



Published in final edited form as:

J Aging Stud. 2007 August ; 21(3): 267–275.

A Bidimensional Model of Acculturation for Korean American Older Adults

Yuri Jang, Ph.D.¹, Giyeon Kim, M.A.², David Chiriboga, Ph.D.¹, and Bellinda Kallimanis, M.S.¹

¹ Department of Aging and Mental Health, University of South Florida

² School of Aging Studies, University of South Florida

Abstract

With the growth of immigrant populations and the increasing awareness and appreciation for the cultural diversity in the U.S., the present study assessed a model of acculturation with a sample of Korean American older adults. We addressed a bidimensional model of acculturation, considering both orientations toward home and host-cultures, and assessed the relevance of Berry's four-cell typology of acculturation (integration, assimilation, separation, and marginalization). Based on the unique characteristics of the present sample, including that they were all born in Korea and had been exposed to their home culture for a substantial amount of time, we hypothesized that their orientation towards original culture would be strong and that simple application of Berry's four-cell typology would not be relevant. As expected, scores on Korean orientation were distributed toward the high end of the scale, suggesting a high level of familiarity and adherence to the original culture; scores on American orientation were correspondingly low. Cluster analysis showed that a two-cluster model was an optimal group classification in the sample used in this investigation. The groups were identified as "integrated group" and "separated group." Compared to the separated group, integrated group was more likely to be younger, married, and educated. More years of residence in the U.S. and better physical and mental health were observed among those who were integrated. The findings call attention to the needs to consider the unique nature of immigrant samples in order to adequately apply the acculturation typologies.

Keywords

Bidimensional model of acculturation; Korean American older adults

A Bidimensional Model of Acculturation for Korean American Older Adults

Acculturation is defined as the process of learning that occurs when individuals from a different cultural background are exposed to a prolonged, continuous, first-hand contact with a new culture (Berry, 1992; Sam & Berry, 2006). Levels of acculturation are reported to be critical to an understanding of the unique experiences of ethnic and cultural minorities (Berry, 2002; Chiriboga, 2004; Rogler, Cortes, & Malgady, 1991). Given the growth of immigrant populations and the increasing awareness and appreciation for the cultural diversity in the U.S.,

Correspondence concerning this study should be addressed to Yuri Jang, Ph.D., Department of Aging and Mental Health, Florida Mental Health Institute, University of South Florida, 13301 Bruce B. Downs Blvd., MHC 1439, Tampa, Florida 33612. Electronic mail may be sent to yjang@fmhi.usf.edu.

Publisher's Disclaimer: This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final citable form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

the importance of research on acculturation has been pronounced. In particular, theoretical conceptualizations and measurement of acculturation have been continuously debated.

In earlier research, unidimensional models of acculturation have been most common; these treat the process of acculturation as a linear shift from being un-acculturated to being fully acculturated to the host culture (e.g., Gordon, 1964; Suinn, Ahuna, & Khoo, 1992). Unidimensional models have been criticized due to their inability to handle the situation where individuals retain all or part of their culture of origin, while at the same time learning all or part of their host culture (Cuellar, Arnold, & Maldonado, 1995). With this approach, engagement with or alienation from both cultures cannot be addressed because the acculturation process is treated as a zero-sum trade off where endorsement of one culture implies relinquishment of the other (Rogler et al., 1991; Ying, 1995). It is conceptually quite possible, however, to hold a positive orientation to more than one culture concurrently or not to be involved in any of them.

The more recent bidimensional models of acculturation (Berry, 1992; 1997), takes into consideration orientation to both original and new cultures. With the culturally pluralistic nature of contemporary society, bidimensional models are regarded as potentially more valid (Abe-Kim, Okazaki, & Goto, 2001; Ryder, Alden, & Paulhus, 2000). In these models, orientations to the original culture and to the host culture are each assessed. This approach allows individuals to report varying levels of acceptance and adherence to their original and to the host cultures. Berry (1992, 1997) proposed that the differing level of engagement in the two axes of cultural orientations generates four types of acculturation: integration, assimilation, separation, and marginalization. Integration occurs when individuals maintain a positive relation to a new culture as well as to their original culture; assimilation refers to the relinquishment of original cultural identify and complete absorption in a new culture; separation occurs when individuals retain their original culture while rejecting the new culture; and marginalization involves non-adherence to either cultures.

Previous studies following Berry's bidimensional approach have employed different strategies for assessment and classification. Some studies classified their sample into four sub-groups based on the mid-point in the two axes of cultural orientations (e.g., Marin & Gamba, 1996; Ying, 1995). Some others applied a rather linear approach by subtracting the scores of the new culture orientation from those of the original culture orientation (e.g., Farver & Lee-Shin, 2000). The scores computed to be near zero indicate biculturalism, whereas those deviating from zero in a positive direction suggest monoculturalism towards the original culture and those deviating from zero in a negative direction reflect monoculturalism towards the new culture. Some researchers applied a cluster analytic approach to define different types of acculturation groups (e.g., Lee, Sobal, & Frongillo, 2003).

When applying Berry's model of acculturation, it is important to take group-specific characteristics into consideration. Because each immigrant group has a different immigration history and settlement status, the unique nature of the sample needs to be considered. Depending on the unique characteristics of the groups, the relevance of Berry's four categories of acculturation may vary. The present study addressed the issue of sample saliency using a sample of Korean American older adults.

Korean Americans are one of the fastest growing segments of the immigrant population in the U.S. (U.S. Bureau of the Census, 2000). A key marker on their immigration history is the Immigration Reform Act of 1965, which was more permissive with respect to immigration (Hurh & Kim, 1984). As a result of the Act, most of the current generation of Korean American elders either came to the U.S. in the earlier years of their life for education or work, or

immigrated in their later years to reunite with family members who had previously immigrated to the U.S.

In either case, the relative homogeneity of their nation of origin distinguishes Korean American elders from other immigrant groups. In addition, the fact that nearly all Korean American elders were born in Korea and were exposed to their native culture for a substantial amount of time, suggests that their orientation towards their culture of origin may be higher than that of other cases of immigrant groups. Indeed, in previous studies with Korean American older adults, surveys have nearly always been conducted in Korean with no need for an English version of questionnaire or for a translator (e.g., Jang, Kim, & Chiriboga, 2005a, 2005b; Moon, Lubben, & Villa, 1998). For these reasons, we began the investigation reported upon here with the expectation that the unique nature of the sample needed to be understood in order to adequately apply any typologies of acculturation.

Our working assumption was that simple classification within the four cells of the Berry's typologies of acculturation without considering the nature of the sample would be misleading. We hypothesized that Korean American older adults would have a skewed score distribution for the orientation toward their original culture, while the scores for their orientation toward American culture would distribute over a wider range. With the absence of individuals with extremely low scores on Korean orientation, the classification of groups based on the four typologies of acculturation (e.g., split based on mid-points) would be inadequate. The major goals of the present study were (1) to achieve an optimal group classification which adequately represents Korean American acculturation and (2) to validate the findings by comparing the defined groups in their demographic characteristics and physical and mental health status.

Methods

Participants

With approval from the Institutional Review Board at the University of South Florida, a survey of older Korean Americans was conducted during October 2005 to May 2006 in two cities. Florida is one of ten states with the largest overall population of Asians, and is ranked 13th in the nation with respect to Korean Americans (U.S. Bureau of the Census, 2000). Unlike California or New York where Koreans are heavily concentrated within one geographical area, Koreans in Florida are dispersed throughout the state. Tampa and Orlando were selected as research sites because of their relatively high proportion of Korean populations, as well as their geographic proximity to the University of South Florida.

To be eligible for the survey, participants had to be Korean adults aged 60 or older who had sufficient cognitive ability to understand and complete the survey. In terms of subject identification, the under-representation of ethnic minorities in public databases (e.g., Census data) means that standard sampling methods may miss a substantial portion of immigrant elderly populations. It is notable that only 612 and 437 Korean residents were counted in Tampa and Orlando respectively in the 2000 U.S. Census. Because immigrant populations are often hard to identify by any single approach, and also because a single-source sampling frame may lead to bias (Curry & Jackson, 2003), we used a variety of sources for recruitment combining different sampling methods. In the beginning phase of data collection, we contacted potential sources of Korean elder, including local Korean churches, other religious groups, senior centers, and elderly associations. When contacts were made, our research team visited the sites, and arranged for surveys to be conducted. The survey instrument consisted of a standardized questionnaire. While designed to be self-administered, trained interviewers were available for anyone who needed assistance. The research sites included sixteen local Korean churches, one other group with a religious affiliation, one Korean senior center, and one meeting for a local Korean elderly association. For churches where on-site contacts were not possible, mail surveys

were conducted. A packet including a set of questionnaire and pre-stamped return envelope was mailed to potential participants. To outreach individuals who were not affiliated in those groups or organizations, we made requests for referrals from respondents as well as other individuals associated with our primary data collection sites.

We supplemented the convenience sampling procedure with a systematic approach by using a telephone directory of Korean residents provided by the Florida Korean American Association. A total of 2,000 Korean residents in Tampa and Orlando were listed in the directory. After excluding those who had already been recruited through our convenience sampling efforts, we called all remaining individuals to ask whether there were age-eligible members in their household. Up to five phone calls were made until classified unreachable. When there was an eligible person in the household, a packet of mail survey was sent. This step was to improve comprehensiveness of the sample by including individuals who were not recruited by the convenience sampling efforts and to supplement limitations associated with non-representativeness of convenience sampling.

In our final sample, a total of 472 participants were included. About 60% of the sample was residing in Tampa, and 40% in Orlando. Forty-seven percent of the sample was recruited through site visits, and about fifty-three percent was through mail surveys. We conducted a series of comparative analysis to check whether there was any difference in sample characteristics across the two cities and by recruitment methods. No significant difference was found in major demographic characteristics of the sample by the residing cities. However, compared to the individuals whose data were collected by mail surveys, participants recruited by site visits were less likely to be married ($\chi^2 = 16.5, p < .001$) and were less educated ($\chi^2 = 9.97, p < .01$). The finding suggests that sole reliance on mail survey might have excluded individuals with more vulnerable characteristics. All respondents were paid \$10 for their participation.

Measures

A Korean-language questionnaire was put together specifically for this project. Several of the measures had been translated into Korean and evaluated for psychometric qualities in our previous work (Jang et al., 2005a; 2005b). For additional scales, back translation was used to confirm the appropriateness of initial translations into Korean. The structured questionnaire was pilot-tested with twenty Korean older adults who were representative of the anticipated sample in this study. Because no specific difficulties or problems were reported in the pilot testing, no modification was made. For the convenience of the subjects, survey questionnaires were printed using a large font.

Acculturation—Since there is no established measurement of acculturation for Asian or Korean American older adults, we developed a new scale by modifying existing ones. The focus of modification was to select age-relevant items, ensure coverage of various domains of acculturation, and address orientation toward both home and host-cultures. Two sets of cultural orientations (Korean orientation and American orientation) were asked. Each scale contains 12 items on language proficiency, frequency of language use, audiovisual media consumption (e.g., TV, Video), printed media consumption (e.g., newspaper, magazine), food consumption at home, food consumption outside the home, ethnicity of friends, social gathering, sense of belonging, getting along, familiarity to culture and custom, and celebration of holidays. The items were adopted from several studies on acculturation (e.g., Hazuda, Stern, & Haffner, 1988; Marin & Gamba, 1996; Phinney, 1990; Suinn et al., 1987; Ying, 1995). Each response was coded from 0 to 3. Total scores for each scale could range from 0 (low adherence to the respective culture) to 36 (high adherence to the respective culture). Psychometric properties of the scales are discussed in detail in the result section.

Physical health—Self-ratings of health and of physical function were used as indicators of physical health. Individuals were asked to evaluate their overall health using a scale ranging from 1 (excellent) to 4 (poor).

Functional health was assessed with a composite measure of the Physical Activities of Daily Living (PADL; Fillenbaum, 1988), Instrumental Activities of Daily Living (IADL; Fillenbaum, 1988), Physical Performance Scale (Nagi, 1976), and Functional Health Scale (Rosow & Breslau, 1966). The twenty items covered a wide range of activities including eating, dressing, traveling, managing money, carrying a bag of groceries, and ability to reach above the head with one's arms. Participants were asked whether they could perform each activity. The responses were coded as 0 (without help), 1 (with some help) or 2 (unable to do). Responses for individual items were summed for total scores. The possible range for functional health was 0 (no disability) to 40 (severe disability). Internal consistency for the measure was high in the present sample ($\alpha = .94$).

Mental health—Depressive symptoms and anxiety were used as indices of mental health status. A 10-item short form of the Center for Epidemiologic Studies-Depression Scale (CES-D; Radloff, 1977) was utilized to index depressive symptoms. Rated on a 4-point scale, the items included how often symptoms such as loneliness, feelings of fearfulness, and restless sleep were experienced during the past week. The CES-D has been translated into the Korean language, and its psychometric properties have been validated in previous studies (e.g., Cho, Nam, & Suh, 1998; Jang et al., 2005a). Internal consistency in the present sample was good ($\alpha = .80$).

Anxiety was measured with three items from the Aging, Status, and Sense of Control (ASOC) project (Drentea, 2002). The items ask how many of the past seven days the respondents (1) worried a lot about little things, (2) felt tense or anxious, and (3) felt restless. Individual responses were summed for total scores. The scores could range from 0 to 21, higher scores indicating greater levels of anxiety. Internal consistency of the scale in the present sample was good ($\alpha = .92$).

Demographic information—Demographic information included age (in years), gender (1 = male, 2 = female), marital status (1 = not married, 2 = married), and educational attainment (1 = < high school, 2 = \geq high school). The length of residence in the U.S. was also asked.

Results

Descriptive information of sample and study variables

Of the total of 472 participants, only those who provided complete information on the variables considered in the present study were used for analyses ($N=452$). Their age ranged from 60 to 94 with an average age of 69.9 years ($SD=7.06$). More than half (57.8%) was female, and three quarters (75.7%) were married. About 64% of the sample had received more than a high school education. The number of years lived in the U.S. ranged from 2 months to 51 years with a mean year of 24.9 ($SD=10.8$).

Thirty-eight percent of the sample reported their overall health status as either fair or poor. Functional health was averaged 1.96 ($SD=4.74$). About 38% of the sample reported some levels of disability in one or more of the tasks in the scale. The average scores for depressive symptoms and anxiety were 7.54 ($SD=4.83$) and 3.71 ($SD=4.85$), respectively. When applying the cut-off score for the short form of the CES-D (Radloff, 1977), about 34% of the sample falls under the category of probable depression (scores being equal to or higher than 10).

Assessment of the bidimensional acculturation scale

Based on a bidimensional model of acculturation, two sets of cultural orientation, Korean orientation (12 items) and American orientation (12 items), were assessed. Each set of scale was shown to have good internal consistency ($\alpha = .77$ for the Korean orientation scale and $\alpha = .92$ for the American orientation scale). Inter-item correlations of the Korean orientation scale averaged 0.23 with a range from 0.03 to 0.58. The mean of inter-item correlations for the American orientation scale was 0.48 with a range from 0.22 to 0.75. As a result of an exploratory factor analysis with varimax rotation, the Korean orientation scale yielded three factor solutions, accounting for 52% of variance. The first factor included 6 items related to media and food consumption, ethnicity of friends, and celebration of holidays. The second factor was related to social relationships containing items on social gathering, sense of belonging, and getting along. The two items on language represented the third factor. A single dominant factor was extracted from the American orientation scale accounting for 54% of variance.

Table 1 shows descriptive information on the individual items and the summary scores of the two cultural orientation scales along with correlations between the respective items in the two scales. Summary scores for each cultural orientation were calculated for the 12 items on each scale. Each summary score could range from 0 to 36, higher scores indicating greater levels of orientation to the respective culture. The summary scores of the Korean orientation scale ranged from 15 to 36 with a mean of 27.4 ($SD=4.73$), and those of the American orientation scale ranged from 0 to 34 with a mean of 13.7 ($SD=7.26$). Correlations between the comparable items in each orientation scale were statistically significant in a negative direction except three items (language proficiency, social gathering, and celebration of holidays). The correlation coefficient between the two summary scores was -0.57 ($p < .001$).

As hypothesized, the Korean orientation scores were negatively skewed (skewness = $-.17$). Figure 1 illustrates that the Korean orientation scores are scattered only in the upper part of the scale while the scores of the American orientation are widely distributed along the range. Not a single individual scored lower than 15 in the Korean orientation scale. This distribution indicates that all individuals in the sample had at least moderate levels of connectedness to and familiarity with Korean cultural values and activities. The distribution suggests that the acculturation groups of 'assimilation' and 'marginalization,' which requires non-adherence to the original culture, may not exist in this particular sample.

Classification into acculturation groups

To achieve an optimal classification of the sample, we conducted cluster analysis. Cluster analysis is an empirical strategy to identify a set of subgroups which minimize within-group variation and maximize between-group variation (Hair & Black, 2000). Among various types of analyses available, we selected K-median cluster analysis due to the skewed distribution of the Korean orientation scores in the sample. All scores were standardized, and Euclidean distance was used as a distance measure. Cluster analysis was conducted by using the STATA 9.2 software. Since the method requires a predetermined number of clusters, we conducted two separate analyses, one with four-cluster following the Berry's typologies and the other with two-cluster based on our hypothesis. The optimal model was determined by Pseudo F statistics.

The results from the cluster analyses are summarized in Table 2. Pseudo F tests produced a substantially higher value for the two-cluster model, indicating a greater distinctiveness between the clusters in the two-cluster model compared to the four-cluster model. Based on the delineating characteristics, the cluster 1 was named as 'integrated group' (high Korean orientation and high American orientation), and the cluster 2 was named as 'separated group' (high Korean orientation and low American orientation). The findings support our

hypothesis that two groups of ‘assimilation’ and ‘marginalization’ would not exist in this particular sample.

Comparison between the two acculturation groups

As a final step, demographic characteristics and health status of the two acculturation groups (integrated and separated) were compared, and the findings are presented in Table 3. Compared to the separated group (N=270), the integrated group (N=182) was younger and more likely to be married and better educated. Also, the integrated group had substantially longer stays in the U.S. Better physical (more positive self-ratings of health and lower functional disability) and mental (fewer depressive symptoms and lower anxiety) health conditions were observed in the integrated group.

Discussion

The present study examined a bidimensional model of acculturation using a sample of Korean American older adults. Following Berry’s typology of acculturation, orientations toward both original and new cultures were assessed, and strategies to appropriately classify individuals were tested. Given the relatively brief immigration history of Korean Americans, we hypothesized that Korean American older adults would have a higher level of familiarity and adherence to their original culture, and such characteristics would influence acculturation group classification. Results from analyses supported our proposed hypotheses.

Despite the critical roles of acculturation in any attempt towards understanding the lives of ethnic minorities, its instrumentation has not been well-established. The most popular scale of acculturation among Asian Americans is the Suinn-Lew Asian Self-Identity Acculturation Scale (SL-ASIA; Suinn et al., 1987). However, the scale was developed with college students based on a unidimensional model of acculturation. Some of its items are not relevant for the first generation elderly immigrants (e.g., what was the ethnic origin of the friends and peers you had, as a child up to age 6?, which identification did your mother use?). The scale used in the present study was modified from existing instruments by including age-relevant items, covering various domains of acculturation, and addressing orientations toward both original and host-cultures. The two cultural orientation scales, measuring Korean and American orientations, tapped comparable knowledge and values. The scales had good psychometric qualities. The respective individual items in the two orientations generally showed low to moderate inter-correlations. These findings indicate that the two cultural orientations are relatively independent constructs, rejecting the zero-sum trade off assumption underlying the unidimensional model of acculturation.

As hypothesized, the scores of the Korean orientation were distributed toward the high end of the respective scale, suggesting a high level of familiarity and adherence to the original culture. The results from cluster analysis showed that the two-cluster model was better than the four-cluster model. Among Berry’s four typologies of acculturation, the groups of ‘assimilation’ and ‘marginalization,’ which require non-adherence to the original culture, did not exist, and the groups of ‘integration’ and ‘separation’ were found to represent this particular sample. The finding suggests that the relevance of the four-typology of acculturation depends on the nature of the sample. In the particular case of the present sample, simple application of the four typologies, such as one based on a midpoint split, may lead to misclassification.

As a way to validate the grouping, major characteristics of the two identified groups (integrated and separated groups) were compared. Significant difference was found in major demographic and health indicators included. Integrated group was younger and more likely to be married and better educated. More years of residence in the U.S. and better physical and mental health were observed among those who were integrated. In previous studies, higher levels of

acculturation attained in a host society have shown to be associated with positive personal resources and health outcomes (Berry & Kim, 1988; Chiriboga, Black, Aranda, & Markides, 2002; Myers & Rodriguez, 2002). However, it should be noted that our findings are based on mean level comparisons and invite further investigations with a multivariate approach.

Despite its limited range of variance, the importance of orientation toward original culture should not be ignored. With the combination of the level of American culture orientation, Korean orientation contributed to determining acculturation group typologies. Orientation toward the original culture may be also considered as a psychological resource for ethnic minority populations. Studies have shown empirical evidence that a strong ethnic identity buffers the negative consequences of acculturative stresses such as racial discrimination (Noh, Beiser, Kaspar, Hou, & Rummens, 1999). The maintenance of ethnic and cultural distinctiveness may hold a salutary effect on the well-being of minority populations (Ying, 1995).

Some limitations to the present study need to be noted. Despite our efforts to have a comprehensive sample, findings from the present study are limited by the use of a non-representative sample. We had attempted to reach all eligible subjects in the given geographical areas; however, it is possible that those who are socially isolated and severely impaired are excluded in the present sample. Sampling issue is a major challenge in ethnic minority research, and search for ways to overcome this limitation should continue. Future studies on a bidimensional model of acculturation need to include younger individuals and other racial/ethnic groups, as a means of placing the present findings in a broader context. The presented findings were explanatory in nature, and further assessment with other analytic techniques needs to be conducted. Also, given the dynamic nature of acculturation processes, a longitudinal examination would be beneficial.

Acknowledgements

The project was supported by the National Institute on Aging Research Grant Program (1R03 AG 26332-01).

References

- Abe-Kim J, Okazaki S, Goto S. Unidimensional versus multidimensional approaches to the assessment of acculturation for Asian American populations. *Cultural Diversity and Ethnic Minority Psychology* 2001;7:232–246. [PubMed: 11506070]
- Berry J. Acculturation and adaptation in a new society. *International Migration* 1992;30:69–85.
- Berry J. Immigration, acculturation, and adaptation. *Applied Psychology: An International Review* 1997;46:5–68.
- Berry, J. Conceptual approaches to acculturation. In: Chun, K.; Organista, P.; Marin, G., editors. *Acculturation: Advances in theory, measurement, and applied research*. Washington, DC: American Psychological Association; 2002. p. 17-37.
- Berry, J.; Kim, U. Acculturation and mental health. In: Dasenm, P.; Berry, J.; Sartorius, N., editors. *Health and cross-cultural psychology*. Newbury Park, CA: Sage Publications; 1988. p. 207-238.
- Chiriboga D. Some thoughts on the measurement of acculturation among Mexican American elders. *Hispanic Journal of Behavioral Sciences* 2004;26:274–292.
- Chiriboga D, Black SA, Aranda M, Markides K. Stress and depressive symptoms among Mexican American elderly. *Journal of Gerontology: Psychological Sciences* 2002;57B:559–568.
- Cho M, Nam J, Suh G. Prevalence of symptoms of depression in a nationwide sample of Korean adults. *Psychiatry Research* 1998;81:341–352. [PubMed: 9925185]
- Cuellar I, Arnold B, Maldonado R. Acculturation rating scale for Mexican Americans-II: A revision of the original ARSMA scale. *Hispanic Journal of Behavioral Sciences* 1995;17:275–304.
- Curry, L.; Jackson, J. *The science of inclusion: Recruiting and retaining racial and ethnic elders in health research*. Washington, DC: The Gerontological Society of American; 2003.

- Drentea P. Retirement and mental health. *Journal of Aging and Health* 2002;14:167–194. [PubMed: 11995739]
- Farver J, Lee-Shin Y. Acculturation and Korean-American children's social and play behavior. *Social Development* 2000;9:316–336.
- Fillenbaum, G. *Multidimensional functional assessment: The Duke older Americans resources and services procedure*. Hillsdale, NJ: Erlbaum; 1988.
- Gordon, M. *Assimilation in American life*. New York: Oxford University Press; 1964.
- Hair, J.; Black, W. Cluster analysis. In: Grimm, LG.; Yarnold, PR., editors. *Reading and understanding more multivariate statistics*. Washington, DC: American Psychological Association; 2000. p. 147-205.
- Hazuda H, Stern M, Haffner S. Acculturation and assimilation among Mexican Americans: Scales and population-based data. *Social Science Quarterly* 1988;69:687–705.
- Hurh, W.; Kim, K. *Korean immigrants in America*. Associated University Press; Rutherford, NJ: 1984.
- Jang Y, Kim G, Chiriboga D. Acculturation and manifestation of depressive symptoms among Korean American older adults. *Aging and Mental Health* 2005a;9:500–507. [PubMed: 16214697]
- Jang Y, Kim G, Chiriboga D. Health, health care utilization, and satisfaction with service: Barriers and facilitators among Korean-American Older Adults. *Journal of the American Geriatrics Society* 2005b;53:1613–1617. [PubMed: 16137296]
- Lee S, Sobal J, Frongillo E. Comparison of models of acculturation: The case of Korean Americans. *Journal of Cross-Cultural Psychology* 2003;34:282–296.
- Marin G, Gamba R. A new measurement of acculturation for Hispanics: The Bidimensional Acculturation Scale for Hispanics (BAS). *Hispanic Journal of Behavioral Sciences* 1996;18:297–316.
- Moon A, Lubben J, Villa V. Awareness and utilization of community long-term care services by elderly Korean and non-Hispanic White Americans. *The Gerontologist* 1998;38:309–319. [PubMed: 9640851]
- Myers, H.; Rodriguez, N. Acculturation and physical health in racial and ethnic minorities. In: Chun, KM.; Organista, PB.; Marin, G., editors. *Acculturation: Advances in theory, measurement, and applied research*. Washington, DC: American Psychological Association; 2002. p. 163-185.
- Nagi SZ. An epidemiology of disability among adults in the United States. *Milbank Memorial Fund Quarterly* 1976;54:439–467.
- Noh S, Beiser M, Kaspar V, Hou F, Rummens J. Perceived racial discrimination, depression, and coping: A study of Southeast Asian refugees in Canada. *Journal of Health and Social Behavior* 1999;40:193–207. [PubMed: 10513144]
- Phinney J. Ethnic identity in adolescents and adults: Review of research. *Psychological Bulletin* 1990;108:499–514. [PubMed: 2270238]
- Radloff L. The CES-D scale: A self-report depression scale for research in the general population. *Applied Psychological Measurement* 1977;1:385–401.
- Rogler L, Cortes D, Malgady R. Acculturation and mental health status among Hispanics. *American Psychologist* 1991;46:585–597. [PubMed: 1952420]
- Rosow I, Breslau N. A Guttman Health Scale for the aged. *Journal of Gerontology* 1966;21:556–559. [PubMed: 5918309]
- Ryder A, Alden L, Paulhus D. Is acculturation unidimensional or bidimensional? A head-to-head comparison in the prediction of personality, self-identity, and adjustment. *Journal of Personality and Social Psychology* 2000;79:49–65. [PubMed: 10909877]
- Sam, D.; Berry, J. *The Cambridge handbook of acculturation psychology*. Cambridge, United Kingdom; Cambridge University Press: 2006.
- Suinn R, Ahuna C, Khoo G. The Suinn-Lew Asian self-identity acculturation scale: Concurrent and factorial validation. *Educational and Psychological Measurement* 1992;52:1041–1046.
- U. S. Bureau of the Census. *Population Census*. Washington, D.C: United States Department of Commerce; 2000.
- Ying Y. Cultural orientation and psychological well-being in Chinese Americans. *American Journal of Community Psychology* 1995;23:893–911. [PubMed: 8638555]

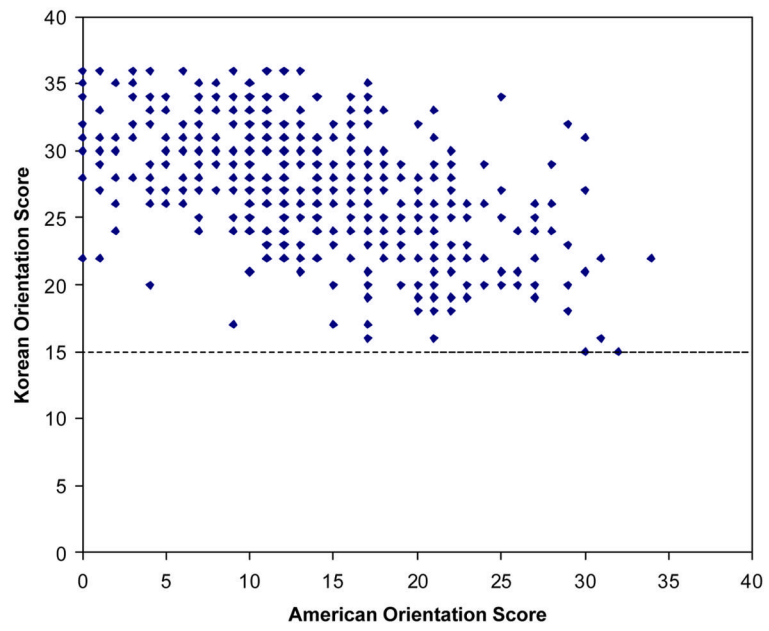


Figure 1.
Distribution of Scores of the Korean Orientation and American Orientation Scales

Table 1

Descriptive Information of the Individual and Summary Scores of the Korean and American Orientation Scales and Their Correlations

	Korean Orientation	American Orientation	r
	M/SD	M/SD	
1. Language proficiency	2.75/.48	1.10/.80	.04
2. Frequency of language use	2.82/.45	1.21/.95	-.30***
3. Media consumption (TV, Video)	2.05/1.05	1.32/1.02	-.69***
4. Media consumption (newspaper, magazine)	2.22/.98	.87/.97	-.51***
5. Food consumption at home	2.66/.53	.97/.69	-.55***
6. Food consumption outside the home	1.71/.85	1.35/.77	-.40***
7. Ethnicity of friends	2.59/.69	.84/.76	-.42***
8. Social gathering	1.64/.83	.61/.66	-.03
9. Sense of belonging	2.22/.77	1.14/.79	-.11*
10. Getting along	2.41/.56	1.35/.86	-.09*
11. Familiarity to culture and custom	2.52/.54	1.37/.78	-.15**
12. Celebration of holidays	1.80/.93	1.60/.95	.03
Summary score	27.4/4.73	13.7/7.26	-.57***

Table 2
Results from K-Median Cluster Analyses with Four-cluster and Two-cluster

Typology	Delineating Characteristics Median (range)		N (frequency)	Pseudo F
	Korean Orientation	American Orientation		
Four clusters				360.25
1	27 (22–34)	17 (9–30)	128 (28.32%)	
2	22 (15–27)	21 (9–34)	109 (24.12%)	
3	30 (20–35)	10 (0–18)	142 (31.42%)	
4	34 (28–36)	4 (0–13)	73 (16.15%)	
Two clusters ¹				521.71
1	23 (15–32)	20 (9–34)	182 (40.27%)	
2	30 (20–36)	10 (0–25)	270 (59.73%)	

¹Based on the delineating characteristics, the cluster 1 is named as ‘integrated group,’ and the cluster 2 is named as ‘separated group.’

Table 3
Comparisons between the Integrated and Separated Groups

Variable	Integrated group (n=182)	Separated group (n=270)	t (? ²)
	M/SD (%)		
Age	67.9/5.52	71.1/7.54	-4.90***
Female	(46.2%)	(59.3%)	(1.30)
Married	(81.8%)	(71%)	(6.75**)
= High school	(83.1%)	(51.3%)	(46.7***)
Length of stay in US	30.6/10.1	21.0/9.41	10.3***
Self-rated health	2.07/0.76	2.48/0.92	-4.65***
Functional health	0.97/3.32	2.43/4.79	-3.36***
Depressive symptom	6.75/4.40	8.02/4.93	-2.76**
Anxiety	2.82/4.14	4.43/5.22	-3.26**

* p < .05,

** p < .01,

*** p < .001