Measuring Psychological Well-Being: Insights From Thai Elders

Berit Ingersoll-Dayton, PhD,1 Chanpen Saengtienchai, MA,2 Jiraporn Kespichayawattana, PhD,3 and Yupin Aungsuroch, PhD3

Purpose: Psychological well-being, an important indicator of successful aging, may be conceptualized quite differently across cultures. Using a mixed-methods approach, we developed a measure of psychological well-being based on the indigenous expertise of Thai elders. Design and Methods: Data were collected from older people in Thailand in four stages with staggered qualitative and quantitative methods: individual and focus group interviews (n = 67); a preliminary survey (n = 477); cognitive interviews (n = 30); and a second survey (n = 460). We analyzed the resulting psychological well-being items to identify their underlying factor structure and psychometric properties. Results: Confirmatory factor analysis suggested that psychological well-being has two components: intrapersonal and interpersonal. The subscales for this measure have adequate reliability and validity. Implications: This research provides evidence for cultural variability in the nature of psychological well-being and highlights the importance of developing measures that are culturally relevant.

Key Words: Successful aging, Measurement, Culture, Asian elders

Understanding processes associated with successful aging has become a key focus for gerontological researchers (Baltes & Carstensen, 1996; Rowe & Kahn, 1998; Strawbridge, Cohen, Shema, & Kaplan, 1996). One important indicator of successful aging is psychological well-being; that is, the strengths and capacities of older people (Ryff, 1999). Highlighting these strengths leads to an understanding of how individuals remain resilient in the face of aging-related changes. However, the way in which people conceptualize psychological well-being and its components may differ markedly from one culture to another. To illuminate those aspects of well-being that are unique versus those that are common across cultures, we focus on older Thai people. This article describes the development of a culturally relevant measure of psychological well-being and examines its structure for Thai elders. This exploration of well-being from the perspective of Asians contributes toward our understanding of successful aging from a cross-cultural perspective.

Psychological well-being is inextricably connected to cultural values concerning individuals and individuals in relation to each other. Qualities of independence and interdependence are important in all cultures; however, most societies value one more than the other (Greenfield, 1994). For example, although there is variation within each culture, the relative importance of independence and interdependence appears to vary across Western and Eastern cultures. In particular, Americans generally rate higher in individualistic and lower in collectivistic values than people from other countries (Oyserman, Coon, & Kemmelmeier, 2002). The relative emphasis placed on the individual as compared with the collective is intertwined with the way in which well-being is conceptualized in different cultures.

In Western countries, autonomy and independence are emphasized such that the self is seen as distinct from others (Markus & Kitayama, 1991). The importance of these qualities is evident in childhood educational practices that encourage American elementary-school children to "show and..."
The six well-being factors are "joined together by represented by a second-order global factor in which determined that the structure of well-being is best dimensional measure indicate good reliability and growth). The psychometric properties of this multi-dimensional measure indicate good reliability and associated with well-being for older people.

Asians have distinctly different views of the person. From their perspective, people are fundamentally interconnected. They value belongingness, reciprocity, empathy, and respect. Within Eastern cultures, the self is viewed as interdependent, people are mutually responsible for one another, and individuals evaluate themselves based on their contributions to the collective good (Fiske et al., 1998). Early socialization experiences emphasize group collaborations and concern for others. For example, in Japan the goals of "helping one another" and "pooling strength" are interwoven into school subject areas. As part of a social studies assignment in elementary school, Japanese children are told to observe their mothers' work at home. The children are then taught to set goals for themselves that relate to easing their mothers' responsibilities (Lewis, 1995). In Asia, harmonious relationships with others are a vital source of well-being, and the ability to adapt one's own interests to those of the dyad, group, or institution is highly valued (Fiske et al., 1998; Oerter, Oerter, Agostiani, Kim, & Wibowo, 1996; Triandis, 1989). It follows that, within Asian models of the ideal self, interdependence is associated with well-being among the elderly population.

Thus far, most standardized measures of psychological well-being have been based on the Western conceptualization of the ideal self as autonomous and independent. In particular, Ryff (1989a, 1989b) has developed a widely used measure based on a content analysis of writings by prominent Western clinicians and theoreticians (e.g., Erikson, 1959; Jung, 1933; Maslow, 1968; Neugarten, 1968; Rogers, 1961). The measure includes six distinct facets of positive psychological functioning (i.e., self-acceptance, positive relations with others, autonomy, environmental mastery, purpose in life, and personal growth). The psychometric properties of this multi-dimensional measure indicate good reliability and validity (Ryff & Keyes, 1995). Further, on the basis of confirmatory factor analyses, Ryff and Keyes determined that the structure of well-being is best represented by a second-order global factor in which the six well-being factors are "joined together by a single higher order factor" (p. 724). The research by Ryff and her colleagues suggests that, for American adults, psychological well-being can be conceptualized as a hierarchical structure in which well-being has its influence through six distinct domains, most of which are focused on the independent self.

Although Ryff's measure of psychological well-being (1989a, 1989b) appears to be well suited for Europe and America, its conceptualization of self-hood makes it less applicable to Asia. In a critique of this measure, Christopher (1999) questions the universality of the six domains used as criteria for psychological well-being. He observes that, though certain components of well-being may be shared across cultures, their meaning and relative importance may vary. Christopher concludes that, "as a result, different components of our understanding of psychological well-being (like autonomy or happiness) cannot simply be transported to another culture without risk of serious misrepresentation and misunderstanding" (p. 149).

Our work represents an effort to understand the components of psychological well-being that are indigenous to older Thai people. Research has already been conducted on the psychological views and values of other developed Asian countries, such as Japan (Kitayama, Markus, Matsumoto, & Norasakkunkit, 1997; Kumagai, 1981). However, unlike these other Asian countries, Thailand has never been occupied by a Western power; thus the views and values of Thai people may be less influenced by Western thought (Weisz, 1989). By focusing on Thailand, we enlarge our understanding about the cultural context of psychological well-being.

As a first step in developing measures that are authentic to indigenous cultures, cross-cultural psychologists suggest a so-called "bottom-up approach" that involves consulting with the individuals for whom the measure is developed (Kim, Park, & Park, 2000, p. 66). Qualitative methods based on the use of open-ended questions and in-depth exploration are especially effective in the initial stages of measurement development for at least two reasons (Carter-Edwards, Bynoe, & Svetkey, 1998; Krause, 2002). First, by encouraging people to talk freely about a substantive domain, researchers can identify the dimensions most relevant to the people for whom they are developing the measure. Second, the words and phrases evoked during this free-flowing conversation can be used in the construction of closed-ended items.

The development of our Thai measure of psychological well-being relied heavily on a bottom-up approach. We were guided by the suggestions of Krause (2002), whose multistage measurement development process begins with qualitative methods and moves toward quantitative methods. This process includes the following steps:
(a) focus groups, (b) in-depth interviews, (c) input from quantitative studies, (d) development of preliminary quantitative measures, (e) review by expert panel, (f) cognitive interviews, (g) pilot study, (h) nationwide survey, and (i) psychometric testing. Our approach was further informed by Morgan’s (1998) framework of complementary qualitative and quantitative methods. According to this framework, qualitative approaches can precede or follow quantitative approaches. When qualitative methods are used first, they can illuminate the domains to be quantified. When qualitative methods follow quantitative methods, they can help explain the quantitative findings.

The discussion that follows is divided into three main sections. First, we describe in detail the methods by which a measure of psychological well-being relevant to older Thai people was developed. Second, we present findings from an analysis of the structure of well-being for our older Thai sample and describe the psychometric properties of the measure. Third, we explain the highlights of our research findings, discuss the limitations, and offer directions for future research.

Methods

When we applied Krause’s (2002) multistep process to the development of a Thai measure of psychological well-being, we made some adaptations. We juxtaposed qualitative and quantitative methods in a circular, iterative process that involved consultation with our older participants at multiple points throughout the measurement development process. That is, we adapted Krause’s method by incorporating qualitative methods at later stages as well as earlier stages of the process. Here, we describe the procedures involved in each stage in conjunction with the substantive findings that guided subsequent stages of measurement development.

Qualitative Methods: Focus-Group and In-Depth Interviews

Qualitative methods are ideally suited for identifying the key domains of a construct that are “grounded in local meanings” (Miles & Huberman, 1994, p. 36). Consequently, in the first phase of this project, we used qualitative methods to illuminate the various aspects of psychological well-being that are relevant for older Thai people. (For more details, see Ingersoll-Dayton, Saengtienchai, Kespichayawattana, & Aungsuroch, 2001.) Consistent with Krause, we used two qualitative approaches (i.e., in-depth interviews and focus-group interviews) to uncover the dimensions of psychological well-being. Our sample consisted of people aged 60 and older who lived in urban and rural areas in and around Bangkok; we drew it purposively by asking staff from local health care centers to identify elders who had different levels of education and income. A total of 67 people (29 men and 38 women) participated in this phase of the study. We collected data from 23 in-depth interviewees and 44 participants in five focus groups.

To identify dimensions of well-being, we asked participants the questions developed by Ryff (1989b) concerning the characteristics of an elderly person who was well adjusted, mature, personally fulfilled, and fit the notion of the ideal person. In addition, we asked questions based on research by Ingersoll (1985), whose work in rural Thailand highlighted enjoyment and hopes for the future as key elements of life quality. Respondents’ answers were tape-recorded, transcribed into Thai, and translated into English.

Each of us participated in the analysis of the qualitative data. We developed our conceptual framework through a series of discrete steps, with two of us reading the Thai transcripts and two reading the English transcripts. First, using a subset of the transcriptions, each of us independently developed a preliminary coding schema. Second, we collectively reviewed each others’ schemas to identify a comprehensive set of categories, which we then augmented with topics suggested by previous research on well-being (Ingersoll, 1985; Ryff, 1989a, 1989b). Third, using the resulting coding schema, two of us independently coded the Thai transcripts and two coded the English transcripts. We entered our coding decisions by using Ethnograph 4.0 (Seidel, Friese, & Leonard, 1995), a software package that facilitates the organization and retrieval of specific segments of qualitative data for analysis. Finally, we met as a group to review the data that emerged within each coding category. Comparing both the Thai version and the English translations, we collectively consolidated the coding categories by identifying the conceptual overlap within the data.

This analysis resulted in five dimensions of psychological well-being: harmony (experiencing peaceful and happy interactions with others), interdependence (providing assistance to and receiving assistance from family members and others), acceptance (relinquishing upsetting thoughts and accepting life’s circumstances), respect (feeling one’s advice is heeded and one’s wisdom is appreciated), and enjoyment (appreciating simple pleasures that involve others as well as solitary pursuits).

Quantitative Methods: Preliminary Survey

Once the domains of a construct have been identified, quantitative approaches enable us to measure the frequency of phenomena (Morgan, 1998). Thus, in the next phase of our project, we developed closed-ended survey items that would lend themselves to measuring psychological well-being
quantitatively. The construction of these items involved several distinct steps similar to those described by Krause (2002). First, for each of the five dimensions, we constructed closed-ended statements (e.g., “In your family, people get along well together”) based on relevant phrases from the transcripts of the in-depth and focus-group interviews. Second, to assess content validity, we had the statements examined by four experts in gerontology or quality of life in Thailand. There was consensus among the experts that the five dimensions represented psychological well-being for Thai elders. In addition, they provided suggestions to enhance the clarity of specific items and suggested wording for additional items. On the basis of their feedback, we revised the list of items. Third, we pretested the optimal number of response choices for these items by using a format consistent with Ryff’s (1989a) that ranged from strongly disagree to strongly agree. Our respondents indicated that they were able to distinguish among four responses; thus we developed a consistent set of response choices (i.e., 1 = strongly disagree, 2 = disagree, 3 = agree, and 4 = strongly agree) for each item.

Finally, we included these items in a preliminary survey conducted in Bangkok and three nearby provinces representing both rural and urban areas. Our purposive sampling strategy involved asking staff in rural and urban health care centers in these provinces to identify elders (those aged 60 years and older) who represented variability with respect to socioeconomic status, education, and health. The resulting sample of 477 participants included 182 men and 295 women.

The feedback from the interviews in conjunction with preliminary data analyses indicated several problems with the psychological well-being items. Specifically, interviewers reported that the respondents did not understand many of the items and that they had difficulty with the strongly disagree to strongly agree response set. In addition, research team members observed that the presence of family members during the interview resulted in two problems. First, respondents provided answers that appeared to be more positive and socially desirable. Second, family members sometimes tried to assist the older respondents by answering survey questions for them. These problems were reflected in our quantitative analyses of the well-being items, which showed little variability and were highly skewed toward positive well-being.

**Qualitative Methods: Cognitive Interviews**

When quantitative findings are confusing, qualitative methods can often provide clarification and suggest new areas of exploration (Miles & Huberman, 1994). To address the problems identified in the preliminary survey, we used qualitative methods to help us understand the difficulties associated with our close-ended items and to suggest alternative approaches. Specifically, we used a cognitive interviewing technique, which was another step in measurement development suggested by Krause (2002); we had not used it prior to developing our survey items because of time constraints.

Cognitive interviewing techniques are routinely used by government data-collection agencies and major survey-research centers to assess the thought processes of survey respondents (Schwartz, 1999). These techniques help survey researchers understand how respondents interpret questionnaire items in order to develop more comprehensible questions and response alternatives (Oksenberg, Cannell, & Kalton, 1991; Sudman, Bradburn, & Schwartz, 1996). Specific cognitive interviewing techniques include concurrent think-alouds (i.e., respondents describe their thoughts as they answer questionnaire items; see Genest & Turk, 1981), which are followed by detailed probes that ask respondents further questions about specific items (Biemer, Groves, Lyberg, Mathiowetz, & Sudman, 1991). From these responses, the survey questionnaires are revised and then reassessed based on additional cognitive interviews (Sudman et al., 1996).

Cognitive interviews were conducted with 30 people (10 men and 20 women) aged 60 and older who were selected for their ability to be reflective about their thought processes. Interviews were conducted in Bangkok and two nearby provinces. Respondents were identified through various means, generally by staff at urban and rural health care centers or elderly clubs in these provinces. The resulting sample was fairly well educated (i.e., most had more than a fourth-grade education, which is the highest grade completed by the majority of older Thai people).

Our approach to cognitive interviewing relied on open-ended questions in which interviewers asked respondents to think about the interpretability of items both from their own perspectives as well as that of older people with less education. Respondents frequently suggested wording changes that we applied to subsequent cognitive interviews in which other respondents evaluated the revised items for clarity and understanding. For example, items from the preliminary survey that had a negative term (e.g., “not happy”) appeared to be particularly confusing to respondents because they were paired with a response set that included negative options (e.g., strongly disagree). During the cognitive interviews, respondents helped to identify clearer terminology.

Although changes in terminology usually resulted from open-ended questions about the meaning of words, they also emerged from our observations. To illustrate, the term for extended family emerged spontaneously when a respondent showed a team member a picture of her family, which included her brothers, sisters, nieces, and nephews. A team
member made note of this term, which was then incorporated into survey items that were again reviewed during subsequent cognitive interviews. In these interviews, respondents had a common understanding of its meaning, so we used this term in the second survey.

The cognitive interviews also resulted in important insights related to the response set for the psychological well-being items. Though this response set (ranging from strongly disagree to strongly agree) is commonly used in Western scales, our respondents were confused by the options. Team members observed that interviewees spontaneously responded with “that’s true” or “that’s not true” while answering the items about psychological well-being. Therefore, in subsequent cognitive interviews, we used a response set that incorporated different degrees of truth (ranging from not at all true to very true), which was more easily understood by the respondents. When asked to explain the meaning of the alternative response sets, cognitive interviewees explained that response choices involving agreement versus disagreement made them think about how their life should be. In contrast, responses concerning truth versus nontruth evoked reactions to their own current situation rather than normative concerns about what should or should not occur. This explanation helped account for the lack of variability in the psychological well-being items used in the preliminary survey. That is, because our original response set involved agreeing versus disagreeing with items, survey participants may have responded in relation to how they felt their lives should be, resulting in inflated estimates of psychological well-being.

The cognitive interviews also helped us revise our interviewing methods. Several of our interviewees provided valuable suggestions for how to enhance privacy when family members and friends were present during the interview. These suggestions included direct strategies (e.g., asking the family members for permission to interview the elderly person alone) as well as indirect strategies (e.g., moving to portions of the interview that were not related to interpersonal relationships when others were present and shifting back to these topics when they left).

Quantitative Methods: Second Survey

Insights from qualitative methods can provide direction for further quantitative research (Morgan, 1998). In our case, the cognitive interviews led to significant changes in both the content of the psychological well-being measures (i.e., the wording of items and the response set) as well as the process of interviewing (i.e., obtaining privacy).

We incorporated these revisions of the psychological well-being measure and the new interviewing techniques into a second survey. This survey of older people (aged 60 and older) in Central Thailand used a multistage selection process to enhance representativeness of individuals across sociodemographic variables. First, Bangkok and three other provinces were selected randomly, as were districts within these provinces. Second, officers at District Health Offices selected subdistricts and health centers within these subdistricts. Third, villages were selected randomly from the health centers. Fourth, potential research participants were selected randomly from each of the villages.

This sampling strategy resulted in a total of 460 respondents (177 men and 283 women) with a mean age of 70.89 years. On average, the respondents had completed 6.78 years of school and rated their health as fair to good. In addition, to allow for test–retest reliability of our psychological well-being instrument, we had the residents who lived in Bangkok reinterviewed 3 weeks later. This subsample of 70 respondents (27 men and 43 women) had an average age of 70.53 years, had completed an average of 6.30 years of school, and rated their health as fair to good.

Several indicators of well-being were included in this second survey. One included items measuring each of the five domains of well-being identified during the first phase of our research: harmony (7 items), interdependence (7 items), acceptance (6 items), respect (7 items), and enjoyment (8 items). Another indicator was a 1-item measure of life satisfaction (i.e., “Overall, how satisfied are you with your life now?”), with a high score indicating greater satisfaction. A third indicator was the Geriatric Depression Scale (Sheikh & Yesavage, 1986), which resulted in a sum of 15 items such that a high score represented greater depression.

Our analyses of the data included a confirmatory factor analysis, in which we used AMOS 4.01 (Arbuckle, 1994) to determine the optimal indicators of our Thai measure of psychological well-being and to identify the measurement model that best fit the data. We then tested the items that emerged from these analyses for reliability and validity.

Results

We present the findings from the survey in two parts. The first section summarizes findings from the confirmatory factor analysis; the second describes the psychometric properties of the resulting well-being factors.

Confirmatory Factor Analysis

We used a confirmatory factor analysis to trim the number of items for the five dimensions of well-being. We used two criteria: (a) the items adequately measured the content domain for each dimension, as described by participants in the first phase of research; and (b) the items had acceptable loadings
The confirmatory factor analyses resulted in three items with acceptable loadings (ranging from .44 to .89) for each of the five well-being dimensions. (See Table 1 for these items and their respective factor loadings.)

To address the underlying factor structure of the Thai psychological well-being measure, we compared our initial five-factor model with two alternative models (see Figure 1): a second-order global factor model to parallel the one specified by Ryff and Keyes (1995), and a second-order two-factor model that distinguished between interpersonal and intrapersonal well-being. The statistics we used to compare these three models included the following: chi-square statistics, a goodness-of-fit index, an adjusted goodness-of-fit index, a comparative fit index, and a root mean square error of approximation. Table 2 presents a comparison of these models based on all respondents with nonmissing data. We did not correlate the item errors in these models. Although none of the models represents an ideal fit, as indicated by the significant chi-square statistic for all three models, a comparison of the fit indices allows us to determine which of these models represents the best fit. According to Hu and Bentler (1999), a good model fit is indicated by comparative fit index values of greater than .95 and root mean square error of approximation values of less than .06.

The fit indices for our initial model (conceptualizing psychological well-being as a five-factor model in which each of the dimensions was distinct) are not adequate. The fit indices for the second model (conceptualizing psychological well-being as a second-order global factor with five dimensions of well-being) indicate a good fit. Similarly, the fit indices for the third model (conceptualizing psychological well-being as two second-order factors consisting of interpersonal and intrapersonal well-being) also indicate a good fit. A comparison of the global model (Model 2) and the two-factor model (Model 3) results in a chi-square difference of 10.43, \( df = 1 \), \( p < .01 \), indicating that the two-factor model is superior. Further support for the superiority of this model is shown in Figure 1. Here we see that the standardized loadings for the two-factor model are adequate for all the scales as compared with those for the global factor model, which are particularly low for two of the scales (i.e., acceptance and...

### Table 1. Item Factor Loadings From the Confirmatory Factor Analysis

<table>
<thead>
<tr>
<th>Item</th>
<th>Factor Loadings</th>
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</thead>
<tbody>
<tr>
<td>Harmony</td>
<td></td>
</tr>
<tr>
<td>1. In your extended family, people get along well together.</td>
<td>.76</td>
</tr>
<tr>
<td>2. Members of your extended family care about each other.</td>
<td>.75</td>
</tr>
<tr>
<td>3. In your neighborhood, people are friendly to each other.</td>
<td>.45</td>
</tr>
<tr>
<td>Interdependence</td>
<td></td>
</tr>
<tr>
<td>1. In your extended family, people can depend on each other for help.</td>
<td>.74</td>
</tr>
<tr>
<td>2. People in your extended family take care of you.</td>
<td>.68</td>
</tr>
<tr>
<td>3. Neighbors depend on each other.</td>
<td>.47</td>
</tr>
<tr>
<td>Respect</td>
<td></td>
</tr>
<tr>
<td>1. Younger members of your extended family or other young people obey you.</td>
<td>.67</td>
</tr>
<tr>
<td>2. Younger members of your extended family or other young people talk and behave politely toward you.</td>
<td>.58</td>
</tr>
<tr>
<td>3. Younger members of your extended family or other young people treat you with respect.</td>
<td>.64</td>
</tr>
<tr>
<td>Acceptance</td>
<td></td>
</tr>
<tr>
<td>1. You are a relaxed person and are not easily worried.</td>
<td>.44</td>
</tr>
<tr>
<td>2. When you have small problems, you can let go of your worries.</td>
<td>.89</td>
</tr>
<tr>
<td>3. When something bad happens to you, you can accept it.</td>
<td>.58</td>
</tr>
<tr>
<td>Enjoyment</td>
<td></td>
</tr>
<tr>
<td>1. You have a good sense of humor.</td>
<td>.66</td>
</tr>
<tr>
<td>2. You laugh easily.</td>
<td>.77</td>
</tr>
<tr>
<td>3. You have good times with other people.</td>
<td>.65</td>
</tr>
</tbody>
</table>

(i.e., greater than .40) on their respective dimensions of well-being. The confirmatory factor analyses resulted in three items with acceptable loadings (ranging from .44 to .89) for each of the five well-being dimensions. (See Table 1 for these items and their respective factor loadings.)
enjoyment). Taken together, these findings suggest that, among our elderly Thai respondents, psychological well-being may have two distinct components: interpersonal and intrapersonal.

Psychometrics

On the basis of the results of the confirmatory factor analysis, we created an interpersonal well-being index (a mean of the harmony, interdependence, and respect subscales) and an intrapersonal well-being index (a mean of the acceptance and enjoyment subscales). The average score is 3.31 on the interpersonal index (possible range, 1–4; SD = .52) and 3.24 on the intrapersonal index (possible range, 1–4; SD = .54), indicating that responses are skewed toward more positive well-being on both scales. Cronbach’s alpha revealed that there is adequate internal consistency for the interpersonal well-being index (α = .82) as well as the intrapersonal well-being index (α = .69). Further, the 3-week test–retest reliability was acceptable for the intrapersonal well-being scale (r = .68) but somewhat lower for the interpersonal well-being scale (r = .59).

To determine the validity of our measures, we correlated the Thai psychological well-being scales with the other measures of well-being. As an indication of convergent validity, the interpersonal well-being scale and the intrapersonal well-being scale are both positively correlated with the life satisfaction item (r = .31, p ≤ .001 and r = .27, p ≤ .001, respectively) and negatively correlated with the Geriatric Depression Scale (r = −.38, p ≤ .001 and r = −.39, p ≤ .001, respectively).

Discussion

In this research project, we used the indigenous expertise of Thai elders to develop a measure of psychological well-being. We discovered that their conceptualization of well-being (e.g., acceptance, interdependence, and harmonious relationships) differed distinctly from components of well-being identified by Western researchers. Our findings bolster the work of cross-cultural psychologists who question “the sovereignty of the American view of the mature person as autonomous, self-determined, and unencumbered” (Markus & Kitayama, 1991, p. 228). Our efforts highlight the importance of developing culturally relevant measures rather than importing standardized instruments from the West. As suggested by others (Christopher, 1999; Ho, 1998), reliance on Western conceptual frameworks and measurements when one is conducting research in Asia may result in incomplete and distorted understandings.

A major contribution of the present study is our use of a bottom-up approach in developing a culturally sensitive measure of psychological well-being. By asking elderly Thai people about the ingredients of maturity, fulfillment, and adjustment, we could identify the components of well-being that were meaningful to them. The multistage process described by Krause (2002) provided a useful framework for moving from qualitative to quantitative data-gathering methods. We needed to adapt his framework when, as a result of time limitations, we were unable to conduct cognitive interviews during the first phase of qualitative data gathering. Serendipitously, eliminating this step from the earlier phases of measurement development gave us the opportunity to determine its importance. Without the crucial insights provided by cognitive interviewing, our initial measure of psychological well-being was inadequate. Fortunately, we were able to rectify the situation by applying a strategy suggested by Morgan (1998) in which qualitative approaches are used to follow up on perplexing quantitative findings. Ultimately, the cognitive interviews resulted in some of our richest information. Working alongside the interviewers, our older respondents provided critiques of our initial items and suggested improvements. Furthermore, we learned that the response choices that we had imported from standardized Western measures (i.e., strongly disagree to strongly agree) were not authentic and natural for our interviewees.

This project also highlights the influence of interview context on obtaining valid data in other cultural settings. In Thailand, as in many Asian countries, older people generally live with their family members, usually their children (Chayovan & Knodel, 1997). In addition, their homes are often very close to one another, especially in rural areas. Thus family, friends, and neighbors are frequently present during an interview. Because the psychological well-being items included questions about relationships with family and neighbors, interviewers were directed to interview older people in private, if

<table>
<thead>
<tr>
<th>Model</th>
<th>χ²</th>
<th>df</th>
<th>p</th>
<th>GFI</th>
<th>AGFI</th>
<th>TLI</th>
<th>CFI</th>
<th>RMSEA</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Five factors</td>
<td>603.62</td>
<td>90</td>
<td>&lt;.001</td>
<td>.82</td>
<td>.76</td>
<td>.62</td>
<td>.68</td>
<td>.05</td>
</tr>
<tr>
<td>2. Second-order, global factor</td>
<td>187.18</td>
<td>85</td>
<td>&lt;.001</td>
<td>.95</td>
<td>.92</td>
<td>.92</td>
<td>.94</td>
<td>.05</td>
</tr>
<tr>
<td>3. Second-order, two factor</td>
<td>176.75</td>
<td>84</td>
<td>&lt;.001</td>
<td>.95</td>
<td>.93</td>
<td>.93</td>
<td>.94</td>
<td>.05</td>
</tr>
</tbody>
</table>

Notes: For the table, n = 425. GFI = goodness-of-fit index; AFGI = adjusted goodness-of-fit index; TLI = Tucker–Lewis index; CFI = comparative fit index; RMSEA = root mean square error of approximation.
at all possible. To do so required considerable ingenuity and creativity on the part of the interviewers, who often used multiple strategies to obtain privacy. One strategy was for the interviewers to move closer physically and lower their voice. A second was to show the older interviewee the response choices and encourage him or her to point to an answer rather than say the answer aloud. Another method was for the interviewers to suggest that they find a quieter place to conduct the interview. Despite their efforts, interviewers were not always successful at gaining private interviews. Because socially desirable responses increase with age and vary across cultures (Ross & Mirowsky, 1984), it is particularly important that, as part of the bottom-up approach to interviewing, cross-cultural researchers seek to identify interviewing techniques that enhance privacy.

The present research represents a step toward understanding cultural variability in the nature of psychological well-being. Whereas previous research, based on American adults (Ryff & Keyes, 1995), has conceptualized psychological well-being as a single global factor that is predominantly intrapersonal (e.g., self-acceptance, autonomy, and personal growth), our research reveals a different structure for older Thai people. For them, psychological well-being appears to have two facets: intrapersonal and interpersonal. This dual nature of well-being may be linked to Thais’ belief in Theravada Buddhism (Limanonda, 1995). According to Buddhist beliefs about karma, doing good results in merit, which in turn influences quality of life in current and future incarnations (Muecke, 1992). For many Thais, merit making represents a blending of autonomous and interpersonal processes. For example, Ingersoll (1975) found that, by giving gifts or services to the local Buddhist priests, Thai villagers believed that they made merit for themselves as well as for their families and communities. Ingersoll observed that, “although individuals acquire and possess merit and receive its consequences, they do so almost entirely in association with other people” (1975, p. 225). Our work suggests that this duality extends beyond merit making such that, for older Thai people, the nature of psychological well-being is both intrapersonal and interpersonal.

Using a combination of qualitative and quantitative methods, we developed a measure of psychological well-being and explored its psychometric properties. Although the validity and reliability of this measure of Thai psychological well-being is adequate, we must acknowledge its limitations. Our measure is positively skewed; that is, most of the older respondents had high psychological well-being scores. This skewness may indicate a problem with the measure suggesting that further research is needed to construct items and response sets that result in greater measurement variability. Alternatively, it may be that, among those living in the community, most older Thais experience high well-being. This alternative explanation is bolstered by Ryff and Keyes (1995), who observed that, for a community-based sample of Americans, their measure of well-being was similarly skewed. Future research should use our measure of psychological well-being with more vulnerable subgroups of Thai elders (such as those who are very frail or living in institutions) to determine whether the measure is sensitive to such differences.

Another limitation is that this measure of well-being has been applied only to Thai elders. This measure should be used in cross-cultural research conducted in other Asian and non-Asian countries. Such efforts will help determine whether the components of psychological well-being identified by older Thais are as prevalent in other Asian countries as compared with non-Asian countries. Further, it would be interesting to conduct a multi-group confirmatory factor analysis on our measure of psychological well-being to more directly compare the single versus dual aspects of psychological well-being for American versus Thai elders.

Despite its limitations, this work enhances our understanding of cross-cultural variation by focusing on psychological well-being as one indicator of aging successfully. Building on the work of Ryff (1989a, 1999), who has identified dimensions of psychological well-being among older Americans, we have mapped the components of psychological well-being among Thai elders. Taken together, such efforts will allow us to develop a framework for understanding which ingredients of successful aging are universal or unique to specific cultures.

References
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