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CHAPTER ONE

The MIDUS National Survey: An Overview

Orville Gilbert Brim, Carol D. Ryff, and Ronald C. Kessler

Midlife has been described as the "last uncharted territory" of the life course. Extensive prior literatures have been devoted to early life and childhood, adolescence, and more recently, old age, but surprisingly little attention has been given to the middle years, which, for most individuals, constitute the longest segment of their life. The John D. and Catherine T. MacArthur Foundation established the Research Network on Successful Midlife Development (MIDMAC), directed by Orville Gilbert Brim, to advance knowledge of this neglected period of the life course. A multidisciplinary team of investigators was brought together to organize existing work on midlife development and, importantly, to generate new understanding of the challenges faced by individuals in the middle decades of life, including the contexts that create or minimize difficulties, as well as the strengths and weaknesses that midlife adults bring to their life tasks.

A major activity of the MIDMAC network was to conceive of and implement a national survey of midlife Americans. This study, known as MIDUS, which stands for Midlife in the United States, is the raison d'etre for the present volume. The central objective of this collection is to summarize the rich array of new findings generated by the MIDUS national survey. To put this endeavor in context, we first describe the background and history of the MIDMAC network, including the ideas and intentions that led to its members' creation of a national survey focused on midlife Americans.

We clarify the numerous dimensions along which this study was innovative and groundbreaking. We then briefly describe the sample, design, and measures of the MIDUS study, providing along the way links to websites and technical reports that review this material in greater detail. After the description of MIDUS, we provide an overview of the chapters that follow, highlighting their major questions and findings. This introductory chapter then concludes with a brief glimpse at the extent to which MIDUS has captured the interest of investigators across diverse scientific

fields, in the United States and beyond, and what the future may hold for this one-of-a-kind study of midlife development.

At the outset, it is important to clarify our use of the terms *health* and *well-being,* as evident in our title, *How Healthy Are We? A National Study of Well-Being at Midlife.* By *health,* we endorse a multidisciplinary definition of the term that includes not only physical health but also psychological and social health. A major objective of MIDMAC was, in fact, to broaden the purview of what has traditionally been included under the rubric of health. Understanding how these multiple levels interact is part of a growing concern for integrative approaches to health (Singer and Ryff 2001a). By *well-being,* we give explicit emphasis to the positive side of these multiple levels of health. That is, we challenge the preoccupation with health conceived exclusively as illness and disease (physical or mental) and instead call for greater attention to the upside of human functioning (Ryff and Singer 1998). MIDUS provided the opportunity to measure health not just as the absence of illness but also as the presence of wellness.

History of the Midlife Network

The Research Network on Successful Midlife Development was established in 1990. Its mission was to identify the major biomedical, psychological, and social factors that permit some to flourish in the middle years, achieving good health and psychological well-being, and exercising social responsibility. Although there was explicit interest in understanding such positive midlife trajectories, the network was also interested in identifying the factors that undermine and limit good health, well-being, and social responsibility in midlife. A team of thirteen scholars from the fields of anthropology, demography, epidemiology, health care policy, medicine, psychology, and sociology was assembled to carry out this task. Over its ten-year history, MIDMAC also brought in fifteen junior scholars as network associates. Their backgrounds reflected the same diversity of fields. The chapters that follow are authored by the members and associates of MIDMAC, along with their collaborators.

The collective goals of the MIDMAC team were to (1) develop indicators (physical, psychological, social) for assessing successful midlife development; (2) establish an empirical basis of what happens in midlife—the who, what, when, where, and why of midlife events and the beliefs people hold about them; (3) identify factors that influence the course of midlife development, including illness, life stresses, work and family interactions,

and culture; and (4) illuminate the psychological and behavioral strategies that people use to understand and deal with the challenges of midlife, thereby elaborating the variety of individual differences in how midlife is negotiated.

These broad interests were pursued via numerous initiatives (e.g., conferences, new data collection, and analyses), many of which culminated in topically organized edited volumes, such as *Sexuality across the Life Course* (Rossi 1994); *The Parental Experience in Midlife* (Ryff and Seltzer 1996); *Multiple Paths of Midlife Development* (Lachman and James 1997); *Welcome to Middle Age! (And Other Cultural Fictions)* (Shweder 1998); and *Caring and Doing for Others* (Rossi 2001). With the exception of the latter volume, scientific findings across these endeavors were based on earlier studies, not on the MIDUS national survey. In fact, it was in working with earlier studies that the disciplinary limitations became apparent. Rather than approach midlife one discipline at a time, where the focus is exclusively on psychological, or social, or biomedical aspects, what was needed was an investigation of all of these levels combined. This realization was the genesis of the plan to carry out a national survey of midlife Americans in which information would be collected across a wide array of topics so that the intersections of psychological, social, and biomedical processes could be brought into focus.

Strengths of the MIDUS Survey

Creating a national survey via a multidisciplinary team approach was innovative on multiple levels. Among the unique strengths of this integrative study, we highlight the following. First, MIDUS provided a groundbreaking assessment of numerous psychological constructs (e.g., personality traits, sense of control, positive and negative affect, goal commitments, well-being) in a national sample of Americans. Such variables define mainstream research in life-course studies of personality, affect, and well-being (McCrae and Costa 1990; Helson 1993; Ryff, Kwan, and Singer 2001), and the psychology of adulthood and aging (Birren and Schaie 1996, 2001), but extant knowledge has been generated with select samples having limited generalizability to the larger population. Thus, MIDUS provided an unprecedented opportunity to bring core psychological constructs to a large and diverse sample of midlife Americans. The diversity in educational level, income, and occupational status, as well as race/ethnicity and region of the country, proved to be extremely fruitful in the scientific findings generated.

Second, MIDUS afforded new directions for fields of demography, epidemiology, and sociology, where national surveys are standard fare, but where typical sociodemographic and health variables (e.g., marital status, employment status, socioeconomic standing, family structure, health status, health care utilization) are rarely linked to mainstream psychological and social constructs. MIDUS provided the opportunity to build bridges between these largely disciplinary-specific realms of knowledge.

Third, before conducting the study, the multidisciplinary team of investigators carried out painstaking pilot research, involving six separate studies (some involving national samples), to develop short-form assessments of many key psychosocial constructs. Thus, another first of MIDUS was the creation of condensed psychological assessment inventories that could be used with large population samples, where the trade-offs between sampling scope and depth of measurement must be negotiated. MIDUS demonstrated how these trade-offs can be accomplished via pilot research designed to maintain the conceptual and theoretical integrity of the constructs that personality, social, and cognitive psychologists bring to the table, but at the same time, sharply reduce the number of questions/items asked to probe such constructs.

Fourth, MIDUS made creative use of satellite studies, essentially studies within a study, so that greater depth could be obtained in certain areas. For example, a subset of MIDUS respondents not only completed the telephone interview and self-administered questionnaire given to all members of the national sample but they also participated in a diary study of daily stress, involving additional data collection over a period of eight days. The nature and scope of the satellite studies are described in greater detail later in this chapter. For now, the generic point is that the use of the satellites built around the main study provided a compelling solution to the competing forces of sampling scope, variability, and generalizability, on the one hand, and in-depth assessments of core constructs on the other. The MIDUS design encompassed both.

Finally, because of these innovations in assessment and design, MIDUS had an exceptionally expansive scientific scope. A synopsis of the substantive areas included in the study is provided in tables 1 and 2. The main categories of assessment are elaborated later in this chapter in discussion of the MIDUS measures. Here we highlight the unprecedented breadth of content in the MIDUS survey. Thus, one of the main advances of this investigation was to demonstrate that a population-level inquiry covering such wide territory could actually be done. That is, MIDUS

TABLE 1 MIDUS Content: Demographics and Psychosocial Factors

Demographics
Age, gender, race, ethnicity, marital status, education

Living Arrangements
History of institutionalization homelessness without telephone, housing tenure, neighborhood safety, marital history, current status, number of marriages, first marriage, current or recent marriage, widowhood, divorce

Childhood/Background
Country of birth, parents' country of birth, head of household (male and female), parents' education, occupational status, job classification, ever on welfare, language(s) spoken, religion, urbanicity, number of times moved, financial status of parents, regular chores and rules, number of siblings, birth order, relationship with mother and father during childhood, emotional and physical abuse

Occupational History
Age at first job, job status over past ten years, current status, job classification (industry, occupation, socioeconomic index), characteristics of current or most recent job, comparison of job status and characteristics over time, unemployment history, retirement, work-to-family spillover

Finances
Personal earnings, spouse's earnings, Social Security benefits, governmental assistance, household income assets, comparison of financial situation over time, control over financial situation, adequacy of current income, finances for retirement (pension plan, IRA, Keogh)

Spouse/Partner
Age, education, employment status, job classification, job characteristics, job security, physical health, mental health, relationship with spouse/partner, stability of relationship, communication with spouse/partner, level of support, understanding, and criticism from spouse/partner, sharing of household chores

Sexuality
Rated sexual aspects of life, comparison of sexual aspects over time, number of sexual partners over past year, number of sexual encounters over past six months, sexual orientation

Parents
Age, health during respondent's adolescence, current health status, age at death

Children and Parenting
Number of biological and nonbiological children, age, gender, relationship with children over time, assessment of contribution to family, family-to-work spillover, difficulties with child care

Psychological Assessments
Personality traits, locus of control, goal tenacity, goal strategy, planning, making sense of the past, satisfaction with life domains, disappointment with achievements, self-description (outgoing, moody, curious, optimistic, etc.), level of interdependence, rated life overall, gender roles and parenting, perceived inequalities (work, home, community), perceived discrimination

Social Networks and Support
Family, friends, neighbours, community members and organizations, emotional support, instrumental support, perceived support, support given, support received, level of interaction with network members, sense of community, problems among members of social network

Social Participation
Level of community involvement, control over community involvement, contributions to welfare of others, social obligations, volunteerism, involvement with social organizations

Religion and Spirituality
Religious affiliation, degree of religiosity/spirituality, frequency of attendance at religious/spiritual services, use of religion/spirituality for guidance

TABLE 2 MIDUS Content: Mental and Physical Health, and Beliefs about Health

Mental/Emotional Health	Physical Health	Health-Related Beliefs
Self-rated mental health, rated change over time, mental health–related disability, depression, anxiety, affect, panic attacks, psychological well-being, sense of hopelessness, stress at home, stress at work, health-related behavior, smoking history, alcohol consumption history, problems with alcohol, moderate and vigorous physical activity, prescription medications, vitamins, treatments and therapies used, substance use/abuse	Self-rated physical health, rated change over time, health-related disability and limitations, cardiovascular history, cancer history, chronic conditions, physical symptoms, somatic symptoms, height, weight, waist–hip ratio, weight change over time, self-assessed weight appropriateness, history of operations, history of hospitalizations, menstruation, menopause, control over health risk perceptions	Health risks, treatment decision-making processes, control over health, effort put into health, health care utilization, regular doctor, regular clinic, health insurance coverage, routine preventative care within past twelve months, emergency care, mental health care, psychiatrist, minister (self-help groups, etc.), alternative therapies (acupuncture, chiropractic, herbal therapy, etc.)

changed the social scientific understanding of the boundary conditions under which research is conducted. We found that through a well-crafted, engaging interview, combined with a lengthy self-administered questionnaire, it was possible to collect an unprecedented amount of information about a very large number of Americans. In that sense, MIDUS broke through long-standing barriers, implicit and explicit, of what is possible in a national survey.

The collective innovations of the study were accomplished by bringing together the scientific disciplines, represented by the MIDMAC members and associates, and through years of regular meetings and working out differences in research priorities. In the fields of sociology, demography, and epidemiology, primary resources are frequently channeled into recruiting large, representative samples. Alternately, in psychology and anthropology, greater emphasis is given to developing in-depth assessment procedures—interviews, observations, questionnaires. The net effect of these differing conceptions of quality research is that much comprehensive, detailed data collection has been carried out on small, biased samples. Studies of large, representative samples, in turn, have frequently been limited in depth of assessment, particularly in psychosocial realms. MIDUS effectively bridged these competing priorities, thereby allowing the psychologists and anthropologists in the group to investigate their questions in a diverse sample of Americans, while at the same time, sociologists, demographers, and epidemiologists had the benefit of adding new psychosocial content to their inquiries. It cannot be overemphasized

that this novel synthesis required compromise and trade-offs on all sides. All players had to retreat somewhat on their own priorities for this new, integrative inquiry to work.

MIDUS Samples, Design, and Measures

Detailed information about the MIDUS national survey is available in previous publications (Brim 2000) and at the MIDMAC website (http://midmac.med.harvard.edu/research.html). In the present chapter we provide a condensed description of this information as entrée to the researching findings that follow.

Sample: Who Was in the Study?

Overall, the MIDUS survey was administered to a national sample of 7189 non-institutionalized, English-speaking adults. All respondents, aged 25–74, were recruited by telephone to participate in the study. The rationale for the wide age range was that those in the middle years (40–60) could be compared with those younger and older. Respondents completed a telephone interview (approximately forty-five minutes in length) and a self-administered questionnaire (approximately two hours in length). Of the general population sample, which did not include twins, siblings, or city over samples, 3032 respondents completed both the telephone survey and the questionnaire. Another 453 respondents completed only the telephone survey. These data were collected primarily in 1995.

The response rate for the telephone interview was 70 percent, which is generally considered quite good for a population survey. Among the telephone respondents, 86.8 percent completed the lengthy self-administered questionnaire, yielding an overall response rate of 60.8 percent. Comparison of the MIDUS main sample with the Current Population Survey (U.S. Census Bureau 1995) revealed that the sample underrepresented those with a high school education or less and African Americans. Presumably, the lengthy content of the survey (phone and questionnaire) would not have been possible without some underrepresentation of the least educated. Alternately, by design the sample overrepresented older males so as to facilitate gender comparisons by age.

In addition, MIDUS included oversamples ($N = 757$) in select metropolitan areas. The purpose of these was to facilitate in-depth data collection for satellite studies. To investigate familial and genetic influences on questions of interest to MIDUS investigators, the study also included siblings ($N = 951$; allowing for 1614 pairs of siblings) of the main sample respondents, plus a separate sample of twins ($N = 1996$; 998

pairs). The phone interview and questionnaire mentioned earlier were also used with the sibling and twin samples. These data were collected primarily in 1995–96.

The main MIDUS sample included 339 African Americans (approximately 6.1 percent of the general population sample). To expand possibilities for investigating questions pertaining to ethnic/racial minorities, additional data were collected from minority samples in Chicago (235 Mexican Americans, 196 Puerto Ricans) and New York City (384 Dominicans, 284 Puerto Ricans, 338 African Americans). These subsamples were selected from predesignated geographic areas to allow for contrasts between high versus low socioeconomic neighborhoods, and high versus low density of members of particular ethnic/racial groups (e.g., segregated neighborhoods). Respondents completed approximately 65 percent of the material used in the national survey along with detailed descriptions of community, family, and kinship membership. These data were collected primarily in 1995–96.

Satellite Design: "Studies within a Study"

The wide sampling scope (main sample, twins, siblings, metropolitan oversamples, city-specific minority subsamples) was accompanied by a design strategy that not only collected the core MIDUS data from all respondents but also allowed for more in-depth assessment with subgroups of respondents in targeted areas. For example, a large number of the main-sample respondents ($n = 1031$) and twins ($n = 452$) also participated in the National Study of Daily Experiences (NSDE). These respondents completed a short telephone interview about their daily experiences on each of eight consecutive evenings. Such assessments provided a more textured understanding of the challenges of daily life and how they are responded to (see chap. 15 by Almeida and Horn for further details). In addition, the Boston oversample allowed for more in-depth evaluation, including laboratory-based assessments, of cognitive capacities and life management strategies among 302 MIDUS respondents (see chap. 11 by Lachman and Firth).

A further satellite involved a subsample of 724 respondents randomly selected from the larger sample who participated in an in-depth interview about "turning points" in their lives (see chap. 20 by Wethington, Kessler, and Pixley for further details). An additional, in-depth qualitative interview was conducted with 83 MIDUS respondents from around the country. These individuals provided perspectives on their own well-being—what it is and how they maintain it. They were preselected

to allow a focus on individuals with low socioeconomic status (indexed by educational level) who have nonetheless been able to achieve high well-being as defined by the structured scales included in MIDUS (see chap. 10 by Markus, Ryff, Curhan, and Palmersheim).

In combination, these additional studies, built around the main MIDUS sample, allowed investigators in particular areas to cover topics in much greater detail. Such data collection in itself is not novel, but what was unique was that these individuals were embedded within a large national survey. This meant they could be compared with the full sample on a host of other variables (sociodemographic characteristics, health, well-being), which, in turn, provided further interpretive insight regarding their comparability (or uniqueness) with the main sample.

Survey Content: MIDUS Measures

Table 1 provides an overview of the many areas of assessment in MIDUS. This wide content was assembled by the multidisciplinary team of investigators. The overall survey instrument, known as the Midlife Development Inventory (MIDI), contains more than eleven hundred items. The entire instrument is available for downloading at two locations—the MIDMAC website (http://midmac.med.harvard.edu/) and the University of Michigan website (http://www.isr.umich.edu/src/midus/), where the data are archived. The main categories of assessment have been described in earlier summaries of MIDUS (Brim 2000) and are also the topic headings in tables 1 and 2. The chapters that follow provide further measurement and psychometric detail on the variables of interest in targeted analyses.

The overall profile of what we learned about those who participated in the study included their demographic characteristics (e.g., gender, age, race/ethnicity, marital status, education, income, living arrangements); current living arrangements (e.g., housing tenure, neighborhood safety); childhood and family background (e.g., parental education and occupation, birth order, number of siblings, quality of early ties to mother and father); occupational history (e.g., job status over the past ten years, current job classification, unemployment history); finances (e.g., personal earnings, household income, finances for retirement); spouse/partner relationship (e.g., sociodemographic characteristics of partner, level of support, understanding, criticism from partner); sexuality (e.g., sexual orientation, frequency of sexual experience, quality of sexual experience); parents (e.g., age, health, age at death); parental experience (e.g., number

of children, their age/gender, quality of ties to them); psychological assessments (e.g., personality traits, locus of control, goal orientations, life satisfaction, perceived discrimination, perceived inequalities); social networks and support (e.g., ties to family, friends, neighbors; instrumental and emotional support, support given and received); social participation (e.g., community involvement, social obligations, volunteerism); religion and spirituality (e.g., attendance, use of religion/spirituality for guidance); mental/emotional health (e.g., depression, anxiety, psychological well-being); physical health (e.g., subjective health, chronic conditions, health symptoms, waist–hip ratio, history of hospitalization); and health behaviors and beliefs (e.g., smoking, alcohol consumption, exercise, medications, perceived risks, doctor visits, preventive care, alternative therapies). Additional examples of variables within the main categories are provided in tables 1 and 2.

Most of this information, minus the depth and detail in psychological assessments, was not new to national surveys, whether oriented to epidemiological studies of health, or to sociological assessments of family life or occupational experience. What MIDUS contributed, however, was the integration of all of these domains of assessment in a single study. That is, this was the first time a national sample had been interviewed in which the members were asked questions covering topics that were of interest to epidemiologists and occupational or family sociologists as well as questions covering topics that mental health researchers typically probe; a wide array of new territory was also brought to the study by psychologists, who rarely assess their constructs in large, national samples. MIDUS investigators were also innovative in developing entirely novel areas of assessment, for example, pertaining to work–family spillover (how work and family life influence each other in both positive and negative ways), social responsibility (perceived obligation to others, behaviors of assistance to others), and perceived inequalities (the sense that one's opportunities in life have been limited).

As noted earlier, the assessments in new areas as well as the development of short-form assessments of many psychological and social constructs were accomplished through six separate pilot studies, some with samples of more than a thousand respondents. This high level of research investment before embarking on the MIDUS study spoke powerfully to the collective commitment of the research team to find a way to bring their respective disciplines together in implementing a new kind of integrative investigation.

Overview of the Chapters

We have organized the chapters in this volume into three main parts. Part 1 pertains to midlife perspectives on physical health. Different assessments of health are covered in these chapters, and some incorporate other levels of psychological and social health as well. Part 2 summarizes findings on emotion, quality of life, and psychological well-being in the middle years. Part 3 is organized around the contexts of midlife, such as work and family experience, or neighborhood, regional, and racial/ethnic influences. Although these overarching headings provide a clustering of the findings, the chapters themselves make evident that many authors approached their main questions in ways that allowed them to benefit from the unusually rich survey within which their interests were embedded. That is to say, the MIDUS investigators drew on the sampling strengths of the study as well as on its diverse content to add important new directions to their own particular areas of expertise.

Midlife Perspectives on Physical Health

Chapter 2 by Cleary, Zaborski, and Ayanian describes the rich array of health status indicators, health behaviors, and health attitudes in MIDUS, along with its wealth of psychological and social information. The authors use the data to examine life-course variations and gender differences in health status—questions of interest to both medical and social scientists. Their analyses included numerous health measures (e.g., subjective health, number of days in a previous month unable to work or do normal activities, whether had diagnosis of heart disease, other chronic conditions, symptom profiles, waist–hip ratio, and body mass index) as well as the amount of effort respondents devoted to their health. They were also interested in somatosensory amplification, which describes sensitivity to somatic and visceral sensations not generally regarded as symptoms of serious illness. In turn, other personality and behavioral characteristics (e.g., neuroticism, depression, tendency to seek advice, perceived control) were examined as possible predictors of amplification.

With regard to age patterns of health, Cleary, Zaborski, and Ayanian document that physical health ratings become more negative over the midlife period. Both men and women gave higher ratings to mental than to physical health, although women's scores on mental health are lower, especially in the 35–44 age group. There is also a steady increase in functional health problems with age, although women report more problems

on average than do men at all ages. Women also have significantly higher odds of having numerous chronic conditions than do men. However, some of these differences drop out when adjustments are made for somatosensory amplification, which suggests that the gender differences may be due in part to sensitivity to symptoms or reporting tendencies. For both men and women, a constellation of characteristics (neuroticism, advice-seeking, low perceived control) was linked to amplification. This chapter also reviews notable variations in health status between those who are working versus not working in midlife. The authors also examine the extent to which individuals devote effort to their health, and they find both age and gender differences therein.

Chapter 3 by Marmot and Fuhrer illustrates how MIDUS investigators worked together to advance understanding of social inequalities in health, a topic whose explanation must, as they note, be approached from both biomedical and social behavioral perspectives. In fact, it is increasingly evident that the causes of the socioeconomic gradient in health lie outside the medical sector. MIDUS offered a rich array of possible intervening mechanisms, such as family background, health behaviors, social relationships, authority in the workplace, and perceived control. A previous analysis of MIDUS data (Marmot et al. 1998) had documented social gradients (using education as the key variable) in three health measures (self-reported health, waist–hip ratio, psychological well-being) and further demonstrated that these mechanisms, taken not individually but as a whole, helped to account for such differences.

This chapter probed whether there are age differences in the social gradient in health—are they, for example, of lesser magnitude in early rather than later adulthood? Using the above health measures plus measures of physical health functioning (SF-36) and depression, the MIDUS data provided no strong support for a difference in the steepness of the social gradient by age. Marmot and Fuhrer expanded the analyses to incorporate other measures of socioeconomic status (occupational prestige, household income, poverty index of one's neighborhood). These measures are correlated; thus, including all of them in the analyses clarifies the influence of each. Among women, education is strongly related to subjective health and functional health, even after adjusting for the other measures of socioeconomic status. Among men, both education and income are predictive of health outcomes. Again, no single factor explained these social gradients in health; rather it was the combination of the behavioral and psychosocial factors. However, their analyses also documented the influence of an "area effect," thereby drawing attention

to contextual influences (e.g., transport amenities, quality of housing). Thus, in two separate analyses, the MIDUS data have clarified that how social inequalities in health come about involves a complex interplay between psychological, social, behavioral, and environmental factors.

Chapter 4 by Ryff, Singer, and Palmersheim also addresses social inequalities in health, but with an emphasis on the high degree of variability within each socioeconomic grade. Such variation makes clear that not all individuals at the lower end of the socioeconomic status hierarchy are in poor physical or mental health. This raises the question of what protective factors enable some individuals who lack socioeconomic advantage to maintain good health and well-being. The authors focus on good-quality social relationships and religion and spirituality, both of which have been shown in earlier research to be predictive of reduced morbidity and later mortality. MIDUS allowed for an assessment of cumulative profiles on social relationships and religion/spirituality via its questions about quality of ties to one's mother and father in childhood as well as to one's spouse/partner in adulthood, along with its measurement of the importance of religion in one's childhood environment and in one's adult life.

The authors' findings highlight gender differences in the study of protective factors vis-à-vis social inequalities, but they also reveal differences that depend on whether the focus was on physical or mental health. Positive social relationship histories emerged as a strong feature of men who have high psychological well-being, despite lacking educational advantage. Similar patterns were found with regard to health symptoms: high school–educated men who reported low symptom profiles also had positive relationship histories compared with those of less educated men who had high symptom reports. For women, social relationship histories were particularly informative in understanding those in poor health (mental and physical) who also lacked educational advantage. Among these women, negative relationship histories clearly predominated. Alternately, women of all educational and health levels were likely to have high rather than low levels of persistent religious engagement—meaning that religiosity did not emerge as an apparent protective factor for those at the low end of the educational hierarchy who were nonetheless in good health. Patterns of religious engagement for men supported the hypothesized protective influence, but only for select outcomes.

In chapter 5, Kessler, Gilman, Thornton, and Kendler use the MIDUS sample of twins and nontwin sibling pairs to conduct a behavior genetic analysis of three primary criteria of midlife success, namely, that one is

in good physical health, has high psychological well-being, and lives in a socially responsible way. Their chapter first reviews earlier research on the heritability of health, which shows a wide range (e.g., they cite coefficients between .25 and .58), depending on the specific health measure under consideration. There have been no earlier studies of the heritability of psychological well-being or social responsibility, although related constructs have been examined (e.g., self-esteem, social support, altruism), with coefficients ranging from .20 to .72.

Their analyses tested and adjusted for a variety of assumptions pertaining to environmental similarity and behavioral differentiation between MZ (monozygotic-identical) and DZ (dizygotic-fraternal) twins. Using multiple measures of each of the above three constructs, the authors found the strongest evidence of heritability for multiple dimensions of psychological well-being (correlations for MZ twins were significantly higher than were those for DZ twins), with the effects being especially strong for women's reports of purpose in life. The weakest evidence for genetic effects pertained to self-reported health for males and social responsibility for females, where only one of four correlations was higher for MZ than for DZ pairs. The nontwin sibling pairs were used to evaluate the environmental effects of being a twin, which showed a modest influence on perception of self-rated health. On the basis of their findings, the authors suggest that future surveys, rather than ask single global questions about health, should keep measures of mental and physical health separate because they appear to have quite different heritability profiles.

Chapter 6 by Rossi focuses on a biological transition of notable significance to midlife women–menopause. She reviews the earlier literature and controversies on this topic and shows the need to place menopause in a larger framework of aging processes and their relationship to role performance. MIDUS provides a unique advantage over numerous studies undertaken in the past decade in that the study is not limited to women, but also includes men; nor is it limited to a narrow age range of midlife adults, but includes the full span from 25 to 74. These design features make it possible to evaluate how midlife is experienced differently by women and men as well as how unique the middle years of adulthood are relative to early adulthood and old age. More importantly, MIDUS covers all the major aspects of life: physical and mental health, personality, psychological well-being, and social roles in family, work, and community. That is, MIDUS affords a comprehensive biopsychosocial framework for investigating the menopausal experience.

For both the timing of menopause and women's reactions to it, Rossi's analysis shows wide age diversity in the three stages of the menopausal transition (premenopausal, perimenopausal, postmenopausal), thereby underscoring the misleading message that the "average" age of becoming menopausal is 50 or 51. The overwhelming majority of postmenopausal women report feeling "only relief." Very few women expressed concern about being too old to have children, but concerns were expressed about the prospect of future illness and about loss of attractiveness. Only a minority of women report elevated symptoms associated with menopause.

Gender differences in menopause-related symptoms (particularly sweating) were evident, but the data underscore that many younger and older women, and a minority of men, also report such symptoms. Drawing on strengths of the MIDUS data, Rossi then demonstrates that numerous factors, including a woman's history of menstrual pain, role stress at home or on the job, and somatosensory amplifications (see chap. 2), all contribute independently to elevated symptoms, as does poor mental or physical health.

Summary

Taken as a whole, the chapters in part 1 illustrate the wide scope of MIDUS interest in and assessments of health. Age and gender differences emerge as key themes across these analyses, along with variations in health as a function of socioeconomic status. Areas of new findings are that social inequalities in health do not vary by age and that single psychosocial factors do not emerge as prominent intervening processes to account for these differences. Rather, the full scope of psychosocial variables is implicated in how differences in socioeconomic status translate to health disparities. The findings also underscore the wide variability within social strata—for example, that some individuals with only a high school education are in good physical and mental health. The quality of their social relationships and their religious beliefs may contribute to such resilient profiles, especially among men. With regard to the MIDUS twin samples, new findings reveal high heritability coefficients for psychological well-being but low coefficients for social responsibility. Finally, MIDUS brought a comprehensive biopsychosocial framework to the menopausal transition, which in turn clarified that numerous factors such as role stress at home or at work, history of menstrual pain, and mental and physical health contribute to menopausal symptoms.

Emotion, Quality of Life, and Psychological Well-Being in Midlife

Chapter 7 by Mroczek begins with the observation that although positive and negative affect have been extensively studied, rarely has midlife been the focus of such research. Given age-related differences in life contexts (e.g., experience of role overload in midlife) as well as biological aging and theories of affect regulation in adulthood, he elaborates reasons for expecting that affective experience might vary from young adulthood through midlife into old age. MIDUS made it possible to investigate these questions in a sample with wide age ranges and with greater sociodemographic variability than is evident in previous psychological studies of affect in adulthood and aging. Importantly, Mroczek also brings a rich array of contextual variables to the analysis in an attempt to account for influences on affective profiles. These include background sociodemographic factors such as gender, educational level, marital status, and physical health status as well as more proximal influences such as work and relationship stress.

Mroczek finds that the general pattern for negative affect is one of decline across the three age groups and also that older men are less variable on negative affect than are midlife or young adult males. Regarding positive affect, both midlife and young adults report lower levels than do old-aged individuals, and the older respondents (both men and women) were also less variable on positive affect than were the two younger age groups. The analyses further revealed that affective profiles of midlife adults were more influenced by context than was evident for young or older adults. Most midlife adults are heavily engaged in work and relationships, and this involvement may contribute to their levels of good cheer and fulfillment as well as to their levels of distress. Finally, physical health was found to have a significant effect on both positive and negative affect across the adult years.

Chapter 8 by Kessler, Mickelson, Walters, Zhao, and Hamilton examines the links between age and major depression. Many community surveys of psychiatric disorder have consistently found a negative relationship between age and lifetime clinical depression: highest rates are usually found among young adults and lowest rates among the oldest old. The explanation for this pattern is, however, unclear. Older persons are less likely to report feeling depressed because of the stigma associated with it, or perhaps they are better able to prevent depressed mood from evolving into major depression because they are less reactive to stress. The authors use the MIDUS data to investigate the latter possibility by

incorporating respondents' evaluations of stress in major life areas (physical health, work, finances, relationship with children, marriage/close relationship, sexuality). Their analyses also address links between major depression and role changes (e.g., in marital status, employment status, parenting status) over the life course.

MIDUS findings converge with the prior pattern of a negative relationship between age and depression among both men and women, although women have a significantly higher twelve-month prevalence than men. The authors also found higher prevalence among homemakers and the unemployed, although no significant differences were evident as a function of parental status. Regarding life stresses, increased age was not invariably associated with increased stress. There are increases in role loss due to widowhood, retirement, and sexuality, but there are other areas of life where stress decreases with age (job, finances, personal relationships). Supporting the view that lower prevalence of depression among the aged may be due to reduced reactivity to stress, they point to the significant drop in the percentage of older men who rate their physical health in the stressful range. Although additional data would be needed to confirm their interpretation, the authors suggest that it is unlikely such older men are actually in better health compared with younger men. What may be changing rather is that they are lowering their expectations about what constitutes health stress in later life.

Chapter 9 by Fleeson probes age variation in quality of life, thereby linking MIDUS to an extensive history of earlier U.S. surveys on the same topic. Fleeson uses this earlier literature to ask whether age trajectories in quality of life are specific to particular cohorts. That is, are they age patterns that are relatively stable across cohorts, or do they vary across historical periods? He focuses specifically on the study conducted by Campbell, Converse, and Rodgers (1976), which provides a twenty-five-year window of time during which considerable social change occurred (in values, prosperity, politics). In 1976, Americans reported the highest levels of life satisfaction with their marriage and family, and most domains showed a steady linear increase in satisfaction with age. Fleeson's question thus was whether these findings could be replicated twenty-five years later. Expanding previous queries, MIDUS added two new domains of assessment to quality of life: sexuality and contributions to others.

The MIDUS data, like the earlier study, reveal that Americans lead high-quality lives. The five domains of children, marriage, work, financial situation, and overall life show a general increase with age, but the domains of quality of marriage, relationship with children, and overall

life do not begin to improve until a person's late thirties or early forties. On the other hand, contributions to others peak in midlife, sexuality substantially decreases with age, and ratings of health satisfaction showed no relationship to age. This overall pattern is consistent with the 1976 study. The two strongest predictors of overall quality of life are the quality of one's marriage/close relationship and one's financial situation. The emphasis on marriage parallels the earlier study, and in both, health did not emerge as of great importance for overall quality of life, even among older participants. Thus, despite different samples, slightly different wording of questions, and intervening social change over a twenty-five-year period, the American story of quality of life remains quite consistent.

Chapter 10 by Markus, Ryff, Curhan, and Palmersheim reports results from the in-depth qualitative study of well-being that was conducted with eighty-three MIDUS respondents from around the country. The purpose was to explore the meaning and sources of well-being with a preselected sample of high school- and college-educated men and women aged 40–59 who reported high psychological well-being in the national survey. How is well-being characterized by those who differ in educational attainment, and what are its attendant links to financial resources and health problems? The authors hypothesized that there would be some common understanding between these educational groups as to what a good life entails but that they would also differ in important ways. The college–educated, for example, were expected to describe their well-being more in terms of personal accomplishment and self-fulfillment, whereas the high school-educated were expected to give greater emphasis to their relationships with others and religious faith in describing their own well-being.

Detailed coding and analysis of open-ended responses revealed that there is clear consensus across educational levels and gender that relations with others is the most important aspect of well-being. Thus, respondents referred to their social relationships in answering multiple questions: What is a good life? Why has your life gone well? What are your hopes for the future? The respondents also agreed that well-being is strongly influenced by having physical health, being able to enjoy oneself, and developing the self. However, when the content and form of responses were examined in detail, more educational differences were apparent. Those with a college education emphasized having a purpose, seeking new opportunities, and experiencing self-enjoyment. Their narratives reflect lives structured by purpose and goals, and they see themselves acting directly on the world. Relations with others are central, but they characterize such ties in terms of influencing, advising, and respecting

one another. The high school–educated, in contrast, did not focus on personal accomplishments, skills, or abilities but instead spoke more about their families, financial security, and jobs. The needs and requirements of others are what structure their everyday lives. Their sense of well-being thus involves doing what one should be doing according to the communities one is engaged in.

Chapter 11 by Lachman and Firth brings the construct of perceived control to the MIDUS agenda, asking who by age, gender, and educational level has it, and further, what are the consequences of this perception for psychological well-being and physical health? They note that previous studies have concentrated on comparisons between younger and older adults, with little attention given to the middle years, and they have generally used small, nonrepresentative samples. MIDUS examined general perceptions of sense of mastery and beliefs about external constraints, as well as perceived control within specific life domains. This chapter integrates a rich array of findings not only from MIDUS but also from the Boston oversample, and with additional links to the Whitehall II longitudinal study of British civil servants.

No age differences were evident in the general sense of mastery from young adulthood to old age, although older adults reported higher levels of perceived external constraints than did the two younger groups. Three life domains showed an upward trajectory of perceived control (work, finances, marriage), and two showed downward age trajectories (children, sex life), where respondents perceived less control with aging. Men reported higher mastery and lower constraint than did women, although with regard to specific life domains, both genders perceived the least control over their finances and sex life, and the most control over their marriage and life overall. Those with higher levels of education perceived fewer constraints and greater control over health, work, finances, and contributing to the welfare of others. Those with higher sense of control also reported higher life satisfaction and lower depression. A final set of analyses examined mediators of the sense of control and health outcomes, where the results showed that those who perceive greater control are more likely to engage in health-promoting behaviors, which are linked to better health outcomes (e.g., lower waist–hip ratio). Regarding social inequalities, their findings document that individuals with lower incomes have lower mastery and higher constraint profiles but that there is notable variability. Lower-income respondents who had higher profiles of control also had better health, suggesting that perceptions of control may serve as a possible buffer against health-compromising life stressors.

Chapter 12 by Keyes and Shapiro focuses on social well-being, an area in which MIDUS carved new scientific territory. Previous theoretical work on social well-being is in the sociodemographic literature on alienation and anomie. What is the positive alternative to these maladaptive states? In response to this query, Keyes developed and validated a multidimensional measure of social well-being, which measured the degree to which individuals perceive they are integrated into society, their acceptance of other people, their contribution to society, and their perception that society is understandable, coherent, and has the potential to improve over time (i.e., the world can become a better place). Using such instruments, their chapter focuses on how social well-being is distributed in the U.S. population by age, gender, marital status, and socioeconomic status. The key question was whether social well-being is disproportionately evident among particular sociodemographic groups.

Their findings suggest generally good social well-being in the MIDUS national sample—only about 16 percent of respondents did not report being in the top third on any dimension of social well-being, and more than 20 percent were in the top third on four or five dimensions. With regard to life-course variation, they found positive increments with age for social acceptance and social integration, but a negative profile on age decrements for social coherence and social contribution. Women reported higher social acceptance than men, but men reported higher social coherence than women. Married persons, not surprisingly, reported higher levels of social integration than did nonmarried individuals, but the never married also reported significantly higher levels of social contribution. Those with lower occupational status had lower profiles of social well-being on several dimensions compared to those with higher occupational status. The multivariate models revealed that being male, having high occupational status, and being married or never married were the strongest predictors of high social well-being, whereas low social well-being was evident primarily among females, those who were previously married, and those of low occupational status.

Chapter 13 by Horton and Shweder brings a focus on ethnic minority samples to the analysis of psychological well-being. Their specific question is whether ethnic conservatism, defined as the tendency to resist rapid and full assimilation into the mainstream Anglo-American culture, contributes to the well-being of ethnic minorities. They summarize findings from a report of the National Research Council, which showed there are protective factors such as strong family bonds that act to sustain

cultural orientation and thereby protect the health and well-being of first-generation immigrants. Thus, the length of time immigrants reside in the United States has been associated with declining physical and mental health. These authors address such issues via MIDUS subsamples that include first-generation Mexican Americans in Chicago and first- and second-generation Puerto Ricans in Chicago and New York City. They measure ethnic conservatism in terms of the disposition to communicate ethnic pride to one's children, the use of Spanish language in thinking, and weak acculturation ideals. These assessments were then linked to the measures of psychological well-being, measured both in MIDUS and the ethnic/minority subsamples.

They found that first-generation Mexican Americans and Puerto Ricans who are ethnically conservative have higher well-being, particularly autonomy, purpose in life, and positive relations with others. These positive effects are strongly moderated by generational status—that is, attitudes and practices of ethnic conservatism were associated with higher psychological well-being for the first-generation but not the second-generation sample of Puerto Ricans. Thus, the authors' findings converge with the earlier National Research Council report suggesting that the longer immigrant families reside in the United States, the less are the protective benefits derived from ethnic conservatism. The authors note that the sampling strategies, which were designed to recruit individuals from highly segregated neighborhoods, may have resulted in underrepresentation of the most highly assimilated portion of these populations.

Chapter 14 by Ryff, Keyes, and Hughes continues the emphasis on psychological well-being in the ethnic/minority context. Their analyses contrast the well-being of blacks and whites in the MIDUS national survey as well as subsamples of African Americans in New York City and Mexican Americans in Chicago. Extensive prior literature on primarily white, local-community samples had documented replicable age differences on psychological well-being. Some aspects of well-being show incremental profiles with age, such as environmental mastery, whereas others show notable age decrements, such as purpose in life and personal growth, and still others, such as self-acceptance, show little age variation. For two dimensions (autonomy, positive relations with others), prior patterns vary between showing stable or age-incremental profiles. For the most part, men and women have not differed on reported well-being, with the exception of positive relations with others, on which women always score notably higher than men. This chapter also reviews earlier

findings on mental health in ethnic/racial samples, which underscore compromised quality of life in the minority context but also notable areas of strength (e.g., self-esteem). MIDUS provided a first opportunity to extend that literature via the above measures of well-being.

Many of the preceding age differences were replicated in the minority samples, suggesting considerable uniformity in how well-being varies across the life course. However, these more expansive samples not only in terms of race/ethnicity but also in terms of socioeconomic variability revealed generally lower profiles of well-being among women compared to men, with the effects most pronounced in the Chicago and New York minority subsamples. One of the most provocative findings emerged from the multivariate analyses, which showed that in addition to age and gender predicting these outcomes, minority group status emerged as a strong positive predictor of well-being. That is, minority respondents are more likely to have high well-being than are majority respondents. Education was also a strong positive predictor of well-being, while perceived discrimination was a strong negative predictor. Overall, these findings underscore the presence of psychological strengths in the lives of those confronted with the stresses of minority group status.

Summary

MIDUS investigators contributed numerous advances to our knowledge of emotion, quality of life, and well-being across the decades of midlife. For the most part, findings revealed a positive portrayal of aging: older adults reported higher levels of positive affect, combined with lower levels of negative affect relative to young and midlife adults. However, the affect of those in midlife was found to be more heavily influenced by context, work, and family than was that of those who are younger or older. Similarly, age was negatively linked with major depression, with older adults showing less likelihood of this disorder. Little evidence was found to support the view that increased age translates to increased stress, although these effects may, in part, be attributable to older respondents being less reactive to stress. Ratings of specific domains of life—children, marriage, work, finances—also showed age-related improvements, beginning in a person's late thirties or early forties. Two domains, however, sexuality and contributing to others, showed a decline in quality with age. Interestingly, self-rated health did not emerge as a strong contributor to overall quality of life. Underscoring themes of social stability, the MIDUS quality-of-life findings were shown to be comparable to those obtained in a national survey twenty-five years ago.

Paralleling quality-of-life results, ratings of perceived control over work, finances, and marriage showed increments with age, although older respondents perceived less control over their sex lives and children. The general sense of mastery did not differ across age groups, but older adults perceived higher external constraint than did the two younger age groups. Men and those with more education reported higher mastery and lower constraint than did women or those with less education. Importantly, those who perceived greater control were more likely to engage in health-promoting behaviors and have better health. Returning to the theme of socioeconomic status–related variability, low-income respondents who had high-control profiles also reported better health.

When asked to characterize well-being in their own terms, MIDUS respondents gave primary importance to having good social relationships. However, educational differences were also evident, with the college-educated referring more to their life purposes, opportunities, and self-enjoyment, while the high school–educated spoke more about families, financial security, and jobs. In addition to these open-ended assessments, MIDUS provided new quantitative measures of social well-being. Older respondents reported higher levels of social integration and acceptance of others than did those in younger age groups, although the aged also reported lower profiles on contributing to society. Those most likely to have high social well-being were males, the married and never married, and individuals with high occupational status.

Finally, the ethnic/minority analyses revealed that first-generation Mexican Americans and Puerto Ricans have higher well-being than do second-generation immigrants. These findings were attributed, in part, to practices of ethnic conservatism among first-generation respondents. Age differences in psychological well-being previously found among white, majority samples were largely comparable for African and Mexican Americans. For example, there were age increments in environmental mastery but decrements in purpose in life, and no age differences for self-acceptance. A particularly novel finding was that ethnic/minority status was a positive predictor of psychological well-being, perhaps underscoring the gains in life purpose and self-regard linked to the challenges of living with racism and discrimination.

Contexts of Midlife: Work and Family Experience, Neighborhood, and Geographic Region

Chapter 15 by Almeida and Horn reports on findings from the National Study of Daily Experiences that was embedded within the larger

MIDUS survey. The authors observe that midlife has been portrayed both as a time of crisis and as the prime of life; they then ask what might day-to-day stressors contribute to these differing views. Although there has been extensive research on age differences in major life events, surprisingly little is known about daily stress. Almeida and Horn examine the nature of daily stressors in two ways: first, they code stressors into types, such as arguments or overloads; second, they evaluate the meaning of the stressor to the individual by probing the affective response to it (e.g., crying, feeling sad). On the basis of previous research, they predicted that women would report more home- and network-related stressors whereas men would report more stressors related to work tasks and overloads. Their data were based on daily reports of stress over eight consecutive days.

On average, respondents reported experiencing at least one stressor on about 40 percent of the days and multiple stressors on about 10 percent of the days. Women reported more frequent days with stressors than did men, but the genders had similar numbers of days involving multiple stressors. Age was negatively related to the frequency of experiencing daily stress in that young and midlife adults reported more frequent days of any stressors and multiple stressors than did older adults. The two younger groups also rated their stressors as more disruptive and unpleasant than did the older adults. Age was also negatively related to the majority of types of stressors (e.g., interpersonal tension, overloads), although older adults reported the highest proportion of network stressors. Overall, the most frequent daily stressor was interpersonal tension. As predicted, women reported more frequent overload, network, and child-related stressors than did men, while men had more frequent stressors involving a coworker.

Chapter 16 by Carr brings a cohort perspective to the MIDUS national survey and asks whether different cohorts of adults show different levels of well-being (environmental mastery) and self-acceptance, and if so, to what extent such differences reflect shifting access to structural opportunities (higher education, gainful employment) as well as individual strategies for accommodating work and family demands. The three cohorts considered include the silent generation (born between 1931 and 1943; ages 52–64), the baby boom cohort (1944–59; ages 37–52), and the baby bust cohort (1960–70; ages 36 and younger). Carr describes how the three cohorts have had very different occupational opportunities as labor market prospects for women have changed dramatically over these periods. Fertility rates have also dropped steadily in the United States since the mid-1960s. What are the implications of these macro-level changes in

family structure, educational attainment, and industrial shifts for positive self-regard and the sense that one can manage the surrounding environment?

Carr finds that no single cohort had clear advantage in terms of psychological well-being: the oldest adults were higher in environmental mastery, but the baby bust cohort was highest in levels of self-acceptance. Each successive cohort had a higher proportion of college graduates than the last, although women's occupational status scores still lag significantly behind men's. Multivariate analyses revealed that the higher levels of self-acceptance among baby bust women could be explained by their greater access to self-esteem-enhancing resources, such as higher education, higher occupational status, and fewer family-related obstacles to their work lives. However, baby bust and baby boom women had significantly lower levels of environmental mastery, likely reflecting the intense pressures of balancing work and family life among the former. The three cohorts of men did not differ in environmental mastery, once occupational status and education were controlled for. Finally, the men of the silent generation had significantly lower levels of self-acceptance than did the men of the two younger cohorts. Moreover, cutting back on work to tend to childrearing responsibilities reduced levels of self-acceptance among the oldest men, likely reflecting a choice that went against the then prevailing norms in which men should be primary breadwinners.

Chapter 17 by Earle and Heymann provides a public policy context for an analysis of the MIDUS data, focusing on the interface of work, family, and socioeconomic status. The authors' starting point is the sweeping change in poverty policy that occurred in 1996, when the U.S. Congress ended the guarantee of income support for single parents and their children living in poverty by enacting the Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA). Under the new law, the majority of welfare recipients are required to find work within two years, and individuals may not receive support for more than a total of five years in their lifetime. Earle and Heymann focus on how poor working parents manage the challenges of balancing work and family life under these conditions, emphasizing the implications for the health and well-being of their children. To explore these questions, the authors use not only data from MIDUS, which is valuable for its assessments of autonomy and decision-making in the workplace, and the number of days in which respondents changed their work schedules to meet family responsibilities; they also use the National Longitudinal Survey of Youth (NLSY), which offers information on medical conditions and illnesses among

children in low-income families, and the National Medical Expenditure Survey (NMES), which provides data on whether illness caused individual family members to miss school or work and how many such cutbacks occurred over a one-year period.

Earle and Heymann's findings document that low-income families face greater caregiving responsibilities and yet fewer social supports. Low-income parents in MIDUS reported needing 3.4 work cutbacks in a three-month period for their children, compared with 1.84 cutbacks for parents not living in poverty. Single parents without a high-school diploma living in poverty had a work cutback rate three times greater than that of single parents with a high-school diploma or who were not low income. The NLSY data showed that mothers who have received Aid to Families with Dependent Children (AFDC) are significantly more likely than non-AFDC mothers to have at least one child with asthma or a chronic condition requiring time for care. Mothers who have been on AFDC for more than two years were twice as likely as mothers who had never been on AFDC to have at least one child with a chronic condition. Both MIDUS and NLSY underscored the critical differences across social class in the availability of social supports. AFDC mothers were significantly less likely to have paid sick or vacation leave than were other mothers. MIDUS data revealed that employed parents with incomes at or below 150 percent of the poverty line were significantly less likely to get help and support from co-workers, and twice as many low-income working parents stated that they could not rely on family or neighbors for help as compared to higher-income working parents. Their chapter concludes with a discussion of needed policy changes following from these findings.

Chapter 18 by Marks, Bumpass, and Jun takes a broad perspective on family roles during the middle life course and the ways those roles influence physical, mental, and social well-being. The authors note a current controversy regarding the family as a social institution—are we witnessing its demise, or its changing patterns and resilience over time? Their chapter enters this debate by first considering the distribution of those occupying marital/partner, parental, and adult child roles among those persons aged 25–74. They then link these role statuses to assessments of physical health, psychological well-being, negative affect, and generativity concern for guiding the next generation. Although such family roles have been previously linked to health outcomes in national surveys, MIDUS offered an unusual opportunity to link occupancy in various family roles to a rich and diverse array of outcomes.

Only about 1 in 10 women and 1 in 8 men in MIDUS report never having been married. Thus, despite the rhetoric about the retreat from marriage, Americans remain a largely "marrying" people. Historically, being married has been associated with better mental health than being unmarried, but research has seldom included all the relevant categories (e.g., cohabiting, remarried). Among the extensive MIDUS findings was that those in a first marriage reported less negative affect than those formerly married at all ages. Being married also appears particularly relevant to the psychological well-being and generativity of midlife men. Regarding parental status, by age 40–59, only 7.4 percent of women and 9.6 percent of men do not have children. In general, women reported less psychological well-being compared to men in comparable parenting categories, likely reflecting women's greater emotional and instrumental responsibility for children. Men's generativity is higher among those who are parents, and the psychological well-being of midlife men and women is higher among those with adult children compared to those with no children. Regarding midlife adults and their aging parents, the findings show that the mental and physical health of adult children is undermined by having unhealthy parents, particularly an unhealthy sole-surviving mother. Taken together, the findings presented by Marks, Bumpass, and Jun underscore the prominence of family life among MIDUS respondents and its clear ties to diverse indicators of health and well-being.

Chapter 19 by Rossi reviews the MIDUS findings on social responsibility in family and community life. The chapter begins with a review of current claims that Americans are turning away from civic participation in voluntary associations, are alienated from the political process, are neglectful of their family responsibilities, and have become excessively individualistic. Rossi notes the numerous times in our history when contemporary critics portrayed such fraying of the social fabric. Such critiques frequently neglect the strong and positive performance of Americans in their work roles. Amid this backdrop, the MIDUS study gave singular emphasis to the diverse ways in which Americans currently enact their social responsibility to others in family and community life. An edited volume (Rossi 2001) provides a detailed look at how Americans care and do for others. The specific focus of this chapter is on age trends in normative obligations to family and community, with characteristics of respondents' jobs used as control variables that constrain the time available to help family members or to participate in the larger community.

The key predictors of adult responsibility are found to differ both by social structural factors and by phase of the life course. Adults of low

social status (indexed by education and income) are heavy providers of emotional support to family members, as they are of hands-on caregiving. If they are also married women with a number of children, they contribute time to both family and community. By contrast, it is high-income, well-educated adults who are more apt to limit their contribution in the family domain to financial assistance but provide both time and money in the community domain. Their social world extends away from the family domain to more involvement with friends, parish, and community organizations. Phase of the life course is the second axis of social differentiation: the family preoccupies the responsibilities of young people, whereas older adults show greater involvement in community affairs. Such patterns are framed from the perspective of a pluralist society best served by a diversity of arenas in which adults show social responsibility tailored to their preferences and abilities.

Chapter 20 by Wethington, Kessler, and Pixley brings the experience of "turning points" to the MIDUS study. Work and family life are likely implicated in why and how Americans see significant change in their lives, but other realms, such as health, may also contribute to turning points. In the popular literature, midlife is frequently depicted as a time of crisis and personal turmoil brought about by the realization that one is aging. In MIDUS, turning points were investigated as experiences involving fundamental shifts in meaning, purpose, or direction that included a self-reflective awareness of the significance of the change. These authors examined how such turning points are distributed across the life span, and via in-depth interviews conducted with a subset of MIDUS respondents ($n = 724$), they explored the meaning of such experiences in qualitative detail. Their chapter also summarized findings from Clausen's earlier work on turning points, which for men were primarily about career followed by marriage, and for women, were most frequently about marriage followed by career.

In the MIDUS national survey, 26 percent of Americans reported that they had had a midlife crisis, but most did not attribute such crises to aging. Rather, major life events were what posed severe threats and challenge. Turning points were somewhat more prevalent in early adulthood than in midlife. Work was the most frequently endorsed realm for experiencing such change (23 percent of men, 27 percent of women), followed by fulfilling a dream (18 percent of men, 22 percent of women). Most individuals reported positive impact from their turning points. For example, challenge and stress at work produced adaptation that, in retrospect, was construed positively, as involving a sense of personal growth.

Moreover, people reported experiencing psychological growth because they believed they had coped well with the process of change.

Chapter 21 by Markus, Plaut, and Lachman brings an entirely new contextual question to the fore: namely, to what extent are there regional differences in well-being? The underlying assumption is that culturally prevalent ideas and practices shape individual well-being, and although there are core elements in this assumption that are true for the country as a whole (e.g., beliefs in independence, self-reliance, and the work ethnic), there may also be important variation by geographic region. To explore this idea, the authors examine historical, sociological, and cultural accounts, including discourse in the media and daily interpersonal conversations (e.g., New Hampshire's license plate motto: Live Free or Die), to characterize the ethos of five of nine regions as delineated by the U.S. Census Bureau: New England, Mountain, West North Central, West South Central, and East South Central. The authors also summarize the sociodemographic features of each region (employment rates, education and income levels, racial diversity, religious affiliation) and then examine region-specific profiles on a variety of measures of well-being (focused on health, autonomy, the self, emotion, others, and social responsibility).

Their findings first underscore themes of consensus: namely, that most Americans overall believe that they are healthy and in control of their lives, that they lead lives of purpose, are satisfied with their lives, feel obligated to work and family, and perceive that their families and partners support them. Nonetheless, there are differences in well-being by geographic region. Those from New England reveal the highest levels of social well-being and positive relations with others, along with high autonomy-focused well-being. Those from the Mountain region are distinctive for their emphasis on self-satisfaction and all aspects of autonomy-focused well-being. Those from the West South Central region are distinguished by their self-focused well-being, particularly a sense of personal growth, and high emotion-focused well-being. Those from the West North Central region score high on self-focused well-being and feeling cheerful, happy, calm, peaceful, and satisfied but lowest on personal growth. Finally, those from the East South Central region score relatively low on all aspects of well-being, except social responsibility; inhabitants of this region show the highest profile of contributing to the welfare and well-being of others. Such analyses thus reveal another layer, beyond the proximal influences of work and family emphasized in preceding chapters, to geographically specific influences that also contribute to diversity in reported well-being.

Summary

A key innovation of MIDUS was the assessment of daily stressors among a large subsample of respondents. Consistent with largely positive life-course trajectories previously described, age was negatively related to the frequency of experiencing daily stress. Young and midlife adults also rated their stressors as more disruptive than did older adults. Providing a counterpoint to the prominence of social relations in assessments of well-being is the finding that the most frequent daily stressor was interpersonal tension. Nonetheless, only about a quarter of MIDUS respondents reported experiencing a midlife crisis, which they attributed not to aging but to major life events that posed severe threat or challenge. Work was the most frequent realm for reporting turning points for both men and women, and most of these resulted in personal growth because the persons involved were able to cope well with change.

How poor working parents manage challenges of balancing work and family life was examined using MIDUS and other national studies. For example, socioeconomic status–related adversity was illustrated by the fact that low-income parents were more likely to have a child with a chronic condition, less likely to have paid sick leave, and less likely to get help from co-workers or family and neighbors. Nonetheless, MIDUS data provided scant evidence for decline of the family as a social institution. Most American adults are, or had been, married, and most have, or had, children. Importantly, psychological benefits are associated with these roles: those who are married report less negative affect, more psychological well-being, and higher levels of generativity. Mothers, however, report less well-being than fathers, and having unhealthy parents was found to undermine the mental and physical health of midlife parents.

MIDUS offered the first national look at social responsibility in family and community life. Those with less education and income were found to be heavy providers of emotional support as well as hands-on caregiving to family members. High-income, well-educated adults, in contrast, were found to contribute to family through financial assistance but also to provide both time and money to community organizations. Family life was found to comprise most of the social responsibility of younger adults, while older individuals showed greater involvement in community affairs.

From a cohort perspective, it was found that younger cohorts of women had higher levels of self-acceptance than did older cohorts, with these differences explained, in part, by their access to greater educational and occupational attainment. However, younger cohorts also had lower

levels of environmental mastery, perhaps reflecting the pressures of trying to balance work and family life. Interestingly, older cohorts of men who had cutback on their work to attend to their children were found to have lower levels of self-acceptance.

Analyses of regional differences in well-being, another novelty of the MIDUS investigation, revealed notable similarities across regions. Most Americans see themselves as healthy and purposeful, in control of and satisfied with their lives, obligated to work and family, and supported by their families and partners. Nonetheless, those from New England show the highest levels of social well-being and positive relations with others. Those in the Mountain region are particularly self-satisfied and autonomous, whereas those in the West South Central region report high emotional well-being and personal growth. Respondents from the West North Central region reported being cheerful, happy, calm, peaceful, and satisfied, and those in the East South Central region were relatively low on all aspects of well-being except social responsibility, where they showed the highest profiles of contributing to the welfare of others.

Collectively, these MIDUS findings underscore the diverse ways in which midlife individuals are influenced, both positively and negatively, by their experiences in the domains of work, family, and community. As with the preceding analyses, age, gender, and socioeconomic status provide meaningful frames for interpreting such variation, along with cohort differences and regional influences. A recurrent theme across the contexts of midlife is that individuals both are significant contributors to their family, community, and workplace and are influenced by what is occurring in these life domains.

The Presence of MIDUS across Scientific Fields

The chapters in this volume illustrate the wide array of topics investigated by those who helped conceive of and implement the MIDUS national survey. It is important to recognize, however, that these products constitute only a small part of the scientific advances following from the study. In addition to the findings described here, MIDMAC investigators have also contributed new findings to a host of other topics, including perceived discrimination and mental health (Kessler, Mickelson, and Williams 1999), social support/strain and health and well-being (Walen and Lachman 2000), early parental loss and midlife health and well-being (Maier and Lachman 2000), emotion in social relationships and health (Ryff et al. 2001), age, education, and well-being (Keyes, Shmotkin, and

Ryff 2002), contributions of work and family life to racial/ethnic and socioeconomic differences in health behaviors (Grzywacz and Marks 2001), contributions of work and family spillover to midlife drinking (Grzywacz and Marks 2000), and links between health behaviors and health beliefs (Ayanian and Cleary 1999).

There has also been extensive use of the MIDUS data set beyond those affiliated with the original MIDMAC research network, and again, topical interests traverse numerous scientific disciplines. One mark of the presence of MIDUS across fields is that publications from the study have now appeared in wide-ranging journals covering such diverse topics as public health, epidemiology, marriage and family life, aging and adult development, personality, and social psychology. Included among these journals are the following: *American Journal of Health Promotion, American Journal of Psychiatry, American Journal of Public Health, Annals of Allergy, Asthma and Immunology, Annals of Internal Medicine, Contemporary Psychology, Family Relations, International Journal of Behavioral Development, International Journal of Epidemiology, Journal of Adult Development, Journal of the American Medical Association, Journal of Evaluation in Clinical Practice, Journal of Gerontology, Journal of Health and Social Behavior, Journal of Marriage and the Family, Journal of Occupational and Environmental Medicine, Journal of Personality and Social Psychology, Journal of Research in Personality, Marriage and Family Review, Medical Care, Milbank Quarterly, Motivation and Emotion, Personality and Social Psychology Bulletin, Psychology and Aging, Social Forces, Social Psychology Quarterly,* and *Social Science and Medicine.*

Such expansive use of MIDUS in little more than five years since the data have been available speaks powerfully to current scientific priorities—particularly the growing commitment among investigators trained in specific fields to conduct more expansive inquiries that link their own areas of expertise to realms beyond. MIDUS has played an important role in carrying such "integrative science" forward. In this sense, the survey has not only helped chart the territory of midlife, in all of its biopsychosocial complexity; MIDUS has also provided a model for how to bring diverse fields together in pursuit of a synergistic whole.

It is because of the energy and excitement surrounding the MIDUS endeavor that many investigators, including, but not restricted to members of the original MIDMAC Network, implemented plans to carry this national survey forward and, importantly, extend its disciplinary boundaries even further. Their efforts have been successful in obtaining funds from the National Institute on Aging to collect another wave of data,

which will occur approximately ten years after the original study, on the full MIDUS samples, including twins and siblings. The novelty of satellite studies, built around the main investigation, will also be carried forward not only to assess daily stressors and cognitive functioning now longitudinally but also to add a comprehensive array of biomarker assessments to the study. In short, the life span of this unique study continues, with hopes that its future trajectory will be long, healthy, and persistently innovative.

References

Ayanian, J. Z., and P. D. Cleary. 1999. Perceived risks of heart disease and cancer among cigarette smokers. *Journal of the American Medical Association* 28111:1019–21.

Birren, J. E., and K. W. Schaie, eds. 1996. *Handbook of the psychology of aging.* 4th ed. San Diego: Academic Press.

———. 2001. *Handbook of the psychology of aging.* 5th ed. San Diego: Academic Press.

Brim, O. G. 2000. MacArthur Foundation study of successful midlife development. *ICPSR Bulletin* 20 (4): 1–5.

Campbell, A., P. E. Converse, and W. L. Rodgers. 1976. *The quality of American life: Perceptions, evaluations, and satisfactions.* New York: Sage.

Grzywacz, J. G., and N. F. Marks. 2000. Family, work, work–family spillover and problem drinking in midlife. *Journal of Marriage and the Family* 60:336–48.

———. 2001. Social inequalities and exercise during adulthood: Toward an ecological perspective. *Journal of Health and Social Behavior* 42:202–20.

Helson, R. 1993. Comparing longitudinal studies of adult development: Toward a paradigm of tension between stability and change. In *Studying lives through time: Personality and development,* ed. D. C. Funder, R. D. Parke, C. Tomlinson-Keasey, and K. Widaman, 93–119. Washington, D.C.: American Psychological Association.

Kessler, R. C., K. D. Mickelson, and D. R. Williams. 1999. The prevalence, distribution, and mental health correlates of perceived discrimination in the United States. *Journal of Health and Social Behavior* 403:208–30.

Keyes, C. L. M., C. Shmotkin, and C. D. Ryff. 2002. Optimizing well-being: The empirical encounter of two traditions. *Journal of Personality and Social Psychology* 826:1007–22.

Lachman, M. E., and J. B. James. 1997. Charting the course of midlife development: An overview. In *Multiple paths of midlife development,* ed. M. E. Lachman and J. B. James, 1–17. Chicago: University of Chicago Press.

MacArthur Foundation Research Network on Successful Midlife Development website. http://midmac.med.harvard.edu/

Maier, H., and M. E. Lachman. 2000. Consequences of early parental loss and separation for health and well-being in midlife. *International Journal of Behavioral Development* 24:183–89.

Marmot, M. G., R. Fuhrer, S. L. Ettner, N. F. Marks, L. L. Bumpass, and C. D. Ryff. 1998. Contribution of psychosocial factors to socioeconomic differences in health. *Milbank Quarterly* 76:403–48.

McCrae, R. R., and P. T. Costa, Jr. 1990. *Personality in adulthood.* New York: Guildford Press.

Rossi, A. S., ed. 1994. *Sexuality across the life course.* Chicago: University of Chicago Press.

———. 2001. *Caring and doing for others.* Chicago: University of Chicago Press.

Ryff, C. D., C. M. L. Kwan, and B. H. Singer. 2001. Personality and aging: Flourishing agendas and future challenges. In *Handbook of the psychology of aging,* 5th ed., ed. J. E. Birren and K. W. Schaie, 477–99. San Diego: Academic Press.

Ryff, C. D., and M. M. Seltzer, eds. 1996. *The parental experience in midlife.* Chicago: University of Chicago Press.

Ryff, C. D., and B. Singer. 1998. The contours of positive human health. *Psychological Inquiry* 9:69–85.

Ryff, C. D., B. Singer, E. Wing, and G. Love. 2001. Elective affinities and uninvited agonies: Mapping emotion with significant others onto health. In *Emotion, social relationships, and health,* ed. C. D. Ryff and B. Singer, 133–75. New York: Oxford University Press.

Shweder, R. A., ed. 1998. *Welcome to middle age! And other cultural fictions.* Chicago: University of Chicago Press.

Singer, B., and C. D. Ryff. 2001a. *New horizons in health: An integrative approach.* Washington, D.C.: National Academy Press.

———. 2001b. Person centered methods for understanding aging: The integration of numbers and narratives. In *Handbook of aging and the social sciences,* 5th, ed. R. H. Binstock and L. K. George, 44–65. San Diego: Academic Press.

University of Michigan website. http://www.isr.umich.edu/src/midus/

U.S. Census Bureau. 1995. *Current population survey: October 1995.* Washington, D.C.: U.S. Department of Commerce.

Walen, H. R., and M. E. Lachman. 2000. Social support and strain from partner, family, and friends: Costs and benefits for men and women. *Journal of Social and Personal Relationships* 171:5–30.