

*Social Well-Being in the United States:
A Descriptive Epidemiology*

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How healthy are we? A national study of well-being at midlife. (2004) Brim, OG, Ryff, CD, & Kessler, RC (eds). Chicago, IL The University of Chicago Press 350-372

This chapter investigates the prevalence and the epidemiology of social well-being in the United States using the 1995 MIDUS data. Social well-being is defined as an individual's self-report of the quality of his or her relationship with other people, the neighborhood, and the community (Keyes 1998; Larson 1993). What is unique to the MIDUS study is that social well-being is operationalized as an individual's perceptions of his or her integration into society, of his/her acceptance of other people, of the coherence of society and social events, of a sense of contribution to society, and of the potential and growth of society.

In 1948, the World Health Organization identified social well-being as one of several facets of an individual's overall health. However, the construct of social well-being is often equated with social indicators that are operationalized by economic measures (e.g., the Gross Domestic Product, the poverty rate) that reflect the "health" of narrow sectors of society (see, e.g., Andrews and Withey 1976; Bell and Olson 1969). According to Larson (1996, 186), "The key to deciding whether a measure of social well-being is part of an individual's health is whether the measure reflects *internal* responses to stimuli—feelings, thoughts and behaviors reflecting satisfaction or lack of satisfaction with the social environment." From this standard, the MIDUS social well-being scales are measures of a notable but understudied facet of an *individual's* health.

This chapter therefore investigates two descriptive research questions. First, what proportion of adults in the United States is healthy versus unhealthy from the perspective of social well-being? Toward that end, we situate the study of subjective well-being in the literature on perspectives on individual health, particularly mental health, and review the concept of social well-being as a facet of the overall domain of subjective well-being. Second, is social well-being unequally distributed in the population? Toward that end, this chapter focuses on the variables of age, sex, marital status, and socioeconomic status, which have been shown to structure the distribution of cases of mental illness (e.g., depression) as

well as levels of facets of emotional (e.g., happiness) and psychological (e.g., personal growth) well-being.

Models of Functioning in Life

Two models characterize research approaches to discerning whether or how well individuals are functioning in their daily lives. The *illness model* depicts health as a state in which there is a relative or complete absence of significant symptoms or diagnoses of illness (i.e., physical or psychological). The *health model*, however, conceives of health as the presence of a high level of well-being (i.e., physical or psychological). Thus, for example, an individual would be considered healthy from the illness perspective if she had been free of major depression during the past year; from the health perspective, an individual would be considered healthy if he had high levels of social well-being, for example, if he felt very integrated into his community. There are valid reasons for employing both models to the study of human functioning.

The lion's share of health research has focused on the presence or absence of illnesses for several reasons. First, numerous studies reveal that acute and chronic cases of major depression, for example, reduce an individual's productivity and cost society billions of dollars each year through sick days, disability insurance claims, and increased health-care costs (Greenberg et al. 1993; Mrazek and Haggerty 1994; Murray and Lopez 1997). Second, mental illnesses (e.g., major depression) often cause secondary illnesses and social problems such as cardiovascular disease and suicide (Rebellon, Brown, and Keyes 2001; U.S. Department of Health and Human Services 1998). Third, mental illnesses are prevalent whether viewed annually or over an individual's lifetime (Kessler et al. 1994; Robins and Regier 1991; U.S. Department of Health and Human Services 1999).

Are those adults who remain free of mental illness each year and over their lifetimes necessarily healthy? This is a key question for proponents of the health model, especially those who investigate mental health via the presence and absence of subjective well-being (Keyes 2002). Mental health is, according to the surgeon general (U.S. Department of Health and Human Services 1999, 4), "a state of successful performance of mental function, resulting in productive activities, fulfilling relationships with people, and the ability to adapt to change and to cope with adversity."

This definition of mental health goes beyond the absence of mental illness to include indicators of positive feeling and functioning. Data

also support the proposed independence of symptoms of mental illness and symptoms of mental health. In particular, Keyes and Lopez's (2002) review indicates that measures of depressive symptoms (e.g., CESD scale) and subjective well-being correlate, on average, between $-.40$ and $-.50$. Factor analyses of measures of mental illness and mental health symptoms (Keyes and Ryff, in press) also reveal that a two-factor theory provides a superior fit to the data than does a single-factor theory of mental health. As such, mental health may be best conceived of as a complete state consisting of the presence and absence of mental illness and the presence and absence of subjective well-being (Keyes and Lopez 2002).

During the thirty years of empirical research on the topic of subjective well-being, most research has equated subjective well-being with emotional well-being, which consists of avowed happiness and satisfaction with life as well as the balance of positive to negative affect (see Diener et al. 1999). The model of psychological well-being proposed by Ryff (1989), however, expanded the scope of well-being to include dimensions of positive psychological functioning. These dimensions include self-acceptance, personal growth, positive relations with others, environmental mastery, purpose in life, and autonomy. Studies have shown that measures of psychological well-being are modestly and positively correlated with measures of emotional well-being (Ryff and Keyes 1995; Keyes, Shmotkin, and Ryff 2002).

Social Well-Being: An Individual-Level Perspective

What has been missing in the subjective well-being literature, according to Keyes (1998), is the recognition that individuals may evaluate the quality of their lives and personal functioning against social criteria. Social well-being consists of several elements that, together, indicate whether and to what degree individuals are functioning well in their social lives—for example, as neighbors, as co-workers, and as citizens (Keyes 1998).

Table 1 provides a useful organization of the various ways that the construct of social well-being has been measured. Theoretically, social well-being originates in the sociological literature on anomie and alienation (Durkheim 1951; Mirowsky and Ross 1989; Seeman 1959, 1983). However, and consistent with the mental illness model, the absence of feelings of anomie or alienation may not reflect the presence of feelings of social well-being. The measures of social well-being developed in the MIDUS study (Keyes 1998) belong to a positive continuum and reflect individuals' assessments of their experiences in society. These new

TABLE 1 Social Well-Being Constructs by Level of Analysis and Continuum of Measurement

Continuum	Level of Analysis		
	Individual	Interpersonal	Societal
Negative	Alienation, anomie	Aggression, incivility	Rates of poverty, suicide, or crime
Positive	Social well-being dimensions	Exchange of types of social support, trust	Social capital, collective efficacy

measures are distinct from extant measures of social well-being that reflect the interpersonal (e.g., aggression, social support) and the societal (e.g., poverty, social capital) levels of analysis.

Guided by the health model, Keyes (1998) proposed five dimensions of social well-being operationalized at the level of the individual. *Social integration* is the evaluation of the quality of one's relationship to society and community. People must try to cultivate a genuine sense of belonging in a world where they do not live their entire lives basking in the unconditional love of family or friends. Healthy individuals feel that they are a part of society. Integration is therefore the extent to which people feel they have something in common with others who constitute their social reality (e.g., their neighborhood) as well as the degree to which they feel they belong to their communities and society. *Social contribution* is the evaluation of one's value to society. It includes the belief that one is a vital member of society, with something of value to give to the world. Adults struggle to feel like and be valuable contributors to a world that does not value them equally or value them merely for being human.

Social coherence is the perception of the quality, organization, and operation of the social world, and it includes a concern for knowing about the world. Innumerable events occur daily, some positive and others negative, some inexplicable and others predictable, some personal and others more distal. As such, another challenge is for people to strive to make sense of a busy, complex world. Socially healthy individuals care about the machinations of society and feel they can understand what is happening around them. Such people do not delude themselves that they live in a perfect world; they have maintained or promoted the desire to make sense of life. Social coherence is the analogous opposite of meaninglessness in life (Mirowsky and Ross 1989; Seeman 1959, 1983) and involves appraisals that society is discernable, sensible, and predictable.

Social actualization is the evaluation of the potential and the trajectory of society. This is the belief in the evolution of society and the sense

that society has potential that is being realized through its institutions and citizens. It is a challenge, however, to perceive growth and positive development in a world that does not automatically change or improve for all people. Healthier people are hopeful about the condition and future of society, can recognize the potential that resides in a collective, and believe the world can improve for people like themselves. *Social acceptance* is the construal of society through the character and qualities of other people as a generalized category. Society consists of a diversity of people, most of whom we will never know personally. Individuals must function in a public arena that consists primarily of strangers. Individuals who illustrate social acceptance trust others, think that others are capable of kindness, and believe that people can be industrious. Socially accepting people hold favorable views of human nature and feel comfortable with others.

A study employing a random sample of adults in Dane County, Wisconsin, and the MIDUS sample have supported the measurement theory of social well-being. In both samples, confirmatory factor models have revealed that the proposed five-factor theory of social well-being is the best-fitting model (Keyes 1998). Moreover, elements of social and psychological well-being are empirically distinct. The scales of social and psychological well-being correlated as high as .44, and exploratory factor analysis revealed two correlated ($r = .34$) factors, with the scales of social well-being loading on a separate factor from the items measuring happiness, satisfaction, and the overall scale of psychological well-being (Keyes 1996).

Given its independence from traditional measures of subjective well-being, social well-being is an important marker of the quality of life in this country. Although there have been numerous studies of the distribution of emotional and psychological well-being in the U.S. population, there are literally no studies of social well-being. Moreover, although sociologists have monitored the social well-being of the United States in terms of perceived alienation and anomie (Mirowsky and Ross 1989), Keyes (1998) has shown that measures of anomie correlated modestly with only two of the five measures of social well-being ($r = -.55$ with social actualization, and $r = -.49$ with social acceptance).

Indeed, the MIDUS scales of social well-being have exhibited strong linkages with various indicators of civic engagement and prosocial behavior. Levels of social well-being, but notably social integration and social contribution, were highest among adults who had worked with others in their neighborhoods to solve a problem, compared with adults who

had been involved in their neighborhood over a year ago and those who had never engaged in such activities (Keyes 1998). All measures of social well-being, especially social integration, increased as levels of the perceived safety of one's neighborhood and trustworthiness of neighbors increased (Keyes 1998). Moreover, in multivariate regressions that controlled for numerous sociodemographic variables, Keyes and Ryff (1998) found that five of seven measures of civic engagement and prosocial behavior predicted positive levels of overall social well-being (i.e., all five scales of social well-being summed together). That is, the level of overall social well-being increased as perceived civic responsibilities increased, as level of concern for others' welfare and well-being increased, as perceptions of being caring, wise, and knowledgeable increased, as perceived generativity toward others increased, and as the provision of emotional support and assistance increased. Although it is unclear whether it is a cause or consequence of civic engagement, social well-being is intimately linked to measures of civic health and social capital (see Putnam 2000). Yet little is known about the distribution of social well-being in the U.S. population.

Toward an Epidemiology of Social Well-Being

This chapter begins with a descriptive epidemiology of social well-being by focusing on the distribution of the various dimensions of social well-being by key demographic groups. We limit this chapter to the variables of age, sex, marital status, and socioeconomic status. Studies have revealed a somewhat consistent pattern of relationships of these four demographic variables with measures of mental illness (namely, depressive symptoms and caseness), and with emotional and psychological well-being. Thus, we ask, is social well-being distributed in the population in ways that correspond with other measures of mental illness and health?

Focusing on mood disorders among adults aged 18 or older, research has shown that depression diagnosis is most likely and that the number of depression symptoms are highest among younger adults (although it may rise again among the oldest adults). Studies also reveal that unipolar depression is more likely to occur among women, among the previously or never married, and among adults with lower socioeconomic status (less education, lower income, and lower occupational status) (see Horwitz and Scheid 1999; Turner, Wheaton, and Lloyd 1995).

Research also has indicated that emotional well-being tends to be lower among younger adults, among the previously or never married, and among adults with lower socioeconomic standing. However, there

does not appear to be a gender gap in happiness, life satisfaction, or affect balance (Andrews and Withey 1976; Diener et al. 1999; Myers 2000). Psychological well-being also increases as socioeconomic status increases. Overall psychological well-being (all scales summed together) increases as years of educational attainment increases (Keyes and Ryff 1998), and each dimension of psychological well-being increases as education increases (Marmot et al. 1997).

The portrait of psychological well-being becomes more complex when viewed by age, sex, and marital status. Levels of purpose in life and personal growth are higher among younger adults (ages 18–39) than among midlife and older adults. Levels of environmental mastery and autonomy, however, are usually higher among older (ages 60 and older) than midlife and younger adults. Levels of self-acceptance and positive relations with others tend to be the same at all ages. Studies also consistently reveal that females report higher levels of positive relations with others (i.e., warm, trusting relations) than do males. In all other respects, men and women report similar levels of psychological well-being (Keyes and Ryff 1998, 1999; Ryff 1989; Ryff and Keyes 1995; Marmot et al. 1997).

In sum, although men are more likely to be free of depression, they are not more likely to appear healthier than women from the criterion of emotional well-being or psychological well-being.¹ Similarly, age and gender show diverse patterns of relationships with measures of mental illness and mental health. For instance, younger adults are more likely than older adults to report depression, but younger adults report higher levels of personal growth and purpose in life than do older adults. Females, too, are more likely than men to be diagnosed with unipolar depression; however, females report similar levels of happiness, and they report higher levels of positive relations with others than do men. Socioeconomic status is the sole variable that shows a consistent pattern with both sets of measures. Adults with low socioeconomic status are more likely than high-status adults to have depression, to report lower life satisfaction and happiness, and to report lower levels of psychological well-being.

In this chapter, we focus on the distribution of the five dimensions of social well-being by age cohort, sex, marital status, and socioeconomic status. We investigate two descriptive questions. First, what is the prevalence of high-level and low-level social well-being in the United States? We operationalize high-level social well-being as the number of dimensions on which a respondent scores in the upper tertile of the scale distribution. Similarly, we operationalize low-level social well-being as the number of

dimensions on which a respondent scores in the bottom tertile of the scale distribution.

Second, we explore whether high-level and low-level social well-being, as well as scores on each scale, are randomly distributed in the population of adults between the ages of 25 and 74. The relationships of the variables of age, sex, marital status, and socioeconomic status with other dimensions of mental illness (e.g., depression) and mental health (e.g., emotional and psychological well-being) suggest that social well-being will not be randomly distributed. However, an important empirical question is whether the pattern of social well-being in the population coincides with previous findings obtained using other measures of mental health.

METHODS

Measures

Social Well-being

Table 2 presents the operational definition of the high scorers and the items used to operationalize each dimension of social well-being. The social well-being items were embedded in a self-administered questionnaire and within a section of measures of social networks and social responsibility. Respondents were asked to react to each item by evaluating the degree to which the statement represented how they typically feel, think, or behave. The response consisted of the options of agree or disagree “strongly,” “somewhat,” or “a little” (a middle response option was “don’t know”). The items are summed to form scales with modest-to-acceptable internal consistency for scales with few items (see Keyes 1998).² Moreover, the social well-being scales demonstrated construct validity, correlating modestly with measures of the number of dysphoric symptoms and global well-being (happiness and satisfaction), and correlating minimally with self-reported physical health and perceived sense of optimism. The scales of social wellness correlate strongly with measures of social health and functioning such as self-reported anomie, perceived external control, and perceived neighborhood quality (see Keyes 1998).

To determine the extent of high or low levels of well-being across dimensions, we computed two variables. *High-level* social well-being is a count (0–5) of the number of dimensions on which respondents’ reports are in the upper tertile of each scale. Similarly, *low-level* social well-being is a count (0–5) of the number of dimensions on which respondents’ reports are in the bottom tertile of each scale. The internal reliability of the overall social well-being scale is .81.

TABLE 2 Operational Definitions of High Scorers and Items Measuring Dimensions of Social Well-Being in the MacArthur Foundation's Successful Midlife National Study

<p><u>Social Actualization:</u> Care about and believe society is evolving positively, think society has potential to grow positively; think society is realizing potential</p> <ul style="list-style-type: none"> • The world is becoming a better place for everyone. • Society has stopped making progress. (–) • Society isn't improved for people like me. (–) 	<p><u>Social Acceptance:</u> Have positive attitudes toward people; acknowledge others and generally accept people, despite others' sometimes complex and perplexing behavior.</p> <ul style="list-style-type: none"> • People who do a favor expect nothing in return. • People do not care about other people's problems. (–) • I believe that people are kind.
<p><u>Social Coherence:</u> See a social world that is intelligible, logical, and predictable, care about and are interested in society and contexts.</p> <ul style="list-style-type: none"> • The world is too complex for me. (–) • I cannot make sense of what's going on in the world. (–) 	<p><u>Social Contribution:</u> Feel they have something valuable to give to society; think their daily activities are valued by their community.</p> <ul style="list-style-type: none"> • I have something valuable to give to the world. • My daily activities do not create anything worthwhile for my community. • I have nothing important to contribute to society. (–)
<p><u>Social Integration:</u> Feel part of community; think they belong, feel supported, and share commonalities with community.</p> <ul style="list-style-type: none"> • I don't feel I belong to anything I'd call a community. (–) • I feel close to other people in my community. • My community is a source of comfort. 	

Note: (–) means item is reverse-coded.

Social Demographics Variables

In multivariate analyses, we employ four primary independent variables: age cohort (25–34, 35–44, 45–54, 55–64, and 65–74), marital status, sex, and occupational status. Marital status was measured as a trichotomous variable including previously married, never-married, and currently married persons (currently married is the omitted category in regression models). Occupational status was measured by the revised

TABLE 3 Distribution of the Number of Dimensions on Which Respondents Were in the Top and Bottom Tertiles of Social Well-Being

Number of Dimensions	Top Tertile (%)	Bottom Tertile (%)
0	15.9	45.1
1	21.2	27.9
2	24.5	16.0
3	18.1	7.5
4	12.0	2.8
5	8.3	.7
<i>N</i>	2976	2976

version (Hauser and Warren 1996) of the socioeconomic index (SEI). Originally conceived by Duncan (1961), the SEI is a weighted average of occupational education and income that corresponds to occupational prestige ratings in the 1980 Census.³ The range of scores for SEI varies between 0 and 100. The SEI score assigned for each respondent was the higher of his or her own job or the job of his or her spouse, whichever was higher. We believe this operationalization to be most reflective of respondents' socioeconomic class given that marital partners' earnings may be highly discrepant. In the event that the spouse was unemployed, the respondent's SEI score from his or her previous job was used (see also Turner, Wheaton, and Lloyd 1995).

RESULTS

Table 3 presents the distribution of high and low social well-being in the MIDUS sample. Overall, the results suggest that respondents report a relatively high degree of wellness. Only about 16 percent (15.9 percent) of respondents did not report being in the top tertile of any dimension of social well-being. More than 20 percent (20.3 percent) of the respondents' reports were in the top tertile on at least four or five dimensions of social well-being. Nearly 40 percent (38.4 percent) of adults in MIDUS scored in the top tertile on at least three or more of the scales of social well-being. Thus, the MIDUS estimates that between one-fifth (using the four or more dimension rule) to two-fifths (using the three or more dimension rule) of the U.S. population between the ages of 25 and 74 has high-level social well-being.

When examining the extent of low social well-being, we found that almost half (45.1 percent) of respondents did not score in the bottom

TABLE 4 Ordinary Least Squares Regression Coefficients Predicting the Number of Dimensions in the Top and Bottom Tertiles of Social Well-Being

	Top Tertile		Bottom Tertile	
	Bivariate	Multivariate	Bivariate	Multivariate
Age	-.034	—	.019	—
35–44	—	-.088	—	.068
45–54	—	.044	—	-.025
55–64	—	.016	—	.015
65–74	—	-.209*	—	.069
Male	.181***	.139**	-.140***	-.089*
Never married	-.115	-.069	.062	.025
Previously married	-.185**	-.011	.225***	.082
SEI	.019***	.018***	-.016***	-.015***
R ²		.049		.041
N		2923		2923

Notes: Age cohort 25–34 is omitted category; married is omitted category.

* $p < .05$. ** $p < .01$. *** $p < .001$ (two-tailed).

tertile on any of the dimensions of social well-being. Fewer than 4 percent (3.6 percent) of the respondents' reports were in the bottom tertile on four or five dimensions of well-being. However, one-tenth (10.0 percent) scored in the lower tertile on at least three or more of the dimensions of social well-being. In sum, our data suggest that many adults are feeling socially healthy. However, about 16 percent of adults in this sample did not report high-level well-being on any dimension of social well-being, and 10 percent are functioning very poorly on at least three or more dimensions (Keyes and Shapiro 2001).

To determine how high and low social well-being is distributed across the population, we estimated a series of regression models. Table 4 presents the results of ordinary least squares regression analyses that predict the number of dimensions on which respondents report high and low social well-being. We present both bivariate and multivariate coefficients that allowed us to determine which of the predictors were most robust after the addition of controls.⁴ In the bivariate model, all predictors with the exception of age and being never married were significantly associated with high social well-being. However, in the full multivariate model, only being male and occupational status remained significant and positive. Similarly, when age is decomposed, the results show that respondents between the ages of 65 and 74 scored in the highest tertile of well-being significantly less frequently than did 25- to 34-year-olds. The effect of gender was reduced by 23 percent, while the effect of occupational status was reduced by only 5 percent. On the other hand,

the effect of being never married was reduced by 40 percent and being previously married by 94 percent. Thus, the most robust predictor of high well-being is occupational status followed by being male.

The bivariate coefficients for low social well-being suggest that being female and previously married are positively and significantly associated with the number of dimensions of low social well-being. In contrast, occupational status is negatively predictive of low social well-being. In the full multivariate model, the significance of the previously married effect was eliminated, and its size was reduced by 64 percent. Effect sizes for other variables were similarly reduced. For example, the effect of being never married was reduced by 60 percent. Meanwhile, the effects for sex and occupational status remained highly robust and statistically significant as the effects were reduced by 36 percent and 6 percent, respectively.⁵

In sum, high occupational status and, to a lesser extent, being male were highly indicative of placing in the highest category, and avoiding the lowest category, on a number of dimensions of social well-being, even when controlling for respondents' age and marital status. Findings therefore indicate that males and adults with higher socioeconomic status are more likely to have high-level social well-being. Moreover, currently married adults are also more likely than previously married adults to have high-level social well-being, partially because married adults have higher socioeconomic status than do adults who have been divorced.

Although the preceding analysis has been able to discern the influence of sociodemographic characteristics on the prevalence of "compound" social well-being, the possibility of interdimensional variation of social well-being may exist. Table 5 presents the results of each dimension of social well-being regressed on the sociodemographic variables. The analysis strategy is the same as that used in table 4, where each dependent variable is regressed on each of the sociodemographic variables separately and then in a full multivariate model.

The first general finding from table 5 was the overall consistent and strong positive impact of occupational status on each of the five dimensions of social well-being. Furthermore, the bivariate effect of occupational status was not reduced by more than 8 percent in any of the full multivariate models. None of the other sociodemographic variables was as robust, nor did the variables consistently maintain the direction of their effects across dimensions.

Respondents' age was also a strong predictor of social well-being in both bivariate and multivariate models, although the direction and

TABLE 5 Ordinary Least Squares Regression Coefficients

	Social Acceptance		Social Coherence	
	Bivariate	Multivariate	Bivariate	Multivariate
Age	.133***	—	-.166***	—
35–44	—	.127*	—	-.274***
45–54	—	.322***	—	-.195*
55–64	—	.440***	—	-.366***
65–74	—	.545***	—	-.768***
Male	-.103*	-.126**	.555***	.522***
Never married	-.200**	-.035	.195*	.143
Previously married	-.074	-.052	-.084	.235**
SEI	.010***	.010***	.023***	.022***
R ²		.041		.084
N		2928		2924

Notes: Age cohort 25–34 is omitted category; married is omitted category.

* $p < .05$. ** $p < .01$. *** $p < .001$ (two-tailed).

linearity of the effects of age varied across dimensions. For example, age was linearly associated with social acceptance and social integration in a positive direction but with social coherence in a negative direction in the multivariate model. Examining the age effect in the multivariate model predicting social contribution, we found that well-being for those aged 65–74 was significantly less than for those aged 25–34. Thus, the findings for social coherence and social contribution may suggest a pattern of cumulative disadvantage. However, it is premature to imply that age is uniformly negative with respect to social well-being because the findings for social acceptance and social integration suggest a pattern of cumulative advantage over the life course. Similarly, because of the cross-sectional design of the present study, it is difficult to discern whether the age effects indeed reflect effects of cumulative advantage or cohort differences.

Although sex was a strong predictor of high overall social well-being in table 4, its effect is less consistent when analyzed separately within each dimension of social well-being. Sex is significant in only two of the multivariate models in table 5. Females reported higher social acceptance than males, but males reported a greater sense of social coherence than females. Although sex is statistically significant in bivariate models predicting social actualization and social contribution, these effects are reduced by 36 percent and 67 percent, respectively, in the multivariate models. Sex is insignificant in both bivariate and multivariate models predicting social integration (Keyes and Shapiro 2001).

Predicting Each Dimension of Social Well-Being

Social Actualization		Social Contribution		Social Integration	
Bivariate	Multivariate	Bivariate	Multivariate	Bivariate	Multivariate
-.020	—	-.117***	—	.168***	—
—	.064	—	-.016	—	.032
—	.222**	—	.001	—	.294***
—	.134	—	-.100	—	.500***
—	-.138	—	-.487***	—	.617***
.140**	.089	.120*	.039	-.054	-.086
-.072	.010	.122	.174*	-.396***	-.241**
-.157*	-.013	-.248***	-.093	-.247***	-.228***
.014***	.013***	.026***	.025***	.010***	.010***
	.029		.099		.042
	2928		2925		2923

The effect of marital status on social well-being was, at best, inconsistent. One strong finding, however, was that married persons report significantly higher social integration than their nonmarried counterparts. In particular, being previously married appears to have a very robust negative effect on social integration, being reduced by only 8 percent in the multivariate model. Comparably, the bivariate effect for never-married persons on social integration was reduced by 39 percent in the multivariate model (though it maintained statistical significance). Nonmarried persons also fared better than the married on two dimensions of social well-being. Never-married persons reported significantly higher social contribution and previously married persons reported significantly higher social coherence than the married. Although several significant bivariate effects for the nonmarried were observed, these effects were drastically reduced in the multivariate models.

Because of the strong effects of occupational status on social well-being, we estimated interaction models for occupational status on each dimension of social well-being. The statistically significant interaction coefficients are plotted against predicted values of the dependent variables from regression models in figures 1–3. The dependent variables in these figures were transformed into *z-scores* to permit standard comparisons across each of the dependent variables.

The most consistent interaction effects were found between occupational status and sex (fig. 1). These interaction coefficients were significant in models for each dimension except social actualization. Overall,

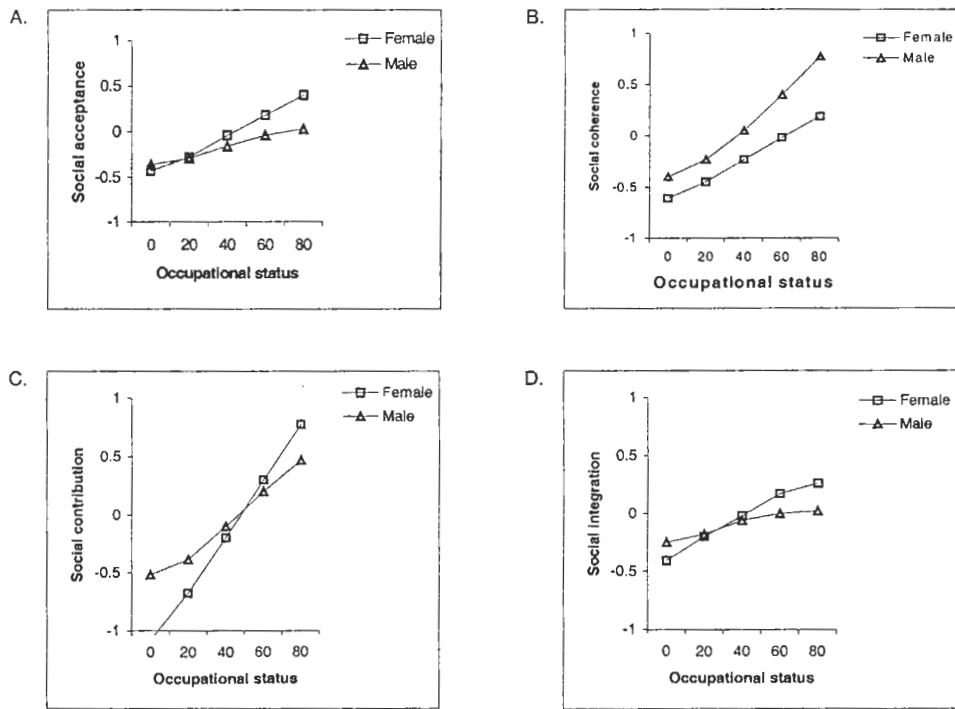


FIGURE 1. (A) Social acceptance, (B) social coherence, (C) social contribution, and (D) social integration, by sex and occupational status.

occupational status was more important to the social well-being of women than of men. As seen in figures 1A, 1C, and 1D, women of lower occupational status report lower levels of social well-being than do men of the same status. However, the rate of change in social well-being increases more for women than men as occupational status increases. On the other hand, males report more social coherence than do females, and the advantage of men over women in social coherence increases as occupational status increases (see fig. 1B).

Another consistent interaction was between occupational status and age. As seen in figure 2, being poor and older are especially negative indicators of low social well-being. Thus, the importance of occupational status to social well-being increases with age. As seen in figure 2, adults between the ages of 65 and 74 who are at the bottom of the occupational status scale reported social coherence and social contribution (figs. 2A and 2B) of roughly 1.5 standard deviations below the mean. The slope for adults aged 65–74 is steeper than that of other age cohorts; thus, age cohort differences in social coherence and social contribution are eliminated toward the higher end of the occupational status scale. Examining the interactions for social integration (fig. 2C), we find that adults between the ages of 65 and 74 at lower occupational status levels did

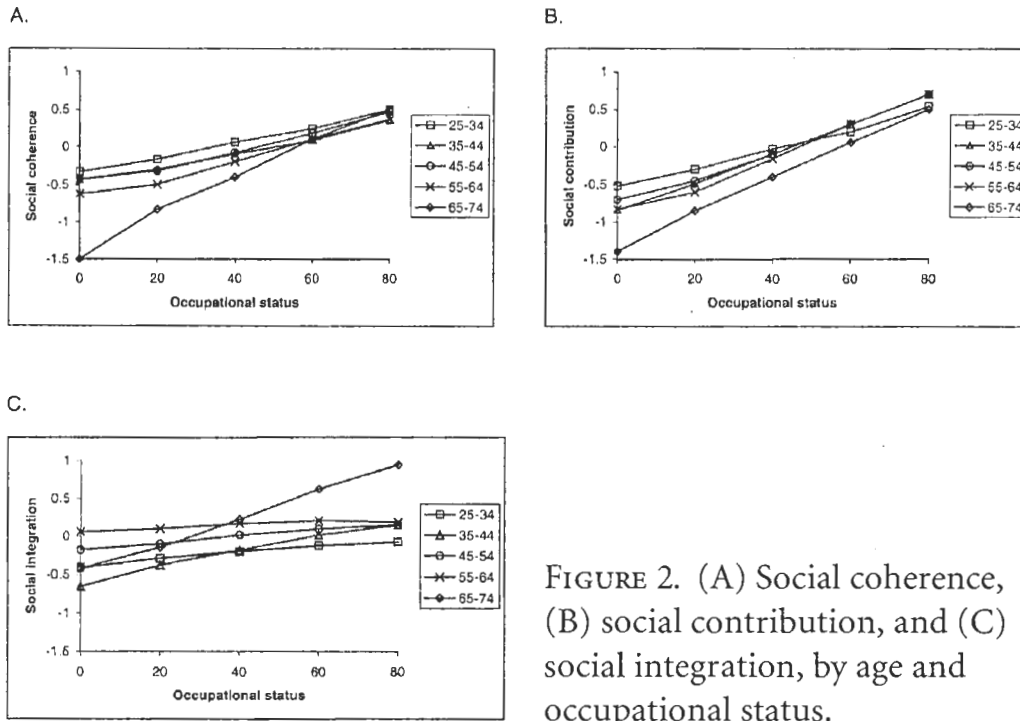


FIGURE 2. (A) Social coherence, (B) social contribution, and (C) social integration, by age and occupational status.

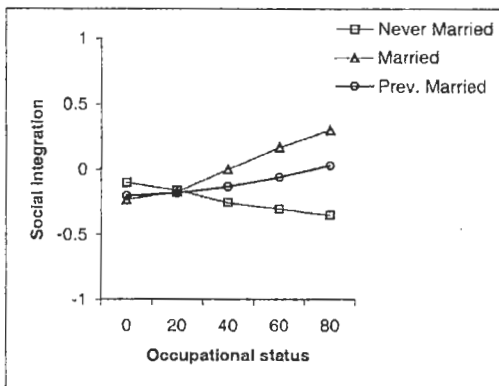


FIGURE 3. Marital status differences in social integration, by occupational status.

not report significantly lower social integration. However, the slope of the interaction for adults aged 65–74 is steeper than that for any other age cohort, actually producing an advantage for adults in the age cohort of 65–74 in the upper levels of occupational status relative to other age cohorts.

Finally, most interactions of marital status by occupational status were not statistically significant. However, the relationship of marital status with social integration depends on the individual’s occupational status. As seen in figure 3, there are no definitive marital status differences in social integration at lower occupational status levels. From the middle to upper range of occupational status, the trajectory for married and previously

married persons is upward, but downward for never-married persons. Thus, never-married adults do not appear to receive the “benefits” of high occupational status. As occupational status increases, however, the differences between never-married persons and their counterparts widen, with never-married persons at a significant disadvantage, particularly relative to married persons (see Keyes and Shapiro 2001; Shapiro and Keyes 2001).

DISCUSSION

Social well-being has been identified as a key component of mental health (World Health Organization 1948; U.S. Department of Health and Human Services 1999). However, because of the absence of reliable and valid measures, social well-being has remained a topic of policy debates (see Larson 1996) rather than epidemiological study. The MacArthur Foundation’s 1995 MIDUS study represents the first opportunity to examine the epidemiology of social well-being in the United States. The MIDUS measures of social well-being reflect the mental health model of human functioning and complement the customary approach to studying individual health as the absence of illness. We therefore investigated two descriptive questions: What is the prevalence of high- and low-level social well-being? and How is social well-being distributed in the adult population by age, sex, marital status, and occupational status?

Results suggest that nearly 40 percent of adults between the ages of 25 and 74 scored in the upper tertile on at least three of the social well-being scales. However, as many as 16 percent of adults did not score in the upper tertile on any of the scales, and 10 percent scored in the lower tertile on at least three or more of the social well-being scales. Thus, the MIDUS data suggest that a majority of adults in the United States have moderate to high levels of social well-being. However, a substantial portion of the population has very low levels of social well-being and would be considered socially unhealthy from the mental health perspective.

Levels of social well-being are clearly distributed unequally in the United States. Levels of social integration are highest among older persons (i.e., 65–74), married persons, and females with high occupational status. Social integration is at its lowest among younger and previously or never-married adults with low occupational status. A sense of social contribution is highest among never-married females with high occupational status, but it is at its lowest among older (i.e., 65–74) males with low social status. Social actualization is highest among adults in early (ages 45–54) midlife and who have high occupational status; social actualization is low among adults not in the peak of midlife and who have low social status.

Social coherence is highest among high-status males who were previously married, while it is lowest among older (ages 65–74) females with low occupational status who have never married or are married. Last, social acceptance is highest among older females with high occupational status, but acceptance of others is lowest among younger males with low social status.

Although our findings point to the clear advantage of high occupational status, all other demographics show distinct advantages and disadvantages in terms of specific outcomes of social well-being. However, when high-level and low-level (overall) social well-being are the outcome variables, the results paint a clear and unambiguous picture. Social well-being is highest among high-status persons, males, and those who are married or never married. In contrast, females, those who are previously married, and those who have low occupational status have the lowest level of overall social well-being. Our findings complement the literature on the risk factors for unipolar depression, which suggests that divorced females with low occupational status are at a high risk for distress and mental illness.

Theoretically, the interactions of sex and of age by occupational status converge with the theoretical perspectives of cumulative advantage and double jeopardies to health from possession of multiple disadvantaged social statuses (Allison, Long, and Krause 1982; Dowd and Bengtson 1978; Ferraro 1987; Ferraro and Farmer 1996). According to these perspectives, social inequalities in health worsen throughout life, because disadvantages can accumulate and have a compounding effect on health outcomes with time or with the addition of disadvantaged statuses (multiple roles with low social status).⁶

Most studies employing the cumulative advantage and the double jeopardy perspectives focus on physical health and mortality outcomes of the interactive effects of age and socioeconomic status (cf. Keyes and Ryff 1998). Moreover, most earlier studies of cumulative disadvantage have employed cross-sectional data (cf. Ross and Wu 1996) and therefore had to assume that observed health disparities by age reflected processes of change (i.e., time) rather than cohort differences. The present study, in that it employed the cross-sectional MIDUS data, rests on the same assumption that age difference reflects, at least in part, change rather than solely cohort effects. Several earlier studies—both cross-sectional and longitudinal—have shown that disparities in physical health and functioning between adults with different levels of educational attainment diverge with age, and that the physical health gap by education

increases as age increases (Ross and Wu 1996; Smith and Waitzman 1994).⁷ Cumulative disadvantage (as well as advantage) may explain the distribution of aspects of social well-being by occupational status. In particular, social coherence and social contribution are lowest among older adults, and the age gap in coherence and contribution increases as occupational status decreases.

Women may accumulate specific advantages to men as occupational status increases. Our study found small gender differences in social acceptance, social contribution, and social integration at low levels of occupational status. However, as occupational status increases, women report increasingly higher levels of social acceptance, social contribution, and social integration than men. The exception to the rule of cumulative advantage for females is the criterion of social coherence.

Males report higher levels of social coherence at all levels of occupational status. However, as occupational status increases, the gender gap in social coherence increases. Thus, high-status males see their social world as much more coherent than do high-status females. In contrast, high-status females are more accepting of others, feel more integrated into their communities, and feel a greater sense of contribution to society than do high-status males. In short, high occupational status may provide more “returns” in social well-being for females than for males.

Marital status appears to play a relatively small but important role in social well-being. Like Marks and Lambert (1998), who found that single adults had higher levels of some measures of psychological well-being (autonomy and personal growth) than married adults, we found that previously married adults report higher levels of social coherence and never-married adults report higher levels of social contribution than do married adults. However, married adults show a clear advantage over single adults in terms of social integration. In fact, as occupational status increases, the social integration of married adults increases while the sense of integration decreases among never-married adults. This finding supports a great deal of research in social epidemiology linking marriage to social, psychological, and physical health (Berkman and Syme 1979; Marks and Lambert 1998).

Last, in the multivariate models of overall (high- and low-level) social well-being, the effect of being previously married on social well-being is mitigated with controls for occupational status. This finding strongly suggests that being previously married is related to low-level social well-being through the mechanism of low occupational status (either because low social status increases the risk for being previously

married or this status interrupts employment and lowers one's occupational status). This finding compliments Shapiro's (1996) national study that suggested that economic status mitigates the association between divorce and depression. Whether low-level social well-being is a cause or an effect of being previously married remains an empirical question for future longitudinal research.

The MIDUS study affords numerous opportunities for further research at the intersection of social well-being and health and human functioning. First, MIDUS, which included DSM-III-R structured diagnoses of depression, generalized anxiety, panic disorder, and substance abuse, permits the study of the intersection of measures of positive mental health with mental illness (see Keyes 2002, 2003; Keyes and Lopez 2002). Second, MIDUS included the most comprehensive assessment of subjective well-being of any national study to date and thereby permits the taxonomic assessment of the well-being concept (emotional, psychological, and social well-being; see Keyes, Shmotkin, and Ryff 2001). Third, MIDUS includes a comprehensive assessment of physical health morbidity and risk factors, and permits the assessment of the intersection of social well-being and physical health as adults age. Fourth, the MIDUS data from twins permit the assessment of the shared and non-shared variance components of social well-being and its linkages with a host of variables. Fifth, MIDUS included daily time-diary assessments, which permits the cross-referencing of daily stressors and life events with measures of social, psychological, and physical well-being. Sixth, the potential for a second wave of MIDUS data is important in answering many questions that require a longitudinal examination. It would permit a better assessment of life-course trajectories in inequalities of social, psychological, and physical well-being. In sum, the MIDUS study includes assessments of physical, mental, and social health that permit the study of many of the most pressing questions facing the field of human development and aging (see Ryff and Singer 2001).

NOTES

1. Although the prevalence of depression is higher among females, the prevalence of behavioral disorders (e.g., substance abuse, violence) is higher among males (Kessler et al. 1994). Whether this gender pattern of mental illness suggests that males and females are equally depressed but express it in different ways remains an empirical question.

2. Alpha reliabilities presented in Keyes 1998 ranged between .60 and .73, with the exception of the scale of social coherence ($\alpha = .41$), which is a two-item scale (the third item reduced the internal consistency and had to be omitted).

3. The 1980 SEI is used because few changes were made in occupational classifications between the 1980 and 1990 Census.

4. We included race and education as additional controls in ancillary analyses. Race was not a significant predictor of well-being in any model, and education was highly correlated ($r = .56$) with SEI. Thus, the models include only the primary predictors.

5. Regression models including interactions between occupational status and the other variables were fitted in ancillary analyses. None of the interaction coefficients achieved statistical significance, and thus they were not displayed in the table.

6. The original sampled middle-aged and older blacks, Mexican Americans, and whites in Los Angeles but received mixed empirical support; it was challenged by later national studies (Ferraro 1987; Ferraro and Farmer 1996).

7. Some research suggests that educational disparities in physical health may diverge throughout younger and middle adulthood, and then convergence during older adulthood (i.e., after the ages of 60–65) (House et al. 1994, 1990).

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