

CORRELATES OF CHANGE IN SUBJECTIVE WELL-BEING AMONG THE ELDERLY

Fredric D. Wolinsky, Ph.D., Rodney M. Coe, Ph.D.,
Douglas K. Miller, M.D., and John M. Prendergast, M.D.

ABSTRACT: This study examines two related issues concerning the subjective well-being of elderly adults: change over time and correlates of that change. Data come from a three-wave panel study of 401 elderly residents in St. Louis. Residualized change score regression analyses indicate: (1) there is change in subjective well-being over 4-5 months and over 12 months; (2) the 4-5 month and 12 month changes are remarkably similar; (3) the effect of subjective well-being over time indicates regression to the mean; and, (4) only socioeconomic status is a significant predictor of change in subjective well-being (net of the effects of subjective well-being itself). The implications of these results for our understanding of subjective well-being in the elderly are discussed, as are the policy implications of the positive effect of socioeconomic status on changes in the subjective well-being of the elderly.

INTRODUCTION

The assessment of subjective well-being among elderly people has been one of the most popular research subjects in social gerontology. As a result, numerous attitude scales have been developed for the measurement of the various components of subjective well-being, including morale, life satisfaction, adaptation, and mental health.^{1,2,3,4} Although eminently popular, the pursuit of good measures of subjective well-being has historically been problematic. In recent years, much attention has focused on the issue of the dimensionality of extant measures, even within a single component of subjective well-being (e.g., morale).^{1,3,5} In this paper we focus on the morale component of subjective well-being.

One particular measure of morale that has received considerable

Dr. Wolinsky is with Texas A&M University. Dr. Coe, Dr. Miller, and Dr. Prendergast are all with both the St. Louis University Medical Center and the Veterans Administration Medical Center, St. Louis.

The collection of the data used in this study was supported in part by a grant to Dr. Coe from the Alexian Brothers Hospital in St. Louis, Missouri. The analysis of the data and the preparation of this manuscript was supported by a Research Career Development Award (5-K04-AG-00202-02) granted to Dr. Wolinsky by the National Institute on Aging. The authors thank Ray Mosely II, and Linda K. George whose comments on an earlier draft were most helpful. The views and opinions expressed in this paper are those of the authors and do not necessarily reflect the official position or policy of any of the participating institutions. Address all communications to Dr. Wolinsky, Department of Sociology, Texas A&M University, College Station, Texas 77843-4351.

attention is the Philadelphia Geriatric Center Morale Scale (PGC) originally proposed and subsequently revised by Lawton.^{2,6} Initially consisting of 22 items, the PGC was subsequently reduced to seventeen items based on the identification of three stable and replicable factors: agitation, attitudes towards one's own aging, and loneliness-dissatisfaction. Subsequent replication studies by Morris and Sherwood⁷ and Liang and Bollen¹³ provide further evidence of the stability and replicability of these three dimensions. Liang and Bollen, however, complicate the matter somewhat by claiming that the PGC is both unidimensional and multidimensional. They argue that at the first-order level the PGC is multidimensional because three stable and replicable factors are observed; however, a second-order factor, which Liang and Bollen label global life satisfaction, was found to explain the co-variation in the first-order factors (i.e., agitation, attitudes towards one's own aging, and loneliness-dissatisfaction). The added complexity of the second-order factor notwithstanding, the PGC has received widespread attention, use, and replicated support. Indeed, the PGC has emerged as a standard measure for the assessment of morale among the elderly.

Despite this extensive research on and development of a reliable and valid measure of morale, two key questions have gone unaddressed. Stated in their simplest form, these questions are: (1) is there change in the subjective well-being of the elderly over time; and, (2) if so, what are the correlates of that change? The fundamental problem is that research on the assessment of morale (or any other component of subjective well-being among the elderly) has most often been based upon the analysis of cross-sectional data (for a notable exception that also provides a detailed review of the extant literature see Haug *et al.*⁸). This reliance on cross-sectional data is understandable, especially given the paucity of panel data with which change can accurately be assessed. It has, nonetheless, imposed both conceptual and methodological limitations on our understanding of subjective well-being and the processes associated with it among the elderly.

At the conceptual level, the reliance on cross-sectional data and their analysts has focused attention on the structure of measures of subjective well-being at a single point in time. As a result, the underlying issue of the stability or lability of subjective well-being has not received sufficient consideration. The fundamental issue here is whether indicators of subjective well-being do (or should) tap relatively stable personal predispositions or *traits* among elderly persons, or whether such indicators do (or should) tap more transient *mood states* that are responsive to (potentially) rapidly changing external factors. The stability perspective leads to expectations of minimal change in the subjective well-being of the elderly, especially in the short-term. The lability perspective, how-

ever, leads to expectations of greater volatility, suggesting that changes over time in external factors would be more salient correlates of change in subjective well-being than would the elderly person's previous level of subjective well-being. Although there are strengths and weaknesses associated with both perspectives, we favor the stability perspective, especially when (or if) the measure of subjective well-being taps its more enduring dimensions.

At the methodological level, the reliance on cross-sectional data has focused analysis on static rather than dynamic models of subjective well-being. These static models typically focus on the identification of a variety of personal, environmental, and other characteristics that correlate with current subjective well-being. More dynamic models are needed to clarify the relationship of prior levels of subjective well-being on current levels of subjective well-being in comparison to the effects of other factors, such as socioeconomic status, sex, and social supports.

To begin to address these issues, seven items from the PGC were posed to 401 elderly adults who participated in a three-wave panel study in St. Louis. Sociodemographic and other background characteristics measured at the initial interview (T-1) are used to predict subjective well-being at T-1; then, subjective well-being at T-2 and T-3 are predicted by subjective well-being at T-1, as well as by the sociodemographic and other background characteristics reported at T-1. In this way, we focus on both the stability and lability of subjective well-being.

METHODS

The data used in the present study were taken from a survey of 401 elderly persons (aged 65 years or more) selected from 17,736 elderly adults residing in any of eighteen census tracts within a two-mile radius around a focal point in south-central metropolitan St. Louis. The sampling procedure involved two random stages, and resulted in a self-weighting sample of 401 elderly persons proportionate to their numbers in the eighteen census tracts, as indicated by the 1980 census data. All initial interviews were conducted on a face-to-face basis in the elderly respondent's home. The response rate was 59%. This response rate, however, is artificially low because we are unable to eliminate from the denominator those households where no contact was made; thus, our 41% nonresponse rate includes both those households where no one was at home and those who refused to participate. The data have been shown to be representative of the elderly in these eighteen census tracts (for further details concerning the sample, the data, and other analyses of them see Coe *et al.*,^{9,10} and Wolinsky *et al.*^{11,12,13,14}).

Four to five months after the initial interviews, a minimum of three attempts was made by telephone to re-interview all 401 respondents. Of these, 334

were successfully reinterviewed at T-2. At this point, all of the attitudinal and health status questions were re-asked. Approximately twelve months after the initial interviews, we again made a minimum of three attempts by telephone to re-interview the 401 original respondents. Of these, 271 were successfully reinterviewed at T-3. Once again, all of the attitudinal and health status questions were re-asked. Elsewhere we have shown that no systematic bias was introduced by panel attrition from T-1 to T-2 to T-3.¹³

To measure subjective well-being among the elderly in our panel study we selected a sub-set of items from the PGC. We rely on items from the PGC because of the extensive evidence of its reliability and validity (discussed above). We selected a sub-set of items from the PGC because of the space constraints imposed by the necessity of telephone follow-ups at T-2 and T-3, and because of the importance of using items that are more reflective of enduring traits rather than transient moods. The former was unavoidable given the design of this study, while the latter reflects our conscious desire to provide a conservative empirical assessment of the stability perspective on subjective well-being.

To select the items, we first administered the entire PGC at T-1. Then we analyzed those data to identify a smaller yet reliable sub-set of items that would tap subjective well-being. Special consideration was then given to items that appeared to be more diffuse and less volatile in the presence of routine (day-to-day) changes in environmental and other factors. The exact wording and frequency distributions of the seven items selected are shown in Table 1, along with the reliability coefficients obtained by creating simple summated scales to these "yes" or "no" questions. Only these seven items were included in the telephone follow-ups at T-2 and T-3.

Further empirical evidence of the reliability and validity of the subjective well-being scale was obtained as follows. First, reliability analyses were conducted at all three time points. As indicated in Table 1, reliability coefficients (i.e., coefficient alphas) of .71, .72, and .67 were obtained. Although larger coefficients would be preferable, these are sufficient to establish an acceptable level of reliability. Inasmuch as the reliability coefficient obtained for the entire PGC at T-1 was .84, the smaller coefficients reported above result primarily from the reduced number of items in the sub-set (when compared to the original PGC).

To empirically assess the validity of the subjective well-being scale, principal components factor analyses were conducted on the seven items at all three time points. Based on a scree test criterion,¹⁵ only one factor emerged from the principal components analyses at T-1, T-2, or T-3; it explained about 40% of the variation in the seven items at all time points. Moreover, the mean factor loading of the seven items was always .60 or greater. This indicates the consistently strong identification of the seven items on the one factor at all time points. When taken together, these data provide considerable evidence for both the reliability and validity of the seven items that comprise the subjective well-being scale.

In focusing on subjective well-being among the elderly, our analysis also makes use of a variety of sociodemographic and other background characteristics often thought (and found) to be correlates of subjective well-being.⁸ Accordingly, these characteristics would seem to be likely candidates for correlates of change in subjective well-being. These characteristics include age, sex, living

TABLE 1

Frequency distributions and exact wording of the seven items in the subjective well-being scale

Wording of the Items	Percent at Risk		
	T-1 (N = 378)	T-2 (N = 322)	T-3 (N = 261)
1. Do you sometimes worry so much that you can't sleep?	33	22	23
2. Are you sad a lot of the time?	21	14	12
3. Is life hard for you most of the time?	16	13	11
4. Do you have as much pep as you did last year?	51	43	47
5. As you get older, do you feel less useful?	38	32	34
6. Do you sometimes think life isn't worth living?	20	14	15
7. Do you often feel lonely?	30	15	24
<i>Coefficient Alpha</i>	.71	.72	.67

alone, widowhood, socioeconomic status, two measures of family and neighbor network relationships, locus of control, perceived overall health status, personal activities of daily living, instrumental activities of daily living, and a perceived sensory functioning scale. In our sample, average age was 74.2 years, 66% of the respondents were female, 43% lived alone, and 49% were widowed. Socioeconomic status was measured using Hollingshead's two factor index of social position,¹⁶ with 80% of the respondents falling into the two lowest classes.

Family and neighbor network relationships were assessed using two dummy variables that mirror the typology presented by Coe *et al.*¹⁶ In this typology, an individual is considered to have compensatory network relationships if they are engaged in either the family or neighbor network, but disengaged from the other. If the respondent is either engaged in both networks or disengaged from both networks, then he or she is considered to have complementary network relationships. According to Coe *et al.*, individuals with either compensatory or complementary network relationships should have better morale, as well as other dimensions of health status, than do other respondents. In our sample, 29% of the respondents had compensatory network relationships, while 31% had complementary network relationships. The remaining 40% of the respondents were classified as abandoned in at least one of the networks, and are used as the comparison category.

Locus of control was measured using the *Wallston et al.*¹⁷ six-item inter-

nal health locus of control scale (coefficient alpha = .70). Perceived health status was measured by asking the respondents to rate their overall health as either excellent, good, fair, or poor. Personal activities of daily living were measured by taking five items (dressing, feeding, bathing, toileting, and grooming) from the Katz et al.¹⁸ ADL scale (coefficient alpha = .85). Instrumental activities of daily living were measured by taking seven items (telephoning, walking up stairs, grocery shopping, meal preparation, repairing/cleaning, doing laundry, and money management) from those used in the IADL (coefficient alpha = .83).¹⁹ Finally, perceived sensory functions were measured by asking the respondents to rate their five senses (appetite, vision, hearing, ability to taste, and sense of smell) using the four-point scale described for the perceived overall health status measure (coefficient alpha = .66).

RESULTS

Prior to assessing change in subjective well-being and its correlates, it seems reasonable to examine first the correlates of subjective well-being itself. To accomplish this, we used the sociodemographic and other background characteristics (described above) in a regression analysis of subjective well-being at T-1. The results of this analysis are shown in Table 2, where to simplify the interpretation, all of the health status measures (including subjective well-being) are scored so that higher numerical values indicate good health and lower numerical values indicate poor health. Similarly, the two factor index of social position has been scored so that higher numerical values indicate higher social position.

There are two interesting and general patterns shown in Table 2. First, as indicated by the R^2 of .348, the regression model of the sociodemographic and other background characteristics adequately defines subjective well-being at T-1. Thus, it would appear that we have, at least, included a number of the significant correlates of subjective well-being among the elderly. Second, however, there are only four significant predictors of subjective well-being among the sociodemographic and other background characteristics. In order of the relative magnitude of their effects (i.e., the size of the standardized coefficients) are the positive effect of perceived sensory functioning, the positive effect of being in a compensatory network relationship, the positive effect of perceived overall health status, and the negative effect of living alone. The two positive health status effects are as expected, and indicate that individuals who perceive themselves to be physically healthy are more likely to report levels of subjective well-being. Similarly, the negative effect of living alone is also as expected, and reflects the long-standing assumption that elderly individuals who live alone are more likely to report lower levels of subjective well-being than their counterparts who live with other individuals.

The positive effect of being in a compensatory network relationship both is and is not as expected. That is, positive effects were expected for both compensatory and complementary network relationships. These data suggest that contrary to the speculation of Coe *et al.*^{9,10}: (1) being in a compensatory

TABLE 2

Results of the regression of subjective well-being at T-1 on the sociodemographic and other background characteristics at T-1^a

Independent Variables	Unstandardized Coefficient	Standardized Coefficient	Significance Level
Age			NS
Sex			NS
Lives Alone	-.536	-.151	.05
Widowhood			NS
Socioeconomic Status			NS
Compensatory Network Relationships	.934	.255	.001
Complementary Network Relationships			NS
Locus of Control Scale			NS
Perceived Overall Health Status	.428	.212	.01
Activities of Daily Living			NS
Instrumental Activities of Daily Living			NS
Perceived Sensory Functioning Scale	.264	.351	.0001
R ²	.348		.0001

^aAll health status measures, including subjective well-being, are scored so that higher numerical values indicate good health and lower numerical values indicate poor health. Subjective well-being is scored from 0 (low) to 7 (high). Insignificant ($p \geq .05$) coefficients have been omitted for clarity.

network relationship provides significantly more support, and perhaps buffering, than being in a complementary network relationship; and (2) being in a complementary network relationship provides no more or no less support, and perhaps buffering, than being without any acceptable network relationship whatsoever. The implication here is that being engaged in one network but disengaged from the other is most beneficial, at least in terms of subjective well-being.

What is, perhaps, most puzzling about the results presented in Table 2 is the absence of any significant direct effect of socioeconomic status on subjective well-being. It has long been argued that socioeconomic factors should be strong

correlates of subjective well-being among the elderly. These data, however, provide no evidence of any direct relationship with socioeconomic status. It is, nonetheless, possible that socioeconomic status does have indirect effects on subjective well-being through its intermediary effects on both family and neighbor network relationships and health status. Such an interpretation is entirely consistent with Andersen's behavioral model,²⁰ which specifies that the predisposing and enabling characteristics (which contain a number of socioeconomic status factors) have both direct effects on the use of health services, as well as indirect ones through their prior impact on health status. To assess this possibility, we regressed the four characteristics that had significant direct effects on subjective well-being (see Table 2) on socioeconomic status. No significant effects on living alone, having a compensatory network relationship, or perceived health status were found. Socioeconomic status did significantly affect perceived sensory functioning; however, it only explained 3% of the variance. Accordingly, there is little evidence that socioeconomic status indirectly affects subjective well-being, and there is no evidence that it directly affects subjective well-being.

To determine whether there is in fact change in subjective well-being among the elderly over time, we next regressed subjective well-being measured at T-2 and T-3 on subjective well-being measured at T-1. The results of these analyses are shown in Table 3, where there are two interesting points to note. First, these results show both the stability and change involved in subjective well-being among the elderly over time. The stability is demonstrated by the large r^2 coefficients obtained (.380 and .368) as well as by the large standardized regression coefficients (.617 and .606). These rather large effects of subjective well-being at T-1 on subjective well-being at T-2 and T-3 (which are not corrected for the attenuation that results from measurement unreliability) indicate the stability of subjective well-being among the elderly over time. At the same time, however, these data indicate that some change occurs on subjective well-being. In neither case does the unstandardized coefficient approximate unity. If there was no change whatsoever in subjective well-being, the unstandardized coefficients would be unity, even if the r^2 levels were not (the latter would simply indicate extraneous noise due to random measurement error). At this point we would be remiss not to note that although Haug *et al.*⁸ used different measures of subjective well-being, the results reported from the analysis of their Self-Assessed Mental Health Scale are identical to ours, and the results reported from the analysis of their three other measures of mental well-being are very similar.

The second point to note in the results presented in Table 3 is that there is fundamentally no meaningful difference in the effects of subjective well-being at T-1 on subjective well-being at either T-2 or T-3. This implies that the stability and change in subjective well-being in the shorter term (from T-1 to T-2) and in the longer term (from T-1 to T-3) are about the same. Without other time-lag periods for comparative purposes, however, further discussion of the differences or similarities between short- and long-term changes in subjective well-being among the elderly is unwarranted.

Having established that changes in subjective well-being do occur between T-1, T-2, and T-3, we added the sociodemographic and other background characteristics measured at T-1 into the change equations described

TABLE 3

Results of the regression of subjective well-being at T-2 and T-3 on subjective well-being at T-1

Dependent Measures	Unstandardized Coefficient	Standardized Coefficient	t Ratio	r ²
Subjective Well-being at T-2	.535	.617	10.8	.380
Subjective Well-being at T-3	.568	.606	10.7	.368

above. The results of the regression of subjective well-being at T-2 and T-3 on subjective well-being, sociodemographic, and other background characteristics at T-1 are shown in Table 4. The interpretation of these results is based on Kessler and Greenberg's suggested regression methodology for assessing structured change over time.²¹ Based on algebraic manipulation, the net effect of subjective well-being at T-1 on changes in subjective well-being may be obtained by subtracting 1 from the unstandardized coefficient of subjective well-being at T-1 on subjective well-being at T-2 (or T-3). (Note: such subtraction is not needed to obtain the net effects of the sociodemographic and other background characteristics on changes in subjective well-being.) These calculations reveal net effects of subjective well-being at T-1 on changes in subjective well-being of -.533 (at T-2) and -.479 (at T-3). Again it should be noted that although Haug used different measures of subjective well-being,⁸ our results are nearly identical with theirs, at least with respect to the effects of subjective well-being measured at baseline on its subsequent values.

Following Kessler and Greenberg,²¹ the interpretation of these negative effects of subjective well-being on changes in subjective well-being indicates regression to the mean. That is, individuals with low levels of subjective well-being at T-1 are more likely to be feeling better, and individuals with high levels of subjective well-being at T-1 are more likely to start feeling worse over time. This is not surprising. Indeed, as Kessler and Greenberg point out, regression to the mean is fairly typical in quantitative studies of stability and change. Moreover, it makes good common sense in the case of subjective well-being; otherwise, the healthy would be getting healthier while the sick get sicker. Although such a scenario might be feasible if one focused on stability and change in incomes (i.e., the rich get richer and the poor get poorer), it is not so likely in the analysis of stability and change in subjective well-being. This is especially true given that measures of subjective well-being typically have maximum upper and lower limits.

As with the results presented in Table 3, the results presented in Table 4 also provide further evidence that while there is change in subjective well-being over time, that change is not large. That is, although there is regression to the mean (as demonstrated by subtracting 1 from the unstandardized coefficients of

subjective well-being at T-1), the magnitude of this effect on change is not large. Therefore, there is moderate stability in subjective well-being among the elderly over time. Moreover, as was the case in Table 3, the results presented in Table 4 show no meaningful difference in the effect of subjective well-being on changes in subjective well-being over the short- as opposed to the long-term. Again, however, further research involving greater variation in time-lag periods is needed to address this issue.

What is clearly most surprising about the results presented in Table 4 concerns the effects of the sociodemographic and other background characteristics on changes in subjective well-being. Only socioeconomic status has a significant effect *on changes in subjective well-being* among the elderly over time (although socioeconomic status was not related to subjective well-being at T-1). The interpretation of this effect is as follows. Over time, higher socioeconomic status individuals are more likely than individuals of lower socioeconomic status to be able to recoup from (or shed) the deleterious effects of life events on subjective well-being. That is, the higher one's socioeconomic status, the more likely one's subjective well-being is to improve over time. The implications of this finding are both straightforward and of considerable importance for public policy. They suggest a vicious cycle wherein lower socioeconomic status elderly people will increasingly face declining subjective well-being, while their higher socioeconomic status counterparts will somehow be able to avoid and/or compensate for the circumstances and problems that would otherwise result in reducing their subjective well-being. Thus, the subjective well-being of elderly people in the lower socioeconomic strata is considerably more at risk for deleterious change than that of their more affluent counterparts.

Although the implications of the positive effect of socioeconomic status on the subjective well-being of the elderly is sobering, the absence of any significant effects from the other sociodemographic and background characteristics is perhaps more surprising. Indeed, these results show that changes in subjective well-being are simply unrelated to age, sex, living alone, widowhood, family and neighbor network relationships, locus of control, perceived overall health status, ADL, IADL, or perceived sensory functioning. At this point our results are in contrast with those of Haug⁸ who reports a significant effect for self-assessed physical health. Because of the differences in the indicators used to measure both independent and dependent variables, however, further reconciliation is not possible.

Although living alone, compensatory network relationships, perceived overall health status, and perceived sensory functioning were related to initial levels of subjective well-being, the fact that none of them is related to changes in subjective well-being over time underscores the serious conceptual and methodological limitations imposed by devotion to the cross-sectional assessment of subjective well-being among the elderly. That is, although much has been written about the correlates of subjective well-being among the elderly, little is known about the correlates of change in that subjective well-being. These results suggest that focusing on the correlates of change in subjective well-being among the elderly may be as important as focusing on the correlates of subjective well-being alone.

DISCUSSION

Before discussing the results reported above, there are three caveats that need to be addressed. These caveats concern the time-lags, measurement of subjective well-being, and sample used in the present study. First, although one short- (4-5 month) and one long-term (12 month) time-lag period were included, greater variation in this aspect of data collection is needed. It is possible that either intensive day-to-day or truly long-term (more than a year) time-lag periods would have produced different and/or less consistent results (across different time-lags). Second, although the sub-set of items selected from the PGC were thought to be indicative of more enduring traits rather than of more volatile moods, some of them may contain elements of both phenomena. To the extent that this occurs, the results are somewhat confounded, inasmuch as the trait-like items may account for the observed stability while the mood-like items may account for the observed lability in subjective well-being. Comparative analyses of separate scales tapping enduring traits and volatile moods are needed to determine the extent of this measurement problem. Finally, although randomly selected, this sample represents only a small segment of the population: white, urban, noninstitutionalized elderly in St. Louis. It is possible that correlates of change in subjective well-being are different among minority and rural elderly, or among white, urban elderly from other regions of the country. In light of these caveats, the results (and their implications) discussed below should be considered preliminary, and viewed with reservation.

The above caveats notwithstanding, we have addressed two important yet neglected issues in the assessment of subjective well-being among the elderly; these are whether change occurs over time, and whether there are identifiable correlates of that change? Residualized change score regression analyses of data from a three-wave panel study of 401 elderly individuals in St. Louis indicate the following: (1) there is change in subjective well-being over both the 4-5 month and 12 month time-lag periods; (2) the 4-5 month and the 12 month changes in subjective well-being are rather similar; (3) the effects of subjective well-being over time indicate regression to the mean; and, (4) only socioeconomic status is a significant predictor of change in subjective well-being net of the effects of subjective well-being itself (although living alone, compensatory network relationships, perceived overall health status, and perceived sensory functioning at T-1 all had significant effects on subjective well-being at T-1).

The first finding, that there is change over time, is crucial for our understanding of subjective well-being. It clearly underscores the need for future research on both the fluidity of subjective well-being as well as

TABLE 4

Results of the regression of subjective well-being at T-2 and T-3 on subjective well-being, the sociodemographic, and other background characteristics at T-1^a

Independent Variables	Subjective Well-being at T-2			Subjective Well-being at T-3		
	Unstandardized Coefficient	Standardized Coefficient	Significance Level	Unstandardized Coefficient	Standardized Coefficient	Significance Level
Age			NS			NS
Sex			NS			NS
Lives Alone			NS			NS
Widowhood			NS			NS
Socioeconomic Status	.287	.137	.05	.378	.167	.01
Compensatory Network Relationships			NS			NS
Complementary Network Relationships			NS			NS
Locus of Control Scale			NS			NS

(TABLE 4 CONT.)

Independent Variables	Subjective Well-being at T-2			Subjective Well-being at T-3		
	Unstandardized Coefficient	Standardized Coefficient	Significance Level	Unstandardized Coefficient	Standardized Coefficient	Significance Level
Perceived Overall Health Status			NS			NS
Activities of Daily Living			NS			NS
Instrumental Activities of Daily Living			NS			NS
Perceived Sensory Functioning Scale			NS			NS
Subjective Well-being (T-1)	.467	.537	.0001	.521	.557	.0001
R ²	.430			.429		.0001

^aAll health status measures, including subjective well-being, are scored so that higher numerical values indicate good health and lower numerical values indicate poor health. Insignificant ($p \geq .05$) coefficients have been omitted for clarity.

its stability. Some of this much needed research should focus on the implications that emerge from the second finding. Specifically, further research on changes in subjective well-being over different time-lag periods is needed to more accurately assess the stability of change over time. Of particular concern is whether models of change in subjective well-being over different time-lag periods will be as similar to the 4-5 month and 12 month time-lag models reported herein. The regression to the mean effect of subjective well-being at T-1 on changes in subjective well-being, although straightforward and easily interpreted, also needs to be assessed over more varied time-lag periods.

While the first three findings have important implications for our understanding of subjective well-being, the last raises an important policy implication for the health care of the elderly. Higher socioeconomic status individuals are more likely than individuals of lower socioeconomic status to be able to recoup from (or shed) the deleterious effects of life events on their subjective well-being. Although these data do not indicate how this process occurs (i.e., whether it reflects better access to material goods or services, or a better accumulation of coping repertoires), they do suggest that the subjective well-being of lower socioeconomic status elderly people is in greater jeopardy for declines over time. Assuming that an equitable situation is desired, it would seem appropriate to consider modifications of current health care policies that would mitigate the negative effects of these socioeconomic barriers.

How to mitigate these effects, however, is not clear because we do not yet know the process by which they occur. If the socioeconomic barriers are associated with access to services, such as psychological or other counseling, then Medicare and Medicaid regulations might simply be altered to provide first dollar coverage (with no copayments) for these services. If socioeconomic barriers are associated with access to goods, however, an alternative solution would be necessary. It might involve a redistribution of these goods. If the socioeconomic barriers are associated with the better accumulation of coping repertoires, however, then their mitigation will be most difficult. Under these circumstances, the most viable short-term approach would be to provide additional outreach services of a social support (i.e., coping resources) nature to individuals of lower socioeconomic status.

REFERENCES

1. George L: Subjective well-being: Conceptual and methodological issues. In Eisdorfer C (Ed.), *Annual review of gerontology and geriatrics*, (Vol. 2). New York: Springer Publishing Company, 1981.

2. Lawton MP: The Philadelphia Geriatric Center morale scale: A revision *Journal of Gerontology* **30**: 85–89, 1975
3. Liang J, Bollen K: The structure of the Philadelphia Geriatric Center morale scale: A reinterpretation *Journal of Gerontology*, **38**: 181–189, 1983.
4. Maddox G, Wiley J: Scope, concepts, and methods in the study of aging. In Binstock R, Shanas E, (Eds.), *Handbook of aging and the social sciences*. New York: Van Nostrand Reinhold, 1976.
5. Bollen K, Grandjean B: The dimension(s) of democracy: Further issues in the measurement and effects of political democracy. *American Sociological Review* **46**: 651–659, 1981.
6. Lawton MP: The dimensions of morale. In Kent D, Kastenbaum R, Sherwood S (Eds.), *Research, planning and action for the elderly*. New York: Behavioral Publications, 1972.
7. Morris J, Sherwood S: A retesting and modification of the Philadelphia Geriatric Center morale scale *Journal of Gerontology*, **30**: 77–84, 1975.
8. Haug M, Belgrave L, Gratton B: Mental health and the elderly: Factors in stability and change over time *Journal of Health and Social Behavior* **25**: 100–115, 1984.
9. Coe R, Wolinsky F, Miller D, Prendergast J: Social network relationships and use of physician services: A reexamination *Research on Aging*, **6**: 243–256, 1984.
10. Coe R, Wolinsky F, Miller D, Prendergast J: Complementary and compensatory functions in social network relationships among the elderly *The Gerontologist*, **24**: 396–400, 1984.
11. Wolinsky F, Coe R, Miller D, Prendergast J, Creel M, Chavez M: Health services utilization among the noninstitutionalized elderly *Journal of Health and Social Behavior*, **24**: 325–337, 1983
12. Wolinsky F, Coe R, Miller D, Prendergast J: Measurement of the global and functional dimensions of health status in the elderly *Journal of Gerontology*, **39**: 88–92, 1984a
13. Wolinsky F, Coe R, Chavez M, Prendergast J, Miller D: Further assessment of the reliability and validity of a nutritional risk measure: Analysis of a three-wave panel of study of elderly adults. Paper presented at the annual meeting of the Gerontological Society of America. 1984.
14. Wolinsky F, Prendergast J, Miller D, Coe R, Chavez M: Preliminary validation of a nutritional risk measure among the elderly *American Journal of Preventive Medicine*, **1**, 1985.
15. Rummel R: *Applied factor analysis*. Evanston: Northwestern University Press, 1970.
16. Hollingshead A, Redlich W: *Social class and mental illness*. New York: Wiley, 1957
17. Wallston K, Wallston B, DeVellis R: Development of the multidimensional health locus of control (MHLC) scales *Health Education Monographs*, **6**: 160–169, 1978
18. Katz S, Ford A, Moskowitz R, Jackson B, Jaffee M: Studies of illness in the aged: The index of ADL: A standardized measure of biologic and psychological function *Journal of the American Medical Association*, **185**: 914–919. 1963
19. Duke University Center for the Study of Aging and Human Development. *Multi-dimensional functional assessment: The OARS methodology*. Durham, North Carolina: Duke University, 1978.
20. Andersen R: *A behavioral model of families' use of health services*. Chicago: Center for Health Administration Studies, 1968.
21. Kessler R, Greenberg D: *Linear panel analysis: Models of quantitative change*. New York: Academic Press, 1981