

Wellness Lifestyles I: A Theoretical Framework Linking Wellness, Health Lifestyles, and Complementary and Alternative Medicine

TONYA L. SCHUSTER, Ph.D.^{1,2} MARNIE DOBSON, Ph.D.(Cand.),¹ MARITZA JAUREGUI, Ph.D.,³
and ROBERT H.I. BLANKS, Ph.D.^{2,4}

ABSTRACT

Scholarship concerning complementary and alternative medicine (CAM) practices within the United States could benefit from incorporating sociological perspectives into the development of a comprehensive research agenda. We review the literature on health and wellness emphasizing definitions and distinctions, the health lifestyles literature emphasizing issues of both life choices and life chances, and studies of CAM suggesting utilization as an aspect of a wellness lifestyle. This review forms the foundation of a new theoretical framework for CAM research based on the interrelationship of CAM with health promotion, wellness, and health lifestyles. To date, few studies have sought to bring these various elements together into a single, comprehensive model that would enable an assessment of the complexity of individual health and wellness in the context of CAM. We argue that attention to literatures on health measurement and health lifestyles are essential for exploring the effectiveness and continuing use of CAM.

INTRODUCTION

Scholarship concerning complementary and alternative medicine (CAM) practices within the United States could benefit from incorporating sociological perspectives into the development of a theoretical framework for exploring effectiveness and continuing use. While work in medical anthropology seeks to understand medical pluralism and ethnomedical practices across the world, relatively little sociological research has focused on the “alternative” medical practices of Western industrialized nations. Currently these diverse practices, previously marginalized by the medical profession, are subsumed under the label complementary and alternative medicine (CAM). Understanding why individuals seek to use CAM practices and what benefits they experience must be understood in a broader social

and economic context, including patterns of health behaviors related to the concept of lifestyle. Moreover, an understanding of various health behaviors and “health care” is contingent on how health is conceptualized. As we take seriously the idea that health is more than the absence of disease, we need to take into account health-promoting activities that are not specifically for the treatment of diseases and may be related to the concepts of wellness and “health lifestyle” (Cockerham, 2001).

Data in the original study by Eisenberg et al. (1993) suggested: “[A] full third of the respondents who used unconventional therapy in 1990 did not use it for any of their principal medical conditions.” From this, they inferred that a substantial portion of “unconventional therapy is used for non-serious medical conditions, health promotion, or disease prevention.” Others have also found this to be a moti-

¹Department of Sociology, University of California, Irvine, Irvine, CA.

²Department of Anatomy and Neurobiology, University of California, Irvine, Irvine, CA.

³Center for Occupational and Environmental Health, Department of Medicine, and the School of Social Ecology, University of California, Irvine, Irvine, CA.

⁴Department of Biomedical Science, Florida Atlantic University, Boca Raton, FL.

vation for use in some populations (Astin, 1998; Cassidy, 1998a, 1998b). This suggests a dynamic in CAM use that deserves more substantive inquiry distinct from the dominant research paradigm largely concerned with the effectiveness of CAM for chronic disease treatment or remediation of specific symptomatology.

The National Center for Complementary and Alternative Medicine's (NCCAM) Strategic Plan (2000) highlighted the potential of CAM as a means of combating certain diseases, especially cancer, human immunodeficiency virus/acquired immune deficiency syndrome (HIV/AIDs), and other autoimmune or musculoskeletal ailments. Despite drawing associations between the public health movement and health-promoting paradigms associated with CAM, their research agenda focuses predominantly on the necessity for randomized, controlled, clinical trials (RCTs) to test the clinical efficacy of various CAM modalities. While this is a worthy objective, recent trends in medicine have begun to integrate concerns presented by some social science fields which suggest the need to recognize and measure health as a broader concept than the absence or presence of disease, and by methods more inclusive and naturalistic than RCTs.

As the dominant perspective in the U.S. health care system, biomedicine—a reductionist, allopathic (cure by opposites) approach—focuses on a cause, course, and cure model of healing. This perspective seeks to understand the effects of surgical or drug interventions on patients' disease severity, although some recent biomedical research incorporates disease-specific health-related quality-of-life outcome measures. In this paper we offer a less widely utilized perspective—the sociology of health and medicine—which is concerned with understanding the perceptual and social processes by which individuals and groups understand and experience health: physically, psychologically, functionally, socially, and spiritually. Dissatisfaction with conventional medical care is often cited as one reason that CAM is used so broadly in Western industrialized nations (Astin, 1998; Goldstein, 2000a). In addition, the various practices labeled as CAM often share some worldviews that represent an "alternative" to the precepts of modern biomedicine, which may account for their historic marginalization from the U.S. health care system and for their popularity with the public. Even considering that some Americans use these practices mainly for their chronic ailments, there is sufficient evidence that use of CAM may also be associated with a reconfigured notion of health care not just as disease care or prevention, but as wellness enhancement. Therefore, evaluating CAM solely by clinical biomedical research methods is limited, and could be enhanced using social science methods to investigate the subpopulations of users who are often seeking and benefiting from the broader emphasis on health and wellness embodied within CAM.

This paper presents a theoretical framework, or middle-range theory, for CAM research that emphasizes the interrelationship of CAM with health lifestyles, health promo-

tion, and wellness. To date, few studies have sought to bring these elements together into a comprehensive model that enables assessment of individual health and wellness within the context of CAM. Given the variety of CAM modalities and users, measuring the effectiveness of CAM is not a simple process. Attention to the literatures on health measurement and health lifestyles are essential for understanding the continued and increasing use of CAM, and uncovering potential wellness motivations and benefits positioning CAM utilization as an aspect of what we term wellness lifestyles.

HEALTH AND WELLNESS: DEFINITIONS AND DISTINCTIONS

Definitions of health are social constructions and fundamental aspects of the sociocultural and sociohistorical environment. Sociological approaches to defining health have recognized that individuals are not merely biological entities, but psychological and social beings—creative agents enmeshed in social, economic, political, religious, ethnic, age, and gender relations that influence how they perceive and enact their everyday lives. Correspondent with rising life expectancy over the last century, notions of health evolved from mere survival, to freedom from disease and disability, advancing to an emphasis on the individual's ability to function or perform daily activities, and more recently expanding to themes of well-being and quality of life.

The World Health Organization's (WHO) constitution defines health as "a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity" (1948). Early criticism that this definition was not quantifiable (Last, 1988) has been proven wrong as investigators in diverse disciplines validated assessments across aspects of physical, mental, and social well-being. WHO (1986) clarified the definition of health further, noting that to reach a state of health "an individual or a group must be able to realize aspirations and satisfy needs, and to change or cope with the environment." Recent conceptualizations of health now include the ability to accommodate potential stresses or internal/external adaptive challenges. The current *Physician's Desk Reference (PDR) Medical Dictionary* (1995) describes health as: "A state characterized by anatomical, physiological, and psychological integrity, ability to perform personally valued family, work, and community roles; ability to deal with physical, biological, psychological and social stress; a feeling of well-being and freedom from the risk of disease and untimely death." Given these sources, clearly the biomedical as well as the social science community now acknowledges, theoretically if not empirically, the multifaceted and complex nature of health and well-being.

There is growing scientific acceptance of the "perceptual" nature of health, despite earlier claims of the inherent invalidity and unreliability of perceptions. Abundant stress and social support research shows the power of perception (Co-

hen et al., 1995; Kessler, 1992). Moreover, well-established epidemiologic findings highlight the overwhelming importance of self-rated perceptions of health as among the most powerful predictors of subsequent health outcomes (Idler and Kasl, 1991; Menec et al., 1999). In clinical medicine, patient "interviews" are integral to the diagnostic and treatment process; vital information, such as pain assessment, not only must rely on but is an individual perception. Clearly, individual perceptions tap into a rich source of health information distinct from physiologic and psychologic indicators. As some researchers note: "How can we sanctimoniously apply absolute standards of wellness in a relative world?" (Adams et al., 1997).

A consensus is developing that acknowledges that definitions of health include multiple domains, among them physical, psychological (mental, emotional, intellectual), social, and spiritual. Wellness is a higher order construct integrating these domains, and necessarily draws on the level of individual self-perception. Thus, we conceptualize wellness as the generalized self-perception of health. From this perspective, wellness is distinct from health-illness; an individual can deem themselves to be in an acceptable state of wellness whether they experience suboptimal "health" in any given domain or area of functioning (Greenberg, 1985). This view accommodates the idea of health as the ability to function and deal with internal/external stressors, as well as life quality among those with functional limitations, disabilities, or challenges (Kock, 2000). Because wellness is a generalized self-perception, the relative importance of each domain is unique within each individual, while incorporating the health values and beliefs of the surrounding social environment.

The measurement of health domains has gone beyond clinical instrumentation of physiologic states, pain, and symptom checklists. Reference books on broad measurements of health are now past their first editions (McDowell and Newell, 1996) as researchers seek to uncover aspects and determinants of health, wellness, and quality of life. Well-developed scales of physical functioning address personal and instrumental activities of daily living, and recent emphases on immunologic function stress the ability to deal with physiological threats. A recent review and synthesis identifies seven domains of psychologic well-being (Ryff and Keyes, 1995), and there exist numerous validated scales of mental status and depression. Evolving measurement dimensions of social well-being focus on adjustment in roles and relationships and involvement in the wider community (Keyes, 1998), while discussion continues regarding the definition and importance of spiritual health (Hawks et al., 1995).

The measurement of quality of life now includes numerous scales; however, these tend to be tailored to specific disease entities, disease/disability populations, or cross-cultural comparison (e.g., the developing WHO cross-cultural instrument [The WHOQOL Group, 1998]). Attention to the

theoretical and empirical integration of these domains of health/quality of life remains lacking.

Many psychometric survey instruments are unsuitable for research on well populations and for purposes of assessing wellness improvements because of "ceiling" effects (Blanks et al., 1997). Adams et al. (1997) recently noted that: "[W]e do not yet possess all of the tools to fully describe and predict human health—in particular, positive health or wellness." Mackenbach et al. (1994) compared the determinants of excellent health (measured as the absence of health complaints and good self-assessments of health) with those of ill-health. They concluded that while the usual predictors apply to both (education, employment status, age, gender), such factors account for 2–3 times the variance in ill-health compared to excellent health. This suggests that the concept of positive health is empirically distinct from ill-health, and that we are only beginning to address the dynamics of wellness.

"Wellness" measurement tools have been limited to detecting disease risk factors or the lack thereof. As a result, even research on health promotion is still primarily about disease prevention. Lacking is attention to the broad system of health beliefs and values, ranging from self-perceptions to sociocultural definitions of health and health care, that activate health-related behaviors.

HEALTH LIFESTYLES: LIFE CHOICES, LIFE CHANCES

The rise in "healthism" (Colquhoun, 1990; Crawford, 1980) and individual-oriented health policy is evident within the public health movement of the 1980s and 1990s that provoked initiatives by various national health agencies to highlight the need for improvement in individual health behaviors (Healthy People, 2000). This paralleled the rise of self-help/self-care books, fitness centers, and the natural health movement. The NCCAM strategic plan also frames the research agenda for CAM within this paradigm.

Much public health research focuses on morbidity and mortality associated with behavioral risk factors (such as smoking, excessive alcohol consumption, poor diet, lack of access to or use of preventive medical examinations, etc.) within a disease prevention framework. Public health research is often limited by its focus on individual health behaviors independent of their social context, reliance on biomedical indicators, and on targeting chronically ill populations. Cockerham et al., (1997) argue that research on health lifestyles is needed but that: "[M]easurement and analysis should not stop at the individual level but must be extended to consider collective patterns of health-related behavior that form health lifestyles . . . different lifestyles must be related to the social contexts in which they occur." Lifestyle as a sociological concept is related to social status, which is associated with modernity and consumerism (Weber, 1978), a sense of individuality (Simmel, 1950), class cul-

ture (Bourdieu, 1984), and lifestyle choices as a means of producing self-identity (Giddens, 1991). Lifestyle provides an important framework for analyzing the interplay between structure (social forces affecting individual's life chances) and agency (individual's life choices). Cockerham et al. (1997) argue that: "[T]oday's health lifestyles are recent postmodern phenomena most clearly visible in the culturally and economically empowered middle classes." The role of health lifestyles will be an important area of investigation for understanding orientations to certain health behaviors.

Recent studies suggest that the social environment affects the prevalence of health behaviors in various national or subgroup populations (Cockerham, 2001; Stahl et al., 2001). Studies in the United States and Germany suggest the practice of healthy living is associated with "modernity" and upward class mobility (Cockerham et al., 1988). Studies in Great Britain show certain class differences remain, but suggest that regardless of social position people tend to adopt health lifestyles within the limits of their social circumstances or structural characteristics such as age or gender (Dean, 1989; Ross and Bird, 1994). Generally, empirical research into global patterns of health lifestyles is lacking (Abel, 1991; Cockerham, 2001).

A significant debate in the lifestyles and health behaviors literature concerns the extent to which the practice of one particular health behavior may be related to the practice of other health-related behaviors (Norman, 1985). Most studies show a weak association among health behaviors suggesting that "engaging in one health behavior does not guarantee the practice of others" (Sobal et al., 1992). They conclude that "analysis of subpopulations that may have special patterns of health behavior relationships is also needed to target those groups for interventions." Along this line, Patterson et al. (1994) proposed a seven-category typology that grouped individuals by similarity of health behavior. Their findings suggest that most of the population have health behavior patterns that are multidimensional, neither completely health-promoting nor completely "hedonistic" or health-risky. They recommend that identifying "[H]ealth lifestyle groupings in U.S. adults and knowledge of past, current, and changing lifestyles may help us understand more about determinants of health lifestyles, the disease outcomes of these lifestyles, and the success of our national policies in helping people achieve healthier more productive lives in the year 2000 and beyond" (Patterson et al., 1994). Analysis of specific subgroups may give a more accurate picture of the practice of certain kinds of health lifestyles.

We add to this research framework the need to tie in health and wellness outcomes, not just disease outcomes, in order to identify the potential subgroups motivated by wellness promotion over disease prevention. Health is more than the absence of disease, so if we are to understand the reasons people practice certain lifestyles, we have to take into account wellness promotion as well as disease prevention.

Few studies link the relationship between health behavior and positive health/wellness. One exception are worksite wellness studies in which behavioral modifications are used to help contribute to employee well-being and productivity, and even these studies tend to focus on reduction of mortality risks (Maes et al., 1998; Sorensen et al., 1998; Watt, 1998). There is a paucity of empirical research investigating the relationships among an individual's lifestyle choices, life chances, and self-perceived health and well-being. Health lifestyles, wellness, and the movement toward a broader definition of health should be explored within the context of CAM populations.

COMPLEMENTARY AND ALTERNATIVE MEDICINE: WELLNESS LIFESTYLES

The utilization of CAM practices has been the subject of some study in the last decade. Eisenberg et al. (1993) conducted a landmark study showing that one third of Americans used at least 1 of 16 forms of "unconventional" therapy in 1990, with a total out-of-pocket expenditure of \$13.7 billion. A follow-up in 1997 revealed that this trend had increased from 33.8% in 1990 to 42.1% in 1997, with total visits exceeding the total visits to all U.S. primary care physicians (Eisenberg et al., 1998). While these therapies were most frequently used for back problems, anxiety, depression, and headaches, one third of respondents in 1990 did not use them for a primary medical problem. In 1997, 58% of respondents stated they used alternative therapies partly to "prevent future illness from occurring or to maintain health and vitality" (Eisenberg, 1998).

The belief that maintaining balance and harmony will allow the body to cope with life-stressors, including disease, better is common to many CAM practices. While these practices are many and varied in scope of practice and methods of healing, there are certain shared underlying beliefs about the body and health that are often in direct opposition to the precepts of the dominant biomedical model (Micozzi, 1996; Goldstein, 2000a). The biomedical model maintains adherence to the Cartesian mind-body dualism, a mechanistic model of the body, and a reductionist notion of illness as centered solely in dysfunctional biological processes. On the other hand, concepts common to CAM include, "high-level wellness," "the interpenetration of mind, body and spirit," holism/individualism, self-healing, vitalism, the body as a bioenergetic system, and a focus on the natural/ecologic context (Goldstein, 2000a).

As a recently developed construct, CAM incorporates diverse and previously unaffiliated health care practices. While some point out the similarities between these practices in terms of philosophies and worldviews (Micozzi, 1996), Cassidy (1995) highlights their diversity and therefore the difficulty of grouping these practices together. Furthermore, Cassidy argues that it is important to categorize

these practices appropriately, otherwise assessment of their benefits or effectiveness would be ill founded. An important step in understanding the distinct contributions and benefits of the various CAM practices will be to recognize the “cultural” worldviews from which these healing practices draw their objectives. Moreover, while most CAM practices share a holistic, even vitalistic philosophy toward health, healing, and the body, the trend toward “integrative medicine” has led to the application of various CAM practices in a reductionist, treatment-oriented paradigm.

The various applications of CAM practices are paralleled by the variety of reasons people use these practices, which may be because of the method and philosophy of the approach or practitioner, or health beliefs of the individual patient (Astin, 1998). Some patients may use acupuncture, for example, as a therapy for low-back pain, while others may use it to enhance their overall health and wellness (Cassidy, 1998a, 1998b). These diverse orientations toward CAM make understanding the “health benefits” of these practices difficult, because there may be different motivations and benefits for different people. Long (2002) argues that the choice of outcome measures must match the desired outcomes of the user, and further that any such effects may arise not only from the techniques but also the philosophies of CAM modalities, as well as the user–practitioner relationship.

Wootton and Sparber (2001) reviewed a growing body of survey literature on CAM use, including national and regional population surveys, surveys of low-income groups, ethnic groups, children, and the elderly. They compared a number of national level surveys that confirm the findings of the earlier Harvard surveys that approximately 42% of Americans use CAM. Wootton and Sparber also compare sociodemographic characteristics across studies, concluding that while CAM users seem to be predominantly middle-aged and middle class with disposable income to spend on CAM, low-income or ethnic minority groups have probably always integrated traditional healing or healers. The paper by Wootton and Sparber begins to elaborate the diversity of CAM use in the United States and suggests that there are “several anomalies and areas of ignorance [that] remain and further high quality research is needed.” The finding that women tend to use CAM more than men, the possible bimodal distribution between “new” high-income users and ethnic low-income users, as well as the age diversity of users and generational/cohort effects (Kessler et al., 2001), suggests there are important differences in utilization to be investigated. In addition, motivations for use must be linked to sociodemographic patterns as well as with the type of CAM practice utilized. The trends toward increased use of CAM, especially among the highly educated middle classes, may be understood in relationship to the emphasis on wellness and health lifestyles, and therefore must be investigated in a broader framework. While conventional medical care is a recognized aspect of health lifestyles (especially preven-

tive medical care), CAM use has not yet been linked in the literature with health lifestyles.

While individuals may use certain healing modalities as an alternative or complement to conventional medical practices and for medical complaints, it may be that for some use of CAM is also part of a health lifestyle that emphasizes preventive health care. Individuals may also use CAM as part of a health lifestyle that promotes wellness. This is an important distinction both for understanding the objectives of health lifestyles in different populations as well as understanding the different potential benefits of CAM use. We introduce the idea of CAM use as an aspect of a wellness lifestyle, a lifestyle in pursuit of wellness, which also subsumes typical elements of a health lifestyle (e.g., disease prevention practices such as a healthy diet, stress reduction, regular exercise). People who already have a tendency to practice positive health behaviors as part of a health lifestyle might be attracted to the holistic self-care orientation of many CAM practices, or, CAM practitioners may implicitly or explicitly promote self-care and self-monitoring, which promotes modifications in wellness-related values, beliefs, or behaviors. Evidencing the effectiveness of CAM within this framework will require broader research methodologies than those within conventional biomedical and public health frameworks (Mason et al., 2002).

Recent literature hints at a relationship between CAM practices and aspects of health and wellness lifestyles. Goldstein (2000b) examines the relationship between the fitness culture and the growth of CAM. He argues there are six basic assumptions about health and healing that are shared by the fitness movement and by CAM. These include: (1) health as wellness, (2) personal responsibility for health, (3) the interpenetration of mind, body and spirit, (4) health as harmony with nature, (5) ambivalence toward science and technology, and (6) transcendence, restraint, and vigilance. Goldstein’s analysis hypothesizes that participation in CAM is associated with health promotion and, unfortunately, the commodification of health.

A recent study by Schneirov and Geczik (1996) shows that CAM is associated at least in one geographic region with the practice of health lifestyles, including use of natural/health foods and self-help. They suggest this may be because of structural aspects of access to this growing industry rather than an association with health beliefs. However, Schneirov and Geczik also argue that participants in the networks of alternative health studied do display a “collective identity” that challenges deficiencies in modern institutions through the lifestyle choices they make and the redefinition of experiences with health and illness. This study does not distinguish between different forms of CAM, nor does it relate use with perceived benefits experienced by users. A recent study that does focus on patient perspectives on outcomes after treatment with acupuncture (Gould and MacPherson, 2001) found not only that 61% of patients had made some lifestyle changes, but also that 42% had con-

sciously changed their reasons for continuing with treatment, primarily as a shift away from physical problems toward mental emotional issues and concerns about general health and well-being. Cassidy's study of users of Traditional Chinese Medicine (TCM) also shows that while individuals sought care for musculoskeletal dysfunction, they simultaneously pursued TCM for mood care, and wellness care (Cassidy 1998a, 1998b). Further empirical study on the effectiveness of CAM in respective patient populations needs to take into account the relationship of CAM to the practice of health and wellness lifestyles and perceived wellness benefits.

CONCLUSION: A BLUEPRINT STRATEGY FOR CAM RESEARCH

The purpose of this review is to propose a new theoretical framework from the sociology of health and illness as a contribution to the broader research methodology for the study of CAM. Previously, most research has been largely descriptive of CAM populations or centered on specific modalities in terms of their effectiveness for the treatment of particular biomedical disease entities (e.g., HIV/AIDS, low-back pain, cancer, etc.). Scholars have described the larger CAM phenomenon in terms of overarching philosophical commonalities or cultural values that are often in opposition to those of biomedicine. However, while these scholars proposed broader research agendas that might take this developing theoretical perspective into account, little empirical research has followed. This may be because of a lack of operationalized theory on broader measurements of health, as well as the complexity of developing research agendas that aim to explain the dynamic nature of the use and benefits of CAM, and take into account subgroup variability in CAM populations.

Our theoretical framework is on the level of auxiliary or middle-range theory (Merton, 1949), which specifies the linking of concepts and propositions without making claims of abstract universality. We developed this theoretical framework to link a broad definition of health and wellness, health and wellness lifestyles, and the dynamics underlying the use and potential benefits of CAM. Drawing on diverse literatures, we establish the significance of the connections among these three mutually influential elements, and have suggested more abstract theoretical linkages, for example, issues of modernity and lifestyles (Cockerham, et al., 1997) and even postmodern critiques of science and medicine (Gursoy, 1996) that may offer deeper explanations for the pursuit of wellness among CAM users. The specific causal connections among these elements are likely quite complex and can be inductively explored through empirical investigation.

Wellness has been largely a popular concept with little theoretical elaboration; however, as this review shows, its dimensions can and have been defined and operationalized in sociological and psychological research, even though it

has not yet been presented as a construct that could be tapped into and utilized to assess the broader benefits associated with many CAM modalities. Social scientists studying health have long pointed out that perceptions of health and illness are key factors in the experience of individual health and well-being, and that individuals may be considered "sick" by their society's biomedical standards but still perceive themselves as "well." Wellness is more than not having or preventing illness, it is integrated fitness in the internal and external environment, ranging from physical functioning (ability to deal with disease) to psychological (emotional, cognitive) and spiritual well-being, to social adjustment in roles and relationships, to safety, wealth, freedom, opportunity, and happiness. That is, health is a bio-psychosocial phenomenon and a social construction that varies across populations and between individuals. Such a wellness conceptualization has been operationalized using psychological and social well-being items as well as physical functioning and perceived stress scales in a self-rated health and wellness survey (Blanks et al., 1997). This survey was developed to assess the broader health and wellness "benefits" of a form of CAM known as Network Spinal Analysis™ (NSA; previously Network Chiropractic) that embodies many of the principles common to CAM practices and systems highlighted by scholars previously mentioned (Micozzi, 1996).

Another key aspect of our theoretical framework that could inform a comprehensive research agenda on CAM are the relationships among health and wellness promotion, health lifestyles, and self-perceived health and wellness. Empirical evidence suggests health promotion may be a factor in individuals' use of many forms of CAM. The users of CAM practices who consider health promotion may represent a distinct subpopulation who could be better understood through research and theory on health lifestyles. Likewise the study of CAM users may contribute to research and theory on health lifestyles. It is possible that certain CAM users may practice health lifestyles not just because of disease prevention but because of improved wellness as an "end in itself." Thus, we have introduced the concept of wellness lifestyles, which, in linking the practice of health lifestyles and the pursuit of CAM for wellness, provides a powerful explanatory construct for framing utilization and effectiveness research.

We offer this theoretical framework as a blueprint for future research into CAM modalities, especially those that do not easily fit into a biomedical research paradigm. We believe it is essential to fit the research strategy to the particularities of the form of CAM being studied, but that broad measures of health, wellness, and wellness lifestyles will be necessary to fully explore effectiveness and patterns of utilization. Any analysis of wellness lifestyle and wellness benefits experienced by CAM users must also control for, and incorporate into empirical models, the sociodemographic characteristics that describe the life choices and life

chances of varying CAM populations. Other factors known to be associated with wellness, lifestyles, and CAM use (e.g., stressors, traumas, chronic ailments, gender, age, ethnicity, income) must be included in future research to investigate the broader psychosocial context of wellness lifestyles.

Social science and multivariate statistical modeling methods are available and necessary to capture the complex dynamics of these interlocking elements. In the accompanying paper (Schuster et al., pp. 357–367), we apply this strategy to data on a wellness oriented form of CAM as a preliminary case study to explore our theoretical framework of wellness lifestyles, testing the links among wellness, health lifestyles, and CAM use.

ACKNOWLEDGMENTS

The authors thank Ralph Boone, Ph.D., D.C., Donald Epstein, D.C., Peter Clecak, Ph.D., May Huong, B.A., Catherine Kravitz, B.A., and anonymous reviewers for their helpful comments. Financial support was provided by the Association for Network Care Research, the University of California, Irvine Transdisciplinary Tobacco Use Research Center, and the University of California, Irvine Undergraduate Research Opportunities Program.

REFERENCES

- Abel T. Measuring health lifestyles in a comparative analysis: Theoretical issues and empirical findings. *Soc Sci Med* 1991;32: 899–909.
- Adams T, Bezner J, Steinhardt M. The conceptualization and measurement of perceived wellness: Integrating balance across and within dimensions. *Am J Health Promot* 1997;11:208–218.
- Astin JA. Why patients use alternative medicine: Results of a national survey. *JAMA* 1998;279:1548–1553.
- Blanks RHL, Schuster TL, Dobson M. A retrospective assessment of network care using a survey of self-rated health, wellness and quality of life. *J Vertebral Subluxation Res* 1997;1:11–27.
- Bourdieu P. *Distinction*. Nice R, trans. Cambridge, MA: Harvard University Press, 1984.
- Cassidy CM. Chinese medicine users in the United States. Part I: Utilization, satisfaction, medical plurality. *J Altern Complement Med* 1998a;4:17–27.
- Cassidy CM. Chinese medicine users in the United States. Part II: Preferred aspects of care. *J Altern Complement Med* 1998b;4: 189–202.
- Cassidy CM. Social science theory and methods in the study of alternative and complementary medicine. *J Altern Complement Med* 1995;1:19–39.
- Cockerham WC, Kunz G, Lueschen G. Social stratification and health lifestyles in two systems of health care delivery: A comparison of America and West Germany. *Soc Sci Med* 1988;26: 829–838.
- Cockerham WC. *Health behavior and lifestyles*. In *Medical Sociology*, 8th ed. New Jersey: Prentice Hall, 2001:90–112.
- Cockerham WC, Rutten A, Abel T. Conceptualizing contemporary health lifestyles: moving beyond Weber. *Soc Q* 1997;38:321–342.
- Cohen S, Kessler RC, Underwood Gordon LU. *Measuring Stress: A Guide for Health and Social Scientists*. New York: Oxford University Press, 1995.
- Colquhoun D. Images of healthism in health based physical education. In: Kirk D, Tinning R, eds. *Physical Education Curriculum and Culture: Critical Issues in the Contemporary Crisis*. Falmer Press: London, 1990:225–251.
- Crawford R. Healthism and the medicalization of everyday life. *Int J Health Serv* 1980;10:365–389.
- Dean K. Self care components of lifestyles: The importance of gender, attitudes and the social situation. *Soc Sci Med* 1989;29: 137–152.
- Eisenberg DM, David RB, Ettner SL, Appel S, Wilkey S, Rompay MV, Kessler RC. Trends in alternative medicine use in the United States, 1990–1997: Results of a Follow-up national survey. *JAMA* 1998;280:1569–1575.
- Eisenberg DM, Kessler RC, Foster C, Norlock FE, Calkins DR, Delbanco TL. Unconventional medicine in the United States: Prevalence, costs, and patterns of Use. *N Engl J Med* 1993;328: 246–252.
- Giddens A. *Modernity and Self-Identity*. Stanford, CA: Stanford University Press, 1991.
- Goldstein MS. The growing acceptance of complementary and alternative medicine. In: Bird CE, Conrad P, Fremont AM, eds. *Handbook of Medical Sociology*. New Jersey: Prentice Hall, 2000a:284–297.
- Goldstein MS. The culture of fitness and the growth of CAM. In: Kelner M, Wellman B, Pescosolido B, Saks M, eds. *Complementary and Alternative Medicine: Challenge and Change*. Amsterdam, The Netherlands: Harwood Academic Publishers 2000b: 27–38.
- Gould A, MacPherson H. Patient perspectives on outcomes after treatment with acupuncture. *J Altern Complement Med* 2001;7: 261–268.
- Greenberg JS. Health and wellness: A conceptual differentiation. *J School Health* 1985;55:403–406.
- Gürsoy A. Beyond the orthodox: Heresy in medicine and the social sciences from a cross cultural perspective. *Soc Sci Med* 1996;43:577–599.
- Hawks SR, Hull ML, Thalman RL, Richins PM. Review of spiritual health: Definition, role, and intervention strategies in health promotion. *Am J Health Prom* 1995;9:371–378.
- Healthy People 2000: National Health Promotion and Disease Prevention Objectives. Department of Health and Human Services, Office of Disease Prevention and Health Promotion, September, 1990.
- Idler EL, Kasl S. Health perceptions and survival: Do global evaluations of health status really predict mortality? *J Gerontol* 1991; 46:S55–65.
- Kessler RC. Perceived support and adjustment to stress: Methodological considerations. In: Veiel HOF, Baumann U, eds. *The Meaning and Measurement of Social Support*. Washington, D.C.: Hemisphere, 1992:259–271.
- Kessler RC, Davis RB, Foster DF, Van Rompay MI, Walters EE, Wilkey SA, Kaptchuk TJ, Eisenberg DM. Long term trends in the use of complementary and alternative medicine therapies in the United States. *Ann Intern Med* 2001;135:262–268.

- Keyes CLM. Social well-being. *Soc Psychol Q* 1998;62:121-140.
- Kock T. Life quality vs the 'quality of life': Assumptions underlying prospective quality of life instruments in health care planning. *Soc Sci Med* 2000;51:419-427.
- Last JM. *A Dictionary of Epidemiology*, 2nd ed. New York: Oxford University Press, 1988.
- Long AF. Outcome measurement in complementary and alternative medicine: Unpicking the effects. *J Altern Complement Med* 2002;8:777-786.
- Maes S, Verhoeven C, Kittel F, Scholten H. Effects of a Dutch work-site wellness-health program: The Brabantia Project. *Am J Public Health* 1998;88:1037-1041.
- Mackenbach JP, Van Den Bos J, Joung IMA, Van De Mheen H, Stronks K. The Determinants of excellent health: Different from the determinants of ill-health? *Int J Epidemiol* 1994;23:1273-1281.
- Mason S, Tovey P, Long AF. Evaluating complementary medicine: Methodological challenges of randomised controlled trials. *BMJ* 2002;325:832-834.
- McDowell J, Newell C. *Measuring health: A Guide to Rating Scales and Questionnaires*, 2nd ed. New York: Oxford University Press, 1996.
- Menec VH, Chipperfield JG, Perry RP. Self-perceptions of health: A prospective analysis of mortality, control, and health. *J Gerontol Psych Sci* 1999;54B:P85-P93.
- Merton R. *Social Theory and Social Structure*. Chicago: Free Press, 1949.
- Micozzi MS, ed. *Fundamentals of Complementary and Alternative Medicine*. New York: Churchill Livingstone, 1996.
- National Center for Complementary and Alternative Medicine. *Expanding Horizons of Health Care: Five-Year Strategic Plan 2001-2005*, National Institutes of Health, National Center for Complementary and Alternative Medicine, 2000.
- Norman RMG. Studies of the interrelationships amongst health behaviours. *Can J Pub Health* 1985;76:407-410.
- Patterson RE, Haines PS, Popkin BM. Health lifestyle patterns of U.S. adults. *Prev Med* 1994;23:453-460.
- Physician's Desk Reference: *Medical Dictionary*, 1st ed. New Jersey: Medical Economics, 1995.
- Ross CE, Byrd CE. Sex stratification and health lifestyle: Consequences for men's and women's perceived health. *J Health Soc Behav* 1994;35:161-178.
- Ryff CD, Keyes CLM. The structure of psychological well-being revisited. *J Pers Soc Psychol* 1995;69:719-727.
- Schneirov M, Geczik JD. A diagnosis for our times: Alternative health's submerged networks and the transformation of identities. *Soc Q* 1996;37:627-644.
- Simmel G. *The Sociology of Georg Simmel*. Wolff K, trans. ed. New York: Free Press, 1950.
- Sobal J, Revicki D, DeForge BR. Patterns of interrelationships among health promotion behaviors. *Am J Prev Med* 1992;8:351-359.
- Sorensen G, Stoddard A, Hunt MK, Hebert JR, Ockene JK, Avrunin, JS, Himmelstein J, Hammond, SK. The effects of a health promotion-health protection intervention on behavior change: The Well Works Study. *Am J Pub Health* 1998;88:1685-1690.
- Stahl T, Rutten A, Nutbeam D. The importance of the social environment for physically active lifestyle: Results from an international study. *Soc Sci Med* 2001;52:1-10.
- The World Health Organization. Preamble to the Constitution of the World Health Organization as adopted by the International Health Conference, New York, 19-22 June, 1946; signed on 22 July 1946 by the representatives of 61 States (Official Records of the World Health Organization, no. 2, p. 100) and entered into force on 7 April 1948.
- The World Health Organization. *Ottawa Charter for Health Promotion*. Online document at: www.who.int/hpr/NPH/docs/ottawa_charter_hpdf Accessed November 1986.
- The World Health Organization Quality Of Life (WHOQOL) Group. *The World Health Organization Quality of Life Assessment (WHOQOL): Development and General Psychometric Properties*. *Soc Sci Med* 1998;46:1569-1589.
- Watt D, Verma S, Flynn L. Wellness programs: A review of the evidence. *CMAJ* 1998;158:224-230.
- Weber M. *Economy and Society*. Roth GF, Wittich C, transl-eds. Berkeley, CA: University of California Press, 1978.
- Wootton JC, Sparber A. *Surveys of Complementary and Alternative Medicine. Part I. General Trends and Demographic Groups*. *J Altern Complement Med* 2001;7:195-208.

Address reprint requests to:
Tonya L. Schuster, Ph.D.
Department of Sociology
School of Social Sciences
University of California, Irvine
3151 Social Science Plaza
Irvine, CA 92697-5100

E-mail: schuster@uci.edu