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MIGRANTS are the fastest growing segment of the U.S. population, and the foreign-born population grew from 9 million (4.7% of the total population) in 1970 to more than 33 million (12.6% of the total population) in 2007 (U.S. Bureau of the Census, 2008). For these immigrants, the experiences of being uprooted from their home country and adjusting to a host culture can be stressful. Faced with living under different cultural norms and social conditions, immigrants are constantly being challenged. Some of these challenges can lead to major crises as the individual encounters structural confusion, cultural conflict, and feelings of alienation (Berry, 2002; Kiefer, 1974; Sam & Berry, 2006).

The term acculturation is generally used in reference to the degree to which a person from another culture has learned the language and behaviors expected of persons who live in the host culture (e.g., Myers & Rodriguez, 2003; Phinney & Flores, 2002; Rogler, Cortes, & Malgady, 1991). Studies have generally shown that greater acculturation is associated with better psychological well-being, although the process of change associated with acculturation is often perceived as stressful (Berry, 2002; Escobar & Vega, 2000). The level of acculturation serves as an indicator of the fit between an individual and the dominant culture (Chiriboga, 2004; Ward & Chang, 1997). In the case of a lack of fit, individuals may be more likely to encounter difficulties in day-to-day experiences and to have diminished self-confidence and mental health.

Despite the importance of acculturation in the mental health of immigrant populations, most studies have tended to focus on immigrant families and children, and little attention has been paid to older adults (Chiriboga, Black, Aranda, & Markides, 2002; González, Haan, & Hinton, 2001). Given that low acculturation is a major contributing factor to multiple jeopardy that is experienced by older immigrants (Chiriboga et al. 2002; González et al. 2001) further attention is needed.

From a conceptual perspective, it is also important to make a distinction between the level of acculturation and the appraised stress that may arise as a result of that level (Berry, Kim, Minde, & Mok, 1987; Birman & Taylor-Ritzler, 2007; Hwang & Ting, 2008; Oh, Koeske, & Sales, 2002; Williams & Berry, 1991; see also Lazarus & Folkman, 1984). Although a person’s level of acculturation is distinct from how stressed he or she feels due to the experience of becoming acculturated, the term acculturation is often used to refer to both situations, and attention has rarely been paid to the relation between the level of acculturation and the perceived stressfulness arising from it (Hwang & Ting, 2008; Oh et al. 2002; Williams & Berry, 1991). With respect to this distinction, acculturation level can be considered to act as something akin to a “carrier” variable. As with other carrier variables, such as age and gender, the mental health outcomes associated with acculturation level arise not because of the level itself but because of the factors associated with it. For example, someone with a low level of acculturation may have a greater probability of encountering difficulties when traveling outside his or her neighborhood, when being given directions, or when communicating with a doctor or grocery clerk. Depending on the individual and his or her life circumstances, such stressors may trigger or intensify stress appraisals—here referred as acculturative stress—that in turn may lead to negative mental health consequences.

In the present analyses, we conceptualized acculturation as having both direct and indirect effects on mental well-being. That is, low levels of acculturation may not only directly erode mental well-being but may also have indirect effects by making individuals more prone to acculturative stress. The latter is a concept that has received considerable...
attention but most often has been treated as a single omnibus score. A few studies have discussed or operationalized types of acculturative stress; however, no consistent framework or classification system has emerged (e.g., Sandhu & Asrabadi, 1994; Ward, Bochner, & Furnham, 2001). As a means of facilitating better understanding of the experiences encountered by immigrant elders, we have provisionally divided acculturative stress into two categories—task-oriented stress (e.g., difficulties due to language barriers and lack of knowledge about the new culture) and emotion-oriented stress (e.g., feelings of alienation and homesickness).

For a research population, we selected Korean American elders. Currently ranked as the fourth largest Asian American subgroup, Korean Americans are one of the fastest growing segments of immigrants in the United States (U.S. Bureau of the Census, 2004). The majority of Korean Americans immigrated to the United States after the Immigration Reform Act of 1965 (Hurh, 1998). Due to this recent history of immigration, only 7.6% of Korean Americans are aged 65 or older (the corresponding figure for non-Hispanic Whites is 14.5%), but an exponential increase in the Korean American elderly population is projected (U.S. Bureau of the Census, 2007). Although there exist within-group variations, Korean American elders as a group generally have low levels of English proficiency and acculturation. According to the 2007 U.S. Census, about 80% of the Korean population speaks a language other than English at home and about 40% of Korean households are identified as “linguistically isolate,” meaning that all members aged 14 years and older have at least some difficulty with English. Older members in particular are likely to encounter barriers with language and acculturation. In addition, Korean American elders are reported to have higher levels of depressive symptoms than other racial/ethnic groups (e.g., Jang, Small, & Haley, 2001; Min, Moon, & Lubben, 2005), and low levels of acculturation have been shown to contribute to their mental distress (e.g., Jang, Kim, & Chiriboga, 2005; Oh et al., 2002). However, little attention has been paid to internal mechanisms underlying the links between acculturation and mental distress.

The major goal of the present study was to explore the interplay between acculturation, acculturative stress, and mental distress among Korean American elders. We hypothesized that the impact of acculturation on mental distress would be mediated by an individual’s subjectively appraised acculturative stress. Exploration of internal mechanisms associated with the experiences of acculturation may have implications for services and policies to assist immigrant elders in adapting to a new culture and to promote their mental well-being.

**Methods**

**Participants**

With approval from the Institutional Review Board at the University of South Florida, a survey of older Korean Americans was conducted from October 2005 to May 2006 in two cities in Florida. Florida is one of 10 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, 2004). 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.

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 underrepresentation of ethnic minorities in public databases (e.g., Census data, telephone directories) means that standard sampling methods may miss a substantial portion of immigrant elderly populations. It is notable that only 612 Korean residents of all ages in Tampa and 437 in Orlando were enumerated 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 combined several sampling methods as a strategy for recruitment. In the beginning phase of data collection, we contacted potential sources of Korean elders, including local Korean churches, other religious groups, senior centers, and elder associations. When contacts were established, our research team visited the sites and arranged for surveys to be conducted. The survey instrument consisted of a standardized questionnaire in Korean developed through a back-translation method. While designed to be self-administered, trained interviewers were available for anyone who needed assistance. All respondents were paid $10 for their participation.

The research sites included 16 local Korean churches, one other group with a religious affiliation, one Korean senior center, and one meeting for a local Korean elder association. For churches where visits were not possible, mail surveys were conducted. A packet including a set of questionnaire and prestamped return envelope was mailed to potential participants. To reach 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 before a prospect was classified as unreachable. When there was an eligible person in the household, a packet of mail survey materials was sent.

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 visits and about 53% was through mail surveys. We conducted a series of comparative analyses 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 with the individuals whose data were collected by mail surveys, participants recruited by 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.

Measures

**Acculturation.**—Acculturation was assessed with a 12-item inventory (Jang, Kim, Chiriboga, & King-Kallimanis, 2007) and adapted from several studies on acculturation (e.g., Hazuda, Stern, & Haffner, 1988; Suinn, Ahuna, & Khoo, 1992; Ying, 1995). The inventory included two items for each of six domains that have been covered in the literature: language, media consumption, food consumption, social relations, sense of belonging, and familiarity with culture. Examples of the items include: “How well do you speak English?” “Among TV programs or videos you watch, what proportion of them are in English?” “Among food you eat at home, what proportion of it is non-Korean?” “Among people you hang out with, how many of them are non-Korean?” “How close do you feel to Americans?” and “How familiar are you with American cultures and traditions?” Each response was coded from 0 to 3. Scores for each subscale could range from 0 to 6, with a higher score indicating a greater level of acculturation to mainstream American culture. Internal consistency for each subscale in the present sample was acceptable to high ($\alpha = .60$–.86). Because the two subscales, language and media consumption, were highly correlated ($r = .75, p < .001$), media consumption was excluded in the analysis to avoid multicollinearity.

**Acculturative stress.**—The degree of perceived stressfulness associated with the experience of acculturation was measured with eight items selected from the Acculturative Stress Scale (ASC; Sandhu & Asrabadi, 1994). The original scale contains 36 items addressing stress-related themes found to be associated with acculturation, such as fear, perceived discrimination, culture shock, guilt, and homesickness. For the present study, items from the ASC were selected to represent two domains: task-oriented stress (three items) and emotion-oriented stress (five items). Items for task-oriented stress include: “I feel nervous when communicating in English,” “I feel uncomfortable adjusting to new foods,” and “I feel uncomfortable adjusting to new cultural values.” Sample items for emotion-oriented stress include: “Homesickness bothers me” and “I feel sad living in unfamiliar surroundings.” Participants were asked to indicate how strongly they agreed with each statement using a 5-point scale ranging from 0 (strongly disagree) to 4 (strongly agree). Individual scores were summed to create total scores for each domain. The potential range for task-oriented stress was 0–12 and that for emotion-oriented stress was 0–20, with higher scores indicating greater levels of acculturative stress. A satisfactory level of internal consistency was found for both scales ($\alpha = .73$ for task-oriented stress and $.87$ for emotion-oriented stress).

**Mental distress.**—Depressive symptoms and anxiety were used as indices of mental health status. A 15-item short form of the Geriatric Depression Scale (GDS-SF; Sheikh & Yesavage, 1986) was utilized to index depressive symptoms. With a yes/no response format, the scale includes 5 positive items (e.g., “Are you satisfied with your life?” “Do you feel happy?”) and 10 negative items (e.g., “Do you feel that your life is empty?” “Do you feel helpless?”). The total score was calculated by counting the number of responses that suggested probable depression. Scores could range from 0 (no depressive symptoms) to 15 (severe depressive symptoms). The GDS-SF has been translated into Korean, and its psychometric properties have been validated (e.g., Jang, Kim, & Chiriboga, 2001, 2005; Mui, Kang, Chen, & Domanski, 2003). Internal consistency of the GDS-SF in the present sample was satisfactory ($\alpha = .81$).

Anxiety was measured with three items from the Aging, Status, and the Sense of Control (ASOC) study (Drentea, 2002). The items asked how many of the past 7 days the respondent had (a) worried a lot about little things, (b) felt tense or anxious, and (c) felt restless. Individual responses were summed for total scores. Scores could range from 0 to 21, with higher scores indicating a greater level of anxiety. The symptom scale approach has been commonly used in community settings and is known to have good psychometric properties (Drentea, 2002). Internal consistency of the scale in the present sample was high ($\alpha = .92$).

Statistical Analysis

The analyses focused on the proposed mediational role of acculturative stress. Mediation is conventionally evidenced by the following conditions: (a) The predictor and outcome variables initially have a significant relationship, (b) the potential mediator is significantly related with the predictor variable, (c) the potential mediator is significantly related with the outcome variable, and (d) the relationship between the predictor variable and the outcome variable becomes reduced or nonsignificant when the potential mediator is introduced (Baron & Kenny, 1986; Kenny, 2008). Structural equation modeling (SEM) was used to assess the proposed mediation model. With its advantages of assessment of
measurement errors, inclusion of multiple indicators, and provision of fit indices of the entire model, SEM has been recommended as the preferred method for mediation analysis (e.g., Cheung & Lau, 2008; Cole & Maxwell, 2003; Frazier, Tix, & Barron, 2004).

The actual model included three latent variables: acculturation, acculturative stress, and mental distress. Acculturation was indexed with five observed indicators: language, food consumption, social relations, sense of belonging, and familiarity with culture. The variable acculturative stress contained two observed indicators: task-oriented stress and emotion-oriented stress. Mental distress, the outcome variable, was represented by depressive symptoms and anxiety.

First, a measurement model was tested to confirm whether the proposed three-factor model was relevant and, if so, whether each latent variable was well represented by its observed indicators. Once the adequacy of the three-factor model was confirmed and an acceptable fit of the measurement model determined, we proceeded to test the structural model by adding predictive paths among the three latent constructs. Both a direct effect model (basic model with only direct path between acculturation and mental distress) and a mediation model (triangular model that included acculturative stress) were tested.

All SEM analyses were conducted using EQS for Windows Version 6.0 (Bentler, 1995). Standardized maximum likelihood estimations were used. Model fit was evaluated with chi-square statistics. A nonsignificant chi square is generally regarded as an indication of a good fit. However, because this criterion is overly strict and sensitive to sample size, we used multiple fit indices. Following the recommendation of Hu and Bentler (1999), comparative fit index (CFI), standardized root mean square residual (SRMR), and root mean square error of approximation (RMSEA) were reported. By convention, CFI values exceeding 0.95, SRMR values less than 0.08, and RMSEA values less than 0.06 signify a relatively good fit (Hu & Bentler, 1999). Tests of the models with df between 24 and 26 using the present sample (N=472) yielded a power of 0.89 to 0.93 for a correct model based on the power estimation table for SEM (Hancock & Freeman, 2001; see also MacCallum, Browne, & Sugawara, 1996).

**Results**

**Sample Characteristics and Descriptive Information**

As shown in Table 1, the sample consisted of 472 Korean American elders ranging in age from 60 to 94, with an average age of 69.9 years (SD=7.04). Over half (57.9%) of the sample were female, approximately three fourths were married, and about 12% were living alone. About 64% of the sample had more than a high school education, and more than 21% of the sample reported their financial status as below average. All participants were foreign born, and the period of time lived in the United States ranged from 2 months to 51 years, with a mean of nearly 25 years. These demographic characteristics were similar to previously reported profiles of Korean American elders in Florida and other states (e.g., Jang et al., 2001, 2005; Min et al., 2005).

The total scores of the five subdomains of acculturation averaged 1.44–2.96 out of a range of 0–6; these averages underscore the overall low levels of acculturation of the present sample. The average scores for task-oriented stress and emotion-oriented stress were 5.29 (SD=2.69) and 6.49 (SD=4.33), respectively. Depressive symptoms and anxiety averaged 3.73 (SD=3.24) and 3.71 (SD=4.83), respectively.
The values for skewness and kurtosis of the observed variables were less than 1.0, except for depressive symptoms and anxiety. In order to approximate a normal distribution, we conducted a square root transformation for depressive symptoms and anxiety, and the transformed scores were used in all SEM analyses.

### Correlations Among Observed Variables

Table 2 summarizes zero-order correlations among the nine observed variables. Within each latent construct, the observed indicators were highly intercorrelated. As expected, individual items of acculturation were negatively associated with the indices of acculturative stress and mental distress. Positive associations between acculturative stress and mental distress items were also observed. Although correlations among variables were generally high, all coefficients were below .65.

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<th>Acculturation</th>
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<td>1. Language</td>
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<td>2. Food consumption</td>
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<td>3. Social relations</td>
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<td>4. Sense of belonging</td>
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<td>5. Familiarity with culture</td>
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<td>.50***</td>
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<td>Acculturative stress</td>
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<td>6. Task-oriented stress</td>
<td>-.57***</td>
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<td>7. Emotion-oriented stress</td>
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<td>Mental distress</td>
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<td>8. Depressive symptoms</td>
<td>-.27***</td>
<td>-.20***</td>
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<td>-.21***</td>
<td>-.24***</td>
<td>.42***</td>
<td>.48***</td>
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<td>9. Anxiety</td>
<td>-.16**</td>
<td>-.15**</td>
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<td>-.17**</td>
<td>-.12*</td>
<td>.24***</td>
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*Note: *p < .05; **p < .01; ***p < .001.

### The Measurement Model

Because the high interrelations among all variables suggested overlap among the constructs as well as potential multicollinearity, we tested the legitimacy of our latent variable conceptualization with the three-factor model as compared with a one- or two-factor model. Our test of measurement model was also intended to examine whether the observed variables were reliable measures of the latent constructs (e.g., Cole & Maxwell, 2003).

The three-factor model resulted in acceptable indices of fit, \( \chi^2(24, N=472)=72.0, p<.001; \text{CFI}=0.97; \text{SRMR}=0.04; \text{RMSEA}=0.06 \) (90% low confidence interval [CI] limit = 0.05 and 90% upper CI limit = 0.08). The model fit is shown to be much improved in comparison with a one-factor model in which all observed variables were considered to represent a single construct, \( \chi^2(27, N=472)=260.3, p<.001; \text{CFI}=0.84; \text{SRMR}=0.10; \text{RMSEA}=0.14 \) (90% low CI limit = 0.12 and 90% upper CI limit = 0.15) or a two-factor model where acculturation and acculturative stress were combined into one factor and mental distress was the second, \( \chi^2(26, N=472)=201.12, p<.001; \text{CFI}=0.88; \text{SRMR}=0.09; \text{RMSEA}=0.12 \) (90% low CI limit = 0.11 and 90% upper CI limit = 0.14). The superior fit of the three-factor model substantiated our conceptualization of the constructs.

In the three-factor model, the latent variables were well represented by their respective observed indicators. Factor loadings of the five observed indicators of acculturation ranged from 0.66 to 0.81. Loadings of task-oriented stress and emotion-oriented stress to acculturative stress were 0.83 and 0.61, respectively, and those of depressive symptoms and anxiety to mental distress were 0.75 and 0.54, respectively. All factor loadings were statistically significant.

In addition, the three latent constructs were significantly interrelated: acculturation and mental distress \( r = -.39, p<.05 \), acculturation and acculturative stress \( r = -.66, p<.05 \), and acculturative stress and mental distress \( r = .67, p<.05 \). Similar to the item-level correlations among observed indicators, greater levels of mental distress were linked to lower levels of acculturation and higher levels of acculturative stress.

### Structural Model of Mediation

After establishing an adequate measurement model, structural models were estimated by adding predictive paths among latent variables. First tested was a direct effect model that only posits a direct path between acculturation and mental distress. The model provided a moderate fit: \( \chi^2(26, N=472)=275.2, p<.001; \text{CFI}=0.82; \text{SRMR}=0.19; \text{RMSEA}=0.15 \) (90% low CI limit = 0.13 and 90% upper CI limit = 0.16). The direct effect of acculturation on mental distress was significant (standardized regression coefficient = -.36, \( p<.05 \)).

The mediation model was then tested to evaluate the strength of a relationship between acculturation and mental distress in the context of an indirect relationship mediated by acculturative stress. The mediation model provided an improved fit for the data: \( \chi^2(24, N=472)=72.08, p<.001; \text{CFI}=0.97; \text{SRMR}=0.04; \text{RMSEA}=0.06 \) (90% low CI limit = 0.05 and 90% upper CI limit = 0.08). Acculturative stress was predicted by acculturation (standardized regression coefficient = -.64, \( p<.05 \)) and was itself predictive of mental...
acculturative stress and mental distress (standardized regression coefficient = .74, p < .05). In contrast to the direct effect model, the path between acculturation and mental distress in the mediation model was not significant (standardized regression coefficient = .08, p > .05). In other words, acculturative stress mediated the relationship between the predictor and outcome measure, as indicated by a significant indirect path between acculturation and mental distress (standardized regression coefficient for indirect effect = −.47, p < .05). Acculturation and acculturative stress accounted for 48% of the variance in mental distress. Both direct effect and mediation models are illustrated in Figure 1.

**Discussion**

The present study was designed to explore internal mechanisms by which acculturation may lead to mental health outcomes. We hypothesized that the impact of acculturation on mental distress would be mediated by acculturative stress. The results from SEM analyses with 472 Korean American elders in Florida provide support for the hypothesized mediation model. We found that the linkage between acculturation and mental distress, which was significant in the direct effect model, became nonsignificant in the mediation model.

Parallel to findings from the somewhat limited literature on Korean American elders (e.g., Hughes, 2002; Jang et al., 2001, 2005; Min et al., 2005), the present sample showed relatively low levels of acculturation and relatively high levels of mental health problems. The scores for each of the five domains of acculturation were toward the low end of the scale. Specifically, with regard to language-related items, relatively few people reported that they spoke English very well (4.3%) or always spoke English (10.6%). In contrast, relatively high proportions were indicated to have
problems with depression and anxiety. When applying the
cutoff score for the GDS-SF (scores higher than 5; Sheikh
& Yesavage, 1986), we found that more than one fourth of
the sample fell into the category of having probable depres-
sion. This figure is notably high when compared with the
9%–10% reported in community-dwelling older Whites and
African Americans in Florida (Jang, Borenstein, Chiriboga,
& Mortimer, 2005). Also, the mean score for anxiety in the
present sample (M = 3.71, SD = 4.83) was relatively high.
For example, in the national ASOC study, the average for
the same measure was 1.97 (Drentea, 2002). It is also nota-
table that the Korean elders in the probable depression cate-
gory (n = 112) had significantly lower scores in all domains
of acculturation (t = 2.77–4.53, p < .01) and significantly
higher scores in both task-oriented (t = −7.55, p < .001) and
emotion-oriented (t = −8.28, p < .001) stress scales than
their counterparts (N = 328).
Consistent with the existing literature on immigrant elders
(e.g., Chiriboga et al., 2002; González et al., 2001), a strong
linkage was evident between low acculturation and indicators
of mental distress in the present sample of Korean American
elders. However, one of the unique aspects of the present study
is that acculturative stress (appraised stress reported by an
individual in areas related to acculturation) was distinguished
from general level of acculturation. Unlike most studies that
have implicitly treated a lack of acculturation as a stressor in
and of itself, we conceptualized low acculturation as a carrier
variable that increases the likelihood of encountering accultur-
ative-related stressful situations. As one might expect, accul-
turation and acculturative stress were interrelated, and both of
them were strongly linked to mental distress. Although over-
lap among items representing the constructs indeed was a ma-
jor source of concern, tests of the measurement model
supported the adequacy of the three-factor model.
Perhaps more importantly, the SEM analyses supported
our hypothesis that the impact of acculturation on mental
distress would be mediated by acculturative stress. We found
that the relationship between lower levels of acculturation
and mental distress became nonsignificant in the presence
of acculturative stress. The mediation model thus suggested a
potential mechanism by which acculturation carries its men-
tal health consequences into the lives of immigrant elders.
Our findings not only expand the knowledge base of ac-
culturation as experienced by one understudied and under-
served group of immigrant elders but also have implications
for intervention programs. In dealing with stress associated
with immigration and acculturation, one might suggest
eliminating the source of stress by increasing an individu-
al’s level of acculturation (e.g., English language training)
as a primary solution. However, given that elders’ level of
acculturation is likely to be stable due to their limited
opportunities for education and social participation, inter-
vention efforts may be more effective when the intervening
agent, acculturative stress, is targeted. The fact that the
nature of acculturative stress is subjective and modifiable
not only accounts for individual variations in the experience
of cultural adaptation but also provides avenues for inter-
ventions. Basic approaches may include helping elders
reduce perceived stressfulness by promoting positive ap-
praisals and the use of effective coping strategies. Further-
more, the indices for acculturative stress employed in the
present study suggest two specific lines of effort. One is of-
fering assistance with tasks related to cultural changes such
as providing interpretation and translation services and cul-
tural education. The other is addressing emotional needs by
enhancing informal support networks, alerting Korean com-
munity organizations to the special needs of their elders,
and providing psychological counseling. The combined
efforts with tangible and emotional support may help
immigrant elders overcome day-to-day challenges and
facilitate their adjustment to a new world.
Some limitations of the present study should be noted.
Because the study was based on a cross-sectional design,
care must be exercised when drawing causal inferences.
Moreover, because of the nonrepresentative nature of the
sample, the findings are only suggestive and warrant further
investigation. Although our study was designed to explore
the basic dynamics among the three constructs—accultura-
tion, acculturative stress, and mental distress—future work
should incorporate other variables of importance such as
physical and cognitive health, perceived social support, eth-
nic identity, and changes in role status because of immigra-
tion for a fuller understanding of the lives of immigrant
elders. Such assessment may lead to a refinement of the
model and improved fit. Future research also needs to focus
on further theoretical and conceptual development and refi-
ament of measures, including specification of the actual
stressors (as opposed to appraisals) associated with differ-
ent levels of acculturation. In addition, examination of ac-
culturative stress at different stages of immigration may
help identify groups at particular risk and develop more tar-
geted intervention programs.

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REFERENCES
Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable
distinction in social psychological research: Conceptual, strategic,
and statistical considerations. Journal of Personality and Social Psy-
chology, 51, 1173–1182.
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