

CHAPTER 8

Socioeconomic Background and Midlife Health in the United States

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Social gerontologists often assert that the aging process starts at birth. This claim is a particularly appropriate starting point for understanding socioeconomic differentials in psychological and physical well-being at midlife and beyond. Childhood social and economic resources are an important influence on adult health and well-being, yet researchers disagree on the strength and inevitability of the relationship, as well as the precise causal mechanisms linking early experiences with later life health outcomes. The latency model underscores the potentially important *direct* impacts of childhood conditions on adult well-being, while the pathways model highlights the individual and cumulative adult life course experiences that link early conditions with health and well-being in adulthood (Goldman, 2001). In contrast, the resilience perspective focuses on identifying those factors that systematically weaken, or even reverse, the harmful long-term consequences of early economic adversity (e.g., Singer, Ryff, Carr, & Magee, 1998).

In this chapter, I present research and theory that explicates the linkages between childhood socioeconomic resources and three indicators of midlife health: self-rated health, hypertension, and depression. First, I review research that discusses the pathways through which childhood socioeconomic resources affect health and well-being in adulthood. I then present analyses, based on the Wisconsin Longitudinal Study (WLS), that evaluate the ways that early socioeconomic resources affect midlife health—both directly and indirectly, via adult social roles and statuses. Finally, I provide a brief overview of two recent lines of research that call into question the persistent and intransigent effects of socioeconomic background for midlife well-being, and that seek to identify those factors that

minimize the long-term effects of early disadvantage. Implications for policy and future research are discussed.

THE IMPORTANCE OF MIDLIFE AS A LIFE STAGE

Until very recently, social gerontologists and life-course sociologists focused their attentions largely on the health, wealth, and well-being of the elderly (i.e., persons age 65 and older), while demographers typically focused their research on the "demographically dense" years of young adulthood (e.g., Rindfuss, Swicegood, & Rosenfeld, 1987) or on late-life mortality (e.g., Preston, & Taubman, 1994). Middle age (generally defined as ages 45 to 64) has received far less attention, and has been described as "the last uncharted territory in human development" (Brim, 1992: 71). In the past five years, however, research on midlife has flourished, evidenced by the publication of several influential edited volumes (e.g., Lachman, 2001; Ryff, Kessler, & Brim, forthcoming; Willis & Reid, 1999) and the availability of large sample surveys of the midlife population, including the Wisconsin Longitudinal Study (Sewell, Hauser, Springer, & Hauser, 2002) and the Midlife in the United States study, conducted by The John D. and Catherine T. MacArthur Foundation Research Network on Successful Midlife Development (Ryff, Kessler, & Brim, forthcoming).

This intensifying interest in midlife is due primarily to the aging of the large Baby Boom population. Between 1990 and 2015, the number of midlife adults (ages 45 to 64) in the United States will increase by 72%, from 47 to 80 million (U.S. Bureau of the Census 2000). The Baby Boom cohort alone represents roughly one-third of the U.S. population. By identifying the antecedents of health and well-being at midlife, researchers will have a fuller understanding of the early risk factors for health decline among older adults.

For example, persons with better health habits in midlife also have longer life expectancies (Fries, 1980) and shorter periods of disability that are compressed into fewer years at the end of life (Vita et al., 1998). Depressive spells throughout the life course (and particularly, at midlife) are associated with elevated risk of late-life health problems, including coronary heart disease (Booth-Kewley & Friedman, 1987); lower levels of perceived and actual control over one's own health outcomes (e.g., Haukkala et al., 2000; Lustman et al., 2000); less frequent contact with health care professionals (Kessler et al., 2001); and poorer compliance with physicians' orders (Carney et al., 1995; DiMatteo et al., 2000; Ziegelstein et al., 2000). Depression also has important consequences for labor force participation, including increased absenteeism and career instability, which bode poorly for late-life economic well-being (Broadhead et al., 1990). An under-

standing of the life course pathways to midlife health is essential for developing policies and interventions which “may help to delay, minimize, or prevent the biopsychosocial changes that occur in later life” (Lachman 2001: xiii).

The Wisconsin Longitudinal Study (WLS), a long-term study of more than 10,000 men and women who graduated from Wisconsin high schools in 1957 and who have been followed for more than 35 years, is ideally suited for exploring the direct and indirect influence of social background on midlife health and well-being. The WLS obtained data on a sample of men and women at ages 18 (in 1957), 36 (in 1975), and 52 (in 1993) and thus it provides a full record of midlife adults’ socioeconomic background (including mother’s education, father’s education, and household income when the respondent was a high school senior), educational aspirations and attainment, family formation, and labor market experiences over the life course. The WLS respondents were born in 1939, and thus precede by about one decade the large Baby Boom cohort. Thus, the midlife experiences of the WLS cohort may provide early indications of the issues that will become increasingly important as the large Baby Boom cohort passes through their 50s and beyond (Hauser et al., 1993).

PATHWAYS FROM CHILDHOOD TO ADULT HEALTH AND WELL-BEING

Social scientists have a long-standing interest in socioeconomic differentials in health and well-being at midlife and older (e.g., Kaplan & Lynch, 1997; Krieger et al., 1997; Marmot et al., 1997; Moss, 1997; Preston & Taubman, 1994). While research has focused overwhelmingly on adults’ *own* socioeconomic status (e.g., education, occupation, income, and assets) and its implications for physical and mental health, a growing body of research recognizes that socioeconomic influences on adult health may far precede one’s adult status characteristics. The latency perspective proposes that adult health is a *direct consequence* of economic, social, and psychological features of one’s early life (Goldman, 2001). For example, adult health may be influenced by early parent-child interactions, the stability of one’s childhood home environment (Wadsworth & Kuh, 1997), and other social and economic resources which may affect “coping skills, resiliency, and thus neuro-immune and neuro-endocrine response at the individual level” (Keating & Hertzman, 1999). Biological influences, including physical development during the prenatal period, at birth, and during early childhood and genetic factors transmitted directly across generations are also implicated as powerful influences on adult health (Barker, 1990; Preston & Elo, 1992). The latency perspective would suggest that the statistical

relationship between adult socioeconomic status and health is, in part, spurious because adult health and socioeconomic status are both direct consequences of one's childhood psychosocial, economic and physiological resources.

In contrast, adherents to the pathways perspective underscore the importance of identifying the adult roles, statuses, and experiences that mediate the relationship between early resources and later life well-being (e.g., Marmot et al., 1997; Powers, Matthews, & Manor, 1998). In the case of health inequalities, early social background factors, including parental education and income, are presumed to affect adult health and well-being *indirectly*, by directly influencing one's own social and economic roles in adulthood which, in turn, affect health (Lynch, Kaplan, & Shema, 1997). For example, early economic resources may affect educational attainment, which in turn affects the timing and nature of family role transitions (Maines & Hardesty, 1987; Marini, 1984), the quality of one's job and working conditions including job-related stress and safety (Jencks, Rainwater, & Perman, 1988); access to information regarding health and health care (Winkleby et al., 1992); health behaviors including cigarette smoking, exercise, and diet (Shea et al., 1991; Winkleby et al., 1992); exposure to stressful situations and events (Kessler, 1979; Kessler & Cleary, 1980); and the ability to control one's environment and adopt effective coping strategies (Lachman & Weaver, 1998). Each of these factors, in turn, may have short- and long-term consequences for physical and emotional health.

EARLY LIFE SOURCES OF ADULT INEQUALITIES

A practical implication of the pathways model is that the early life antecedents of adult socioeconomic and health inequities must be identified, in order to minimize (or eliminate) these inequities. The ways that childhood conditions influence adult socioeconomic status, and the persistence of this relationship over the life course is perhaps best explicated by the "Wisconsin Social Psychological Model of Status Attainment" (or Wisconsin model, for short), based on the WLS data (Haller & Portes, 1973; Hauser, 1971; Hauser, Sheridan, & Warren, 1999; Sewell & Hauser, 1975; Sewell, Hauser, & Wolf, 1980; Sewell & Shah, 1967; Warren & Hauser, 1997). In brief, this research has documented the long-term consequences of early social background for adult occupational and economic success; those from richer starting resources go on to enjoy higher levels of educational attainment, occupational status, and earnings at every point in the life course (e.g., Hauser, Sheridan, & Warren, 1999; Sewell, Hauser, & Wolf, 1980).

One of the most important findings generated by the Wisconsin Model is that the effect of early social background on adult occupational and economic status operates *indirectly*, via educational attainment. Using a socioeconomic index which included parents' income, mother's and father's education, and father's occupation, Sewell and Shah (1967) found that young adults from low-resource backgrounds were less likely to make early application to college, to make multiple applications, to know about the possibilities of scholarships, to go to college immediately after high school graduation, and to attend high quality colleges. At the same time, they were more likely to drop out of college and less likely to return to college if they dropped out. The magnitude of these differences is stark; compared to young adults in the bottom quartile of parental socioeconomic status (based on an index of both parents' education, household income, and householder's occupational status), those in the top quartile had a 4 to 1 advantage in entering college, a 6 to 1 advantage in college graduation, and a 9 to 1 advantage in obtaining an advanced degree.

These educational inequities, in turn, set the stage for later-life labor market disparities. Graduates from poorer socioeconomic backgrounds obtain less education and thus have lower status occupations and lower earnings at every stage of the life course. Again, these patterns occur indirectly and in a stepwise fashion; education predicts young adult occupational success, which in turn affects midlife socioeconomic standing (Hauser, Sheridan, & Warren, 1999; Sewell, Hauser, Springer, & Hauser, 2002; Warren, Hauser, & Sheridan, 2001). Midlife occupational success, in turn, brings important benefits including health insurance and pension benefits, which may buffer against late-life decrements in health and financial well-being (e.g., Hauser et al., 1993).

In sum, the Wisconsin Model reveals that early socioeconomic resources are powerful predictors of adult educational and occupational attainment (Sewell et al., 2002). This research provides an important springboard for examining the direct and indirect influences of early socioeconomic resources on midlife health and well-being. Although a large body of research on health disparities persuasively demonstrates that educational attainment and occupational standing are powerful predictors of health and well-being at midlife and beyond, few studies have evaluated the influence of early resources. Thus, the following analysis will investigate: (1) the direct effects of early socioeconomic resources on midlife health and well-being; and (2) the extent to which the long-term effects of early resources on adult health are mediated by one's own education and occupation, family roles, working conditions, health behaviors and access to health care.

DATA AND METHODS

The Wisconsin Longitudinal Study

Analyses are based on data from the Wisconsin Longitudinal Study (WLS). For more than 35 years, the WLS has followed a cohort of 10,317 men and women who graduated from Wisconsin high schools in 1957. The WLS is based on a one-third random sample of all 1957 graduates of public and private Wisconsin high schools. The graduates were re-interviewed at ages 36 (in 1975) and 53 (in 1992). The sample is broadly representative of middle-aged, white American men and women who have completed at least a high school education. Among American women and men ages 50–54 in 1990, roughly two-thirds were whites of non-Hispanic background who have completed at least twelve years of schooling (Komin-ski & Adams, 1992).

However, some strata of American society are not represented in the study. By design, all sample members graduated from high school. Sewell and Hauser (1975) estimated that about 75% of Wisconsin youth graduated from high schools in the late 1950s. Racial minorities are not well represented; only a handful of African American, Hispanic, or Asian persons are in the sample. Roughly one-fifth of the sample is of farm origin, consistent with national estimates of persons of farm origins in cohorts born in the 1930s. Despite these limitations, the WLS provides a long-term look at the development of the life course from adolescence to midlife in a cohort of men and women who resemble a large segment of the U.S. population. The analyses presented in this chapter are based on the 3,003 men and 3,482 women who completed the 1957 questionnaire, the one-hour long 1975 and 1992 phone surveys, and the selected health outcomes assessed on the 1992 20–page mail questionnaire.

Dependent Variables

Three aspects of midlife health are considered: self-rated health, high blood pressure, and depression. *Self-rated health* reflects the respondent's subjective summary interpretation of their own medical and functional status. The item simply asks respondents "How would you rate your health at the present time?" Response categories are very poor, poor, fair, good, and excellent. Despite the simplicity of this measure, it is a powerful predictor of mortality in longitudinal studies (Mossey & Shapiro, 1982), and is highly correlated with health assessments provided by physicians (Ferraro & Farmer, 1999).

One specific physical health condition is considered: *high blood pressure*. In the 1992–93 interview, respondents were asked to indicate which of fif-

teen health symptoms they experienced in the month prior to interview, and which of thirteen illnesses had been diagnosed by a physician. Because of the relatively young age of the respondents at that time (age 52–53), very few reported any illness or symptom. Of the twenty-eight possible health conditions, twenty-five were experienced by fewer than 10% of respondents. The most commonly reported condition was high blood pressure, reported by 23% of men and 20% of women. High blood pressure has been selected as an outcome variable because it is a powerful determinant of morbidity, disablement and inactivity in older people (American Heart Association, 1994). Compared to persons with normal blood pressure, midlife adults with hypertension are believed to have five times the risk of developing coronary heart disease (Katchadourian, 1987).

Depression ($\alpha = .877$) is measured with a modified version of the widely used Center for Epidemiologic Studies Depression Scale (CES-D) (see Radloff 1977 for construct reliability and validity analyses). The scale consists of 20 self-rated items which measure the number of days that a respondent experienced depressive symptoms during the seven days prior to interview. Scores range from 0 to 140, but because the scale is so highly skewed, scores above 67 (i.e., the top 2% of respondents) were recoded to a top score of 67. The twenty symptoms are listed in Appendix A. Depression is considered one of the single best indicators of current psychological health, and it also has implications for the physical and economic well-being of older adults. (Booth-Kewley & Friedman, 1987; Haukkala et al., 2000; Lustman et al., 2000; Kessler et al., 2001).

Independent Variables

The independent variables considered include: socioeconomic background; personal resources; adult status attainment characteristics; adult family characteristics; health behaviors; access to care; and stressful work conditions. These variables were selected based on past theoretical and empirical works examining the pathways linking early economic resources, adult life course experiences, and mid- and later-life health.

Socioeconomic background factors include *mother's and father's years of completed education*; whether the respondent is of *farm background*; and the *family's income-to-needs ratio when the respondent was a high school senior*. Parents' adjusted gross income was obtained from federal tax forms for the years 1957–60. The average income across the three years is used, and is adjusted from 1958 to 1992 dollars using consumer price index data. The income-to-needs ratio was constructed based on parental marital status in 1957, the number of siblings (including the respondent) aged 18 or younger in 1957, and the official 1992 poverty threshold (U.S. Department of Commerce,

1993). A continuous measure of income-to-needs is used in the multivariate analysis, while the poverty line cutpoint is used as a stratifying variable in the descriptive statistics, presented in Table 8.1.

Personal resources include educational attainment, IQ, and indicators of premature parental death. *Educational attainment* is the number of years of formal education completed. *IQ* reflects the respondent's percentile score on the Henmon-Nelson Test of mental ability which was administered during their junior year in high school. The test scores were obtained from the files of the Wisconsin State Testing Service. *Premature parental death* is a potential indicator of one's genetic predisposition for physical hardiness or frailty (Preston & Elo, 1992). Dummy variables indicate whether either parent had died at an age younger than the sex-specific median age at parental death in the WLS.

Own status attainment characteristics include *years of work experience*, and *the major occupational group of one's longest-ever job*. The longest-ever job is the occupation held for the longest number of years; this indicator is used as it provides the best snapshot of one's overall socioeconomic position in adulthood. The major occupational categories considered are *upper white-collar* (i.e., professional and managerial occupations); *lower white-collar* (i.e., sales and clerical occupations); *upper blue-collar* (i.e., crafts occupations); and *lower blue-collar/farm* occupations (e.g., operatives, laborers, farm personnel).

Own family characteristics include *age at first marriage*, *1992 marital status*, and *number of children*. *Health behaviors* include indicators that one is *obese* (i.e., has a body mass index (BMI) of higher than 25); whether one engages in either light or vigorous *physical activity at least once a week*, and two indicators of *smoking*: whether one has ever *smoked for less than ten years*, or *more than ten years*. The reference category includes those who have *never smoked*. *Access to care* is captured with a dichotomous variable, indicating that the respondent does not have health insurance. *Stressful work conditions* in one's current (1992–93) or most recent job are captured with three indicators: perceived high risk of future job loss, hazardous work conditions, and frequent time pressures at work. *High risk of job loss* is a dichotomous variable set equal to 1, if respondents believe that there is a 50% or greater chance that they will lose their job involuntarily in the next two years. *Hazardous work conditions* are captured with a dichotomous variable set equal to 1, if respondents indicated that they were exposed to dangerous conditions on the job. *Frequent time pressures* are indicated with a dichotomous variable set equal to 1, where the reference category includes persons who are never, seldom, or sometimes subject to time pressures at work.

The issue of selection deserves brief mention. I will not evaluate the social selection or downward drift hypothesis, which holds that midlife

socioeconomic standing is a *consequence* of current or earlier physical and mental health (Dohrenwend, Levav, & Shrout, 1992). First, the consensus among most researchers is that although there is some evidence of downward social mobility among persons in poor health, the selection process makes only a minor contribution to the overall association between SES and a wide range of health indicators (see Goldman, 2001, for a detailed review). Second, the WLS obtains indicators of physical health at age 52–53 only, thus it is not possible to evaluate the social selection versus causation hypothesis. Finally, a full explication and evaluation of the social causation versus selection hypotheses is beyond the scope of this chapter.

RESULTS

Bivariate Analysis

Table 8.1 presents descriptive statistics for men and women of the WLS, by childhood poverty status. T-tests were conducted to evaluate statistically significant differences between persons who grew up in households where the income-to-needs ratio fell at or below (versus above) the poverty line. Growing up in poverty is closely tied to other social background characteristics; the poor are much more likely to have been raised on farms (45 versus 12%), and both their mothers and fathers have significantly less education compared to those who grew up in homes above the poverty line. Women who grew up in poverty have significantly higher depression levels at age 53, while both men and women who grew up in poverty have significantly worse overall health at midlife. The risk of high blood pressure at midlife is not related to early poverty.

Consistent with the large body of status attainment research summarized earlier, one's personal resources, adult socioeconomic status, and life course trajectories are closely tied to early socioeconomic resources. Men and women from poor backgrounds have significantly fewer years of education, lower IQs, they marry younger, bear more children, and hold lower status occupations; those from poor backgrounds are significantly less likely to hold professional or managerial jobs in adulthood, and they are far more likely to work in manual jobs. Accordingly, men and women from poor backgrounds are significantly more likely to work in jobs exposing them to hazardous work conditions. Socioeconomic background is associated with adult health behaviors for women only; women from impoverished backgrounds are significantly more likely to be obese at age 53, but they also show one distinct health behavior advantage; they are less likely to be smokers.

TABLE 8.1. Descriptive Statistics by Childhood Poverty Status and Gender, Wisconsin Longitudinal Study, 1957–1993

	Men		Women	
	Above poverty line, 1957	At/below poverty line, 1957	Above poverty line, 1957	At/below poverty line, 1957
<i>Health Outcomes</i>				
Self-rated health, 1993 (1 = poor, 5 = excellent)	4.16 (.66)	4.08* (.66)	4.18 (.67)	4.14+ (.68)
Has high blood pressure, 1993	0.24 (.42)	0.22 (.41)	0.20 (.40)	0.18 (.39)
Depression (CES-D) (13.46)	15.22 (13.62)	14.82 (14.2)	16.7 (16.5)	18.4**
<i>Social Background</i>				
Mother's education	10.79 (2.83)	9.8*** (2.74)	10.59 (2.88)	9.59*** (2.61)
Father's education	10.09 (3.52)	8.89*** (2.96)	10.1 (3.45)	8.45*** (2.86)
Farm background	0.11 (.32)	.45*** (.49)	0.12 (.32)	.46*** (.50)
<i>Personal Resources</i>				
Education (in years)	14.27 (2.57)	13.36*** (2.22)	13.5 (2.08)	12.9*** (1.76)
IQ, measured in 1956 Percentile ranking	55.64 (28.39)	47.87*** (28.52)	54.95 (28.05)	49.19*** (27.31)
Mother died, younger than median age	0.19 (.39)	0.19 (.39)	0.20 (.40)	0.19 (.39)
Father died, younger than median age	0.33 (.47)	0.35 (.48)	0.33 (.47)	0.35 (.48)
<i>Adult SES</i>				
Total number of years worked for pay	31.89 (4.6)	32.66 (4.8)	22.17 (8.82)	22.72 (8.97)
Upper white-collar work, longest job	0.49 (.50)	.35*** (.48)	0.33 (.47)	0.25*** (.43)
Lower white-collar work, longest job	0.14 (.35)	.11* (.31)	0.39 (.49)	0.37 (.48)
Upper blue-collar work, longest job	0.16 (.37)	.22*** (.41)	0.01 (.11)	0.01 (.11)
Lower blue-collar or farm work, longest job	0.20 (.40)	.32*** (.47)	0.19 (.39)	0.29*** (.46)
<i>Family Characteristics</i>				
Age at first marriage	23.9 (3.24)	23.5** (2.88)	21.67 (2.81)	21.46+ (2.89)

TABLE 8.1. *continued*

	Men		Women	
	Above poverty line, 1957	At/below poverty line, 1957	Above poverty line, 1957	At/below poverty line, 1957
<i>Family Characteristics</i>				
Current marital status	0.86 (.34)	0.87 (.34)	0.8 (.39)	.84* (.37)
Number of children (1.5)	2.79 (1.6)	2.99+ (1.69)	2.98 (1.87)	3.26***
<i>Health Behaviors</i>				
Obese (BMI > 25)	0.24 (.43)	0.24 (.43)	0.17 (.38)	0.22** (.41)
Exercises at least once a week	0.58 (.49)	0.57 (.49)	0.54 (.49)	0.54 (.49)
Never smoked	0.39 (.49)	0.4 (.49)	0.51 (.50)	.61*** (.49)
Smoked less than ten years	0.14 (.34)	0.13 (.34)	0.11 (.32)	0.10 (.30)
Smoked more than ten years	0.47 (.49)	0.46 (.49)	0.38 (.49)	0.28*** (.45)
<i>Access to Care</i>				
No health insurance coverage, 1993	0.029 (.17)	0.028 (.17)	0.04 (.19)	0.03 (.18)
<i>Work Conditions</i>				
Greater than 50% of job loss, 1993	0.17 (.38)	0.17 (.37)	0.12 (.33)	0.13 (.34)
Exposed to hazardous work conditions	0.41 (.49)	0.53*** (.50)	0.22 (.42)	.27* (.44)
Frequent time pressures on the job	0.30 (.46)	0.28 (.45)	0.32 (.47)	.29* (.45)
N	2330	673	2709	773

Note: t-tests were conducted to detect significant mean differences, where + $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$.

Multivariate Analyses

Multivariate models are used to evaluate the pathways linking early social background factors to midlife health among the WLS respondents. Each of the seven sets variables is entered in a stepwise fashion, in order to evaluate the extent to which early social background effects are mediated by adult characteristics and experiences. Table 8.2 presents the predictors of self-rated health, Table 8.3 shows the risk factors for high blood pressure,

TABLE 8.2. OLS Regression Models Predicting Self-Rated Health at Age 53, Wisconsin Longitudinal Study, 1957–1993

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
Sex (1 = female)	.033* (.017)	.061*** (.017)	.076*** (.022)	.094*** (.022)	.067** (.022)	.066** (.022)	.063** (.022)
<i>Social Background</i>							
Household income to needs ratio, 1957	.022** (.007)	0.009 (.007)	0.009 (.007)	0.009 (.007)	0.011 (.007)	0.01 (.007)	0.01 (.007)
Mother's education	.012*** (.003)	.007* (.003)	.007* (.003)	.007* (.003)	.007* (.003)	.007* (.003)	.007* (.003)
Father's education	.014*** (.003)	.009** (.003)	.008** (.003)	.008** (.003)	.007* (.003)	.007* (.003)	.007* (.003)
Householder was farmer/farm worker	.034 (.022)	0.032 (.022)	.035+ (.022)	0.032 (.022)	0.013 (.022)	0.012 (.022)	0.013 (.022)
<i>Personal Resources</i>							
Education		.041*** (.004)	.038*** (.005)	.039*** (.005)	.029*** (.005)	.029*** (.005)	.029*** (.005)
IQ, measured in 1956		0.001 (.001)	0.001 (.001)	0.001 (.001)	0.001 (.001)	0.001 (.001)	0.001 (.001)
Mother died, younger than median age of death		-.002 (.021)	-.001 (.022)	-.001 (.021)	0.001 (.020)	0.001 (.020)	-.001 (.020)
Father died, younger than median age of death		-.030+ (.017)	-.030+ (.017)	-.032+ (.017)	-.021 (.017)	-.021 (.017)	-.022 (.017)
<i>Adult Status Characteristics</i>							
Total number of years worked for pay			.004** (.001)	.005*** (.001)	.005*** (.001)	.005*** (.001)	.005*** (.001)
Lower white-collar job, longest occupation			0.029 (.023)	0.031 (.023)	.041+ (.022)	.041+ (.022)	.038+ (.022)
Upper blue-collar job, longest occupation			-.11*** (.34)	-.11*** (.34)	-.11** (.33)	-.11*** (.33)	-.098** (.33)
Lower blue-collar or farm, longest job			-.078** (.25)	-.079** (.25)	-.071** (.25)	-.070** (.25)	-.061* (.25)
<i>Adult Family Characteristics</i>							
Age at first marriage				0.004 (.003)	0.003 (.003)	0.003 (.003)	0.003 (.003)
Currently married				.064** (.023)	.0648* (.022)	.039+ (.022)	.037+ (.022)
Number of children				0.006 (.005)	.011* (.005)	.011* (.005)	.011* (.005)
<i>Health Behaviors</i>							
Obese (BMI > 25)					-.240*** (.019)	-.239*** (.019)	-.239*** (.019)

TABLE 8.2. *continued*

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
<i>Health Behaviors</i>							
Exercises at least once per week					.201*** (.016)	.201*** (.016)	.201*** (.016)
Smoked fewer than ten years					-.43+ (.026)	-.42+ (.026)	-.42+ (.026)
Smoked more than ten years					-.097*** (.017)	-.097*** (.017)	-.097*** (.017)
<i>Access to Care</i>							
No health insurance coverage, 1993						-.112** (.044)	-.114** (.044)
<i>Work Conditions</i>							
Greater than 50% chance of job loss, 1993							-.042+ (.023)
Exposed to hazardous work conditions							-.032+ (.018)
Frequent time pressures on the job							-.005 (.017)
Intercept	3.82 (.036)	3.37 (.057)	3.34 (.091)	3.13 (.116)	3.28 (.116)	3.29 (.116)	3.31 (.116)
Adjusted r-squared	0.015	0.033	0.04	0.041	0.095	0.095	0.096

Note: (1) + $p \leq .10$; * $p \leq .05$; ** $p \leq .01$; *** $p \leq .001$.

and Table 8.4 displays the correlates of depression. Analyses are based on the total sample ($N=6,485$), and gender is controlled in all models. Preliminary evaluations of gender interaction terms revealed that the effect of socioeconomic background conditions on midlife health does not differ significantly for men and women, thus sex-specific models are not shown.

Richer socioeconomic resources at every stage in the life course are associated with better self-rated health at midlife. Although the effects of early social background are mediated largely by personal resources and adult status attainment characteristics, the protective effects of parental education persist in the long-run. Model 1 in Table 8.2 reveals that higher maternal and paternal education, and a higher income-to-needs ratio (at age 18) are significant positive predictors of self-rated health nearly thirty-five years later. After one's own education, IQ, and genetic health predisposition are controlled, the long-term effect of early financial resources is no longer statistically significant, but mother's and father's education remain significant positive predictors of midlife health. Importantly, each additional year of either parent's education is associated with a one-tenth standard deviation increase in self-rated health, and this effect persists even

TABLE 8.3. Logistic Regression Models Predicting Self-Rated Health at Age 53, Wisconsin Longitudinal Study, 1957–1993

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
Sex (female = 1)	.81*** (.000)	.76*** (.000)	.75*** (.000)	.75*** (.000)	.80* (.01)	.80* (.01)	.80* (.01)
<i>Social Background</i>							
Household income to needs ratio, 1957	0.98 (.41)	1.01 (.86)	1.01 (.83)	1.01 (.83)	1.00 (.79)		(.79)
Mother's education	.97* (.02)	0.98+ (.10)	.98+ (.10)	.98+ (.10)	0.98 (.12)	0.98 (.12)	0.98 (.12)
Father's education	0.98 (.14)	0.99 (.72)	0.99 (.75)	0.99 (.74)	1.00 (.93)	0.99 (.93)	0.99 (.93)
Householder was farmer/farm worker	.81** (.010)	.83* (.03)	.82* (.02)	.82* (.02)	.84* (.04)	.84* (.04)	.84* (.04)
<i>Personal Resources</i>							
Education		.92*** (.000)	.92*** (.000)	.92*** (.000)	.94*** (.000)	.94*** (.000)	.094*** (.005)
IQ, measured in 1956		1.00 (.49)	1.00 (.37)	1.00 (.37)	1.00 (.48)	1.00 (.48)	1.00 (.48)
Mother died, younger than median age of death		1.33*** (.001)	1.33*** (.000)	1.33*** (.000)	1.34*** (.000)	1.34*** (.000)	1.34*** (.000)
Father died, younger than median age of death		1.19* (.006)	1.19* (.006)	1.19* (.006)	1.17* (.012)	1.17* (.012)	1.17* (.012)
<i>Adult Status Characteristics</i>							
Total number of years worked for pay			0.99 (.84)	0.99 (.82)	0.99 (.68)	0.99 (.66)	0.99 (.65)
Lower white-collar job, longest occupation			0.98 (.86)	0.98 (.85)	0.97 (.71)	0.97 (.71)	0.97 (.71)
Upper blue-collar job, longest occupation			0.97 (.79)	0.97 (.81)	0.98 (.84)	0.98 (.84)	0.97 (.81)
Lower blue-collar or farm, longest job			1.13 (.18)	1.13 (.18)	1.11 (.29)	1.11 (.29)	1.11 (.29)
<i>Adult Family Characteristics</i>							
Age at first marriage				0.99 (.42)	0.99 (.52)	0.99 (.52)	0.99 (.50)
Currently married				1.04 (.62)	1.07 (.46)	1.07 (.51)	1.07 (.49)
Number of children				0.99 (.55)	0.98 (.27)	0.98 (.27)	0.98 (.27)
<i>Health Behaviors</i>							
Obese (BMI > 25)					-.255*** (.000)	-.255*** (.000)	-.255*** (.000)

TABLE 8.3. *continued*

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
<i>Health Behaviors</i>							
Exercises at least once per week					.89+ (.09)	.89+ (.09)	.89+ (.09)
Smoked fewer than ten years					0.93 (.48)	0.93 (.48)	0.93 (.48)
Smoked more than ten years					1.09 (.22)	1.09 (.22)	1.09 (.22)
<i>Access to Care</i>							
No health insurance coverage, 1993						0.93 (.67)	0.93 (.67)
<i>Work Conditions</i>							
Greater than 50% chance of job loss, 1993							1.05 (.58)
Exposed to hazardous work conditions							1.02 (.83)
Frequent time pressures on the job							-.99 (.97)
Chi-square; d.f.	31.4;5	87.9;9	91.34;14	92.3;17	286;21	287;22	287;25

Notes: (1) + $p \leq .10$; * $p \leq .05$; ** $p \leq .01$; *** $p \leq .001$.

Odds ratios and p-values are presented.

when a broad array of adult work, family, and health behavior characteristics are controlled.

Consistent with a large body of research on health differentials, the analyses also reveal that advanced education, more continuous work histories, being married, and exercising regularly significantly enhance midlife health. Working in manual labor occupations, smoking, and being overweight significantly reduce overall health. Persons without health insurance also have significantly poorer health; however, because the WLS does not obtain full health histories, it is impossible to ascertain whether poor health is a consequence of limited access to care, or whether a person is not insured due to pre-existing health conditions.

High blood pressure, a widely documented risk factor for late-life cardiovascular disease, is strongly related to social background factors. In contrast, adult life course characteristics and experiences are only very weakly related to midlife hypertension. The results in Table 8.3 provide at least partial support for the latency perspective: high blood pressure is largely a function of early nutrition and social environment, as well as genetic tendencies toward robustness or frailty. Persons who grew up on

Table 8.4. OLS Regression Models Predicting Depression (CES-D) at Age 53, Wisconsin Longitudinal Study, 1957–1993

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
Sex (1 = female)	1.87*** (.35)	1.83*** (.36)	1.56*** (.46)	1.20* (.48)	1.25** (.48)	1.28** (.48)	1.40** (.48)
<i>Social Background</i>							
Household income to needs ratio, 1957	-.20 (.15)	-.10 (.15)	-.088 (.15)	.095 (.15)	-.092 (.15)	-.087 (.15)	-.068 (.15)
Mother's education	-.29*** (.07)	-.22** (.07)	-.22** (.07)	-.24*** (.07)	-.23*** (.072)	-.23*** (.072)	-.23*** (.072)
Father's education	-.15* (.06)	-.094 (.062)	-.089 (.062)	-.076 (.062)	-.059 (.062)	-.062 (.062)	-.059 (.062)
Householder was farmer/farm worker	-1.06* (.47)	-1.06* (.47)	-1.22** (.48)	-1.13* (.472)	-1.08* (.473)	-1.06* (.472)	-1.03* (.471)
<i>Personal Resources</i>							
Education		-.079 (.09)	0.082 (.101)	-.037 (.104)	0.023 (.104)	0.031 (.104)	0.059 (.104)
IQ, measured in 1956		-.043*** (.007)	-.037*** (.007)	-.036*** (.007)	-.036*** (.007)	-.035*** (.007)	-.034*** (.007)
Mother died, younger than median age of death		-.195 (.443)	-.214 (.374)	-.191 (.440)	-.175 (.437)	-.170 (.437)	-.176 (.435)
Father died, younger than median age of death		-.044 (.374)	-.035 (.373)	-.080 (.372)	-.159 (.369)	-.143 (.369)	-.086 (.369)
<i>Adult Status Characteristics</i>							
Total number of years worked for pay			-.030 (.028)	-.065* (.029)	-.071* (.029)	-.064* (.491)	-.074** (.491)
Lower white-collar job, longest occupation			.980* (.497)	.937+ (.494)	0.772 (.492)	.783+ (.022)	.897+ (.022)
Upper blue-collar job, longest occupation			1.12 (.731)	1.02 (.726)	0.969 (.722)	0.953 (.721)	0.518 (.729)
Lower blue-collar or farm, longest job			2.83*** (.547)	2.80*** (.544)	2.71*** (.540)	2.68*** (.540)	2.32*** (.548)
<i>Adult Family Characteristics</i>							
Age at first marriage				.141* (.062)	.135* (.062)	.134* (.062)	.118* (.061)
Currently married				-4.45*** (.489)	-4.37*** (.487)	-4.10*** (.491)	-3.90*** (.489)
Number of children				0.076 (.116)	0.024 (.115)	0.017 (.115)	0.011 (.114)
<i>Health Behaviors</i>							
Obese (BMI > 25)					1.85*** (.429)	1.82*** (.429)	1.76*** (.427)

Table 8.4. *continued*

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
<i>Health Behaviors</i>							
Exercises at least once per week					-2.67*** (.355)	-2.67*** (.355)	-2.67*** (.355)
Smoked fewer than ten years					0.634 (.559)	0.614 (.559)	0.575 (.302)
Smoked more than ten years					-.162 (.381)	-.187 (.381)	-.210 (.3779)
<i>Access to Care</i>							
No health insurance coverage, 1993						3.60*** (.966)	3.59*** (.962)
<i>Work Conditions</i>							
Greater than 50% chance of job loss, 1993							3.40*** (.491)
Exposed to hazardous work conditions							1.15** (.408)
Frequent time pressures on the job							.771* (.380)
Intercept	20.28 (.77)	22.25 (1.23)	19.54 (1.96)	22.68 (2.49)	23.15 (2.53)	22.56 (2.53)	21.39 (2.52)
Adjusted r-squared	0.012	0.019	0.022	0.035	0.047	0.049	0.057

Note: (1) + $p \leq .10$; * $p \leq .05$; ** $p \leq .01$; *** $p \leq .001$.

farms have roughly a 20% reduced risk of hypertension; this may reflect the fact that farm families—typically from dairy farms in Wisconsin—receive important nutritional benefits, despite their low household incomes (Hauser et al., 1993). The protective effect of a farm background does not change considerably, even when other adult life course factors are controlled. Respondents whose mothers died prematurely have a 33% greater risk of high blood pressure, while those whose fathers died prematurely have nearly a 20% elevated risk of high blood pressure compared to persons with either living parents, or parents who died at or above the sex-specific median age of parental death. These effects also persist net of all other model adjustments.

Education has strong protective effects, and these effects persist (and even increase slightly) when health behaviors—considered an important link between education and physical health—are adjusted. The obese have nearly three times the risk of midlife hypertension, compared to persons with BMIs of less than 25. The WLS data do not show a relationship between hypertension and a broad array of current life course factors,

including occupational roles, family roles, and both physically and emotionally stressful working conditions.

Psychological health at midlife also is enhanced by one's early socioeconomic resources. Persons with highly educated mothers, those from farm backgrounds, and those with higher levels of measured intelligence at age sixteen report significantly lower levels of depression at age fifty-three. The protective effects of maternal education are mediated partly by one's own educational attainment and cognitive ability; however, the effect size and significance levels remains virtually unchanged even after adult work, family and health-related characteristics are adjusted.

Current depression, unlike high blood pressure, is closely related to contemporaneous life circumstances. Being married protects against depression, while persons working in blue-collar jobs, the overweight, those without health insurance, persons with a greater perceived risk of job loss, those working under hazardous conditions, and persons working under strict time pressures report significantly higher levels of midlife depression.

Overall, these analyses reveal several important substantive findings, yet they also highlight the need for refined conceptual and statistical models of early life influences. First, the analyses reveal the persistent effects of early life resources—particularly mother's education—even when a rich and varied array of adult social roles, stressors, and health risk factors are controlled. Second, the relative strengths of early versus adult influences on midlife health vary considerably across outcomes, suggesting that life course scholars should work toward developing disease- and outcome-specific conceptual and statistical models of health differentials. Third, surprisingly little variance in health was explained by these detailed models; only 10% of the variance in self-rated health and six percent of the variance is depression. The low adjusted *r*-square values suggest that individual life course variables—including health behaviors, stressors, and work and family roles—do not adequately explain midlife health differentials, nor do they fully account for the long-term effects of early life conditions. An important avenue for future research may be the identification of early and adult experiences and resources that make one resilient to the harmful long-term health consequences of early disadvantage.

REACTIONS TO EARLY LIFE CONDITIONS

Scholars working in the cumulative disadvantage tradition (e.g., Crystal & Shea, 1990; O'Rand, 1996a, O'Rand, 1996b) have made important strides towards identifying the *risk* factors that heighten the harmful effects of

early life disadvantage. However, far less is known about the *protective* factors that minimize the health consequences of early socioeconomic adversity. Although resilience researchers have identified some factors that protect against the adverse consequences of early disadvantage, this research has focused largely on *short-term* consequences. Overwhelmingly, these studies have focused on childhood poverty, abuse, and separation and then track the relatively short-term outcomes, such as adolescent mental health, social behavior, and academic performance (e.g., Garmezy, 1991; Garmezy, Masten, & Tellegen, 1984; Rutter, 1985, 1987; Staudinger, Marsiske, & Baltes, 1995).

Although status attainment research has focused on the longer-term consequences of early socioeconomic disadvantage, this research has focused exclusively on economic and educational consequences of one's starting resources (see Sewell et al., 2002 for a review). Moreover, this research has been criticized for its implication that early influences are largely deterministic: individuals' interpretations of, reactions to, and strategies for overcoming early and adulthood disadvantage are rarely considered. A large literature on stress and coping has examined reactions to disadvantage (e.g., Lazarus & Folkman, 1984; Pearlin, 1991; Pearlin & Schooler, 1978; Thoits, 1994), yet this literature has had relatively little influence on status attainment research. The assumption that *reactions and adaptations* to early conditions may moderate the long-term impact of these conditions is a guiding principle of two new lines of health research: life history approaches to understanding midlife psychological resilience (Ryff, Singer, Love, & Essex, 1998; Singer, Ryff, Carr, & Magee, 1998); and research on depression as a short-term response to early adversity (e.g., Kessler et al., 1995, 1997; Nesse, 2000). Although these studies focus on mental health outcomes only, they offer a point of departure for developing conceptual models that may explain the long-term influence of early experiences on a wider array of midlife health outcomes.

Life Histories of the Resilient

Why do some persons from disadvantaged social backgrounds thrive in midlife, while others experience poor mental and physical health? To answer this question, Singer and colleagues (Singer et al., 1998) used data from the WLS to ascertain whether distinctive life histories characterized "resilient" women, compared to three other subgroups of midlife women: the depressed (those with a history of depression and high levels of midlife depression), the vulnerable (those with no history of depression, yet very low levels of midlife psychological well-being), and the healthy (those with no history of depression and high levels of psychological well-

being). By definition, resilient women reported at least one episode of serious depression over the life course (assessed with a subset of items from the Composite International Diagnostic Interview), but also reported high levels of psychological well-being at midlife (assessed with the Ryff (1989) six-dimension formulation of well-being).

The researchers hoped to move away from identifying single variables, such as maternal education, that predicted midlife mental health, and instead to identify detailed life histories that characterized those women able to thrive despite early economic adversity. To this end, they identified 168 women in the WLS who fit the mental health profiles of "resilient." Next, they produced individual biographies for randomly selected cases of resilient women; the biographies were based on the women's responses to the 1957, 1975, and 1992 surveys. The biographies were then reviewed for commonalities and were subsequently pared down to more generic descriptions. Characteristics of the women were arrayed by life stage and life domain. The researchers then evaluated statistically whether the life histories of the resilient women were distinguishable from the life histories produced for the three other subgroups of women. Methodological procedures are described more fully in Singer et al. (1998).

These analyses resulted in four life history profiles that distinguished the resilient women. One subgroup, for example, included women from low SES background (e.g., both of the women's parents were high school dropouts). However, these women found personal success in young adulthood; most were in the top tertile of IQ scores, and experienced upward career mobility in young adulthood. They also perceived that their achievements in life compared favorably with their parents and siblings. Singer et al. (1998) observe that the women's resilience may be due in part to the fact that their childhoods were relatively stress-free; despite their poor economic resources, none had parents who were problem drinkers. Moreover, "the low profile on parental education—usually interpreted as a sign of disadvantage—may have made it possible for these women to compare themselves favorably to parents and siblings" (Singer et al., 1998: 27).

Across the four subgroups, the women's advantages and resources varied across life domains, and from this variety emerged differing stories of why the women may have succumbed to depression as well as their routes out of it. Thus, rather than present a uniform characterization of the life trajectories of the 168 women classified as "resilient," these analyses clarified the diverse pathways from early economic adversity to midlife psychological health. This research represents a step toward developing theoretical models that explain the "off-diagonal" cases; those who experience early adversity yet evidence positive mental health at midlife.

Depression as a Reaction to Early Adversity

The ways that early life disadvantage affects one dimension of midlife health—depression—can be further illuminated by considering early depression as a short-term response to early adversity. Recent research suggests that long-term harmful consequences of early disadvantage are exacerbated by early depression, thus socioeconomic differentials in midlife mental health may be understated (or incorrectly specified) in studies that ignore early-life depression. Kessler and colleagues (e.g., Kessler & Magee, 1993; Kessler & Magee, 1994; Kessler et al., 1995; Kessler et al., 1997) point out that an early-life disadvantage may elevate one's risk of depression in the short-term, and this depression both increases one's risk of subsequent depression, and increases one's risk of holding other disadvantaged roles and statuses, such as lower levels of educational attainment, downward career mobility, divorce, and so on.

Theories generated by evolutionary psychologists counter that early life depression in response to socioeconomic adversity may be *protective* in the longer term. From this perspective, early life depression in response to adversity is viewed as adaptive to the individual. It may act as a cue to social network members that additional support is needed, and thus may elicit assistance (Klerman, 1974; Schmale & Engel, 1975). Depression may also cause individuals to disengage from unsuccessful life enterprises and unrealistic aspirations, and thus pursue more viable goals. The mentally healthy, in contrast, may be less aware of the personal and structural constraints to socioeconomic mobility and success (Gut, 1989; Nesse, 2000). For instance, if individuals from poorer social backgrounds strive for (but lack the resources to attain) the same level of socioeconomic success as their more privileged peers, then maladaptive behavior or depression may result (Merton, 1968). In this case, early depression may allow an individual to more accurately assess their options, and to devise life plans more consistent with one's abilities and resources (Nesse, 2000). Clearly, this perspective is controversial and requires further empirical scrutiny and evaluation. Nonetheless, these competing perspectives—that depression is an adaptation, versus depression as an amplifier (and perpetuator) of early disadvantage—may trigger new lines of inquiry among scholars researching the direct and indirect linkages between early socioeconomic resources and midlife health and well-being.

CONCLUSION

This chapter has explored the ways that early socioeconomic resources affect three aspects of health at midlife: self-rated health, high blood pressure, and depression. Two competing theoretical perspectives guided the

analysis. The latency perspective holds that adult health is a direct consequence of social and economic conditions in childhood, while the pathways model explores the ways in which adult life course experiences mediate the relationship between early conditions and adult health and well-being.

The statistical analyses presented in this chapter provide partial support for both the latency and pathways approaches. Importantly, the relative strengths of early and adult predictors of health vary across the health outcomes considered. Midlife hypertension is affected by early life experiences and resources; and these effects are not mediated by adult life course and health experiences. Persons whose mothers and fathers died prematurely have a significantly elevated risk of high blood pressure, while those raised on farms are significantly less likely to have high blood pressure at midlife. Interestingly, adult work and family roles, access to health insurance, stressful work conditions, and smoking behavior were not significantly related to midlife risk of hypertension. In contrast, depression and self-rated health at age 53 are strongly related to contemporaneous life experiences, including marital status, occupational status, exercise, obesity, access to health care and work conditions.

Early resources—especially maternal education—are significant predictors of all three outcomes, and the protective effects of richer starting resources do not attenuate considerably even after one's own educational, occupational, and family trajectories are considered. This finding raises important issues for research and practice. For social gerontologists concerned with eliminating or reducing the sources of midlife and late-life health differentials, it is simply not possible to alter one's early life experiences. Rather, researchers face the challenge of specifying precisely why maternal education enhances health and well-being in the long run. Information on parent-child social interactions over life course interactions, early socialization, the acquisition of positive and persistent health behaviors, and the development of self-efficacy beliefs may provide insights into the long-term and intransigent effects of maternal education on adult well-being.

This analysis also underscores the importance of looking beyond medical and economic risk factors to promote healthy aging, and highlights the importance of considering a broader array of individual and combined protective factors. Even after adjusting for early life conditions, and adult work, family, health behaviors, access to care and working conditions, the statistical analyses presented in this chapter explained only a small share of the variation in midlife health. Health researchers may gain further insights into pathways to positive aging by considering individuals' resilience, and their unique reactions to, and strategies for grappling with socioeconomic disadvantage over the life course.

To date, most health differentials researchers have focused largely on risk factors rather than resilience factors, and typically base their research on the assumption that late-life health and economic inequalities reflect patterns of structured and persistent inequality over the life course. On one hand, this omission is defensible. To emphasize personal reactions to economic adversity would draw attention away from the macrosocial and structural forces that maintain current socioeconomic inequalities. Moreover, individual-level reactions to early disadvantage are more likely to mollify the psychological consequences, rather than the persistent physical or economic consequences, of such adversities. Nonetheless, new insights into the health effects of early life conditions may be gained by considering (and modeling) individual-level reactions and responses to early socioeconomic adversity.

For example, depression as a response to early-life disadvantages may lead to subsequent trajectories of depression, and may also affect occupational and economic stability (e.g., Kessler et al., 1995). Others counter, however, that early depression may elicit much-needed social support (Schmale & Engel, 1975), or may lead an individual to disengage from an unrealistic or unrewarding enterprise, and to channel their efforts towards more productive activity (e.g., Gut, 1989; Nesse, 2000). Although the latter claims have not been subject to empirical scrutiny, the underlying premise—that an individual's responses to early economic and social adversity affect future trajectories—may be a valuable new line of inquiry for exploring social background and its consequences for mid- and later-life well-being.

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APPENDIX A: ITEMS USED TO CREATE CENTER FOR EPIDEMIOLOGIC STUDIES (CES-D) DEPRESSION SCALE (RADLOFF, 1977)

On how many days during the past week did you experience each of the following symptoms:

1. Feel you could not shake off the blues even with help from your family and friends.
2. Feel bothered by things that usually don't bother you.
3. Think your life had been a failure.
4. Feel happy. (reverse-coded)
5. Feel that people were unfriendly.
6. Feel lonely.
7. Enjoy life. (reverse-coded)
8. Have crying spells.
9. Feel that people disliked you.
10. Feel sad.
11. Feel depressed.
12. Have trouble keeping your mind on what you were doing.
13. Not feel like eating, your appetite was poor.
14. Feel you were just as good as other people. (reverse-coded)
15. Feel everything you did was an effort.
16. Feel hopeful about the future. (reverse-coded)
17. Feel fearful.
18. Sleep restlessly.
19. Talk less than usual.
20. Feel you could not "get going."