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# Self-Perceived Health and Life Outlook Among the Rural Elderly<sup>1</sup>

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## ABSTRACT

Differences in life outlook and self-perceived health often attributed to age differences among the elderly were found to be more accurately explained by education. The young-old (62-74 years) and the old-old (75 years and older) were compared among 495 elderly in two rural counties in western Arkansas. The old-old were more likely than the young-old to perceive their health as better than that of others their age. But when six variables including age were entered into a predictive model for self-perceived health, differences were explained by education. That is, those with better educations rated their health more positively. There was no difference between the two age groups in sick days, although the old-old reported more days hospitalized and trips to the doctor. However, no predictive model for health status measured was statistically significant. On measures of life satisfaction, the old-old were slightly more pessimistic than the young-old. But the age difference in life outlook was explained by education when the data were controlled for other variables. The customary division of the elderly into young-old and old-old is questioned, and policy implications of the findings are discussed.

## INTRODUCTION

The elderly represent a growing proportion of the United States population. In 1975, 15 percent of all persons in the U.S. were 60 years of age or older. This proportion is expected to increase during the remainder of the century. Thus, the status and special problems of the elderly have received increasing attention from researchers and policy-makers and have become the target for a number of federally-funded programs such as income maintenance, preventive health care, and nutritional programs.

Some of the changes and problems associated with aging can be viewed as essentially inevitable, especially the gradual deterioration of bodily functioning and health. Others seem to be more closely associated with social, economic and cultural aspects of the aging process. Certainly, the institution of mandatory retirement forces major, and often traumatic, changes in the lifestyles of elderly people, especially among males. The fixed, low incomes of many elderly place them at a severe economic disadvantage, while low educational levels limit alternatives. Increased pessimism is said to develop as older people face many of these and other problems associated with aging.

Long-range planning for the elderly is fairly easy if one is addressing a homogeneous group of people, and if the problems faced by the current group of elderly are inevitable products of aging. However, if as suggested above, the problems are more acute among some segments of the elderly population than among others, or if many of the problems are more dependent on socio-economic status than on the aging process, *per se*, targeting programs becomes more difficult. Those who are middle-aged today may have different characteristics than those who are older. As today's middle-aged move into old age, programs may have to change to meet their needs. Problems faced by those who live in isolation from their families, those in poor health, those who are economically deprived or ill-educated, may differ from those faced by other segments of the population. If researchers can identify some of the socio-economic variables affecting the aging process and its concomitant problems, planning may be more effective.

In this paper the association of age to socio-economic characteristics, mobility, family dependence, health status, and self-perception is examined among the elderly of western Arkansas. Some of the changes which occur with age are pinpointed. Health and self-perception are examined to determine if characteristics other than age can better explain differences normally attributed to age.

In examining the relationship of age to other variables, it has become customary among researchers to divide the elderly into two groups, the young-old (those under 75 years) and the old-old (those 75 years and older) (Riley, Johnson & Foner, 1972; Neugarten, 1974, 1975; Youmans, 1974, 1975). While this division is convenient for the sake of comparison, it assumes a breaking point in attitudes, health status, etc. In discussion, however, most of the changes occurring with age are viewed as gradual, indicating that treating age as a continuous variable may be more appropriate. In this paper relationships with age are examined, using age both as a categorical variable (young-old/old-old) and as a continuous variable.

## METHODS AND STUDY POPULATION

Data for this paper were taken from one sample in a longitudinal evaluation of a Model Project for Senior Citizens in Franklin and Crawford Counties, located in west central Arkansas. Data were gathered in 1977 by questionnaires administered individually to 495 respondents aged 62 and older residing in two predominantly rural counties. The questionnaire addressed socio-economic conditions, health status, community participation, and life satisfaction among the elderly. Random samples of 100 elderly persons from each county were augmented with data from 295 persons who received examinations at a medical screening mobile unit that was associated with the Model Project. The respondents had a median annual household income of \$3,600, they had a median educational level of 8.4 years, and 52 percent were female.

## RESULTS

### Socio-Economic Well-Being

Comparisons between the young-old and old-old were made on several socio-economic variables using Chi Square and *t* tests where appropriate. Pearson's correlations between age (expressed in years) and these variables were also computed.

As was expected, older people had significantly lower incomes than younger people. Whereas mean monthly per capita income for the young-old was \$223, the old-old averaged only \$198; and income was correlated  $-0.16$  with age. Older people were also likely to report significantly fewer savings from their income than younger ones after monthly household expenses were paid, as shown both by the young-old/old-old comparison and by the correlation coefficient. Participation in government programs increases with age, perhaps partially compensating for declining income. However, rates of participation were low among all the elderly respondents, lower than income eligibility requirements would dictate. Increasing age was also associated with lower educational levels; and older people were

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less likely than the younger to be married, mostly due to a higher proportion who were widowed.

**Health Status: Behavioral Indices**

Three indicators of health status—number of physician visits, days sick in bed, and days in the hospital—were examined by age, and the results appear in Table 1. Comparisons between the young-old and old-old on the three indicators showed a tendency, although non-significant, for the old-old to report poorer health status. Correlations with years of age showed significant increases in physician visits and hospitalization days with increasing age. Still, these correlations were small, and we question the assumption that among the elderly failing health naturally accompanies the older ages. Physician visits, however, may not be a good proxy for health since they are difficult to interpret. The visits may represent only routine check-ups, or they may be made at the request of a physician in order to treat a diagnosed health problem. Neglected physician visits may cause health problems to accelerate to the point that they require hospitalization, hospital care that might have been unnecessary if a physician arrested a health malady.<sup>1</sup>

Table 1  
 Relationship of Health Status to Age

Health Status Indicator	Age Category		t	Correlation with age (years)
	Young-old Mean (N)	Old-old Mean (N)		
Number of physician visits, 1977	4.4 (311)	5.9 (161)	-1.66	0.10**
Days in bed sick, 1977	7.8 (316)	11.9 (163)	-0.97	0.06
Days in hospital, 1977	2.4 (315)	3.1 (166)	-1.47	0.10**

\*\* p < .01

Table 2  
 Relationship of Self-Perceived Health to Age

Self-Perceived Health Measure	Age Category		Chi Sq.	Correlation with age (years)
	Young-old % Agreement (N)	Old-Old % Agreement (N)		
My health is much better than most people my age.	78 (276)	89 (160)	7.32**	0.14**
It is hard for me to get my regular housework done.	32 (308)	39 (185)	2.23	-0.07
I have health problems that bother me.	57 (305)	49 (166)	2.74	0.03

\*\* p < .01

<sup>1</sup>Fryar (1977) in a related study of the effects of participating in Senior Citizens' Centers in Arkansas showed that with participation, days of hospitalization decreased and physician visits increased. She suggested that physician visits can to some extent substitute for hospitalization.

**Self-Perceived Health**

Of three measures of self-perceived health, only one showed a significant association with age (Table 2). Older people were more likely to agree with the statement, "My health is much better than most people my age", as shown both by the young-old/old-old comparison and by the correlation.

**Social Participation and Mobility**

The young-old were compared to the old-old on five different measures of mobility and social participation, and correlations with age were computed. Both analyses showed that the older groups were significantly less likely than the younger to do their own shopping. Church and club attendance were not related significantly to age, nor was the tendency to get out of the house nearly every day, or to visit daily.

**Dependence on Family**

Although aging may bring physical ailments and frailty, older people did not appear to be more or less dependent upon their families than the younger ones. There were no statistically significant differences by age in the percentage of persons who saw their children weekly or more frequently, the percentage of those who felt they could count on family for support, or the percentage who said that they would go to their family if they had to seek a new living arrangement because of failing health.

**Life Satisfaction**

Five agree-disagree statements were used to assess well-being or life satisfaction. On two of these measures the old-old were significantly less satisfied with their life situation than the young-old (Table 3). Fewer of the old-old reported that they expected interesting things in the future, while more felt that life was getting worse instead of better. The same two items also had significant correlations with age. The pattern for life satisfaction was a consistent one, with older people expressing more pessimism than the younger ones on each measure.

Table 3  
 Relationship of Life Satisfaction to Age

Life-Satisfaction Measure	Age Category		Chi Sq.	Correlation with age (years)
	Young-old % Agreement (N)	Old-Old % Agreement (N)		
Taking all things together, I'm very happy	36 (32)	27 (167)	3.62	0.00
The life of the average person is getting worse, not better.	44 (260)	56 (139)	5.17*	0.13**
Most people think I'm more friendly than others my age.	91 (249)	89 (134)	0.32	-0.01
Most of the things I do are rather dull.	22 (296)	30 (159)	3.32	0.05
I expect interesting things to happen to me in the future.	82 (284)	73 (143)	4.04*	-0.15**

\*p < .05

\*\*p < .01

Predictors of Health and Life Satisfaction

Self-Perceived Health

Preliminary examination had shown only a small positive association of self-perceived health to increasing age. The data were examined further to detect whether other socio-economic variables might be more important than age in explaining self-perceived health. Two multiple regression models were developed to predict self-perceived health. Sex, age, marital status, per capita income, years of school, and number of days sick in bed were used as independent variables in both models. One model treated age as a categorical variable (young-old/old-old), while the other treated age as a continuous variable. This process was used to test whether or not the traditional young-old/old-old dichotomy conformed to the social realities of the elderly population under study.

For the purposes of this study, self-perceived health was defined as the additive score of three questions: "Is your health better than others your age?", "Is it hard for you to get your housework done?" and "Do you have health problems that bother you?"

Not surprisingly, the most significant predictor of self-perceived health was the number of days a person was sick in bed during the year (Table 4). However, educational level also emerged as a significant predictor. Thus, even at the same levels of "objective" health, people with more education assessed their health more positively. Age did not show a significant association with self-perceived health in either model.

Table 4  
 Predictors of Self-Perceived Health <sup>a/</sup>

Independent Variable	Model 1 (Age in categories) <sup>b/</sup> Standardized Beta	Model 2 (Years of age) Standardized Beta
Per capita income	0.002	0.010
Years of school	0.155*	0.155*
Sex (female)	0.077	0.073
Marital status (married)	-0.014	-0.006
Days sick in bed, 1977	-0.331***	-0.331***
Age	0.023	0.048
<b>Model Statistics</b>		
Model $\bar{r}^2$	6.47***	6.55***
N of cases	219	219
Adjusted Model $\bar{r}^2$	0.13	0.13

<sup>a</sup>Self-perceived health is an additive score of answers to the following three questions: Is your health better than others your age?; Is your housework hard to do?; Do you have bothersome health problems?\*. Responses were: 1 = yes; 0 = no. On the questions followed by an asterisk (\*), the answer "yes" indicates a more negative perception of health. These questions were recoded before computing the score, so that a "1" represents a more positive evaluation, while a "0" represents a more negative evaluation of one's health.

<sup>b</sup>Age is expressed in two categories—young-old (62-74 years) and old-old (75 + years). Coefficient in the table is for the old-old.

\*p < .05  
 \*\*\*p < .001

Behavioral Indices of Health

As previously pointed out, there was only a slight association of age to physician visits, days in bed, or days of hospitalization. Multiple regression models were developed to predict each of the three behavioral health indicators, using sex, education, marital status, per capita income and age as independent variables. Again, age was treated both as a categorical, and as a continuous variable. The results of the regression analyses were nonsignificant. Therefore, health status does not appear to be closely related to socio-economic status, at least among the elderly population considered here. Whereas education did affect the way a person perceived his/her health, it was not associated with behavioral indices of health.

Self-Perceived Well-Being

Responses to five agree-disagree questions were added to develop a scale to measure self-perceived well-being or life satisfaction (Table 3). Multiple regression models used sex, education, per capita income, marital status, mobility, family contacts, age, and number of days sick in bed as independent variables. Age again was treated as both a categorical and a continuous variable. In both models, educational level was the only significant predictor of life satisfaction among the elderly (Table 5). Regardless of their income, age, etc., the more highly educated were more positive about their life.

Table 5  
 Predictors of Well-Being/Life Satisfaction <sup>a/</sup>

Independent Variable	Model 1 (Age in categories) <sup>b/</sup> Standardized Beta	Model 2 (Years of Age) Standardized Beta
Per capita income	0.05	0.04
Years of school	0.233**	0.24***
Sex (female)	-0.10	-0.11
Marital status (married)	0.04	0.06
Mobility (get out of house daily)	0.11	0.11
Family contacts (see children weekly)	0.08	0.07
Days sick in bed, 1977	-0.10	-0.10
Age	-0.10	-0.03
<b>Model Statistics</b>		
Model $\bar{r}^2$	4.40***	4.06***
N of cases	238	238
Adjusted Model $\bar{r}^2$	0.10	0.09

<sup>a</sup>Well-being is an additive score of answers to the following five questions: Are you very happy?; Is life getting worse?; Are you friendlier than others?; Do you think things are dull?; Do you expect interesting things in the future?\*. Responses were: 1 = yes; 0 = no. On the questions followed by an asterisk (\*), the answer "yes" indicates a more negative outlook. These questions were recoded before computing the score, so that a "1" represents a more positive outlook, while a "0" represents a more negative evaluation of one's life.

<sup>b</sup>Age is expressed in two categories—young-old (62-74 years) and old-old (75 + years). Coefficient in the table is for the old-old.

\*\*\*p < .001

CONCLUSIONS

The elders were more likely than their younger counterparts to say they were in better health than others their age. On two other measures of self-perceived health, however, there was no association with age. A multiple regression model using a number of socio-economic and demographic variables showed that education was a better predictor than age for self-perceived health. Disability days, or days sick in bed, was the single best predictor variable in the model, but when persons with similar numbers of disability days were compared, those with more education viewed themselves as healthier. Although aging is generally associated with a gradual deterioration of bodily functioning, age was not associated with significant increases in the use of health practitioners, and hospitals, or with the number of days in bed. Furthermore, differences in education were more important than age in explaining differences in life-satisfaction among the elderly of western Arkansas. Those with higher educations tended to regard themselves as healthier and happier, regardless of their age.

There are a number of relevant policy implications apparent from these results. First, decreases in happiness and self-perceived health are not inevitable results of aging. Although the oldest persons in our sample were not as happy as the younger elders, this appeared to be due largely to educational differences, not to age differences. *per se*.

Better educated persons viewed their health and life as better than less educated persons, regardless of age, income, social isolation, mobility, marital status, sex, or behavioral health status.

Using age as a categorical variable, as is customary in much of the literature on aging, did not prove useful or illuminating. Indeed, changes which occur among the elderly tend to be gradual and to fit better as a linear function. These results cause us to question the widespread use of the categories of young-old and old-old in analyzing the elderly.

As educational levels improve, or as the better educated middle-aged population joins the ranks of the elderly, perhaps we can expect them to have an improved outlook on life. More than any of the other variables explored, education predicts life satisfaction and self-perceived health. Although a superior education does not guarantee against physical ailments and ill fate, it does appear to cushion their impact.

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