

Cultural Adaptation of the Wellness Evaluation of Lifestyle: An Assessment Challenge

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Abstract:

The Wellness Evaluation of Lifestyle (WEL), developed in English, was translated into Korean, field tested, then administered to Korean American adolescents. Means were similar for participants completing the scale in both languages. Challenges to the adaptation process, recommendations for further study of the Korean WEL, and implications for cross-cultural wellness research are discussed.

Article:

As the population of the United States diversifies, the need to include and study ethnic minority individuals increases (Prieto, 1992). This is especially true for the Korean American population, one of the fastest growing ethnic groups. In 1990, there were approximately 800,000 Korean Americans living in the United States (U.S. Department of Commerce, 1995). The official 2000 census count included 1,076,872 Korean Americans, a number that does not include Korean Americans who selected multiple races rather than a single ethnic identity (U.S. Census Bureau, 2000). The recency of this growth in the Korean population suggests that Korean Americans are primarily a first- and second-generation immigrant group, and, thus, research on Koreans in the United States is still in the exploratory stage. As a consequence of the recency of immigration, young Koreans, especially adolescents, are primarily bicultural and are faced with the dual expectations of becoming acculturated to dominant American cultural values while also maintaining traditional Korean cultural values emphasizing family and community ties (Chang, 1998; Jung, 2001; B. S. K. Kim, Omizo, & Salvador, 1996).

During adolescence it is common for conflict and disagreements with parents and other authority figures to increase and for peer influence to become more important than that of one's family (Flannery, Montemayor, Eberly, & Torquati, 1993). For the majority of adolescents, a positive response from peers results in feelings of acceptance and belonging, whereas the absence of peer acceptance can lead to feelings of isolation (Vernon, 1999). For ethnic minority youth, conflict and decreased closeness with parents combined with prejudice and racial bias create the dual risk of alienation from their peers and feelings of social isolation from their family and community as well (Phinney & Rosenthal, 1992; Smith, 1985). Vernon noted that virtually all children experience a variety of social and environmental stressors that may affect their overall well-being or wellness; ethnic minority adolescents, including Korean Americans, are significantly more at risk (Ghuman, 1991; Huang, 1994).

Following the traditional medical model, most research on Korean Americans has focused on behavioral and emotional problems (Jung, 2001), clinical syndromes such as abuse and neglect (W. J. Kim, Kim, & Rue, 1997), and a variety of specific challenges to mental health (Toarmino & Chun, 1997). A few recent studies have addressed distress and coping behaviors (Bjorck, Cuthbertson, Thurman, & Lee, 2001; Bjorck, Lee, & Cohen, 1997; Mui, 2001; Yeh & Wang, 2000). However, these studies failed to include Korean adolescents, and they provide limited information on which school and community counselors working with Korean youth can base effective interventions. An alternative to the medical model is found in wellness approaches (Randall, 1996), which incorporate the tenets of positive psychology and the study of optimal human functioning, strength, and virtue (Sandage & Hill, 2001, Seligman, 1998) and offer the advantages of focusing on prevention, holism, and health or positive functioning (Hattie, Myers, & Sweeney, in press; Healthy People,

2000; Lightsey, 1996). These emphases are consistent with the philosophical approach of professional counselors (Locke, Myers, & Herr, 2001; Myers, 1992). To implement wellness interventions, counselors must first be able to assess holistic wellness, then apply specific interventions to enhance positive functioning (Myers, Sweeney, & Witmer, 2000).

The assessment of wellness with minority populations represents a unique assessment challenge, in part because definitions of health and mental health vary across cultures (Larson, 1999) and in part because cultural considerations vary across populations, including Korean Americans (Jung, 2001). On the basis of these difficulties, combined with the relative recency of wellness research, it is not surprising that no studies to date have examined wellness among Korean Americans. Studies of related variables, such as well-being, have been limited to adult and older adult immigrant populations (e.g., Hyun, 2001). One possible reason for the lack of research on wellness among Korean American adolescents is the unavailability of personality instruments and, more specifically, wellness instruments that have been translated and culturally adapted for use with this population. The present study was undertaken to adapt and test a research instrument. Following a discussion of wellness and the Wellness Evaluation of Lifestyle (WEL; Myers, Sweeney, Hattie, & Witmer, 1997) and adaptation issues and methods, the procedures and results of field testing of the WEL Korean adaptation (Chang, 1998) are presented. The adequacy of the translated instrument, suggestions for future research, and implications for wellness assessment and counseling with Korean American adolescents are considered.

WELLNESS: THEORY AND ASSESSMENT

Dunn (1961), 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). More recently, Archer, Probert, and Gage (1987) defined wellness as "the process and state of a quest for maximum human functioning that involves the body, mind, and spirit" (p. 311). Myers et al. (2000) defined wellness as "a way of life oriented toward optimal health and well-being in which body, mind, and spirit are integrated by the individual to live more fully within the human and natural community" (p. 252). This holistic focus has resulted in a variety of models that purport to encompass the broad range of attitudes and behaviors underlying the wellness construct.

Models of Wellness

Hettler (1984), a public health physician, was among the first to conceptualize the components of wellness. He described wellness in a hexagon model including six dimensions of healthy functioning: physical, emotional, social, intellectual, occupational, and spiritual. Two paper-and-pencil assessment instruments, the Lifestyle Assessment Questionnaire (LAQ; National Wellness Institute, 1983) and Testwell (National Wellness Institute, 1988), a shorter and more easily scored measure, were developed based on this model.

Other researchers on wellness have proposed similar models with varying numbers of components. For example, Ardell (1977) developed a model of wellness that emphasized stress management and individual meaning and purpose through five broad dimensions: self-responsibility, nutritional awareness, stress awareness and management, physical fitness, and environmental sensitivity. Eight categories of behavioral change supplement the five dimensions: psychological and spiritual, physical fitness, job satisfaction, relationships, family life, nutrition, leisure time, and stress management. These models share a common basis in physical health sciences and a resultant emphasis on physical aspects of wellness.

In contrast to earlier models, Sweeney and Witmer (1991) and Witmer and Sweeney (1992) developed a paradigm of wellness based on Adlerian counseling theory (Sweeney, 1998) as a foundation for integrating research across disciplines related to health, longevity, and quality of life. Several years of clinical and empirical studies led to a revision of their original Wheel of Wellness model (Myers et al., 2000), which defines five major overlapping and interacting life tasks as central to understanding healthy people. These include spirituality, work and leisure, friendship, love, and self-direction. Spirituality involves a sense of oneness with the universe. Work and leisure involve satisfaction with one's work and time spent in recreation and leisure. Friendship includes social relationships involving a sense of connection with others. Love includes an intimate,

trusting relationship with another person. The life task of self direction further comprises 12 subtasks: sense of worth, sense of control, realistic beliefs, emotional awareness and coping, problem solving and creativity, sense of humor, nutrition, exercise, self-care, stress managements gender identity, and cultural identity. These life tasks interact with and are affected by a variety of life forces, including government, business and industry, and the media, as well as global events. The wheel model is the basis of the WEL, a paper-and-pencil assessment instrument Myers et al., 1997).

Assessment of Wellness: The WEL Inventory

The WEL, version S. is a 134-item instrument developed and revised over 10-year period (Myers et al., 1997). Earlier versions, the WEL-O, WEL-R, and WEL-G, were revised based on field testing of items and scales resulting in the most recent, or S, version. Items are statements written at a seventh-grade reading level to which respondents reply using a 5-point Likert-type scale ranging from A (*strongly agree*) to E (*strongly disagree*). Scores are numerical sums of item responses on five major scales and 12 subscales corresponding to the five life tasks in the Wheel of Wellness model. In addition, composite scores for total self-direction, a sum of the scores on the 12 subtasks of this dimension, and for total wellness, a sum of scores on all scales, are computed. The WEL may be administered individually or in groups and requires approximately 15 to 20 minutes for completion.

Hattie et al. (in press) reported 2-week test—retest reliability estimates of the WEL scales for 99 undergraduate students ranging between .68 for Cultural Identity and .94 for Self-Care, with an average of .88 for all scales, Cronbach's alpha coefficients for all scales exceed .72, with the exception of Leisure (.61) and Nutrition (.66). The authors have reported that these scales will receive particular attention in subsequent revisions of the instrument (J. Hattie, personal communication, May 1, 1997). The authors reported concurrent validity with Testwell (National Wellness Institute, 1988) when comparable scales were analyzed. Norms for more than 3,000 persons, ranging in age from adolescence to older adulthood, are available (Myers et al., 1997). A middle school version of the WEL has been developed and field tested and also translated into Hebrew and field tested with more than 300 Israeli middle school children; the WEL is currently being adapted in Turkish (J. E. Myers, personal communication, June 7, 2002). The adult version of the WEL had not been translated into other languages prior to the present study.

ISSUES IN CROSS-CULTURAL TEST ADAPTATION

Brislin, Lonner, and Thorndike (1973) identified test adaptation as the most difficult aspect of cross-cultural research. Since that time, a variety of researchers have studied adaptation issues, and virtually all statements of assessment standards now incorporate test-adaptation issues (e.g., Standards for Educational and Psychological Testing, American Educational Research Association, 1999; Responsibilities of Users of Standardized Tests, Association for Assessment in Counseling, 1989). Hambleton (1994) reported the results of efforts by the International Test Commission (ITC) to develop guidelines for adapting educational and psychological tests and conducted a number of studies to develop strategies for increasing the validity of cross-cultural test adaptations (e.g., Hambleton, 1993, 1994; Hambleton & Kanjee, 1995). Much of the focus of this research has been on problems in cross-cultural assessment and technical issues and methods related to academic achievement and vocational testing (e.g., Budgell, Raju, & Quartetti, 1995; Diaz, 1988; Hambleton, 1993; Olmedo, 1981; Valencia & Rankin, 1985) or vocational assessment and counseling (e.g., Fouad, 1993; Fouad & Hansen, 1987; Hansen & Fouad, 1984). However, when personality measures are considered, the impact of assessment on treatment planning is an important addition & consideration (Hood & Johnson, 1991). In the following sections, a brief summary of research in these areas is included as a foundation for examining adaptation issues related to the WEL.

Problems in Cross-Cultural Assessment

Cross-cultural assessment is based on the assumptions that sufficient differences exist between the two populations of interest to merit development of a translated test (Hambleton & Bollwark, 1991) and that the variable of interest exists in both cultures (Bracken & Found, 1987). On the basis of these assumptions, Hambleton and Bollwark (1991) identified four major problems associated with translating tests: (a)

identification of "Cultural differences between the source and target populations that may affect examinee test performance," (h) identification of "the appropriate language for testing target population examinees," (c) "finding equivalent words or phrases," and (d) "finding competent translators" (pp. 11-12). Depending on the changes required to prepare an unbiased instrument, translators have three options: (a) "to apply the instrument in a literal translation," (b) to adapt parts of the instrument," or (c) "to assemble an entirely new instrument" (Van de Vijver & Hambleton, 1996. p. 91).

Technical Issues and Methods

Hambleton and Patsuda (1998) discussed the advantages of test adaptation (e.g., it is both less expensive and more expedient than preparing new tests; the use of existing norms may be possible) and noted three broad sources of error that must be considered in the process of adapting instruments: "cultural/language differences, technical methods, and interpretation of results" (p. 154). Cultural and language differences may affect the construct equivalence of the test. Technical designs create error that can affect the validity of adapted tests due to "the test itself, selection and training of translators, the process of translation, judgmental designs for adapting tests, and empirical analyses for establishing equivalence" (p. 160). Most authors agree that the adaptation process involves several steps, such as literal translation, back translation, consensus to reconcile differences, and field testing (Fouad, 1993; Prieto, 1992). Both psychometric and practical problems may occur in any or all of these steps involved in test adaptation.

Hambleton and Bollwark (1991) provided a detailed discussion of technical issues and methods for adapting tests for use in different cultures. Equivalence of test items is the focus of this discussion, defined as "the direct comparability of test items and the scores derived from them in terms of psychometric meaning ... test items are equivalent if they measure the same behaviors across the populations of interest" (p. 13). Both judgmental (judgments by individuals or groups on the degree of each item's translation equivalence) and statistical methods are used to examine equivalence. Statistical methods result from variations in the types of examinees (e.g., mono- or bilingual) and versions of the test (e.g., original, translated, back-translated versions). Van de Vijver and Hambleton (1996) summarized the issues and methods as follows:

The application of not fully identical instruments in different cultural groups can complicate statistical analyses. Analyses of variance and t tests on total test scores assume identity of stimuli, and adjustments are required to deal with stimulus dissimilarities. Some statistical methods have scope for these dissimilarities...item response theory...confirmatory factor analysis...[however] the approach to overcome partial overlap by applying sophisticated statistical techniques has limitations. When there is substantial overlap between the items administered in all groups, the approach will work well and the culture-specific items may well enhance the validity of the instrument in the local culture. However, when the overlap is small, the instrument will not have enough common material on the basis of which scores can be compared across cultures and culture specific items will add important aspects of the construct. A meaningful score comparison is then difficult to do. (p. 92)

Cross-Cultural Personality Assessment

Hood and Johnson (1991) noted that "there is some evidence that various minority groups obtain scores on personality inventories that differ from those typically obtained in a White majority population" (p. 216). Only a few personality measures translated for cross-cultural study have been reported in the literature, for example, adaptations of the Myers- Briggs Type Indicator in Norwegian (Nordvik, 1994) and French (Casas, 1990), the SF-36 Health Inventory in German (Bullinger, 1995), and the Suicide Probability Scale in Swedish (Elkin, 1993). In each case, forward-backward translation and/or use of translators familiar with the theory underlying the instruments were used. Psychometric equivalence of the tests was established, and the use of the translated instrument was supported. On the basis of these outcomes and the fact that most multicultural assessment issues have focused on areas other than personality, Austin (1999) suggested that cross-cultural assessment research should be expanded to include a greater focus on personality traits.

METHODS

The WEL was translated into Korean and field tested with a small sample of Korean American adolescents prior to administration to a larger sample. In this section, the adaptation process and the problems that arose in the adaptation process are discussed.

Adaptation Process

The WEL was translated into Korean through an adapted version of the forward-and-back translation processes, using two translators, and tested using bilingual examinees. The translator was a bilingual individual who was identified as proficient in both the source language and culture (English language, U.S. culture) and the target language and culture (Korean language, Korean American culture). The translator was born in Korea and immigrated to the United States in 1977. She was educated in both Korea and the United States and was identified as an excellent translator because of her educational background and length of residence in the United States. According to Hambleton and Kanjee (1995), translators should not only be competent with languages involved in the translation but also know the cultures or the languages, especially the target culture. This translator met both requirements.

Hambleton and Kanjee (1995) also recommended that the translator have some training in test construction and knowledge of the subject matter being tested. Therefore, once the test was translated from English to Korean, the Korean version was read to the first author of this article who understands both English and Korean and met these additional requirements. The researcher either accepted the translated item based on language and concept or, if any discrepancies or concerns arose, the item in question was discussed in Korean until the researcher and the translator agreed on an acceptable adaptation of the item and appropriate changes were made to the adapted version. By having both the translator and the researcher review each item, translation equivalence and conceptual equivalence were monitored.

Problems in Test Adaptation

Several problems that required resolution arose during the adaptation process. Most related to differences between the Korean and English languages. The original version of the WEL uses a 5-point Likert-type scale (*strongly agree, agree, undecided, disagree, strongly disagree*). These words are not easily translated into Korean, and in fact there is no literal translation of them. To be understood by Korean test takers, the response choices were modified. The Korean adaptations, roughly translated back to English, mean *very much like me, like me/that is me, do not know or either way, that is not me/not like me*, and *that is really not like me*.

A number of changes in specific items were also necessary to reflect differences in meaning between Korean and English. The most difficult concept to translate was that of "stress," because there is not a word for stress in Korean as it is understood in English. However, the word stress has permeated the Korean language because of Western influence; therefore, it was decided that the word stress would be used but spelled phonetically in Korean. Thus, it was necessary to revise the item "Overall, the work I do is not very stressful," Because the term stressful is not translatable, it was changed to "does not give me stress." In other items using the word stress, the Korean phonetic spelling was used.

The item "I avoid the use of illegal drugs" was expanded to include examples, such as marijuana, cocaine, and so forth, primarily because Korean Americans may have a different conception about what drugs are illegal and what drugs are legal. Illegal drugs for some Korean Americans could mean prescription drugs or drugs sent over from Korea by family members. Other modifications reflecting differing understanding between English and Korean included the following: The term *gender* was replaced with a phrase indicating qualities of being female and qualities of being male because there is not a Korean word for gender. The item "I have come to be at peace with my eventual death" was adapted to replace the word *peace* with a Korean phrase meaning "accept, prepared for, and not afraid."

The item "If something can go wrong for me, it will" was adapted to include a phrase stating "I have more bad luck compared with others." The item "I usually am not in touch with my feelings" was adapted because *in*

touch is a colloquial phrase and not translatable to Korean. In place of *in touch*, a Korean word meaning "do not think about or do not pay attention to" was used.

Initial Field Test

Six self-identified examinees were asked to take both the original version (English WEL) and the adapted version (Korean WEL). These individuals were recruited from the first author's social network and attended Korean churches in North Carolina. They were given no incentives for participation beyond the opportunity to help with research that ultimately was intended to benefit bicultural adolescents.

The examinees completed the administrations in their homes, and only three returned the WELs prior to the completion of the field test. Following Hambleton's (1993) recommendation for both counterbalancing and time control to reduce the confounding effects of the order of the test and changes that may occur due to time, the order of administration was counterbalanced. Half of the participants were instructed to take the English version first and then the Korean version, and half were instructed to take the Korean version first and then the English version.

RESULTS

The subscales of the English and the Korean version of the WEL were examined using effect sizes as descriptive statistics to test for equivalence, on the basis of the assumption that the bilingual examinees were equally proficient in English and Korean. Effect size was determined using a pooled standard deviation of the English and Korean results. We assumed the two groups to be equal, and thus both groups could provide information about the score scaling; therefore, a pooled or average standard deviation estimate across both the Korean and the English groups was warranted (see Thompson, 2002). Cohen's *d* values of .20, .50, and .80 were used to determine small, medium, and large effect size, respectively (Cohen, 1988). Of the 19 subscales, only 4 had large effect size (Sense of Worth, Emotional Awareness and Coping, Self-Care, and Perceived Wellness), thus equivalence of the Korean and English versions of the WEL was considered sufficient to proceed with analysis using a larger sample of Korean American adolescents. See Table 1 for means, pooled standard deviation, and effect size for the WEL.

TABLE 1
Means, Pooled Standard Deviation, and Effect Size for Wellness
Evaluation of Lifestyle Scales

Variable	English <i>M</i> (<i>n</i> = 3)	Korean <i>M</i> (<i>n</i> = 3)	<i>SD</i> Pooled	Effect Size
Spirituality	41.67	42.33	3.65	0.18
Total Self-Regulation	183.00	182.33	18.72	-0.04
Sense of Worth	14.33	14.00	0.41	-0.80 Large
Sense of Control	13.67	14.00	1.91	0.17
Realistic Beliefs	17.67	16.67	1.83	-0.55
Emotional Awareness and Coping	18.33	16.67	1.16	-1.43 Large
Problem Solving	14.33	14.67	3.29	0.10
Sense of Humor	15.33	16.67	2.70	0.50
Nutrition	10.00	9.67	1.29	-0.26
Exercise	8.67	8.67	1.15	0.00
Self-Care	20.67	22.00	1.63	0.81 Large
Stress Management	17.67	17.33	4.56	-0.07
Gender Identity	13.33	13.33	3.21	0.00
Cultural Identity	19.00	18.67	5.40	-0.06
Work and Leisure	33.67	33.33	1.82	-0.19
Friendship	35.33	35.00	3.11	-0.11
Love	44.67	44.33	7.37	-0.05
Total Wellness	350.33	349.00	16.18	-0.08
Perceived Wellness	12.00	11.67	0.41	-0.80 Large

To further examine the equivalence of the English and Korean WELs, a larger sample of monolingual and bilingual Korean American adolescents was needed. These individuals were recruited from Korean youth centers and churches and by word of mouth within Korean communities in California, Georgia, New Jersey, North Carolina, and Maryland. The participants were asked to complete a packet of instruments, which included the WEL, and were told that through their voluntary participation in this study, the researchers hoped to discover more about wellness in the Korean American population. The participants were given the option to complete the WEL in either English or Korean. Because the participants were given the option to complete the WEL either in English or in Korean, it is difficult to infer statistically significant differences found between the Korean and English respondents. Despite this limitation of the study, it is still interesting to note that the mean difference for Friendship revealed a medium effect size based on Cohen's ($d = .66$). Thompson (2002) discussed the importance of practical and clinical significance in addition to and possibly in place of statistical significance. Although the difference in Friendship may not have statistical significance, practical and clinical significance needs to be considered and is discussed in the following section.

DISCUSSION

The first assumption underlying cross-cultural assessment (i.e., that sufficient differences exist in two populations of interest to merit development of a translated test) was met in regard to the WEL. Given the bicultural and bilingual nature of Korean American adolescents, thorough examination of wellness factors requires that some adolescents be tested in their native language. Because the variable of interest (i.e., wellness) exists in both cultures, the availability of a translated instrument also provides a foundation for future cross-cultural research with Korean adolescents living in Korea. The important questions at this point relate to the extent to which the adapted instrument is equivalent to the version in the source Language and whether additional studies can be undertaken to improve the psychometric properties of the Korean WEL.

Although the forward-and-back-translation method used for adapting the WEL is consistent with the ITC guidelines, the fact that only two individuals were involved in the initial adaptation presents a potential limitation. Use of multiple translators, although desirable, can be expensive in terms of human as well as material resources. For practical purposes, the number of translators was limited, and careful selection of the translators hopefully helped to reduce error in this regard. Tanzer and Sim (1999) cautioned that literal translation can yield invalid test adaptations; rather, they noted that certain terms "must be replaced with expressions from the target culture that have the same meaning" (p. 261). The care taken to determine appropriate replacement expressions for the adapted WEL was intended to increase the validity of the adaptation.

The limited number of participants in the initial field test is also a concern. By having the same examinees take both the English version and the Korean version of the WEL, the examinees' ability was controlled; however, this method assumes that examinees are equally proficient in both languages. It would be helpful to verify these assumptions in future studies and also to involve additional bilingual individuals to verify the accuracy of the adapted instrument as well as test the Korean WEL with a larger sample.

As discussed earlier, Hambleton and Patsuda (1998) specified three sources of error in adapting tests that can affect construct equivalence. The first, cultural/language differences was addressed in the adaptation process through the use of two bilingual individuals, both of whom provided judgments on the degree of each item's translation equivalence (Hambleton & Bollwark, 1991). The second, technical methods, was addressed through an examination of differential item responses between the two groups on the initial field test and through examining differential subscale scores in the subsequent larger study. The third source of error, interpretation of results, requires that caution be used to ensure that the results are used to compare groups and understand differences rather than to make unwarranted assumptions concerning the characteristics (i.e., superiority or inferiority) of specific populations.

Overall, the results lend partial support for the equivalence of the Korean WEL to the original English version; however, differences in subscale scores suggest a need for further examination of cultural differences that may

reflect differing definitions of wellness components between the two populations. Previous studies indicate both similarities and differences may exist between different cultures (Mukherji, 1995; Rybak, Wan, Johnson, & Templeton, 2002; Strickland, 1999; Wissing & van Eeden, 2002). Further studies need to address the large effect size for Sense of Worth, Emotional Awareness and Coping, Self-Care, and Perceived Wellness found in the initial field test to verify these findings and determine if differences are due to translation issues or actual cultural differences in these concepts. Sense of Worth (accepting who and what one is), Emotional Awareness and Coping (being aware of or in touch with one's feelings; being able to express one's feelings appropriately), and Self-Care (taking responsibility for one's wellness through self-care and safety habits) are all subscales within self-regulation. The Korean values of collectivism and group cohesion, which de-emphasize individualization, might explain these differences in self-regulation subscales. Differences in communication and emotional expression styles may also contribute to the large effect size in Emotional Awareness and Coping. In contrast to the European American emphasis on verbal communication to express ideas and feelings, Asian cultures rely on nonverbal communication to express important messages. Asian cultures value self-control, restraint, and deference as opposed to emotional expressiveness, freedom, and assertiveness; thus, Asians are less likely to express their emotions openly or to express themselves verbally (Chang & Myers, 1997). The large effect size for Perceived Wellness may also be related to the idea of collectivism that de-emphasizes the importance of the individual. The difference in Scores between the Korean and English language versions on the Friendship subscale is particularly noteworthy. At this point, it is difficult to determine whether this difference is due to translation limitations or to possible differences in the way that friendship is conceptualized in American and Korean cultures.

The differences in the Friendship subscale suggest possible differences in relationship meanings between the two cultures. These differences could be based on the Asian value of "relationship harmony," commonly noted in studies of collectivist as opposed to individualistic cultures as a factor underlying interpersonal interactions (Kwan, Bond, & Singelis, 1997). In the WEL, friendship refers to "social relationships that involve a connection with others individually or in community, but which do not have marital, sexual, or familial commitment" (Myers et al., 1997, p. 7). The medium effect size for the Friendship scales between cultures suggests that the concept of friendship may be operationalized differently for Koreans with their orientation to collectivism and hierarchical role structure (Chang & Myers, 1997).

Further research is needed to examine differences in friendship between Korean and American cultures. Because social relationships and support are central to positive mental health across the life span (see Myers et al., 2000), strategies for helping minority adolescents achieve satisfying social networks may vary according to culture. This information might be useful to counselors working with Korean American adolescents and might provide guidance for helping them develop effective peer networks. A variety of statistical methods have been suggested for examining the equivalence of test adaptations. These include confirmatory factor analysis, item response theory, and multitrait and multimethod research approaches. In addition to these methods, future studies using parallel tests and variables in English-speaking and Korean-speaking populations are needed in order to evaluate consistency of structure, both internal and external, as validity evidence of the Korean translation (e.g., Hambleton & Bollwark, 1991; Van de Vijver & Leung, 1997). Future studies using the Korean WEL with larger samples can provide a basis for these analyses. Additional studies might include comparisons of distributions of scores in different Korean-speaking populations (e.g., Koreans in Korea vs. Korean Americans) to see whether different norms should be collected and used. Following Geisinger's (1994) Recommendations, future studies can also provide a basis for developing and validating standardized scores on the Korean WEL to aid in test interpretation and application.

The present results underscore the need for adaptation of personality measures across cultures and for continued explorations of the challenges associated with cross-cultural test adaptations. In regard to the WEL, such adaptations could help to uncover important differences underlying factors such as friendship and the differential contributions of relationships and other factors to holistic wellness across populations. Additional adaptation research with the Korean WEL, with larger samples and further test-construction attempts, may

provide further support for use of this instrument, as well as norms for Korean Americans, that can be used in future cross-cultural wellness research.

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