

# A Factor Structure of Wellness: Theory, Assessment, Analysis, and Practice

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*The Wheel of Wellness, a theoretical model of well-being, incorporates 16 dimensions of healthy functioning that can be assessed using the Wellness Evaluation of Lifestyle (WEL; J. E. Myers, T. J. Sweeney, & J. M. Witmer, 1998). A series of studies are reported concerning the development and validation of the WEL based on a large database. In the current study, exploratory and confirmatory factor analyses of the items and scales revealed 5 primary factors of well-being (Creative, Coping, Social, Essential, and Physical) and 1 superordinate factor identified as "Wellness."*

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**T**he concept of well-being has traditionally been viewed from two differing perspectives (Keyes, 1998). The long-standing "clinical tradition" operationalizes well-being through "measures of depression, distress, anxiety, or substance abuse" (p. 121), whereas the "psychological tradition" operationalizes well-being in terms of one's subjective evaluation of life satisfaction. This second tradition is reflected in the considerable breadth of literature in psychology, yet, as Ryff and Keyes (1995) noted, "the absence of theory-based formulations of well-being is puzzling" (p. 720). These authors further noted the need for developing theoretical models, for testing the fit of such models with empirical data, and for conducting theory-guided structural analyses. The development of comprehensive theoretical models requires a working elaboration of the concept of well-being. Diener (1984) suggested that any such elaboration must include at least three components: It should be subjective, reflecting a concern for how the individual views him- or herself; it should include positive indices of an individual's sentiments toward life as opposed to negative ones; and it should be global to encompass all areas of an individual's life.

The World Health Organization (WHO) as early as 1947 defined health in terms of *wellness* as "physical, mental, and social well-being, not merely the absence of disease" (WHO, 1958, p. 1) and later provided a definition of *optimal health* as "a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity" (WHO, 1964, p. 1). Dunn (1961), who is widely credited as being the "architect" of the modern wellness movement, defined wellness as "an integrated method of functioning which is oriented toward maximizing the potential of which the individual is capable" (p. 4). He also suggested that counselors were in a unique position to help individuals achieve high-level wellness (Dunn, 1977).

Counselors seeking a basis for wellness interventions have a variety of theoretical models from which to choose. For example, Hettler (1984), a public health physician and medical educator, proposed a hexagon model that specifies six dimensions of healthy functioning, including physical, emotional, social, intellectual, occupational, and spiritual. Two paper-and-pencil assessment instruments, the Lifestyle Assessment Questionnaire (National Wellness Institute, 1983) and Testwell (National Wellness Institute, 1983), were developed based on the hexagon model. Hinds (1983), also a university-based health educator, developed the Lifestyle Coping Inventory to help individuals deal with stress management and health promotion. The Lifestyle Coping Inventory assesses a variety of lifestyle, nutritional, drug, exercise, environmental, problem-solving, and psychosocial habits that affect health and stress levels. The difficulty with these models for counseling-oriented professions is that each has a firm basis in health care rather than psychological development, with the latter receiving far less emphasis in health promotion and disease prevention programs based on these theories (Erfurt, Foote, & Heirich, 1991). Although the instruments designed to assess the elements of each model have acceptable reliability and validity, and although each is clearly measuring "a unidimensional construct called wellness" (Palombi, 1992, p. 225), the lack of an emphasis on psychological health limits their utility as adjuncts to counseling. Furthermore, adequate research exists to suggest that the components of healthy functioning differ for persons of different ages (Keyes, 1998; Ryff & Heidrich, 1997; Ryff & Keyes, 1995), thus models that lack a developmental emphasis have limited utility for mental health interventions.

Ragheb (1993) noted that there is a "strong and growing demand for a wellness measure, valid and reliable, to assist practitioners and scientists" (p. 22). Kulbok and Baldwin

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(1992), following a concept analysis of preventive health behavior and a review of the goals of *Healthy People 2000* (U.S. Department of Health and Human Services, 1990), also concluded that "reliable and valid measures of the many dimensions of health behavior in general, and of health-promoting behavior specifically" (p. 57) are clearly needed. Because wellness is "an observable and measurable behavior" (Palombi, 1992, p. 225), the development of such measures is indeed possible. However, any such measure should be based in a theory that provides a basis for counseling interventions, as is the Wheel of Wellness (Myers, Sweeney, & Witmer, 2000; Sweeney & Witmer, 1991; Witmer & Sweeney, 1992; Witmer, Sweeney, & Myers, 1998).

The purpose of this article is to describe the factor structure underlying the Wellness Evaluation of Lifestyle (WEL; Myers, Sweeney & Witmer, 1998), a paper-and-pencil measure of wellness based on the Wheel of Wellness model. After a discussion of the conceptual model, relevant supporting research, and development and validation of the instrument, exploratory and confirmatory factor analyses are described. The underlying factor structure is presented, and implications for theory and practice are explored.

### THE WHEEL OF WELLNESS

There is a long heritage in psychological theory of viewing the person as a "whole" seeking "reciprocal actions of the mind on the body, for both of them are parts of the whole with which we should be concerned" (Adler, 1956, p. 255). This integration was developed further by Jung (1958) and, particularly, Maslow (1954/1970), who argued that striving toward self-actualization, growth, and excellence is a universal human tendency and overarching life purpose. Sweeney and Witmer (1991), Witmer and Sweeney (1992), and Myers et al. (2000) proposed a holistic model of wellness and prevention over the life span based on theoretical and empirical literature that "incorporates . . . concepts from psychology, anthropology, sociology, religion, and education" (Witmer & Sweeney, 1992, p. 140). The results of research as well as theoretical perspectives from personality, social, clinical, health, and developmental psychology were foundations for this model, as well as stress management, ecology, and contextualism.

The model proposes five life tasks, depicted in a wheel (see Figure 1), which are interrelated and interconnected. These five tasks are essence or spirituality, work and leisure, friendship, love, and self direction. The life task of self direction is further subdivided into the 12 tasks of (a) sense of worth, (b) sense of control, (c) realistic beliefs, (d) emotional awareness and coping (e) problem solving and creativity, (f) sense of humor, (g) nutrition, (h) exercise, (i) self care, (j) stress management, (k) gender identity, and (l) cultural identity. These life tasks interact dynamically with a variety of life forces, including but not limited to one's family, community, religion, education, government, media, and business/industry.

Support for the interaction between components of the Wheel of Wellness is found elsewhere (e.g., Cowen, 1991;

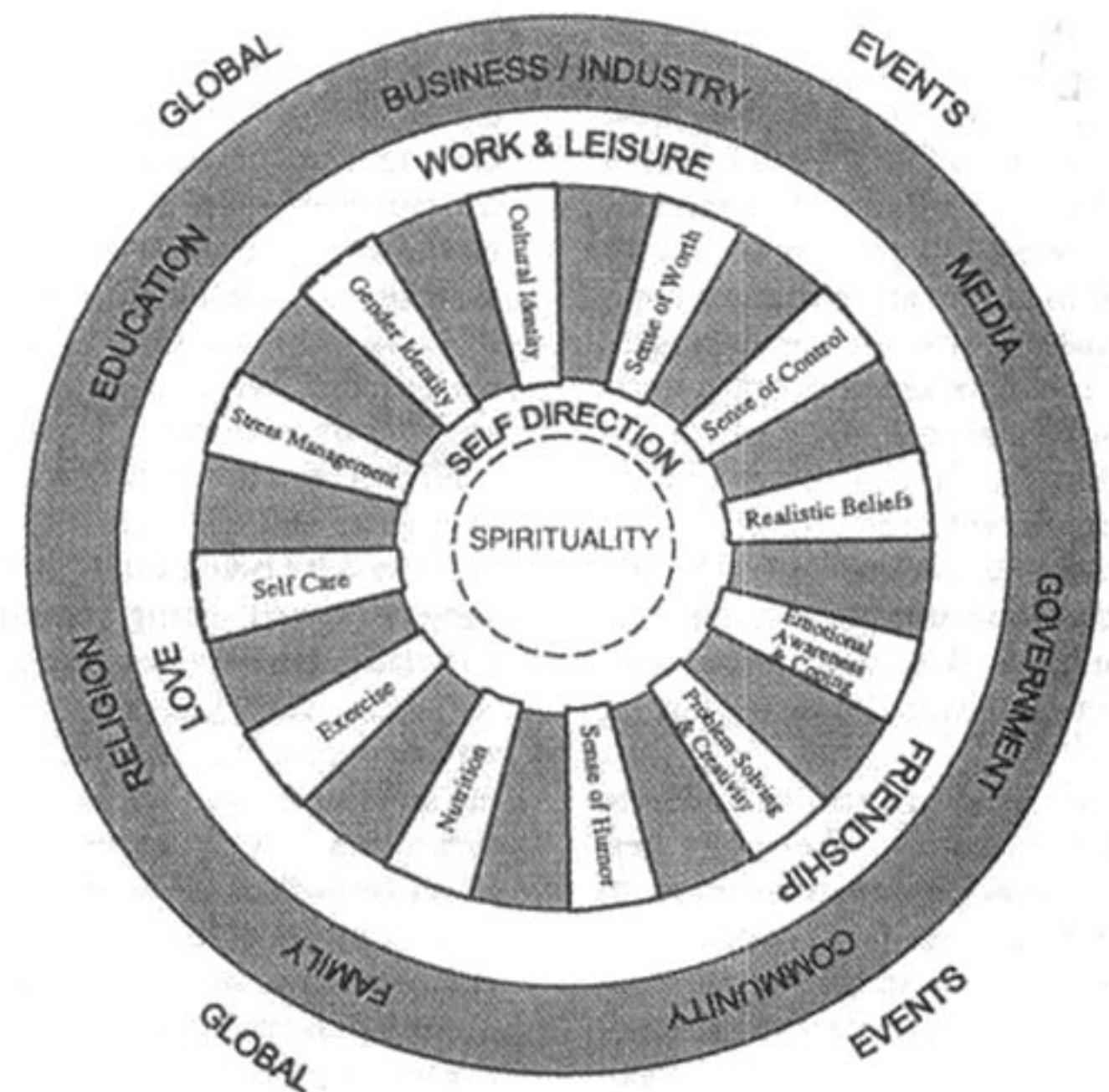


FIGURE 1

### The Wheel of Wellness

Note. From *The Wheel of Wellness*, by J. M. Witmer, T. J. Sweeney, & J. E. Myers. Copyright 1998. Reprinted with permission.

Koff & Bauman, 1997; Myers et al., 2000) and is not repeated here. The intent of this article is to investigate the factor structure underlying a measure that identifies each of the five life tasks and subtasks as characteristics of healthy functioning and a major component of wellness. Consistent with Millar and Hull's (1997) framework for measuring human wellness, the criterion for inclusion of a component in the wheel was that the preponderance of studies suggest a direct link to healthy lifestyles and longevity. More detailed discussions of the literature related to the components of wellness may be found in Lightsey (1996) and Myers et al. (2000).

The WEL (Myers et al., 1998) was developed to assess each of the five life tasks and subtasks in the Wheel of Wellness. The conceptual outline of the attributes of the Wheel of Wellness formed the basis for development of items for inclusion in the WEL, and the purpose of this article is to outline the psychometric properties of this scale and to indicate its use in various situations.

### METHOD

Myers et al. (1998) developed the WEL by first creating an initial pool of more than 500 items, based on discussion and initial field-testing (not reported here). Items were generated as self-statements (e.g., "I am satisfied with my leisure activities," "I consider myself to be an active person") to which a respondent would reply using a 5-point Likert scale (*strongly agree, agree, undecided or neutral, disagree, strongly disagree*). Then we carried out a succession of qualitative



and quantitative studies to solicit feedback from respondents who completed the WEL at classes, workshops, and conferences that we conducted.

Myers et al. (1998) subsequently conducted a series of four studies over a 6-year period to field-test and improve the psychometric properties of the WEL and to ensure that each scale had no more than about 4 to 6 items, wherever possible. The first form of the WEL consisted of 114 items and was administered to convenience samples of 18- to 91-year-olds ( $n = 723$ ). Nine of the 16 scales had estimates of reliability (alpha) greater than .65. Further items were added to improve the weaker scales, and the second form was then administered to 18- to 80-year-olds ( $n = 1,394$ ). There were still some scales that were not as reliable as desired, and it also became clear from an initial factor analysis that the Work and Leisure scale would be best split into two subscales. As a consequence, some items were discarded, additional items were developed to measure these two new scales, different items were written for the scales with lower reliability, and the instructions and some items were reworded to ensure an average 7th-grade reading level (with no item at more than a 12th-grade reading level). These 97 items were administered to 122 high school students in rural North Carolina. An additional 99 undergraduate students were administered the WEL twice, at a 2-week interval, to determine test-retest reliability. All estimates of reliability exceeded .68, with most above .80, indicating stability in the scores across occasions. In addition, a study by Myers (1998) also is reported that assessed the validity of the WEL in relation to other assessment measures ( $N = 299$  graduate students).

The focus of the present study was the 103-item WEL, which had been administered to 3,043 persons including 10- to 18-year-olds ( $n = 213$ ), university students ( $n = 1,357$ ), young adults (26–35 years,  $n = 524$ ), middle-aged adults (36–55 years,  $n = 662$ ), and older age adults (56+ years,  $n = 184$ ). About half were from either sex (54% male, 46% female); 81% were White, and 9% were African American. Of their highest educational qualification, 44% had a high school diploma; 10% had technical and trade qualifications; and 30% had bachelor's, 11% master's, and 5% doctoral degrees. Seventeen percent lived alone; 7% lived in rural areas, 16% in small towns, 26% in midsize towns, 15% in large towns/cities, and 36% in a metropolitan area. To place all scales onto a common metric, each scale was converted to a score that ranged from 20 to 100 by dividing the total score for each scale by the numbers of items and then multiplying by 20. This transformed scale seemed more meaningful for interpretation purposes and, because it is a linear transformation, retains all of the properties of the original metric.

## RESULTS

The estimates of reliability (coefficient alpha) of this version of the WEL were all sufficiently high to allow meaningful interpretations of their scores (Table 1). The total sample tended to score quite high on Love, Friendship, and Self Care, as reflected in the means and higher skewness; otherwise, the

distributions are close to normal. The lowest mean scores were found for Realistic Beliefs, Nutrition, Work, and Exercise.

Given that it was expected that there would be 17 clear factors (one for each subscale), a maximum-likelihood exploratory factor analysis based on the 103 items was completed specifying 17 factors. Each set of items loaded only on their expected factor, and the average factor loadings on the expected factor (average .62) was 29 times greater than on the off-loadings (average = .02). There were two noted issues. The Problem Solving and Creativity and the Sense of Control items loaded consistently on the same factor. The former aimed to assess open-mindedness and flexibility and the latter planning and control. Because these two scales are expected to load on the same higher order factor, it was decided to keep them separate; however, further research would help in deciding whether they should be collapsed or refined to make them more distinct. Also, the item loadings within the Gender Identity scale were not as high as for the other factors, and the addition of more items could further strengthen this scale.

An exploratory factor analysis of the 17 scale scores is presented in Table 1. Five clear factors emerged from this analysis. The first factor, Creative Self, includes those scales related to the way we positively interpret our world (Problem Solving and Creativity, Sense of Control, Sense of Humor, Work, and Emotional Awareness). The second factor reflects our manner of coping (Coping Self) by using Realistic Beliefs, Leisure, Stress Management, and Sense of Worth. The third factor relates to our Social Self or how we connect with others (Friendship and Love). The fourth factor relates to our essence or Essential Self (Spirituality, Self Care, Gender Identity, and Cultural Identity). The fifth, and last, factor relates to our Physical Self or body attributes (Exercise and Nutrition). In reviewing the correlations between these factors, there is some evidence of the circumplex patterning, as should be expected if the relationships form a "wheel," at the scale level. That is, there are larger correlations near the diagonal and decreasing correlations as we move away, but the correlations do not increase again as desired. Thus, there is tentative support for the wheel, but more evidence and research is needed to more fully explore this aspect of the model.

The next step was to specify a restricted factor pattern allowing each item to load only on its expected scale, then the scales restricted to load only on the appropriate second-order factors (as identified in the aforementioned factor analysis), and these five loading onto a single third-order factor we named "Wellness." Figure 2 presents the standardized estimates from a structural equation model (AMOS; SPSS, 2003) at the second and third levels only (space precludes presenting the first-level detail). From this confirmatory factor analysis, the goodness-of-fit index, the root mean square error of estimation (RMSEA) was .042 ( $\chi^2 = 8261$ ,  $df = 2533$ ), which is indicative of acceptable fit of the data to this theoretical model (Browne & Cudeck, 1993). Each of the standardized factor loadings is statistically significantly different from zero and quite substantial. Wellness, the third-order factor, is best referenced by our Creative and Coping



**TABLE 1**  
**Summary Information About the Major Wellness Evaluation of Lifestyle (WEL) Factors (N = 3,043)**

Scale/Factor	<i>M</i>	<i>SD</i>	$\alpha$	Creative	Coping	Social	Essential	Physical	
<b>Creative Self</b>	<b>78.75</b>	<b>8.67</b>							
Problem Solving and Creativity	79.36	11.63	.72	<b>.75</b>	.00	.00	.00	.00	
Sense of Control	80.58	11.31	.72	<b>.67</b>	.00	.00	.00	.00	
<b>Coping Self</b>	<b>73.73</b>	<b>7.90</b>							
Emotional Awareness and Coping	79.98	12.19	.80	<b>.35</b>	.16	.28	.00	.00	
Sense of Humor	80.87	12.61	.80	<b>.32</b>	.19	.21	.00	.00	
Work	72.93	13.90	.73	<b>.26</b>	.00	.00	-.17	.14	
<b>Social Self</b>	<b>87.64</b>	<b>10.83</b>							
Leisure	78.80	14.23	.61	.00	<b>.51</b>	.11	-.00	.14	
Stress Management	72.05	14.72	.83	.00	<b>.47</b>	.00	.00	.00	
Sense of Worth	83.02	12.76	.79	.32	<b>.32</b>	.15	.00	.00	
Realistic Beliefs	60.98	14.43	.81	.19	<b>.25</b>	.00	.21	.00	
<b>Essential Self</b>	<b>79.43</b>	<b>10.01</b>							
Friendship	86.67	11.63	.87	.00	.01	<b>.82</b>	.00	.00	
Love	88.61	13.56	.89	.15	-.14	<b>.49</b>	.10	.00	
Essence or Spirituality	76.08	17.97	.76	.00	.00	.00	<b>.49</b>	.00	
Self Care	85.10	16.97	.85	.00	-.19	.00	<b>.48</b>	.10	
Gender Identity	80.60	12.43	.79	.00	.25	.29	<b>.40</b>	.00	
Cultural Identity	76.16	15.13	.75	.00	.21	.21	<b>.30</b>	.00	
<b>Physical Self</b>	<b>69.80</b>	<b>16.58</b>							
Nutrition	66.01	20.30	.66	.00	.11	.00	-.00	<b>.50</b>	
Exercise	73.58	18.02	.74	.00	.00	.00	.13	<b>.80</b>	
Correlation Between Factors									
Creative	—								
Coping	.13								
Social	.55								
Essential	.26								
Physical	.25								
	Creative	Coping	Social	Essential	Physical				
	—	—	—	—	—				
		.40	.44	.25	.25				
			.13	.22	.25				
				.35	.25				

Note. Boldfaced values in columns 2 and 3 represent the means and standard deviations of second-order factors. Boldfaced coefficients in columns 5 through 9 represent the loadings of the third-order factors on the respective second-order factors.

Self and least by our Physical Self, although all five contribute substantially to overall wellness.

A series of multivariate analyses of variance provided more detailed information on differences between the means of the 17 WEL scales (because of the large number of statistical significance tests, an alpha of .001 was used to determine significance). The participants were divided into five age groups (10–18, 19–25, 26–35, 36–55, and 56+) and three ethnic groups (White, African American, and others, i.e., mainly Hispanics and Asian Americans). There were statistically significant main effects for age,  $F(68, 11049) = 5.14$ ,  $p < .001$ , and ethnicity,  $F(34, 5630) = 2.58$ ,  $p < .001$ , and no significant interactions. The means on Spirituality progressively increased from youngest to oldest participants (see Table 2). There were lower means for the younger group (10–18 years) for Self Care (which peaked among the oldest groups), Realistic Beliefs, Problem Solving and Creativity (which decreased somewhat in the oldest group), and Work. The means for Friendship were highest for the 19- to 25-year-olds, Leisure was lowest for the 36- to 55-year-olds, and Nutrition was highest for the oldest group.

Ethnicity differences were found for only one scale. African Americans scored higher than Whites and others on Sense of Worth (87 vs. 82 and 81, respectively). There were no

differences in means for those living alone compared with those living with others (with parents or partners, Mult.  $F[17, 2549] = 1.28$ ,  $p = .192$ ), but there were marital status differences, Mult.  $F(68, 1005) = 4.12$ ,  $p < .001$ . Single persons scored lowest on Problem Solving and Creativity, Nutrition, Self Care, and Spirituality, married persons scored highest on Love, and separated, divorced and widowed persons scored highest on Realistic Beliefs.

To determine the validity of the WEL in relation to other assessment measures, the second author selected a variety of instruments that purport to measure psychological characteristics similar to those included in the scales of the WEL. The sample included 299 graduate students in counseling courses who took the WEL and other instruments over a 4-year period, as part of courses in life span development and wellness taught by Myers. In particular, the WEL was administered in concert with Testwell (National Wellness Institute, 1983), the widely used assessment instrument based on Hettler's (1984) hexagon model. It was hypothesized that similar scales between the WEL and Testwell would correlate highly (Table 3). The WEL compares favorably with most instruments with similar scale definitions. The one exception is that the Coping Resources Inventory (CRI) Total Coping score and the WEL Stress Management score



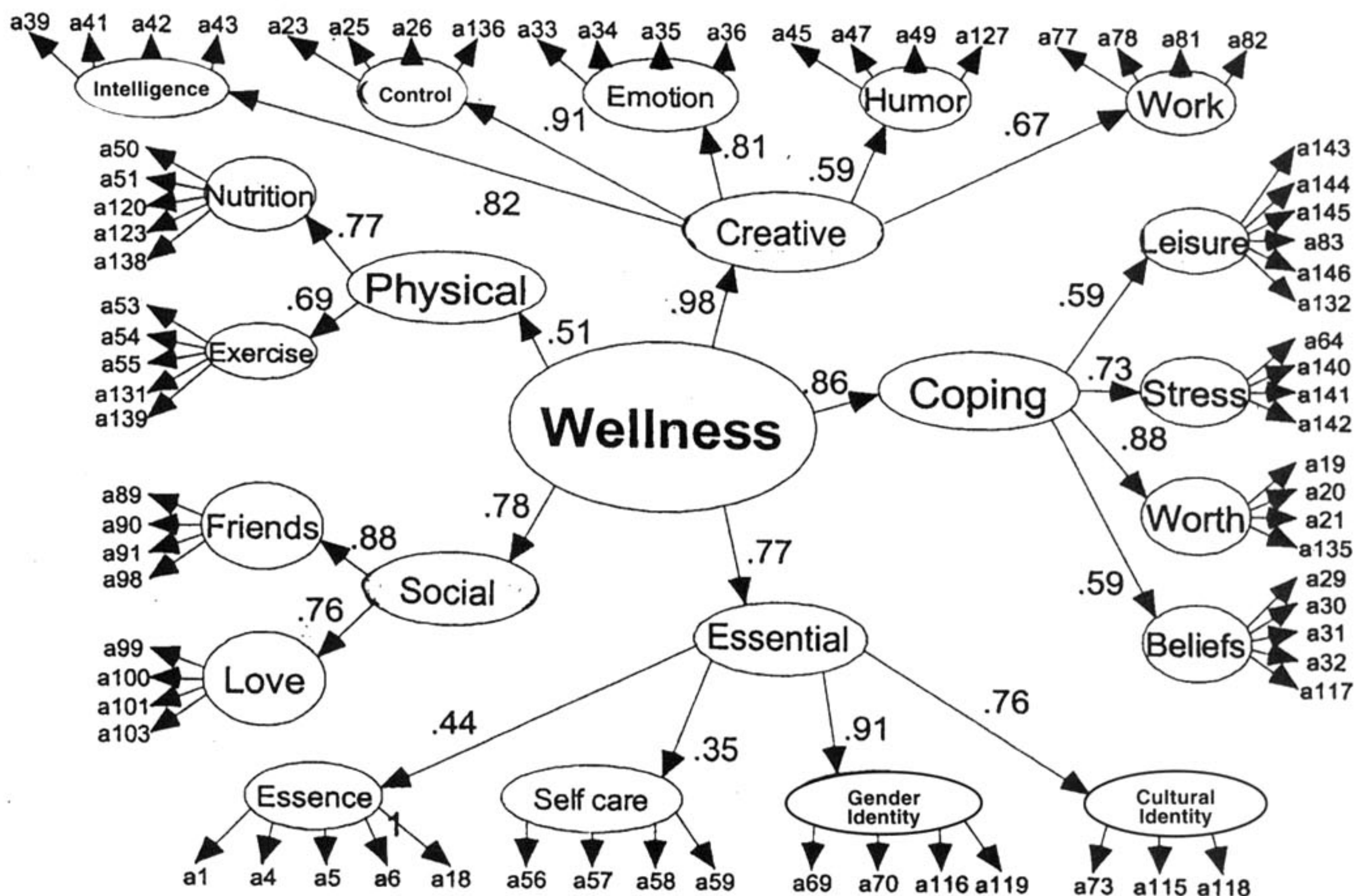


FIGURE 2

Standardized Estimates From Structural Equation Model

Note. Values in figure are beta coefficients derived from the LISREL-7 fully standardized solution.

do not correlate as high as expected—perhaps because the WEL scale is limited in scope and definition to cognitive coping strategies. It may be necessary to consider the WEL coping as only related to cognitive coping, and alternative items used from other scales to assess other coping dimensions (i.e., Essential, Physical, Creative, and Social Selves).

DISCUSSION

The major aims of this article were to explain a theoretical model of wellness and to evaluate an assessment measure that would meaningfully assess the various components of the model. After an extensive literature review, a series of major dimensions and subcomponents of these dimensions were articulated from which items were written. The final set of scales all had sufficiently high estimates of reliability to dependably rely on these scores. The factor structure of each scale indicated that each was unifactorial, and particular care was taken to ensure that each scale was not merely a bloated specific. That is, each scale included a varied range of items from across the expected domain and was not merely a collection of items with minor wording differences. The

first-order factor model clearly supported these 17 scales, because each item loaded clearly only on the desired factor/scale. These 17 scales grouped into five higher order factors, which we named Creative Self, Coping Self, Social Self, Essential Self, and Physical Self. A third-order factor model, with Wellness at the apex (presented as follows), was supported and appears to provide an excellent representation of the dimensions of well-being. The major purpose of this study was to describe the assessment scales and to provide evidence of the usefulness of the scores from these scales. Evidence has also been provided that there is a clearly identifiable third-order factor structure underlying these scales. This higher order dimensionality of wellness is similar to that found by Ryff and Keyes (1995), who found a single higher order factor underlying their six scales of self-acceptance, positive relations with others, autonomy, environmental mastery, purpose in life, and personal growth.

Most critical for the validity of the model, the original Wheel of Wellness model was developed from psychological and counseling theory, particularly that of Adler and his followers (Mosak & Dreikurs, 1967; Sweeney, 1998a, 1998b; Sweeney & Witmer, 1991; Witmer & Sweeney, 1992, 1998).



TABLE 2

Univariate *F* Ratios, Degrees of Freedom, and Probabilities for the Wellness Factors Moderated by Age, Ethnic Group, and Marital Status (*N* = 3,043)

Scale/Factor	Age						Ethnic Group			Marital Status						
	<i>F</i>	10-18	19-25	26-35	36-55	56+	<i>F</i>	White	AA	Other	<i>F</i>	Mar.	Single	Sep.	Div.	Wid.
Creative Self																
Problem Solving and Creativity	10.4*	74	78	82	82	79	0.4	79	78	79	6.4*	83	79	84	83	80
Sense of Control	0.5	79	81	81	81	83	2.0	80	83	79	1.4	82	80	82	81	81
Emotional Awareness and Coping	0.4	79	80	79	80	81	0.6	80	81	79	0.8	82	80	81	82	80
Sense of Humor	2.2	79	80	78	80	74	5.7	81	76	78	1.0	83	82	79	83	80
Work	5.7*	66	71	73	74	75	3.1	74	69	72	6.1*	76	72	79	75	78
Coping Self																
Leisure	4.7*	80	79	78	76	80	1.6	79	79	78	0.7	80	79	77	78	79
Stress Management	0.5	72	72	72	71	74	1.1	73	72	73	1.1	73	72	72	74	75
Sense of Worth	1.5	80	84	84	84	87	4.1	82	87	81	1.3	83	83	84	80	87
Realistic Beliefs	5.3*	60	59	63	64	60	0.9	62	60	61	6.0	62	60	65	66	65
Social Self																
Friendship	5.7*	83	88	84	84	84	1.7	86	84	85	0.7	87	88	88	85	87
Love	3.1	81	88	88	88	96	3.5	88	85	86	13.6	94	87	89	84	84
Essential Self																
Essence or Spirituality	8.9*	72	76	79	83	85	0.8	78	80	78	12.6*	79	73	80	82	85
Self Care	16.1*	80	83	89	91	94	0.6	86	89	86	10.5*	90	83	89	90	90
Gender Identity	0.4	80	81	80	79	79	1.1	81	79	80	2.4	77	77	77	73	78
Cultural Identity	2.2	76	79	78	77	79	2.6	76	80	77	1.9	77	77	77	73	78
Physical Self																
Nutrition	15.6*	63	59	66	68	84	1.8	70	66	68	9.8	70	63	70	55	77
Exercise	2.4	78	73	72	71	77	0.3	75	74	74	1.4	73	73	81	73	75

Note. AA = African American; Mar. = married; Sep. = separated; Div. = divorced; Wid. = widowed.

\* $p < .001$ .

Adlerian theory and constructs were used to organize the myriad research outcomes principally focused on studies that identify characteristics of persons who live both long and well (i.e., experienced life satisfaction with their circumstances). Adlerians believe that all persons are confronted with five major life tasks: work, friendship, love, self, and spirit (Sweeney, 1998a). In the original Wheel of Wellness model, self direction incorporated the 12 spokes of the model, while the life tasks of work and leisure, friendship, love, and spirituality were concentric to but interacting with the spokes. Witmer et al. (1998) described their conceptualization as a dynamic, multidimensional sphere. As a consequence, any effort to depict it in a static, unidimensional way fell short of what individuals experience in their development over the life span. For those interested in its use in counseling, the model and original WEL had face validity and provided a refreshing departure from the more common diagnostic tools designed to identify dysfunction and otherwise negative attributes of clients (Myers et al., 2000).

For research purposes, the value in this model of wellness is at least twofold. The first is to provide a diagram to unify the varying dimensions and highlight the core aspects of Wellness, and the second is to identify the major dimensions that led to the development of items for the WEL. Thus, the model is most effective in that it can identify the various dimensions of wellness and can provide direction that leads to the development of reliable and factorially clean factors (which therefore have greater verisimilitude,

given that the model led to the items and not the usual pooling of vast numbers of items and seeing what is there).

The model specifies that wellness is the cumulative effect of several factors associated with human behavior and efforts to meet life's demands. From the studies described in this article, we suggest that Wellness is the core of the "wheel," and then the five second-order dimensions of Creative Self, Coping Self, Social Self, Essential Self, and Physical Self define the rims. The unity of personality that Adler referred to in his work is represented here as The Indivisible Self (i.e., the factors overlap and interact to such an extent that the dominant, higher order Wellness factor is evident as "Self"), with the five factors providing definition of the components of Self. The Indivisible Self wellness model (IS-Wel; Myers & Sweeney, in press; Sweeney & Myers, 2005) is a clinical model derived in part from the structural model shown in Figure 1. This model is useful to counselors as a common basis for assessment as well as clinical interventions.

The first factor, the Creative Self, is composed of what Adlerians would consider to be coping skills for daily living: Problem Solving and Creativity, Sense of Control, Emotional Awareness and Coping, Sense of Humor, and Work. Behaviors associated with problem solving, use of creative capacities, sense of control through action, use of positive humor, emotional expressiveness, and satisfaction through work are all central to these factors. As noted earlier, a variety of studies have noted the effects of these elements on both longevity and quality of life (Myers et al., 2000). While



**TABLE 3**  
**Correlations Between Selected Wellness Evaluation**  
**of Lifestyle (WEL) Scales and Scales of**  
**Related Instruments (N = 299)**

WEL Scale	Other Scales	Correlations
Spirituality	Testwell: Spirituality	.60**
	CRI: Spiritual Coping	.62**
	CRI: Total Coping	.66**
	MPD: Generativity	.31*
	Life Satisfaction	.50**
Sense of Worth	CRI: Cognitive Coping	.62
	ISAC: Accept Other/Self	.37**
	MPD: Integrity	.51**
Sense of Control	Testwell: Emotional Control	.38**
	Rotter's Locus of Control	.40**
	MPD: Trust	.29*
	MPD: Autonomy	.44**
	Life Satisfaction	.48**
Realistic Beliefs	Testwell: Emotional Control	.45**
	Death Anxiety	-.50**
	CRI: Cognitive Coping	.44*
	DCT: Concrete	.37**
Emotional Responsiveness	Testwell: Emotional Awareness	.67**
	CRI: Emotional	.59**
	MPD: Intimacy	.53**
Problem Solving and Creativity	Testwell: Intellectual	.47**
	ISAC: Problem Centered	.39**
	MPD Initiative	.28*
Exercise	Testwell: Physical Fitness	.61**
	CRI: Physical	.61**
Nutrition	Testwell: Nutrition	.74**
	CRI: Physical	.72**
Humor	ISAC: Sense of Humor	.33*
	Testwell: Self Care	.48**
Self Care	CRI: Total Coping	.66**
	MPD: Identity	.34**
Gender Identification	MPD: Identity	.29
	Testwell: Occupation	.41**
Cultural Identification	CRI: Cognitive	.42**
	CRI: Social	.48**
Work	ISAC: Interpersonal	.41**
	MPD: Intimacy	.44*
	CRI: Social	.40**
Friendship	ISAC: Interpersonal	.49**
	MPD: Intimacy	.44*
Love	CRI: Social	.40**
	ISAC: Interpersonal	.49**
	MPD: Intimacy	.44*

Note. Testwell = assessment instrument based on Hettler's (1984) hexagon model; CRI = Coping Resources Inventory; MPD = Measures of Psychosocial Development; ISAC = Inventory of Self Actualizing Characteristics; DCT = Developmental Counseling and Therapy.

\* $p < .05$ . \*\* $p < .01$ .

work was a key factor in the original model as a major Adlerian life task, it remains important to what constitutes wellness, although it is less prominent in the revised model as a result of these analyses. However, other studies cited earlier (Myers et al., 2000) that were concerned with longevity and quality of life also make a strong case for the inclusion of work as an important factor to well-being.

The factor we call Coping Self, comprising Leisure, Stress Management, Sense of Worth, and Realistic Beliefs, includes

three scales from our theoretically defined concept of Self-Direction and one that originally was included as a component of the Work task (Leisure). Each of these components provides a means of responding to the circumstances of life in a manner that promotes healthy functioning. Each involves some degree of cognitive processing, intentional behavior, and active responding, similar to but not identical with Lazarus's (1999) concept of active coping. Our emphasis, however, is on the individual's efforts to derive satisfaction from an idiographic perspective. Satisfaction, stress, and "reality" are literally in the eye of the beholder. Adler spoke of the "ironclad logic of social living" and the fictive "private logic" of individuals (Adler, 1956, pp. 127-131; Sweeney, 1998a, p. 216, 240). All of us, according to Adler, have certain social opportunities and challenges. Individuals who construct a private logic that permits them to cope successfully in life through interactions with others are also more likely to experience what we call wellness.

The next factor, Social Self, includes the key life tasks of Friendship and Love. In the original model, efforts to differentiate these life tasks involved degrees of intimacy, familial and otherwise. Nevertheless, definitions found in the literature about both friendship and love are often blurred by language, illustrations, and cases that do little to make differentiation. Perhaps it is less important to differentiate between them than to acknowledge that studies of longevity and life satisfaction underscore the vital role of social relationships throughout the life span.

The fourth factor, Essential Self, includes but is not limited to the original concept of spirituality as it emerged from an analysis of the literature. Purposiveness, meaning in life, and a sense of a power greater than one's self are all a part of this factor. We believe that the combination of these four scales contributes to that which makes individuals intrinsically and fundamentally unique in nature (i.e., their spirituality or essence). Rather than being the core characteristic of a healthy person, however, Essential Self maintains a statistical level of importance equal to that of the other four higher order factors, and furthermore it includes aspects of optimism. It is close to what Marshall, Wortman, Vickers, Kusulas, and Hervig (1994) termed *optimistic control*, which includes aspects of having faith in one's abilities and the capacity to derive meaning from life. In addition, this factor includes elements of self-definition (Gender Identity and Cultural Identity) that are important aspects of one's worldview (Lee & Richardson, 1991).

A review of the items in the Essential Self factor suggests that another dynamic may be uncovered. The items speak to individuals' efforts to "take care" of themselves by not engaging in self-destructive behaviors (i.e., use of illegal drugs, tobacco) and, instead, seeking preventive medical assistance. Clinicians include destructive behaviors and lack of preventive behaviors as potential indices of mental illness. Individuals without purpose or direction in life, who lack optimism or hope, are at higher risk for both mental and physical illness. They are less likely, we think, to "take care" of themselves as well. In short, without an essential sense of well-being, there is less motivation for self care.



Not surprising, perhaps, is the finding that exercise and nutrition, components of the fifth factor Physical Self, loaded together but not in concert with the other, psychologically oriented components of the model. The traditional view of health behaviors tends to emphasize physical factors to the exclusion of others (e.g., U.S. Department of Health and Human Services, 1990), while more "holistic" approaches based in psychological sciences tend to leave these factors out entirely (see Keyes, 1998). Based on these data, an integration of physical and psychological components is needed in a comprehensive wellness model. Such is not the case in most clinical applications or research designs at the present time. Each discipline, for example, whether in physiology, nutrition, medicine, or psychology, tends to focus exclusively on its traditional areas of research interest.

In sum, then, the revised conceptualization of the model retains its essential components, but these components are reconstituted into a model where a higher third-order factor, Wellness, is at the core. Five second-order factors still incorporate the five life tasks of the original model, but the 17 original components are grouped into Creative Self, Coping Self, Social Self, Essential Self, and Physical Self. Work constitutes a factor within the Interactive Self rather than a major life task by itself.

A series of multivariate analyses of variance indicated differences in the means across independent variables. Although the statistical differences reported among and between groups are of interest, we should note at the outset that the absence of differences is equally important. For example, there were no gender differences, and only one scale differed across ethnic groups. In short, men and women, and Whites and African Americans responded more similarly than not to the factors on the WEL. The one exception to the ethnic differences (Sense of Worth) was particularly pronounced, with African Americans scoring highest. The items in this scale include references to liking one's self despite imperfections, believing in oneself as worthwhile, valuing self as unique, and being able to be "real" and genuine in relation to others. It is noteworthy that the majority of African Americans in this sample were undergraduate college students, a subset of the African American population who may, by virtue of their attendance at college, experience a higher sense of self-efficacy and, as reflected here, a greater sense of self-worth.

Differences by age developmentally followed a pattern whereby the youngest participants (10–18 years) scored lowest and the oldest participants (56+ years) scored highest on Self Care, Spirituality, and Work. With the Spirituality and Work scales, the respondents seemed to express a greater sense of satisfaction and contentment as they grow older. Students in high school or postsecondary education are less likely to have sufficient life experiences to reflect on their own or to feel satisfaction with their contributions through school and work. According to studies over the life span, each of the stages and phases of adult development involve challenges that ultimately require a test of one's personal resources. Successfully meeting these challenges is expected

to result in higher levels of confidence and a keener appreciation for values that transcend those challenges. Regarding Self Care, among the young, there is a tendency to take good health and safety for granted. With life experience, as reflected possibly in the scores on this scale, individuals increasingly become more health and safety conscious. The oldest group (56+ years) is more likely to make a life-style and value commitment to better health, as noted earlier, in that the highest Self Care and Nutrition scores were for the oldest group (56+ years).

The midyears group (36–55 years) also reflected the lowest scores regarding Leisure, particularly compared with the very youngest and very oldest participants. Developmentally, career, family, and related activities tend to require the most discretionary time for something other than leisure activities during these years in many peoples' lives. Intellectual Stimulation scores were highest for the two age groups (26–35 years and 36–55 years) most involved with career, family, and related demands. By contrast, the youngest group (10–18 years) had the lowest scores on this scale. We do need to be cautious concerning the results, however, because there could be a confound between age and cohort effects, and thus alternative research designs based on longitudinal age comparisons can help tease out these effects and can help assess maturational or life experiences effects.

Seven of the 17 scales revealed differences among those married, single, separated, divorced, or widowed. In 6 of the 7 scales with statistically significant differences, single persons scored lowest on Realistic Beliefs, Intellectual Stimulation, Nutrition, Self Care, Spirituality, and Work. Widowed persons, by contrast, were highest in responses to 5 of the 7 scales including Nutrition, Self Care, Realistic Beliefs, Work, and Spirituality. For both the single and separated persons, the major discriminators were Work and Intellectual Stimulation, with single persons scoring lowest and separated persons highest. In the family therapy literature, persons in the process of uncoupling tend to seek support from their work, friends, and counselors in order to cope with an otherwise confusing, painful, potentially failed intimate relationship. With many decisions to be made and new challenges to face, these scores may reflect persons' higher consciousness of these needs. Divorced persons scores were highest on one scale, Realistic Beliefs, and lowest on another, Gender Identity. Successful uncoupling (i.e., divorce and positive adjustment) could result in the more realistic, less irrational expectations many persons place on themselves. On the other hand, with a poor adjustment, responses to these items could be construed as a result of an angry response to not meeting others' expectations or caring how others feel.

The various dimensions of the WEL are more than personality attributes, because they are closer to various goal strivings (Emmons, 1986)—in that they are nomothetic, idiographic, and personalized motives. That is, the goals a person chooses are tied to the life tasks, such that he or she strives to attain these goals. DeNeve and Cooper (1998) argued that well-being was very much related to a motivation to control the events in one's environment, with individuals



high in desire for control described as assertive, decisive, and capable of manipulating events to ensure desired outcomes.

Although the WEL dimensions are closer to goal strivings, there are relations to the Big Five (Agreeableness, Extraversion, Conscientiousness, Neuroticism, and Openness to Experience) in personality theory. The Big Five is perhaps the most widely used personality theory, and it has gained much support and interest (Briggs, 1992; Costa & Widiger, 1994; Hofstee, de Raad, & Goldberg, 1992; McCrae & Costa, 1984/1990; Waller, 1999). Agreeableness refers to the quality of one's interpersonal relations, the inclination toward interpersonal trust, and consideration of others, and thus the WEL dimensions of Friendship and Love would be included in Agreeableness. Extraversion focuses primarily on the quantity and intensity of relationships and relates to the disposition toward positive emotions, sociability, and high activity. The WEL dimensions of Sense of Humor, with the active using of humor to cope with one's own difficulties, and of Leisure, which includes activities typically approached from a "playful" point of view, both relate to Extraversion. Some of the other aspects of Extraversion, such as hardiness, positive affectivity, and social competence, are clearly present among the items in some of the other WEL dimensions. Conscientiousness, or Constraint, relates to task behavior, socially accepted impulse control, persistence, industriousness, and organization. The WEL dimension of Sense of Control clearly relates to conscientiousness because it emphasizes beliefs about mastery, competence, self-confidence, and self-efficacy. Similarly, Realistic Beliefs and Stress Management have many aspects of task behavior and organization. Neuroticism or its converse, emotional stability, relates to the tendency to experience emotional distress or to adjustment. The WEL dimension of Emotional Awareness and Coping includes many aspects of emotional stability, lack of vulnerability, and emotional control. Openness to Experience contains components of intellectual stimulation, culture, creativity, broad interests, and cognitive complexity, and a receptive orientation toward varied experiences and ideas. These components relate to the WEL dimensions of Sense of Worth, Problem Solving and Creativity, and Cultural Identity.

There are a number of WEL dimensions that do not easily fit under any of the Big Five. These include Essential Self, which is related to a belief system and optimism; Exercise and Nutrition, which are attitudes and actions relating to physical dimensions; Self Care, which is a protective or non-self-abuse dimension; Gender Identity; and Work, although the latter could relate to aspects of Extraversion and Openness to Experience. We consider that the Big Five may assist in explaining personality but that the WEL dimensions are closer to the more holistic notion of well-being (which can certainly include aspects of personality). Note, for example, that DeNeve and Cooper (1998) completed a meta-analysis of 137 personality variables considered to constitute well-being and reported that the average correlation of well-being with Extraversion was .17, Agreeableness .17, Conscientiousness .21, Neuroticism -.21, and Openness to Experience .11. The personality traits that were most strongly related to well-

being tended to deal with the following characteristics: the experience of emotions (emotional stability, positive affectivity, tension) and the characteristic explanations that people give for life events (repressive defensiveness, hardiness, trust, and the control variables). Primarily, Physical Self and Essential Self, including Self Care, critically contribute to additional perspectives to well-being beyond personality attributes.

## CLINICAL APPLICATIONS

Perhaps the most encouraging outcome of the current study was the secondary gain about the WEL's potential for use in practice. Participants in a variety of settings volunteered to participate in the data collection with the understanding that their scores would be explained to them in relation to the model. Even though caution was conveyed regarding the developmental nature of the instrument, both professional counselors and participants/clients expressed enthusiasm for the WEL as a practical yet comprehensive assessment for promoting positive well-being. This was especially so among the clinical mental health population, who tended to be more accustomed to dysfunctional diagnoses and remedial treatment plans to correct them. Enhancement of functioning is a very different emphasis than simply attempting to restore adequate functioning.

Published accounts of the Wheel of Wellness and IS-Wel models and their potential for use in clinical practice are available (Myers & Sweeney, in press; Myers et al., 2000; Sweeney, 1998a; Sweeney & Myers, 2005; Witmer & Sweeney, 1998). In one case illustration (Sweeney & Myers, 2004), a depressed, divorced Hispanic woman is referred to the counselor by her physician due to family-of-origin distress, difficulty with her teaching responsibilities, and parenting of her two young children. With the aid of the IS-Wel Model components, the counselor is able to develop a treatment plan that progressively addresses her major life tasks (i.e., work, friendship, love, self, and spirituality). Included in the treatment plan are activities appropriate to not only ameliorating but enhancing, for example, her sense of worth and sense of control through relaxation exercises, physical recreation, nutrition, and more relaxed, effective parenting methods. Attention to her spiritual needs was central to the plan as well.

A treatment plan is more accurately portrayed, in this case, as an educational reorientation plan that was developed to reflect each of the 17 components of the model. Several of these components, such as Sense of Humor, Emotional Responsiveness, and Problem Solving and Creativity, are useful indices of improving emotional functioning as well as outcomes of positive mental health. These and other components are often not addressed in more traditional diagnostic systems. Individual, couple, family, and group counseling methods, parent education study groups, parents without partners, and similar approaches may also be incorporated into a plan for achieving greater wellness. What is most different about using a wellness approach is the emphasis on wellness in all of its dimensions, rather than solely on remediation of dysfunction.



The WEL is an instrument that shows promise as an adjunct to counseling to engage clients in meaningful dialogue about the value of wellness to them, as well as ways to enhance their wellness. The current statistical factoring of the model components (Creative Self, Coping Self, Social Self, Essential Self, and Physical Self) provides additional richness to the clinical value of the instrument. The Wheel of Wellness model was conceptualized as multidimensional and dynamic in nature (Witmer & Sweeney, 1992). That each of the original components of the Wheel continues to prove viable as a factor of total wellness is significant. Practitioners may choose to use the Wheel of Wellness as it evolved from the literature as a basis for explaining wellness to clients and developing treatment plans. Alternately, the use of the five factors (Creative Self, Coping Self, Social Self, Essential Self, and Physical Self) identified in this study may prove useful in clinical settings. Additional studies should help to determine whether the original five life tasks as depicted in the Wheel of Wellness or the five higher order factors as depicted in the structural model provide the most useful information in clinical settings, both for practitioners and for clients. Additional study is also needed to determine within- and between-group differences for persons of varied ethnic backgrounds on the components of wellness. Such information will be useful to the practitioner as well.

### CONCLUDING COMMENTS

We have defended the Wheel of Wellness model, a theoretical model that was the basis for the WEL. Factor analysis of the WEL database resulted in confirmation of the original 17 dimensions (a third-order factor structure), and 5 higher order dimensions of wellness (a second-order factor structure). These 5 higher order dimensions—Creative Self, Coping Self, Social Self, Essential Self, and Physical Self—each relate to Wellness, a single higher order factor defined as a “way of life oriented toward optimal health and well-being in which mind, body, and spirit are integrated by the individual to live life more fully within the human and natural community” (Witmer & Sweeney, 1998, pp. 43–44). All of these factors can be reliably measured.

There is still more research needed on the WEL and on the factor structure underlying this measure. Additional studies are needed to confirm this structure across populations. The estimates of reliability are sufficiently high to encourage meaningful interpretation of the scale scores, and the items are firmly grounded in a meaningful psychological model of well-being. The ultimate usefulness of the WEL relates to dependable interpretations, and we are building much case practice using the WEL (Sweeney, 1998b), as well as investigating the counseling consequences of these interpretations.

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