

## Older Adults' Subjective Age: Which Health Dimensions Make a Difference?

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### ABSTRACT

Numerous variables have been shown to be related to subjective age (i.e., the age one feels). However, health variables tend to explain the largest proportion of the variance in subjective age scores (Hubley & Hultsch, 1994). The purpose of the present study was to identify the relative contribution of different dimensions of self-rated health and satisfaction with health to individuals' subjective age, ideal age, and satisfaction with being their present age in a sample of 875 older adults aged 55-97 years. Results of the study showed that, on average, participants felt somewhat younger than their chronological ages and would also choose to be somewhat younger. Nonetheless, these participants were also, on average, satisfied with being their present age. Regression analyses showed that (a) certain dimensions of self-rated health and health satisfaction are more closely related to subjective age scale scores and age satisfaction than others, (b) the self-rated health predictors of subjective age scale scores and age satisfaction differ for men and women, and (c) these self-rated health predictors explained 20-36% of the variability in subjective age scale scores and age satisfaction scores in men and women.

### INTRODUCTION

Older adults consistently report subjective age identities (i.e., the age one feels) that are younger, on average, than their actual ages (e.g., Hubley & Hultsch, 1994; Kaufman & Elder Jr., 2002; Montepare & Lachman, 1989). Hubley and Hultsch (1994) reported that, of all the variables that have been shown to contribute to subjective age, health variables typically explain the greatest proportion of variance, with poorer health related to feeling older than one's chronological age (e.g., Baum & Boxley, 1983; Gana, Alaphilippe, & Bailly, 2004; Smith, Plawecki, Houser, Carr, & Plawecki, 1991; Steitz & McClary, 1988). Moreover, negative changes in health are the most frequently cited reason for why a person begins to feel older (Sherman, 1994). Despite the significant

contribution of health to subjective age, little research has been conducted to explore the relative importance of different aspects of health to subjective age (Barrett, 2003).

The purpose of the present study was to examine the relative importance of different dimensions of self-rated health to subjective age identity in a sample of older men and women. Specifically, the present study examined: (a) mean scores and gender differences for subjective age, ideal age, and age satisfaction, and (b) the relative importance of subscales of the SF-36 (i.e., Physical Functioning, General Health, Vitality, Role Physical, Bodily Pain, Social Functioning, Role Emotional, Mental Health) and health satisfaction to each of subjective age, ideal age, and age satisfaction.

## METHOD

### Sample

The sample consisted of 875 older adults (67.7% female) aged 55-97 years ( $M = 69.06$ ,  $SD = 8.83$ ) who took part in a large community survey (Michalos, Hubley, Zumbo, & Hemingway, 2001). Most (57.4%) were married, 27.1% were widowed, 12.0% were separated or divorced, and 2.1% were never-married (1.5% non-response). Close to one third (29.8%) of participants had not completed high school, compared to 17.3% who had completed high school and 50.4% who had some post-secondary education (2.5% non-response).

### Procedure

Participants completed a survey that included questions about various aspects of their lives (e.g., health, housing, quality of life) as older persons. Surveys were distributed to seniors' organizations, recreation centres, Native health centres, independent seniors' housing units, intermediate care homes, home care service providers, Meals on Wheels, commercial medical services providers, the local Advisory Council on Seniors, the local Alzheimer's Society, some associations for retired employees, and were included in a freely distributed seniors' newspaper. The focus in this study is on the participants' responses to subjective age and health questions.

### Measures

#### *Subjective Age*

Five subjective age items, developed by the second author, measured physical, mental, social, look, and ideal age by asking respondents whether they felt much younger (1), somewhat younger (2), about the same (3), somewhat older (4), or much older (5) than their chronological age. A factor analysis, using principal axis factoring, indicated that physical, mental, social, and look age measured a single underlying factor and could be combined into a Subjective Age Scale score ( $\alpha = .79$ ). Ideal Age was used as a second dependent variable. A third dependent variable consisted of a single-item measure of satisfaction with present age (Age Satisfaction), measured on a 7-point scale ranging from 1 (very dissatisfied) to 7 (very satisfied).

### *Health*

The SF-36 (Ware & Sherbourne, 1992), a widely-used measure of dimensions of health, was used as a predictor of subjective age. The subscales of this scale measure Physical Functioning, General Health, Bodily Pain, Vitality, Role-Physical, Role-Emotional, Mental Health, and Social Functioning, thus encompassing a range of health-related factors. The reliabilities of the subscales with this sample ranged from good to excellent ( $\alpha = .80$  to  $.97$ ). A single-item measure of Health Satisfaction, measured on a 7-point scale ranging from 1 (very dissatisfied) to 7 (very satisfied), was used as an additional predictor variable.

## **RESULTS**

### Mean Comparisons

On average, participants felt slightly younger than their chronological ages ( $M = 2.42$ ,  $SD = .69$ ),  $t(817) = -24.13$ ,  $p < .001$ ,  $d = -0.84$ , and would choose to be somewhat younger than their chronological ages ( $M = 2.28$ ,  $SD = .75$ ),  $t(838) = -27.99$ ,  $p < .001$ ,  $d = -0.96$ . However, they also tended, on average, to be satisfied with being their present age ( $M = 5.48$ ,  $SD = 1.58$ ),  $t(830) = 26.94$ ,  $p < .001$ ,  $d = 0.94$ .

Independent samples t-tests indicated that there were no significant gender differences on any of the subjective age variables (i.e., Subjective Age Scale, Ideal Age, or Age Satisfaction).

### Regression Analyses

To determine which health variables contributed to subjective age scores, Health Satisfaction and the eight SF-36 subscales were included as predictor variables in six stepwise regression analyses with Subjective Age Scale and Age Satisfaction scores as the dependent variables. Ideal Age was not included in the regression analyses because correlations between this variable and the predictor variables were all near-zero. Analyses were conducted for men and women. A Relative Pratt Index (RPI; Thomas, Hughes, & Zumbo, 1998) was computed to determine the relative contribution of each predictor variable to the model.

### *Subjective Age Scale*

For women, a model composed of the SF-36 Vitality and General Health subscales as well as Health Satisfaction accounted for 25.9% of the variability in the ages they felt (see [Table 1](#)) whereas, for men, a model composed of the SF-36 Vitality, General Health, and Physical Functioning subscales accounted for 35.9% of the variability in the ages they felt (see [Table 2](#)). In each model, Vitality accounted for most of the explained variance, especially for women.

### *Age Satisfaction*

For women, a model composed of Health Satisfaction as well as the SF-36 Mental Health and General Health subscales accounted for 28.6% of the variability in how satisfied they were with being their age (see [Table 3](#)). For men, however, only Health Satisfaction and SF-36 Mental Health were significant contributors to the model, which accounted for 20.2% of the variability in how satisfied they were with being their age (see [Table 4](#)). Both Health Satisfaction and Mental Health were equally important in the model for women, but Health Satisfaction made a much stronger contribution in the model for men.

## **DISCUSSION**

Although previous research has documented the relationship between overall self-rated health and subjective age, the present study explored the relative importance of various physical, mental, social, and emotional dimensions of health, as well as satisfaction with health, to measures of subjective age identity. In the present study, Subjective Age Scale scores were predicted by Vitality, General Health, and Health Satisfaction for women and by Vitality, General Health, and Physical Functioning for men. Age Satisfaction scores were predicted by Health Satisfaction, Mental Health, and General Health for women and by Health Satisfaction and Mental Health for men. These predictors explained 26-36% of the variability in Subjective Age Scale scores and 20-29% of the variability in Age Satisfaction scores in men and women. These findings not only highlight the important relationship between self-rated health and subjective age, but they also help identify the specific dimensions of self-rated health that play a role in this relationship.

## REFERENCES

- Barrett, A. E. (2003). Socioeconomic status and age identity: The role of dimensions of health in the subjective construction of age. *Journal of Gerontology, 58B*(2), S101-S109.
- Baum, S. K., & Boxley, R. L. (1983). Age identification in the elderly. *The Gerontologist, 23*(5), 532-537.
- Gana, K., Alaphilippe, D., & Bailly, N. (2004). Positive illusions and mental and physical health in later life. *Aging and Mental Health, 8*(1), 58-64.
- Huble, A. M., & Hultsch, D. F. (1994). The relationship of personality trait variables to subjective age identity in older adults. *Research on Aging, 16*(4), 415-439.
- Kaufman, G., & Elder Jr., G. H. (2002). Revisiting age identity: A research note. *Journal of Aging Studies, 16*, 169-176.
- Michalos, A. C., Huble, A. M., Zumbo, B. D., & Hemingway, D. (2001). Health and other aspects of the quality of life of older people. *Social Indicators Research, 54*, 239-274.
- Montepare, J. M., & Lachman, M. E. (1989). "You're only as old as you feel": Self perceptions of age, fears of aging, and life satisfaction from adolescence to old age. *Psychology and Aging, 4*(1), 73-78.
- Sherman, S. R. (1994). Changes in age identity: Self-perceptions in middle and late life. *Journal of Aging Studies, 8*(4), 397-412.
- Smith, M. A., Plawecki, H. M., Houser, B., Carr, J., & Plawecki, J. A. (1991). Age and health perceptions among elderly Blacks. *Journal of Gerontological Nursing, 17*(11), 13-19.
- Steitz, J. A., & McClary, A. M. (1988). Subjective age, age identity, and middle-age adults. *Experimental Aging Research, 14*(2), 83-88.
- Thomas, D. R., Hughes, E., & Zumbo, B. D. (1998). On variable importance in linear regression. *Social Indicators Research, 45*, 253-275.
- Ware, J. E. J., & Sherbourne, C. D. (1992). The MOS 36-item short-form health survey (SF-36). *Medical Care, 30*(6), 473-481.

Table 1: Regression of Health Variables on Subjective Age Scale Scores for Women

	B	Std. Error	Beta	Sig.	Zero order correlation	Relative Pratt Index
Vitality	-.009	.002	-.282	.000	-0.431	0.469
General Health	-.005	.002	-.152	.025	-0.433	0.254
Health Satisfaction	-.053	.026	-.136	.039	-0.417	0.219

Table 2: Regression of Health Variables on Subjective Age Scale Scores for Men

	B	Std. Error	Beta	Sig.	Zero order correlation	Relative Pratt Index
Vitality	-.009	.003	-.299	.000	-0.523	0.436
General Health	-.007	.003	-.221	.015	-0.526	0.336
Physical Functioning	-.004	.002	-.151	.046	-0.477	0.201

Table 3: Regression of Health Variables on Age Satisfaction Scores for Women

	B	Std. Error	Beta	Sig.	Zero order correlation	Relative Pratt Index
Mental Health	.035	.004	.373	.000	0.437	0.529
Health Satisfaction	.323	.054	.372	.000	0.407	0.570
General Health	-.010	.005	-.145	.022	0.307	-0.156

Table 4: Regression of Health Variables on Age Satisfaction Scores for Men

	B	Std. Error	Beta	Sig.	Zero order correlation	Relative Pratt Index
Health Satisfaction	.306	.065	.343	.000	0.445	0.756
Mental Health	.017	.007	.161	.027	0.411	0.328