The Health, Physical Functioning, and Informal Supports of the Black Elderly

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THE OLDER POPULATION'S SHARE OF THE TOTAL population has been rising steadily. The black elderly population—those aged 65 and over—is growing more rapidly than the white elderly population (Siegel and Taeuber 1986). The disproportionate growth of the older black population is of social policy significance for several reasons. Larger numbers of older blacks with chronic, physically limiting illnesses will further complicate payment of the health care bills of an aging population (Davis 1986; Rice and Estes 1984); extraordinary strains will be placed on already burdened black families; and long-term care policies in the United States will be significantly affected (Rice and Feldman 1983). Despite a growing recognition that long-term care policies for an aging society need careful development (Soldo and Manton 1985), the debate, thus far, has not considered the interplay among the special life circumstances of blacks and other ethnic minorities, their levels of physical functioning, their traditional and current patterns of informal support, and their health care needs (Suzman and Riley 1985). The quality and quantity of informal support available to the black elderly will have profound effects on their need for long-term care. A small but growing body of literature, in fact, suggests that the informal support of older blacks—help from friends, family, and church members—is important to their physical health and effective functioning, and that exchanges

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within the social networks of older blacks have some special insulating qualities (Cantor 1979; Chatters, Taylor, and Jackson 1985; Taylor 1985, 1986).

The social epidemiological literature also emphasizes the importance of informal support in health and functioning. Social ties affect the etiology and course of disease, physical functioning, and mortality (Rowe and Kahn 1987; Berkman 1983; House and Kahn 1985; Kasl and Berkman 1981; Satariano and Syme 1981; House, Robbins, and Metzner 1982; Blazer 1982). Informal support has different effects on health and functioning depending upon its type, quality, amount, and frequency (Antonucci and Jackson 1987; Minkler, Satariano, and Langhauser 1983; Stoller 1984). Findings from social epidemiological and social networks research may be used to reveal the ways in which older blacks use their informal networks to improve their physical functioning.

The purpose of this article is to examine the relation between physical functioning and informal support in the present cohort of black elderly (individuals aged 65 and over), and to explore the findings with a view to new research that will inform health policy. First, we describe the physical health, functioning, and informal support of older blacks. Next, we identify the determinants of effective functioning; then we proceed to analyze the relation between informal support and physical functioning. The article concludes with recommendations for new health research on the black elderly.

The data are drawn from two national probability samples of blacks: the National Survey of Black Americans (NSBA) (1980) and the Three-generation Black Family Study (TGBFS) (1981). These datasets provide culturally relevant, and carefully collected sources of information on the adult black population. We focus on the subsample of 734 non-institutionalized black men and women aged 65 to 101. The findings are representative of blacks aged 65 and over from the high rises of New York City to the most rural areas of the South. The technical appendix contains descriptions of the NSBA and the TGBFS. Subsample characteristics are set forth in table 1.

Physical Health and Physical Functioning

As indicated in table 2, physical health status and physical functioning generally decline in successively older age groups. The oldest group

TABLE 1
The Black Elderly Study Sample: Percentages Comparing the Young, Middle, and Very Old (n = 734)

	65–74 (n = 462)	75–79 (n = 142)	80 and over (n = 130)
Gender			
Men	33.1%	36.6%	35.4%
Women	66.9	63.4	64.6
Family income in dollars per year			
Less than 5,000	44.6	43.4	40.9
5,000–9,999	18.6	18.0	15.9
10,000–19,999	10.6	7.5	6.8
20,000 or more	5.2	2.6	9.1
Not ascertained	20.9	28.5	27.3
Education (number of grades completed)			
0–8	68.6	72.3	79.8
9–11	16.4	11.3	10.1
12	8.6	7.8	8.5
More than 12	6.4	8.5	1.6
Lifetime occupation			
Professional, managerial, sales, clerical	5.4	3.5	6.2
Craftspersons, operatives	11.5	4.2	6.9
Laborers, farmers, farm workers	5.8	7.7	7.7
Service	21.6	23.2	9.2
Not asked	55.6	61.3	70.0
Region			
Northeast	12.3	12.7	6.2
North central	15.8	19.0	17.7
South	68.2	63.4	73.1
West	3.7	4.9	3.1
Area of residence[a]			
Large urban	37.8	50.0	36.0
Small urban	35.2	24.2	22.0
Rural	27.0	25.8	42.0
Marital status			
Married	42.2	31.2	20.8
Never married, divorced, separated	13.2	10.6	5.4
Widowed	44.6	58.2	73.8
Number of children living			
None	16.3	17.3	17.2
One	13.9	14.4	11.7
Two or more	69.8	68.3	71.1

TABLE 1—*Continued.*

	65–74 (n = 462)	75–79 (n = 142)	80 and over (n = 130)
Where children live[b]			
In respondent's house	27.8	18.1	34.1
Outside respondent's house	72.2	81.8	64.9
Residents in respondent's house by relationship[b]			
Respondent alone	29.1	38.5	28.2
Respondent and spouse	22.2	25.6	14.1
Respondent and other nuclear family combinations[c]	15.7	14.1	24.4
Respondent and extended family combinations[d]	29.6	19.2	29.5
Respondent and augmented family combinations[e]	3.5	2.6	3.8

Note: Totals may not equal 100% due to rounding.
[a] Three-generation study respondents were not asked the question.
[b] Cross-section study respondents were not asked the question.
[c] For example, respondent spouse, and children; or respondent, no spouse, and children.
[d] For example, respondent and other relatives.
[e] For example, respondent and nonrelatives.

(aged 80 and over) is more likely to have three or more health problems, say they have "very serious health problems," have difficulty with three or more activities of daily living—housework, shopping, cooking, climbing stairs; and be limited "a great deal" in the amount of work or activities they can perform. Three facts are notable here, however. First, the oldest age group is as likely as the younger groups to be without health problems—13 percent of each age group. Second, the mean scores on an overall health status index (OHSI) for the three groups were about the same—5.2 for the oldest, and 5.0 for each of the younger groups (high scores denote good health). Third, fully 40 percent of those aged 80 and over reported not being limited at all or limited very little in their activities.

It is interesting to note here some race differences in the likelihood of functional limitation in age groups. Preliminary findings from the Americans' Changing Lives dataset, a new study at the University of Michigan's Institute for Social Research (House 1984), indicate that

among those aged 65 to 74, blacks are about twice as likely to be extremely limited; and among those aged 80 and over, blacks are about one and one-half times as likely to be so limited. Among those aged 75 to 79, however, blacks and whites are about equally likely to be very limited. This means that blacks and whites aged 65 to 74 differ more than other age groups in the likelihood of extreme functional limitation. These findings also identify a young, disabled and an older, more able group of black elderly. It is intriguing that Manton and Soldo (1985) also identified in their data a young, predominantly black, morbid and an older, predominantly black, more robust group.

Taken together, the findings indicate that blacks aged 65 and over are a heterogeneous group in regard to health and physical functioning, and age may not be a strong predictor of functioning. The relation between age and physical functioning warrants closer examination.

Age as a Determinant of Physical Functioning

Multiple classification analysis, a procedure appropriate for the regression of an intervally scaled variable on categorical variables (Andrews, Morgan, and Sonquist 1967), was used to determine the relative and collective effects of age, informal support, and demographic, physical, social, and mental health factors on the functional limitation of blacks aged 65 and over. We wished to contrast the effects on functioning of the more disabled group (aged 65 to 74), the more robust group (aged 75 to 79), and the very old group (aged 80 and over). The findings in this analysis, even after controlling for factors that also affect functional limitation, add to the argument that age is not a strong determinant of physical functioning among older blacks and reinforce the idea that the group aged 75 to 79 is the most able of older blacks. We present only a summary of the study since details of the measures, methods, analyses, and findings appear elsewhere (Gibson 1986a).

The significant predictors of functional limitation in order of importance were: physical health status (eta-squared = .16); recent levels of stress-distress (.06); and income (.04) (table 3). Age was a poor predictor of functioning (.01). The adjusted coefficients for the age

TABLE 2
Physical Health and Functioning of the Black Elderly: Percentages Comparing the Young, Middle, and Very Old (n = 734)

	65–74 (n = 472)	75–79 (n = 142)	80 and over (n = 130)
PHYSICAL HEALTH			
Number of health problems			
0	13.4%	14.1%	13.1%
1	23.4	20.4	14.6
2–3	44.4	50.1	47.7
3 or more	18.8	15.5	24.6
Satisfaction with health[a]			
Very satisfied	52.6	53.6	62.0
Somewhat satisfied	32.4	27.9	26.4
Somewhat dissatisfied	12.6	17.7	10.1
Very dissatisfied	2.4	1.4	1.6
Self-rated health[a]			
Very serious health problems	15.6	20.6	26.4
Health problems, but not very serious	38.1	29.4	37.5
Very best of health	46.3	50.0	36.1

Overall Health Status Index [OHSI][a]			
Good	28.6	24.1	24.5
Fair	49.9	50.0	46.2
Poor	25.5	25.9	29.2
OHSI mean scores[b]	5.0	5.0	5.2
PHYSICAL FUNCTIONING			
Number of activities of daily living (ADL) problems[c]			
None	42.2	38.8	23.8
1–2	36.6	35.0	40.0
3–7	21.1	26.3	36.3
Extent of physical functional limitation			
Not limited at all or limited very little	50.9	53.5	40.8
Limited some	23.2	21.8	24.6
Limited "a great deal"	26.0	24.6	34.6

[a] Three-generation telephone respondents excluded from percentage base.
[b] Scores on the OHSI ranged from 1–13 (high scores = the worst health).
[c] Cross-section respondents excluded from percentage base.

categories in table 3 indicate that even after controlling for the effects of other variables, functional limitation still did not increase in a clear manner in successively older age groups. Although being aged 80 and over increased functional limitation scores the most (.17), being 75 to 79 decreased these scores more than did being age 65 to 74 (coefficients are −.09 and −.02, respectively). This finding supports the previous bivariate findings and means that the group aged 75 to 79 is less likely than those aged 65 to 74 to be functionally limited, even when the effects of class, social, and psychological functioning are removed. This adds considerably to the argument that a more debilitated younger group and a more robust older group of black elderly exist. It is interesting that in the Americans' Changing Lives data reported earlier, age and functional limitation are related in the white, but not the black, elderly sample. Statistics for blacks and whites, respectively, are: chi-square with 6 degrees of freedom = 3.2 and 33.2; p = .79 and .00; Cramer's V = .16 and .25). This suggests that age and disability are related linearly among older whites, but not among older blacks. In fact, there may be a race/disability/age interaction effect.

Although not a focus of this article, it is interesting to note that older black men and women were alike in the factors that explained their physical functioning. This is in contrast to the findings on majority populations that identify gender differences. The similarity between black men and women in the correlates of functional limitation fits patterns observable in other life domains and circumstances (Gibson 1986a). There may be a certain androgyny of blacks at very old ages (Bengston 1986).

Surprisingly, the informal support measures were not related significantly to functional limitation. The counterintuitive effects of large and moderate amounts of emotional support, however, are of interest. The unadjusted deviation scores in table 3 indicate that receiving moderate amounts of emotional support has a larger decremental effect on functional limitation (−.13) than receiving large amounts (−.01). This was especially true among the very old; emotional support in moderation appeared more beneficial to functioning than emotional support in excess. Before we focus more specifically on this role of informal support in the physical functioning of the very old, we describe the informal support of blacks aged 65 and over.

TABLE 3
Multiple Classification Analysis (MCA) Predicting Physical Functional Limitation from Demographic, Physical, Social, and Mental Health and Informal Support Factors, for Older Black Americans, Aged 65 and Over. $n = 370$[a]

Predictors	Eta[2]	Beta[2]	Deviation	Coefficient
DEMOGRAPHIC FACTORS				
Region	.00	.00		
Non-South			−.08	−.05
South			.03	.02
Family income per year	.04*	.03		
Less than $5,000			.13	.10
More than $5,000			−.22	−.18
Age	.01	.01		
65–74			−.02	−.02
75–79			−.11	−.09
80 and over			.16	.17
Gender	.01	.00		
Men			−.13	−.05
Women			.07	.02
PHYSICAL HEALTH				
Overall health status index	.16*	.20		
Excellent			−.44	−.39
Good			.17	.14
Fair			.35	.33
Poor			.49	.43
SOCIAL HEALTH				
Social activities/integration index	.00	.01		
Low			.01	.06
High			−.02	−.11
INFORMAL SUPPORT				
Number of available helpers	.00	.00		
Few			−.00	−.02
Many			.01	.10
Amount of emotional support	.00	.00		
None			.03	−.00
Small			.01	.03
Moderate			−.13	−.06
Large			−.01	−.05
Frequency of contact/help	.00	.00		
Low			−.04	−.01
High			.06	.02

TABLE 3—*Continued*

Predictors	Eta^2	$Beta^2$	Deviation	Coefficient
MENTAL HEALTH				
Recent stress-distress	.06*	.03		
Low			−.08	−.06
High			.48	.31
Indefinite period of stress-distress	.01	.00		
Low			−.04	−.01
High			.30	.07
R^2 adjusted	.26			
unadjusted	.29			

Note: Estimates are from the final equation. $Etas^2$ are adjusted. Deviations are unadjusted coefficients and coefficients refer to adjusted coefficients. Asterisks indicate significance at $p \leq 05$.

[a] Respondents with valid data on all study variables and with one or more health problems.

The Informal Supports of the Black Elderly and Exchanges With Adult Children

The findings of this analysis indicate that the family and friend support of the black elderly is rich and satisfying, and that differences in support among the age groups are more qualitative than quantitative.

Available Helpers

About one-third of each age group of blacks has immediate family members nearby—in the same household, neighborhood, or city; and a large proportion of each group has neighbors they know well enough to visit (table 4). The very old (aged 80 and over) are more likely than the middle-old group (aged 75 to 79) to have greater numbers of these neighbors (a function, no doubt, of the rural southern areas in which the oldest group live). Large numbers in each age group report having friends with whom to discuss problems, as well as a close or best friend. Summing the total number of helpers available—neighbors, friends, and family members—the mean number of helpers

TABLE 4
Informal Support of the Black Elderly and Exchanges with Adult Children: Percentages Comparing the Young, Middle, and Very Old (n = 734)

	65–74 (n = 272)	75–79 (n = 142)	80 and over (n = 130)
AVAILABILITY OF HELPERS			
Geographical proximity of most immediate family members			
No immediate family	16.1%	24.8%	18.3%
In same household, neighborhood, city	36.8	29.9	34.9
In same county or state	21.4	12.4	23.0
Outside of state	25.8	32.8	23.8
Number neighbors know well enough to visit			
Have no neighbors, or know none well	3.9	14.5	8.0
Many, some	47.8	41.9	52.0
A few	48.3	43.5	40.0
Number friends with whom to discuss problems			
Many, some	27.5	20.7	27.3
A few	56.7	64.9	49.1
None	15.8	14.4	23.6
Have best or close friend?			
Have best friend	58.5	60.4	58.6
No best friend, but someone close	28.1	23.7	24.2
No best friend, no one close	13.4	15.8	17.2
Who on this list would give help if ill?			
Nuclear family member	64.0	54.0	62.0
Other family member	14.0	13.0	10.0
Nonrelative	4.0	6.0	8.0

TABLE 4—*Continued*

	65–74 (n = 272)	75–79 (n = 142)	80 and over (n = 130)
Rely more on family or friends?			
Relatives	48.0	41.1	44.5
Friends	18.0	24.8	18.8
Both	33.3	34.0	35.9
Neither, no one	.7	.0	.8
Mean scores on number of available helpers index [NAHI][a]	4.2	3.8	3.6
FREQUENCY OF CONTACT/HELP			
Family help[b]			
Very often	70.7	70.8	74.5
Never	29.3	29.2	25.5
Church member help[c]			
Often	27.8	18.9	31.0
Sometimes	27.2	33.6	33.3
Hardly ever, never	44.8	47.3	35.6
Family contact			
At least once/week	60.6	61.3	55.5
At least once/month	26.2	25.2	25.5
Few times/year; hardly ever; never	13.2	13.5	19.1
Friend contact			
At least once/week	70.1	62.5	55.5
At least once/month	16.5	20.5	20.0
Few times/year; hardly ever; never	13.5	16.9	24.6
Mean scores on the frequency of contact/help index [FCHI][d]	2.9	2.7	2.8

ADEQUACY OF HELP			
From family[e]			
A lot or a great deal	63.8	64.1	64.8
Only a little	36.2	35.9	35.2
From church members[f]			
Some or a lot of help	82.5	78.3	78.0
Only a little help	17.5	21.7	22.0
Mean scores on adequacy of help index [AHI][g]	.75	.62	.75
TYPE OF HELP			
From family[e]			
Emotional	33.9	35.8	27.9
Instrumental	66.1	64.2	72.1
From church members[f]			
Emotional	26.0	30.0	25.4
Instrumental	16.1	10.0	7.2
Prayer	57.8	60.0	67.2
From close friend[h]			
Emotional	63.7	70.9	64.6
Instrumental	36.3	29.1	35.4
Total amount of emotional support			
None	41.1	34.0	43.3
Mid-level	41.7	50.0	43.3
High level	17.2	16.0	13.5
EXCHANGES WITH ADULT CHILDREN			
Helps children[i]			
Very often	37.1	28.6	31.0
Fairly often	13.3	10.7	13.1
Not too often	31.8	36.9	31.0
Never	17.8	23.8	25.0

TABLE 4—*Continued*

	65–74 (n = 272)	75–79 (n = 142)	80 and over (n = 130)
Type of help given children[l]			
Emotional	29.2	32.2	29.0
Instrumental (goods/services)	11.7	20.3	17.7
Financial	29.6	27.1	33.8
Other (such as care of adult child's family members)	29.2	20.3	19.3
Helps children more or less often, or the same as in the past[k]			
More	10.1	8.1	8.7
Less	43.2	39.4	52.2
Same	46.4	52.5	39.1
Children help more or less often, or the same as in the past[k]			
More	22.0	30.6	37.6
Less	21.3	17.3	11.8
Same	57.7	52.0	50.5
Type of help children give that is most helpful to respondent[j]			
Emotional	32.4	30.5	21.1
Instrumental (goods/services)	24.9	28.2	29.4
Financial	15.8	20.0	15.2
Other (such as care of family members)	26.7	21.2	34.1

[a] Scores ranged on the NAHI from 1 to 7 helpers. No one had zero helpers.
[b] Excluded from percentage base: Those whose families never help; respondents who never needed help.
[c] Excluded from percentage base: Those who never needed help; those who have not attended church since age 18.
[d] Scores on the FCHI ranged from 0 to 2, 2 = high frequencies.
[e] Excluded from percentage base: Family never helped; never needed help.
[f] Excluded from percentage base: Have not attended church since age 18; attended less than once a year; hardly ever or never receive help; never needed help.
[g] Scores on the AHI ranged from 0 = inadequate to 2 = a great deal of help.
[h] Excluded from percentage base: No close friends; friend does nothing; telephone respondents.
[i] Excluded from percentage base: Those without children; cross-section respondents.

was not all that different for the three age groups—3.6, 4.2, and 3.8 for the very old, young old, and middle old, respectively. Asked who would give them help if they were ill, the oldest age group named a larger and more varied pool of helpers; they were not as bound to family members. As table 4 records, the very old were slightly more likely to say they rely on *both* family and friends (Chatters, Taylor, and Jackson 1985). These findings, although cross-sectional, parallel longitudinal findings indicating that individuals, as they age, do not limit help-seeking to single family members. Rather, there is a kind of virtuosity in substituting one type of informal helper for another as spouses and children are lost (Gibson 1982; Cantor 1979; Litwak 1986; Taylor and Chatters 1986). In sum, the friend and kin networks of blacks expand rather than contract in successively older age groups; the oldest-old's helpers are more varied; and regardless of age, virtually no respondent is without someone on whom to rely in times of illness.

Frequency and Perceived Adequacy of Help

A large majority of the black elderly receive help very often from family, and are in contact with family and friends at least once a week. The very old are more likely than younger groups to receive frequent help from church members, again demonstrating a more varied source of help and a greater tendency on the part of very old blacks to reach beyond family members for support. Summing the frequencies of family, church member, and friend contact and help and calculating mean scores, there is little difference in mean frequencies among the age groups (2.9, 2.7 and 2.8 for the young old, middle old, and very old, respectively). As table 4 further records, perceptions of the adequacy of support are strong among older blacks and do not diminish in successively older age groups.

Type of Help

A majority of the black elderly receive instrumental help (goods and services) from family members; emotional support (advice, counsel, encouragement, moral support, validation of attitudes and perceptions) from friends; and prayer from church members. The very old are more likely than the middle old to receive instrumental support from family

and friends; while the middle old are more likely to receive emotional support. Emotional support decreases as instrumental support increases in successively older age groups. On a measure of the total amount of emotional support (the amount of emotional support from each helper multiplied by the number of helpers), the very old were, in fact, the most likely to have received none and the least likely to have received high "doses." This suggests that the informal network is responding to the younger group's poorer mental health and morale and the oldest group's declining physical abilities (see Gibson 1986c for an analysis of mental health in age groups of black Americans). These findings indicate a tailoring of the help to fit the need best (Litwak 1986; Cantor 1979).

Exchanges with Adult Children

Large proportions of older blacks in all age groups are still helping their adult children. The very old, however, were less likely than others to provide services and care of family members; and more likely to say they had decreased help to children from past levels (while their children had increased help to them). Even so, the very old were likely to provide financial aid. Help from adult children to aged parents seems responsive to the changing needs of the parents—less emotional and more instrumental aid; help from very old parents to their adult children, on the other hand, seems to be of the type the parent is physically capable of giving—more emotional and financial and less instrumental. These patterns of reciprocity between the black elderly and their adult children support the idea that blacks accumulate "social credits" earlier in life and "cash them in" as needed later in life (Antonucci 1985; Antonucci and Jackson 1987). On balance, there seems to be a special relation between functional health and social support in the oldest age group. We turn now to specific ways in which informal support is related to the physical functioning of the very old.

Informal Support and Physical Functioning

The findings of this analysis suggest that perceptions of numbers of available helpers, frequency of contact and help, and type of help

affect the physical functioning of very old blacks indirectly rather than directly, and reinforce the idea that age is a poor predictor of effective functioning. Since the methods, measures, analysis procedures, and findings of the study are detailed elsewhere (Gibson 1986a), only the highlights are presented here.

The measures for this analysis were based on more than thirty years of social epidemiological and informal support literature that suggests specific ways in which informal support affects health and functioning (Rowe and Kahn 1987; Minkler, Satariano, and Langhauser 1983; Stoller 1984; Cassel 1976; House 1983; Kaplan, Cassel, and Gore 1977; Nuckolls, Cassel, and Kaplan 1972; House 1980; House et al. 1979; House, Robbins, and Metzner 1982; George 1988). Functional limitation was conceptualized as the absence or presence of extreme physical limitation; therefore, logit regression was selected as the method of analysis (see Hanushek and Jackson 1977 for the regression of a dichotomous dependent variable). Using this procedure, the logarithm of the odds of functional limitation was regressed on physical, mental, and social health and three measures of informal support. The three social-support indices were: perceptions of numbers of helpers in the network—neighbors, friends, and church and family members (see George 1988 for a discussion of subjective measures of social support); the actual frequency of contact and help from network members; and the total amount of emotional support received from all network members. The mental health measures included recent stressful life events and the frequency and magnitude of reactions to these events. Those aged 75 to 79 were again included to observe the contrasting effects on functioning of the three age groups of interest: the younger, more able group (aged 75 to 79), the group aged 80 to 84, and those aged 85 and over.

The probability of being extremely limited was significantly increased by living in the South and being in overall poor physical health (logit estimates are recorded in table 5). Consistent with findings in the earlier analyses, age in the present analysis is a poor predictor of the probability of disability. Once again, the group aged 75 to 79 is associated with the lowest probability of limitation. And also in support of earlier findings, the group aged 80 to 84, rather than the group aged 85 and over, is associated with the highest probability of limitation (logits = $-.18$, $.31$, and $-.10$, respectively). These are compelling findings because they support the ideas that the group

aged 75 to 79 is the least disabled of the black elderly; and the probability of disability does not increase in a straightforward way in successively older age groups of the black very old.

Although the three social-support indices had no significant direct effects on the probability of functional limitation, high numbers of helpers (−.13) and high frequencies of contact and help (−.35) were associated with decreased probabilities of limitation. In contrast, large amounts of emotional support from family, church members, and friends were associated with an increased probability of limitation (.13), while small and moderate levels were associated with a decreased probability.

The frequency of actual contact and help seemed to operate more in a mediating capacity on the relation between stress and the probability of disability, whereas infrequent contact and help increased the probability of limitation more among individuals under high than low stress. Since perceptions of the number of available helpers in the total network did not have mediating effects, actual help may be a more effective stress-buffer than perceived help. Although interaction effects were weak in the present analysis, new research should investigate a possible interaction among frequency of actual support, stress, and physical functioning. In brief, actual help seems to moderate the impact of stress; too much emotional support, perceptions of too few helpers, and too infrequent contact and help have increasing effects on the probability of poor physical functioning.

Several investigators report synergistic effects of informal support (see, for example, House, Robbins, and Metzner 1982). In the present analysis, however, the total amount of emotional support received from all sources, the total number of helpers perceived in the network, and the total frequencies of actual contact and help had no more significant relation with the probability of disability than did their component parts; the whole of social support was not larger than the sum of its parts in this study.

It should be noted that these findings on the informal support and functional limitation of very old blacks are strikingly different from a comparable analysis of blacks at mid-life (Gibson 1986a). Differences in the two sets of findings suggest an age, informal support, and functional limitation interaction among older black adults.

It is instructive to note that by calculating probabilities from the logarithmic function, the individual most likely to be extremely func-

TABLE 5
The Probability of Physical Functional Limitation, Black Men and Women Aged 75 and Over (logit estimates)

Predictive Power (adj.)	.55
Constant	−.22(.19)
VARIABLES	
Gender	
Men	−.19(.24)
Women	.12(.15)
Region	
Non-South	−.70(.34)*
South	.25(.12)*
Age	
75–79	−.18(.20)
80–84	.31(.26)
85 and over	−.10(.40)
Social activities/integration	
Low	.21(.15)
High	−.37(.27)
Recent stress-distress	
Low	−.01(.07)
High	.10(.52)
Health status index	
Good	−1.43(.42)*
Fair	−.26(.20)
Poor	1.46(.31)*
Number of available helpers	
Low	.02(.08)
High	−.13(.53)
Amount of emotional support	
Small	−.04(.26)
Moderate	−.01(.19)
Large	.13(.45)
Frequency of contact/help	
Low	.32(.20)
High	−.35(.22)

Note: The first figure is the estimated coefficient. The asymptotic standard errors are reported in parentheses. Asterisks are used to indicate significance at $p \leq .05$. Minus signs indicate decreased probabilities of functional limitation.

TABLE 6
Estimated Probabilities[a] of Extreme Physical Functional Limitation, Selected Cases of Black Men and Women Aged 75 and Over

Case	Probability of extreme limitation	Age	Region	Overall health status	Amount of emotional support
1	.87	80–84	South	poor	large
2	.85	80–84	South	poor	small
3	.80	75–79	South	poor	large
4	.07	75–79	non-South	good	small
5	.09	85 or older	non-South	good	large
6	.08	85 or older	non-South	good	small

Note: Probabilities were calculated using the estimated coefficients reported in table 5.
[a] Considering only the variables included in the calculations.

tionally limited lived in the South, was between 80 and 84 years old, and was receiving large amounts of emotional support from family, friends, and church members (probability of limitation = .87 [case 1 in table 6]). An individual less likely to be limited was, conversely, living in a nonsouthern state, aged 85 or older, had overall good health status, and was receiving small amounts of emotional support from family, friends, and church members (probability of limitation = .08 [case 6]). It is interesting that cases 4, 5, and 6 show that, even with excellent health, there is still about a .08 chance of functional limitation. This is evidence that factors other than actual physical health are reflected in the self-reported functional limitation of very old blacks. Selected other cases appear in table 6. Such probability calculations could be used with an eye to more effective health policy, planning, and programming.

Discussion

The major goal of this article was to examine in a preliminary way the health, physical functioning, and social networks of the black elderly, and raise issues for further study. Toward this end, data were

analyzed from the largest probability samples of older black Americans to date. Several trends dominated the data and have implications for new health research and policy. First, the black elderly are a heterogeneous group in regard to health, functioning, and social support. Their physical functioning ranged from extremely able to extremely disabled. Our findings indicate that caution must be taken in examining older blacks as a monolithic group; not to do so would obscure important countervailing trends among the subgroups. Heterogeneity among the old is apparently not specific to blacks because Rowe and Kahn (1987) identify the variability of older individuals in other samples. Our findings also mean that certain subgroups of the black elderly will need more extensive and intensive health care than others. For policy and planning purposes, new research should identify more precisely the contrasting social, psychological, and informal support characteristics of these functional health subgroups of the black elderly. In addition to these within-group differences, recent research is identifying ways in which the life experiences of minority and majority elderly diverge (Markides 1983; Jackson 1987b; Jackson 1981; Jackson and Gibson 1985; Taylor and Chatters 1986). These new findings urge a consideration of race and ethnic group differences in designing health policies.

The relation between age and certain measures of physical and functional health is possibly nonlinear among the black elderly. Percentages of the very healthy did not decrease in older age groups, and age did not predict functional limitation in the regression analyses, even after controlling for relevant factors. The reason was that individuals aged 65 to 74 were more disabled than were those aged 75 to 79; and individuals aged 80 to 84 were more disabled than those aged 85 and over. New research should determine for which dimensions of health the relation with age is linear and for which it is not. These are important issues in anticipating differences in the health care needs of different age groups of the black elderly.

Two distinct groups of black elderly were identified: a disabled younger group aged 65 to 74, and a more able older group aged 75 to 79. This finding parallels that of Manton and Soldo (1985) who found a more robust predominantly black older group in their elderly sample and a younger more morbid group, also predominantly black. Manton and Soldo suggest that identification of a robust older and a morbid younger group is consistent with an "adverse mortality selection of a disadvantaged group" explanation of the racial mortality crossover

(Manton 1982; Wing et al. 1985). Manton and Soldo also predict that their morbid group will be less likely than the robust group to survive. We are beginning to examine the differential mortality of our more and less disabled groups in a new follow-up study of individuals in the present study (Jackson 1988a, 1988b).

Because individuals aged 85 and over in our sample were less likely than those aged 80 to 84 to be disabled, there is some limited support for increasing selectivity in successively older age groups after age 75. Much more research is needed which focuses on race differences in the peak ages for morbidity and disability, and the phenomenon of increasing selectivity with age.

The present research supports previous work on the social networks of older blacks. The findings indicate a rich, fluid, and plastic kind of network that is highly responsive to the changing needs and abilities of successively older age groups of blacks on into extreme old age (Litwak 1986; Cantor 1979; Taylor and Chatters 1986). Also consonant with past work, informal support was found related to effective functioning, having differential effects depending upon its type, amount, frequency, and perceived availability (Antonucci and Jackson 1987; Minkler, Satariano, and Langhauser 1983; Stoller 1984). Generally, adequate support was associated with better physical functioning.

There was a certain malleability of informal networks; help was tailored to meet particular needs, especially among the very old. The type, amount, and frequency of help seemed to be on a sliding scale: the more the disability, the larger the number of helpers; the higher the frequencies of contact and help, the more proximate the family members, and the more likely were increases in aid from adult children. Instrumental help increased as emotional help decreased in successively older age groups, seeming to mold to the physical needs of the very old and to the emotional needs of the younger old. Very old blacks had a greater variety of available helpers and were more versatile than younger groups in substituting these helpers one for another. New research should focus more specifically on the roles of the resiliency of social networks, and the strategy of versatility in combining and substituting helpers in the adaptation of blacks to very old age. Our findings reveal the current operation of the social networks of older blacks. If changes in the structure and economic stability of the black family continue (Gibson 1986b), the very nature of this support could

be altered. The rich, varied, responsive, and satisfying help from family, friends, and church members under more adverse conditions would not be guaranteed. This could seriously undermine the in-home care of older blacks and have profound effects on their long-term health care needs (Soldo and Manton 1985). Careful monitoring of the interplay between the informal support systems of older disabled blacks and the formal health care system will be necessary. Public funds to increase the effectiveness of informal support systems could reduce the strain on formal health care systems. Because older blacks are more likely than others to be solely dependent upon Medicaid and Medicare, these sources of health insurance will gain in importance as black family and black community resources dwindle. The structure and operation of Medicare will be of paramount importance as the number of black elderly grows. Increasing copayment requirements and placing Medicare under greater local control will have adverse effects on the health care of older blacks.

As mentioned earlier, the relation between informal support and functional limitation was complex. Social support moderated, ameliorated, or exacerbated physical functioning, depending upon the type, amount, frequency, and source. Large, in contrast to moderate amounts of emotional support seemed to decrease functioning. Extreme levels of emotional support from multiple helpers may constitute a kind of psychological immersion (Antonucci 1985), which acts to the detriment of older individuals. These detrimental effects can be interpreted within self-efficacy theory—where the efforts of the individual are stultified and personal coping capacities are seriously undermined (Rowe and Kahn 1987; Shupe 1985; Langer and Rodin 1976; Avorn and Langer 1982; Antonucci and Jackson 1987; Langer 1981; Rodin 1986); exchange theory—where older blacks may now find themselves in an unbalanced and therefore stressful exchange relationship in which the receiving exceeds the giving (Dowd 1975); or sick role theory—where significant others are encouraging an adoption of the sick role (Parsons 1951). As Rowe and Kahn (1987) urge, new research should establish a causal sequence that includes the individual's need for support, the type of support required (material, information, emotional), and the effect of that support on their autonomy and control. These findings on the interfaces of stress, informal support, and functional limitation raise some major issues for future conceptual models, and

for policy developments in regard to the black elderly's needs for health and long-term care. Figure 1 presents a preliminary model of the factors that affect the functional limitation of the black elderly.

Although not explicitly examined in this article, some characteristics of very old blacks are consistent with an adverse-mortality-selection explanation of the racial mortality crossover. A fairly large proportion of those aged 80 and over bore certain of the health characteristics of younger blacks; functioning was not related linearly to age; and individuals aged 65 to 74 were more disabled than were those aged 75 to 79. The very old also function better in regard to stress, distress, and morale than younger groups of elderly (Gibson and Jackson 1988). In addition, the very old were characterized by factors associated with longevity, and by psychosocial factors speculated to explain the crossover. There were, in fact, notable similarities between the long-lived in other countries (Mapleton 1973) and very old blacks in our sample. Interestingly, these common factors of stress and social support have been found related to the onset and course of disease and mortality (see Rowe and Kahn 1987 for a review of these studies; see also Jackson, Bacon, and Peterson 1978). Moreover, both the identification of a disabled younger and more able older group, and the better functioning of the 85 and over group than the group aged 80 to 84 support the adverse-mortality explanation of the racial-mortality crossover. It seems premature to discount the idea that very old blacks constitute a group with "extra-special hardiness"—the physical and psychological survivors. New research should examine whether mortality differences between blacks and whites after age 80 are accounted for in part by race differences in social and psychological characteristics at those ages (Manton 1982; Nam, Weatherby, and Ockay 1978). As Rowe and Kahn (1987) point out, research has not focused on the modifying effects of social and psychological factors on health, functioning, and longevity. Biomedical, social, and psychological data should be examined in tandem to investigate the racial-mortality crossover effect. More prospective studies of the correlates of the mortality of blacks and whites are called for.

If we were to identify some organizing themes for future research on the health and functioning of older blacks, the first would be that their present circumstances must be examined within the context of their unique lifetime experiences, underscoring the importance of the interface of social and institutional factors with their idiosyncratic

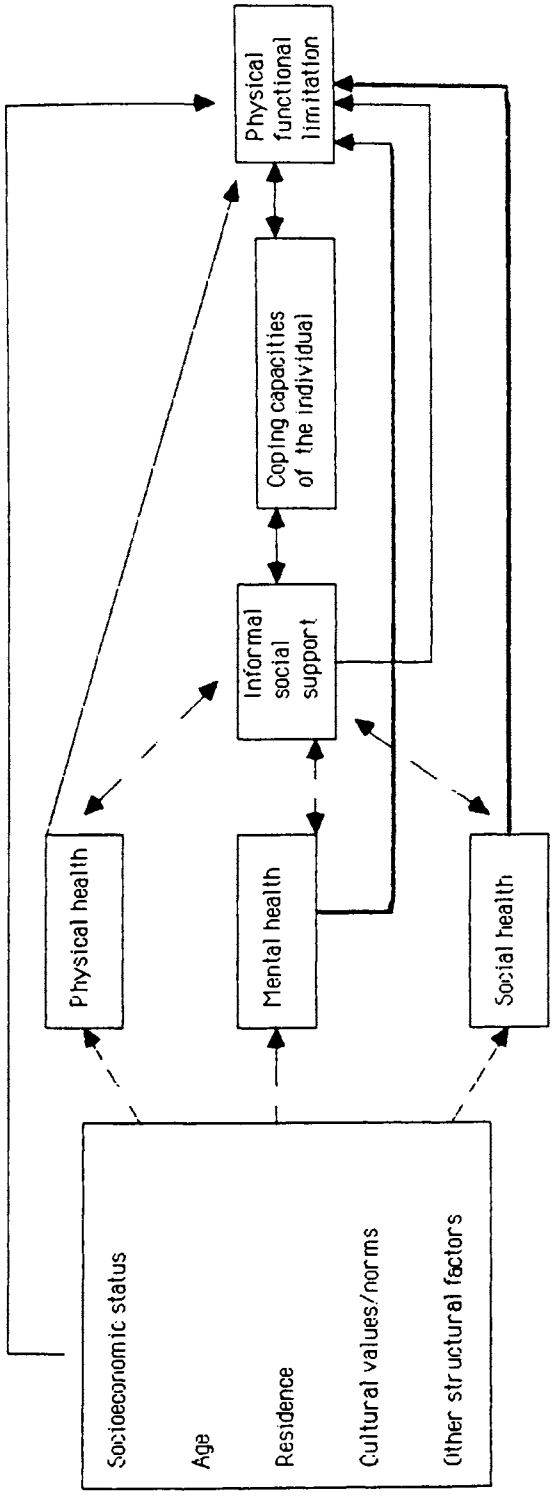

FIG. 1. A model of the physical functional limitation of the black elderly.
Note. Bold lines indicate the effects estimated in this research. The double-headed arrows indicate possibly reciprocal effects.

experiences. Such a comprehensive framework will spawn increasingly complex tiers of substantive and methodological issues with respect to research on this group. The first layer of issues that would stem from such a framework would have to do with using a lifespan approach. An intriguing question, for example, is whether blacks age more rapidly socially than whites. If true, then the "elderly" label should be moved back to age 55 or so. Certainly, earlier aging among blacks is evident in several physical and social areas. Blacks, for example, experience earlier sexual maturity, onset of certain diseases, functional limitation, and mortality than whites. And socially, the timing of certain critical life events is accelerated: the birth and loss of first child, the loss of spouse, and the earlier ending of work lives (Gibson 1986c, 1986d; Jackson 1987b). A question research must ask is whether the physical and social characteristics of the black elderly are similar to those of whites who are several years their seniors. If yes, it is impractical to compare the black and white elderly age for age. This accelerated aging of blacks may be evident in other life domains. Race-comparison research on longitudinal datasets is needed to identify these areas. The issue of unequal aging involves the inappropriateness of age-based health policies and programs (Jackson and Gibson 1985).

But to the extent that individual life courses are affected by social change, major societal trends will have very much to do with shaping the needs of the black elderly. Issues in the second tier involve ways in which successive cohorts of older blacks will be different. Recent research suggests that the masses in future cohorts of older blacks (despite higher levels of education) will be less, not more advantaged in regard to family and economic stability (Gibson 1986b).

This brings us to a final tier of issues. The aging experience of blacks is most effectively studied by attention to the fact that social processes, the individual's experience of them, and the meanings attributed to these processes often have contrasts and parallels. Insight might be gained into the role of family systems in physical functioning by looking across cultures. In brief, research on the black old should be conducted within a framework of their lifetime experiences and major social change, overlaying differential experiences within subgroups of the black old and across cultures. This approach necessitates interdisciplinary, international, and longitudinal studies.

The limitations of cross-sectional data and small sample size make our findings preliminary and our conclusions tentative. Because of the

inadequacies of cross-sectional data in isolating effects, age group differences found here cannot be construed to mean differences due to aging. We, in fact, do not know whether these relations found among physical health, age, and informal support are unique to the present cohort of the black elderly because they shared the same life experiences, are peculiar to this group because they became old in a certain period, or are characteristic of a particular life stage of blacks—the penultimate transition. Longitudinal studies are needed to isolate each of these sets of effects.

Some of our findings parallel, while others are in contrast with, findings on the white population. New research should precisely identify similarities and differences between the black and white elderly. Furthermore, we do not know which of our findings are due to race and which to class, because a majority of the black elderly are poor, poorly educated, and worked over a lifetime in low-level occupations. Investigations are needed that make class-by-race comparisons of the health, functioning, and informal support of the elderly (Haan and Kaplan 1985). We are beginning to examine issues of class and race among the elderly in the Americans' Changing Lives dataset (House 1984).

Our study population was the noninstitutionalized black elderly. Undoubtedly, the sample was biased toward better physical, social, and psychological functioning and informal support. These factors may vary among older blacks who are institutionalized, or who were "weeded out" by selective survival. As is typical of survey research data, the responses in this study were filtered through the eyes of the respondents. These findings could be different if more objective appraisals of physical health and informal support were used.

Methodologies used to examine the health and functioning of the black elderly should not only have as a goal the identification of major effects of variables, but also the objective of examining structural linkages among constructs that underlie these variables. It is also important to examine the validity of the measures currently being used to measure the social class, physical health and functioning, and informal support of older blacks. Health, functioning, and social support disparities between the black and white elderly could be due, in part, to differences in the underlying structures of these factors, and/or to differences in the measurement error of the items and indices used to measure the constructs. Increasingly, sophisticated types of

methodologies will be needed for race comparisons of the health, functioning, and informal support of the elderly.

Physical functioning in the present research was treated as a consequence of informal support in a recursive model. It is possible that the functionally limited are more likely than others to mobilize their social networks, and that functioning and support affect each other. There is a need to estimate nonrecursive models of functioning and support on longitudinal data to identify such causal ordering and reciprocal effects.

The findings presented here add substantially to our knowledge about the health, functioning, and informal support of older blacks, but they are only the beginning. We hope the issues raised in this article will stimulate thought and provide an initial framework for future research on the interplay of these factors and the health care needs of black adults as they age in American society.

Technical Appendix: The Health, Physical Functioning, and Informal Supports of the Black Elderly

The National Survey of Black Americans (NSBA)

The NSBA cross-section sample is a multistage probability sample of the black population consisting of 2,107 respondents aged 18 to 101. The sampling design was based on the 1970 census and each black American residing in an individual household within the continental United States had an equal chance of being selected. The sample design is similar to that of most national surveys but has unique features of primary area selection and stratification to make it responsive to the distribution of the black population. Eligibility for selection into this household sample was based on citizenship and noninstitutionalized living quarters within the continental United States. Reflecting the nature of the distribution of the black population, more than half (44) of the 76 primary areas used for final selection of households were located in the South. Two methods of screening were developed to guarantee inclusion of blacks—meeting selection criteria—in both high- and low-density areas. The sample had a 69 percent response rate and all face-to-face interviewing was conducted from 1979 to 1980 by black interviewers trained through the Survey Research Center of the University of Michigan's Institute for Social Research.

The questionnaire used in the NSBA was developed especially for use with the black population. Two years of pretesting and refinement preceded actual use in the field. The instrument contained both open- and closed-ended items and took approximately 2 hours and 20 minutes to administer. Although our present concern lies in the physical health and functioning, neighborhood life, family, social support, mental health, and demographic sections, the questionnaire also includes the broad areas of work, retirement, racial and self-identity, and political participation. Jackson (1987a) provides a detailed description of the NSBA methods.

The Three-generation Black Family Study

The cross-section NSBA served as the parent study for the Three-generation Black Family Study. When respondents in the cross-section survey had living family members from at least two other generations, interviews were attempted with one randomly selected representative from each of those two generations. The cross-section respondent was reinterviewed with a form of the three-generation instrument. Multiplicity sampling was adapted to generate the new national probability samples from the original national cross-section sample. (For descriptions of multiplicity sampling see, for example, Frankel and Frankel 1977 and Sirkin 1970; for adaptations of multiplicity sampling for use in generating a supplemental sample of black elderly see Gibson and Herzog 1984.) Having a defined set of inclusion-exclusion rules and establishing specific probabilities of selection for each of the three-generation respondents, the Family Network Sampling Procedure generated a nationally distributed sample of three-generation families; Jackson and Hatchett (1986) contains a detailed description of these methods. Data on the adult children of the black elderly were drawn from this three-generation sample.

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The AIDS Epidemic among Blacks and Hispanics

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A DISPROPORTIONATE NUMBER OF PERSONS WITH AIDS have been blacks and Hispanics. Members of minority groups survive for a shorter period after having been diagnosed as having AIDS than do whites with the disease (Centers for Disease Control 1986b; Weston 1986). In spite of these facts, studies of race and AIDS have been few, although this is beginning to change (Bakeman et al. 1988; Bakeman, Lumb, and Smith 1986; Centers for Disease Control 1986b; Rogers and Williams 1987). The dominant image of the disease has been that it primarily affects (white) gays (Rogers and Williams 1987); secondary images have been of transmission among individuals of unspecified race by sharing drug-injection equipment or by heterosexual intercourse. One consequence of the neglect of the differential racial impact of AIDS has been a lack of programs to allocate extra resources to AIDS-related efforts of medical institutions,

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health education, or community groups in minority communities (Nickens 1986). In addition, there has been little mobilization by minority communities or organizations to come to grips with AIDS (Nickens 1986). This lack of minority mobilization has undoubtedly been furthered by the fact that black and Hispanic gays were more stigmatized and less organized than white gays before the advent of the epidemic (Craig Harris, National Coalition of Black Lesbians and Gays, as quoted in Weston 1986), and by the hostility of many minority institutions and leaders to intravenous (IV) drug users.

In order to understand the individual, community, and group reactions to AIDS among members of different races, it is helpful to develop a model of race and its dynamics. In spite of the useful argument by Wilkinson and King (1986) in these volumes, neither our data nor the extent of our understanding of race and AIDS allows us to present a precise definition of what we mean by "race." On the other hand, as we develop our description and analysis, a partial model of what race means as a process *does* emerge. This model goes beyond the common view of minorities as deprived and subordinated, and, thus, as less able than whites to protect themselves against the epidemic, while recognizing that blacks and Hispanics are indeed subjected to relations of dominance and inequality that leave them with lower levels of material resources and of formal education than whites. It also goes beyond the "social pathology" model that holds that, in reaction to deprivation and subordination (and perhaps for other reasons as well), many minority race members take up behaviors or lifestyles (such as IV drug use) that are ultimately harmful both to these individuals and to their communities. In addition to deprivation, subordination, and pathology, however, minorities are constantly developing resources and dynamics of their own that aid their individual and collective struggles for survival, dignity, and happiness. These involve developing grapevines to carry information, networks to help each other out, and even formal organizations to formulate and achieve specific goals. In the context of AIDS, these contradictory aspects of racial relationships lead to contradictory and somewhat confusing findings. For example, rather than simply finding that black and Hispanic IV drug users are more likely than white ones to engage in behaviors that transmit the virus that causes AIDS, or that they are less likely to know enough to protect themselves (see Rogers and Williams 1987), we find that minorities know more about issues that depend