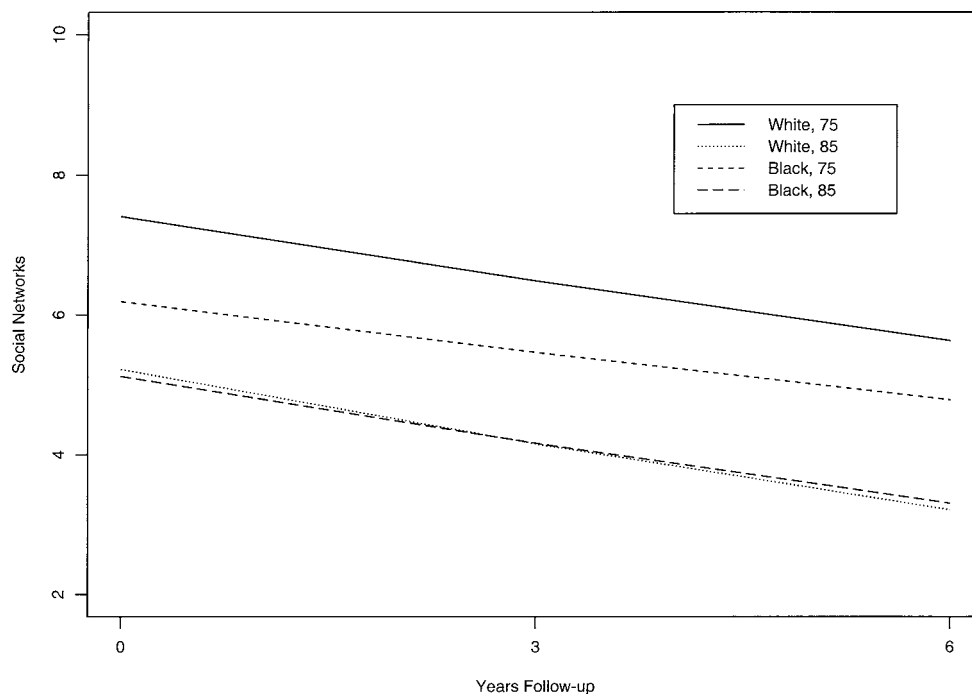


Figure 1. Predicted social network scores, by years of follow-up, for a typical 75- and 85-year-old Black or White person.

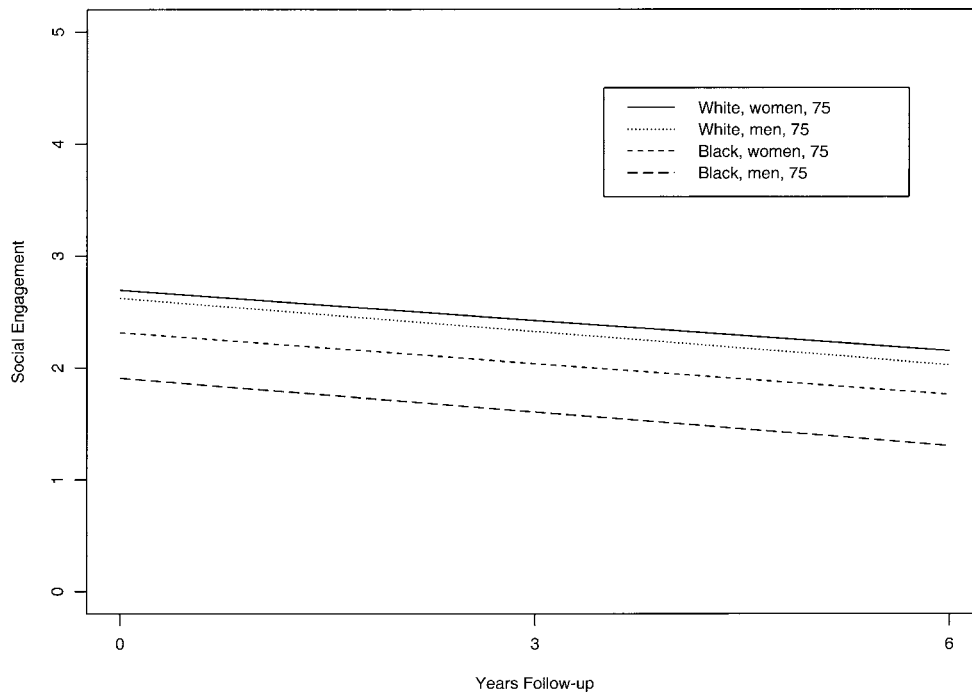


Figure 2. Predicted social engagement scores, by years of follow-up, for men and women and Blacks and Whites separately.

baseline, Whites reported larger social networks than Blacks. However, there were no appreciable racial differences in the size of social networks among typical 85 year olds. The figure further shows the decline in social networks over time. Figure 2 shows predicted levels of social engagement over time for a typical 75-year-old man or woman. The decline over time for all groups can be seen. Additionally, the level of social engagement was higher among Whites than Blacks, with greater racial differences among men than among women.

Adjustment for education, income, and marital status in the model for social networks (see Table 2, Model 3) reduced the effect of race for the average person, that is, the effect at age 75, by about 25% ($b = -0.180, p < .001$). However, the influence of age on racial differences remained basically the same ($b = 0.020, p < .001$). In contrast, adjustment for SES and marital status reduced racial differences in social engagement to a nonsignificant level ($b = 0.006, p = .92$) among women. It also substantially reduced racial differences among men, although they remained statistically significant ($b = -0.177, p = 0.02$).

Racial Differences in Role-Specific Networks

In general, the results for the role-specific networks are consistent with those of overall social networks (Table 3). In preliminary analyses, we found that Blacks reported on average smaller children networks ($b = -0.085, p < .001$), relatives networks ($b = -0.060, p < .05$), and friends networks ($b = -0.270, p < .001$; data not shown). As shown in model 1, the effect of race on the children and friends networks was modified by age, such that the Black disadvantage was greatest at the youngest ages at baseline and decreased with increasing age ($b = 0.010, p < .01$ and $b = 0.015, p < .001$, respectively). The race-by-age interaction term for relatives network was in

the same direction but failed to attain statistical significance ($b = 0.007, p = .08$).

Other terms in model 1 indicate the size of role-specific networks tended to decrease with increasing age at baseline, although more so among Whites than Blacks. Role-specific networks also tended to decline over time, with greater declines among older subjects at baseline for children and friends networks. Men had smaller relatives networks.

Tests of differential rates of change (see Table 3, Model 2) revealed that Blacks experienced a greater decline in children networks over time than Whites ($b = -0.006, p < .05$). However, Blacks experienced smaller losses in friends networks over time ($b = 0.016, p < .05$). Adjustment for SES and marital status (see Table 3, model 3) led to a small increase in the baseline effect of race for an average person in children networks ($b = -0.088, p < .01$). It also led to a relatively substantial decrease in the effect for friends networks, although race remained highly significant ($b = -0.173, p < .001$). Adjustment for these covariates did not affect racial differences in patterns of decline over time.

DISCUSSION

In this population-based study, we found that older Blacks have, on average, fewer social resources relative to older Whites, as evidenced by smaller-sized social networks and lower levels of social engagement. Racial differences in these social resources were relatively stable over time. Finally, racial differences in social resources, especially those related to the structure of social relationships, were only partially accounted for by the differential distribution of socioeconomic resources and marital status.

Our study has several strengths. First, these data come from a geographically defined population of older persons with

Table 3. Results from Random Effects Models of Racial Differences in Children ($n = 4,366$), Relatives ($n = 4,393$), and Friends Networks ($n = 4,346$)

	Model 1			Model 2			Model 3		
	Children ^a	Relatives ^a	Friends ^a	Children ^a	Relatives ^a	Friends ^a	Children ^a	Relatives ^a	Friends ^a
Cross-sectional effects									
Age (years) ^b	-.034***	-.019***	-.027***	-.033***	-.019***	-.028***	-.033***	-.017***	-.022***
Male sex	.030	-.100**	.017	.031	-.100**	.017	.007	-.135***	-.021
Longitudinal effects									
Time	-.009***	-.033***	-.054***	-.006*	-.030***	-.064***	-.007**	-.031***	-.064***
Time × Age	-.001*	-.000	-.003***	-.001*	-.000	-.003***	-.001**	-.000	-.003***
Time × Male sex	-.003	-.004	-.011	-.003	-.004	-.010	-.002	-.003	-.010
Race effect									
Black	-.079**	-.056*	-.259***	-.060*	-.039	-.305***	-.088**	-.025	-.173***
Black × Age	.010**	.007	.015***	.010**	.007	.015***	.009*	.006	.015***
Black × Time	—	—	—	-.006*	-.007	.016*	-.006*	-.007	.016*

Note: Model 1 tests the main effect of race on each outcome variable. Model 2 tests the main effect and the interaction with follow-up time (longitudinal). Model 3 controls for education, income, and marital status.

^aSquare root transformed.

^bCentered at age 75.

* $p < .05$; ** $p < .01$; *** $p < .001$.

representation across a wide spectrum of SES in both Blacks and Whites. Second, we used three waves of data collected over 6 years, which allowed us to estimate differences in both average level and rate of change with greater precision compared with cross-sectional studies. Third, our data enabled us to address racial differences in the size of both overall social networks as well as networks related to specific role relationships.

We found clear evidence for age-related patterns of decline in social networks over time. These findings are consistent with previous studies (Martire et al., 1999; van Tilburg, 1998) that have reported smaller network size at older ages. This decline may be due to either loss of network members who have died or decreased contact with more peripheral members of the social network (Antonucci & Akiyama, 1987). Age-related declines in network size may reflect an active selection strategy by older adults for those network members who are familiar to them and most likely to satisfy their current needs (Carstensen, 1995). This may explain why we and others have found bigger declines in networks related to discretionary ties, such as friends, than those related to kinship ties (Martire et al., 1999; van Tilburg, 1998).

Consistent with the more recent literature in this area (e.g., Ajrouch et al., 2001; Pugliesi & Shook, 1998), we found that older Blacks had smaller social networks than Whites. Our findings further suggest that these differences varied as a function of age at the beginning of the study. Differences were greatest at younger ages but decreased with increasing age. This is perhaps suggestive of a generational effect, with younger Blacks, now just entering old age, having smaller networks compared with an older generation of Blacks. Such a generational effect would also be consistent with the results of earlier studies, which depicted older Blacks as having larger and more extended social networks than older Whites (Gibson & Jackson, 1987; Taylor et al., 1990).

Blacks in our population also had smaller networks in each of the role-specific relationships we examined, although, again, these differences were most pronounced at younger ages. Furthermore, Black-White differences in role-specific networks were smaller for kinship ties than friends, a finding that is consistent with earlier work about the importance of kinship

networks in older Blacks (Gibson & Jackson, 1987; Taylor et al., 1990). It is possible that in the past, Blacks tended to have larger families, perhaps for economic advantages. In fact, recent studies have argued that the network and support systems of Blacks are changing, possibly owing to the changing family structure in Black communities (Bengtson, Rosenthal, & Burton, 1996).

There have been few prospective studies to date on the relationship between aging and social engagement, but our findings of age-related declines are consistent with what is currently known (Bukov, Maas, & Lampert, 2002). We found robust declines in frequency of social engagement over time in our population-based sample. Decreased participation in social engagement may be a consequence of declining health and mobility, which are characteristic of late life, a loss of interest or motivation in social engagement, or common events in old age such as retirement or widowhood (Lemon, Bengtson, & Peterson, 1972).

Even less is known about racial differences in social engagement. We found that Blacks had lower levels of social engagement, possibly because of less frequent participation in the labor force or less participation in particular social activities that may be highly related to SES, such as museum attendance. Consistent with this hypothesis, racial differences were completely eliminated for women once we adjusted for SES and marital status and substantially, although not totally, reduced for men. Although little is known about racial differences in social engagement as a whole, there has been previous work on racial differences in individual indicators. Church attendance, in particular, has been found to be higher in older Blacks than older Whites (Kim & McKenry, 1998), whereas older Whites may be more actively involved in formal organizations and volunteering (Kincade et al., 1996). Examination of individual indicators of social engagement revealed lower levels of participation across all four indicators for Blacks, although racial differences in church attendance were smaller than for the other activities.

To systematically examine racial differences in social resources among older people, it is important to understand

how these differences take shape over time. Unfortunately, longitudinal studies of racial differences in social resources over time are largely missing. Our results suggest that Black–White differences in social resources tend to be relatively stable in old age, with little evidence for greater losses in one group or the other. The only exceptions pertained to the slightly greater loss in children networks over time but smaller loss in friends networks among Blacks. Thus, the overall pattern of findings provides little evidence that racial differences in social resources emerge or significantly widen in older age. Instead, similar to socioeconomic resources, they may reflect a continuation of racial differences that existed prior to old age, perhaps throughout adulthood. Previous studies indicate that social support networks are positively related to SES (e.g., Huang & Tausig, 1990), although perhaps not always in uniform and consistent ways (Turner & Marino, 1994). Our data show an equally mixed picture. Whereas racial differences in social engagement were strongly influenced by SES, this was much less the case for social networks, and in particular for those related to kinship ties.

This study has a number of limitations. The main limitation was the limited measure of social engagement. We had only four indicators, and it is likely that they did not capture a broad enough array of social and productive activities in which older adults commonly engage. Furthermore, some of the activities may have been more common among Whites or people of higher SES, particularly museum attendance and group membership. However, we found that racial differences were fairly consistent across all four items and not dominated by any one of the four indicators. Nevertheless, racial differences in social engagement need to be examined in further detail with more comprehensive and validated measures, which may focus not only on frequency but also on duration of participation. The second limitation was that our data are from a community sample of older men and women in an urban area of the Midwest. Racial differences in social resources found in this cohort may not be generalizable to other areas of the United States, and these results will need to be replicated in other settings. Third, it is possible that the 6-year follow-up period was not long enough to observe significant Black–White differences in change in social resources. We did find robust overall declines during follow-up, but they were mostly similar among Blacks and Whites.

In conclusion, we found that older Blacks report significantly fewer social resources, defined in terms of social networks and social engagement, than Whites. These differences were greatest among the younger persons in this elderly population and decreased at older ages. At the same time, there was little evidence that older Blacks experienced greater losses over time, suggesting that racial differences in social resources among the elderly are carried over from previous stages of life. A better understanding of racial disparities in health may require a more detailed examination of the role of social resources other than those related to SES.

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