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Bi-dimensional acculturation and cultural response set in CES-D among Korean immigrants

Eunjung Kim, Ph.D., ARNP, **Kumin Seo, MS, RN**, and **Kevin C. Cain, PhD**

University of Washington School of Nursing

Abstract

This study examined a cultural response set to positive affect items and depressive symptom items in CES-D among 172 Korean immigrants. Bi-dimensional acculturation approach, which considers maintenance of Korean Orientation and adoption of American Orientation, was utilized. As Korean immigrants increased American Orientation, they tended to score higher on positive affect items, while no changes occurred in depressive symptom items. Korean Orientation was not related to either positive affect items or depressive symptom items. Korean immigrants have response bias toward positive affect items in CES-D, which decreases as they adopt more American Orientation. CES-D lacks cultural equivalence for Korean immigrants.

Keywords

acculturation; CES-D; Korean immigrants; American Orientation; Korean Orientation

Obtaining valid self-report of depression is vital for healthcare practitioners to provide appropriate diagnosis and care (Williams, Pignone, Ramirez, & Stellato, 2002). However, growing evidence suggests racial and ethnic variations in the symptoms of depression. Two critical issues in comparing symptoms of depression across diverse populations are the cultural equivalence of screening scales and cultural response set because most scales were developed for the use with European Americans (Matsumoto, 1994). Cultural equivalence concerns whether or not the scale items mean exactly the same thing in all cultures surveyed. A cultural response set is a cultural tendency to respond a certain way on scales, which is intimately related to culture (Matsumoto, 1994).

The Center for Epidemiologic Studies Depression Scale (CES-D) is one of the depression screening scales originally developed for European Americans (Radloff, 1977). Currently, it is widely used in research with minority populations and in primary care settings (Williams, et al., 2002). The CES-D has 20 items; 4 items assessing positive affect and 16 items assessing depressive symptoms. A few empirical studies suggest that Korean immigrants might have a cultural response set in answering positive affect items in CES-D, which is related to Confucian cultural background and acculturation (i.e., their level of adoption of American culture) (Jang, Kim, & Chiriboga, 2005; Noh, Avison, & Kasper, 1992; Oh,

Corresponding author: Eunjung Kim, PhD, ARNP, The Department of Family and Child Nursing, School of Nursing University of Washington, Box 357262 Seattle, WA 98195, Phone: (206) 543-8246, FAX: (206) 543-6656, eunjungk@u.washington.edu, Home address: 1306 NW 201st St Shoreline, WA 98177.

Koeske, & Sales, 2002). However, studies that examined the relationship between acculturation and depression did not account for the fact that Korean immigrants also maintain Korean culture while they adopt American culture. The goal of this study was to examine Korean immigrants' cultural response set to positive affect and depressive symptoms in CES-D using Korean and American cultural orientations. The findings will add information in determining whether or not CES-D has cultural equivalence in screening depression in Korean immigrants.

The Center for Epidemiologic Studies Depression Scale (CES-D)

The CES-D was developed to screen depression in the US community population. It screens depression by assessing the lack of positive affect and existence of depressive symptoms such as negative affect, somatic and retarded symptoms, and interpersonal difficulties (Radloff, 1977). Satisfactory validity and reliability has been established (Hann et al., 1999; Radloff, 1977; Roberts & Vernon, 1983). Growing evidences suggest that CES-D may not have cultural equivalence among ethnic minorities. For example, Kim et al. (2009) found different cultural response sets among White, Black, and Mexican Americans. Mexican Americans tended to report more depressive symptoms than White Americans. Mexican Americans also tended to report less positive affect than White or Black Americans. Blacks were more likely report higher interpersonal difficulties than Whites. In another study, Japanese in Japan reported significantly low positive affect, leading to significantly higher total CES-D scores, whereas their scores of the depressive symptoms was comparable to scores of European-Americans (Iwata & Buka, 2002). However, these studies did not account for the impact of acculturation in symptoms of depression.

Depression among Korean Immigrants

Depression has been one of the most prevalent health problems among immigrants in the United States including Korean immigrants (Portes & Rumbaut, 2006). Especially, Korean immigrants score higher in the total CES-D (M = 14.37 – 17.87) than those of the community American population (M =7.94 – 9.25) or other Asian immigrant populations (M = 6.93 –9.72) (G. Choi, 1997; Henderson, et al., 2005; Huang, Wong, Ronzio, & Yu, 2007; W. H. Kuo, 1984; Min, Moon, & Lubben, 2005; Oh, et al., 2002; Radloff, 1977). The total CES-D score of Korean immigrants is higher than the national sample score in Korea (M = 10.57) (Cho, Nam, & Suh, 1998). In a national study in the US using CES-D, significantly more Korean immigrant mothers reported depression than non-Hispanic White mothers (Huang, et al., 2007). In another study using CES-D, the proportion of Korean immigrant women (31%) to men (29%) who reported depression was not statistically different (E. Kim, 2009).

The discrepancy among Asian immigrant populations may come from Korean immigrants experiencing greater amount of difficulty in adjusting to life in the US than the other Asian groups. Korean immigrants have shorter immigration history in the US, experience greater difficulty in learning new language, and therefore taking lower prestige jobs than other Asians, even when their education level is comparable (W. H. Kuo, 1984). It may also be related to the fact that Korean immigrants tend to adhere more strongly to Confucian culture

than other Asian population (K. Kim, 2002), which Korean immigrants identified as a barrier of adapting to American culture (B. Kim, 1978). No recent study that compared Asian populations to Korean immigrants is available because recent studies using a US national dataset did not have enough Korean immigrant participants in their study and therefore they were included as other Asians (Takeuchi, et al., 2007).

Culture and Expression of Positive Emotion

The emotions are formed by culturally determined socialization processes (Heine, Lehman, Markus, & Kitayama, 1999). The concept of "national characters" (Scherer & Brousch, 2009) can help explain how culturally determined socialization processes impact expression of emotions. National characters are defined as "the systematic differences in personality and emotionality in members of different races and nation states" (Scherer & Brousch, p. 265). Scherer and Brousch suggest that, based on cultural beliefs and socialization process, people develop evaluative biases towards various emotions and traits and thus may tend to suppress certain types of emotions and cultivate other types.

When Korean immigrants' responses to CES-D items were examined, Korean immigrants in Canada tended to score 3.4 – 4.1 times lower in positive affect items and 1.1 – 1.4 times higher in depressive symptom items than European Americans (Noh, et al., 1992). Jang et al. (2005) found a similar phenomenon among Korean immigrants in the US. These kind of differences are also observed among Koreans in Korea, indicating it is a cultural response set (Cho & Kim, 1998). Because of this reason, researchers in Korea suggested using a higher cut-off point (20 or 21) for Koreans in Korea (Cho & Kim, 1998).

Korean immigrants' tendency to report less positive affect may be due to Koreans' national character, which may lead to appraisal bias of this emotion. Based on Confucian cultural background Koreans believe that suppressing individual expression of emotion is humble and courteous (Oak & Martin, 2000). Koreans, particularly, tend not to express extremely positive feelings because they are afraid that positive statements might jinx their fortune (Noh, Kasper, & Chen, 1998; Norem & Cantor, 1986; Norem & Chang, 2002). Therefore, the Korean cultural norm is not to express personal positive emotions such as happiness and satisfaction (Jang, et al., 2005; Park & Bernstein, 2008). This makes Koreans reluctant to endorse positive affect items in the CES-D (J. J. Kim, Chung, & Choi, 1992). This cultural response set is also observed in other Asians who share Confucian culture such as Chinese and Japanese Americans (Kanazawa, White, & Hampson, 2007; Yang & WonPat-Borja, 2007; Yeung & Kam, 2009). However, when they come to the US, through the process of acculturation, Korean immigrants may learn to report positive emotions, which results in changes in their cultural response set.

Acculturation and Depression

Acculturation is defined as the phenomena of sequential psychological changes as a result of continuous and direct contact between individuals having different cultures (Berry, 2006). Acculturation is believed to be an important factor related to immigrants' mental health (Berry, 2006). However, the absence of a widely accepted conceptualization of acculturation

and a standardized instrument to measure this in Korean immigrants results in the lack of proper assessment of acculturation in this population (E. Kim, 2009). Some studies used only a few features, such as length of residence in the United States, English proficiency, or cultural activity orientation (Jang, et al., 2005; Jang, Kim, & Chiriboga, 2006; M. Kim, Han, Shin, Kim, & Lee, 2005). Other studies considered acculturation as uni-dimension of linear progression toward Americanization, resulting in "the disappearance of the ethnic group as a separate entity" (Gordon, 1964, p. 81). For example, Jang et al. (2005) examined the relationship between depression, using 10 item CES-D, and Americanization, using six items (e.g., English proficiency, language used in family, TV, and book, food preference, and ethnicity of friend). They found that more Americanized Korean elderly immigrants, compared to less Americanized Korean elderly immigrants, tended to report significantly more positive affect. Jang et al. stated that Korean elderly immigrants became familiar with Westernized ways of free expression of positive affect through the process of Americanization.

In reality, however, not all immigrants lose heritage culture when they adopt American culture. This is the thinking behind the bi-dimensional approach where acculturation is viewed as immigrants keeping their Korean Orientation (KO) while adopting American Orientation (AO), which are believed to be independent each other (Berry, 2005). Currently, there is no study published that examined Korean immigrant depression using bi-dimensional acculturation approach. However, a prior study considering Chinese immigrants suggested that the bi-dimensional approach is more comprehensive than the uni-dimensional approach in examining immigrants' adjustment (Abe-Kim, Okazaki, & Goto, 2001; Ryder, Alden, & Paulhus, 2000). Similarly, examining the relation between two Orientations and response to CES-D may provide more comprehensive information regarding Korean immigrants' cultural response set, which is closely related to culture.

Methods

Design

This study used a cross-sectional and explanatory correlational study design using a questionnaire survey.

Samples

Participants were 172 Korean immigrant parents of children ages between 3 and 17 living in the Pacific Northwest. This sample size had 90% probability of detecting 0.25 true correlation between bi-dimensional acculturation and CES-D. It also had 90% probability to detect true difference of 0.5 Cohen's effect size using unpaired t-test of CES-D between low and high acculturation groups. The sample was comprised of 53 males (31%) and 119 females (69%). The mean age of the participants was 40.90 (SD = 3.53) years, and they had lived in the United States for 13.06 (SD = 8.32) years. They received an average of 15.36 (SD = 3.04) years of education. Approximately 24 (n = 417) had annual household income up to $40,000, 41.3% (n=71) had between $40,001 and $80,000 and 35% (n = 60) had income of more than $80,001. The majority were married (n = 166, 97%) while the rest (3 %) were divorced or widowed. The majority of the participants (98%) were born in

Korea. Regarding ethnic identity, they identified themselves as Korean (n = 129, 75%) or Korean immigrant (n = 36, 22%). Although none considered themselves American, 45% (n = 77) were American citizens, followed by permanent residents (n = 61, 36%) and temporary residents (n = 29, 17%).

Procedure

The researcher visited Korean churches and language schools in the Pacific Northwest to explain the purpose of the study and distribute instruments to take home. The instruments included both Korean and English versions, and therefore, participants were able to use their preferred language. All participants except two used the Korean version. Completed instruments were returned to the investigator in self-addressed stamped envelopes. The researcher's Institutional Human Subjects Review Committee approved the study and informed written consent was obtained before participation.

Instruments

Depression—Depression was screened using the Center for Epidemiologic Studies Depression Scale (CES-D) (Radloff, 1977). The CES-D is a self-report scale to screen high-risk groups in the community. It consists of 20 items that assess depressed mood experienced during the past week in 4 factors: positive affect (e.g., enjoying life, being happy); negative affect (e.g., blues, depression, loneliness, crying, sadness); somatic and retarded symptoms e.g., being bothered, loss of appetite, insomnia); and interpersonal difficulties (e.g., difficulty getting along with others). In this paper, negative affect, somatic and retarded symptoms, and interpersonal difficulties are named as depressive symptoms. Respondents answer each item in a 4-point Likert-type scale ranging from 0, rarely or none of the time/ less than one day, to 1, some or a little of the time/1–2 days, 2, occasionally or a moderate amount of the time/3–4 days, and 3, most or all of the time/5–7 days. Positive affect items are reverse-coded in calculating the total score. Total score ranged from 0–60 and scores of 16 or higher indicate elevated depressed mood. The content validity of the Korean translation was confirmed by comparing the English version and Korean version (Noh et al., 1992). Previous studies using the Korean version with Koreans and Korean immigrant in North America indicated that the instrument had satisfactory reliability (J. Choi, Miller, & Wilbur, 2009; Noh, et al., 1998). The Cronbach's alpha of the Korean version was 0.89 in the current study sample.

Acculturation—Acculturation was assessed using the Acculturation Rating Scale for Mexican Americans-II (ARSMA-II) (Cuellar, Arnold, & Maldonado, 1995). The 30-item ARSMA-II consists of two subscales that measure Mexican Orientation and American Orientation compatible with Berry's (2006) framework. The English version of ARSMA-II was translated into Korean using forward and backward translation (Brislin, 1970). This questionnaire asks about language, ethnic behaviors, and ethnic interactions. Sample questions are, 'I speak Korean' and 'I speak English.' Subscales of include American Orientation (AO) and Korean Orientation (KO). In the process of calculating subscales, two items (i.e., my father/mother identifies himself/herself as Korean) were removed since they did not fit this foreign-born, first generation Korean immigrant sample. In addition, four items were combined into 2 items. Two items asking about 'enjoying Korean language TV'

and ‘Korean language movies’ were combined into one item asking about enjoying Korean language TV/movies. Similarly, two items asking ‘English language TV/movies’ are combined into one item. Participants respond on a 5-point Likert-type scale from ‘not at all’ to ‘almost always.’ Scores range from 1 to 5 with higher scores indicating greater daily lifestyle practices of either American or Korean culture. Cuellar and colleagues (1995) established concurrent validity and reliability for the original Mexican American version. Cronbach’s alpha reliability for this Korean immigrant sample was 0.90 for AO and 0.86 for KO.

Analysis of the Data

The data were analyzed using SPSS for Windows. Descriptive statistics including means, standard deviations, ranges, and frequencies were calculated for study variables. Among demographic variables, gender, income, and age were related to acculturation and CES-D and were therefore controlled as covariates in subsequent data analyses (Table 1).

To decrease confusion about the meaning of positive affect that results from reversing coding, these items were not reverse coded when they were analyzed as part of positive affect subscale or individual items. Therefore, higher score on positive affect items indicates higher positive affect. For total CES-D scores, however, standard practice of reverse coding was followed. Therefore, higher total CES-D score indicate higher level of depression.

Multiple components of the CES-D were analyzed: total CES-D score, positive affect subscale, depressive symptoms subscale, and individual items from the CES-D. To examine the effect of bi-dimensional acculturation, the sample was divided into two groups using a median score as a cut-off point; 2.16 for American Orientation (AO) and 4.0 for Korean Orientation (KO) were used to divide the sample into high and low AO and KO groups. A median split was utilized because previous studies found it an effective indicator when dividing Korean immigrants into low and high acculturation groups (Jang, et al., 2005; E. Kim, Cain, & McCubbin, 2006; E. Kim, Han, & McCubbin, 2007). ANCOVA analyses were then used to examine the relationships between bi-dimensional acculturation and CES-D while controlling for gender, income, and age. To further examine the relationships between AO and individual positive affect items AO was divided into 3 categories (0–2.0, 2.1–3.0, and 3.1–5) and individual CES-D items were presented as percent of subjects reporting the item occurred 3 or more days per week. Then, 3 by 2 Chi-test was conducted to check group differences.

Results

Descriptive Statistics

The means for the main study variables and their intercorrelations are shown in Table 1. Overall, the mean score for KO was higher than the mean score for AO. The total CES-D score was 12.63 (SD = 8.42) for the entire sample. The independent-samples t-test indicated that Korean immigrant males (M = 11.84, SD = 8.67) and females (M = 12.94, SD = 8.27) did not differ in their levels of depression, $t(170) = -.79$, p = ns. The proportion of participants who scored 16 or higher also did not differ based on gender (males 29.4%,

females 30.2%). In addition, no differences were found between males and females in their level of positive affect, $t(170) = .10$, p = ns, or depressive symptoms, $t(170) = -.90$, p = ns. The data were, therefore, analyzed as a total sample.

Acculturation and CES-D

For the total CES-D score, high AO group scored higher than low AO group after controlling for gender, income, and age; but the difference was not significant. The total CES-D scores were very similar between high and low KO groups. However, for positive affect subscale, high AO group scored significantly higher than low AO group after controlling for gender, income, and age (see Table 2). When each of the positive affect items were examined, the high AO group scored significantly higher on item 8 (i.e., I was hopeful about the future) and item 16 (i.e., I enjoyed life). For the other two items, higher AO group tended to score higher, although the item means were not statistically significant. No differences were found between high and low AO groups in depressive symptom subscale or each item's mean. In addition, no significant difference between the high and low KO groups was found in the total CES-D, positive affect subscale, or depressive symptoms subscale, or individual CES-D items.

American Orientation and Positive Affect Items

Table 3 shows relationships between AO and positive affect items. As AO goes up, percentage of Korean immigrants who reported experiencing positive affect about 3–7 days a week increased significantly. For example, for item 16, 43.4% of immigrant who scored low in AO reported that they enjoyed life about 3–7 days a week; whereas 90.3% who scored high in AO reported that they enjoyed life about 3–7 days a week.

Figure 1 depicts the relationships between positive affect subscale and KO and AO. Korean immigrants who scored higher in AO tended to endorse positive affect than those who scored low in AO. Those who scored high in KO tended to endorse positive affect when they also scored high in AO. Those who scored high in KO and low in AO were likely to not endorse positive affect.

Discussion

The total CES-D using the cut point of 16 indicates that approximately 30% of Korean immigrants reported depression. This proportion is smaller than the 40% found in Oh et al.'s (2002) study or 44.8% in Mui's (2001) (Mui, 2001) study. This difference may be due to a younger age sample in the current study. Being elderly is related to higher depression in Korean immigrants (B. C. H. Kuo, Chong, & Joseph, 2009).

Overall, Korean immigrants in this study reported experiencing lack of positive affect even though they did not report experiencing depressive symptoms. This finding is in contrast to findings among a community American sample living in Los Angeles who did not report either lack of positive affect or existence of depressive symptoms (Noh et al.). Because traditional Confucian Korean culture discourages the expression of positive emotion, it is likely that this response set may be due to Korean national character (Scherer & Brousch, 2009).

However, when acculturation is considered, Korean immigrants seem to be influenced by American national character of freely expressing positive affect. Using a bi-dimensional acculturation approach, high AO group reported higher positive affect than low AO group; whereas no difference was noted in depressive symptoms between high and low AO groups. These findings indicate that as Korean immigrant acculturated towards the US, they tend to express more positive affect while they do not decrease depressive symptoms, resulting in decrease of cultural response set. Increase of expression of positive affect is probably related to learning free expression of positive emotion and self-enhancement that are common in the US. A previous study found that exposure to Western culture increased openness, cheerfulness, and prosocial behavior and attitudes, which are not a national character for Chinese students (McCrae, Yik, Trapnell, Bond, & Paulhus, 1998).

Although the high AO group scored statistically significantly high on positive affect subscale compared to low AO group, it may be difficult to recognize this in individual clients who present in clinic setting. In addition, it is not clear from the findings whether Korean immigrants simply become more expressive of positive affect or if they really experience more positive affect. These issues need to be further explored in a future study.

In terms of individual positive affect items, two out of four items were significantly different based on their AO levels. People who adopted more AO scored higher in ‘hopeful about the future’ and ‘enjoyed life’ than those who adopted less American Orientation. However, no significant difference was found between ‘as good as other people’ or ‘was happy.’ To feel ‘as good as others,’ people need to have some confidence that they are equally comparable. However, in Korean society, pursuit of social status begins at young age through emphasis on extremely high educational achievement, which shapes and colors their experience of life’s competitiveness (Lett, 1998). Because of pressure put on students and families to excel academically, and by extension to get the best job, best spouse, and best home for themselves and their children, this could leave most Koreans feeling that they are never good enough. When Koreans come to America, this feeling of inadequacy could become amplified since as immigrants they relatively lacking in language and cultural competence and cannot compete as effectively as they would in Korea. Even for those who adopted more American Orientation, it may be difficult for them to feel ‘as good as others.’

Being happy is a basic value for most Americans, supported by the U.S. Declaration of Independence, which proclaims the pursuit of happiness as a fundamental right of its citizens (Heine, et al., 1999). In fact, cultural differences between Americans and Koreans in positive emotional experiences are particularly strong with respect to happiness. For Korean immigrants, ‘I am happy’ may be the most difficult positive affect to express.

For the depressive symptom items, no difference was found on any of the items between low and high AO or KO groups. This may indicates no cultural response set in these items or no actual differences on depressive symptoms. Using bi-dimensional acculturation helped to tease out where the differences lie in explaining Korean immigrants’ cultural response set to the CES-D.

A few limitations were noted. First, a sampling bias might have occurred because participants were recruited through Korean ethnic organizations. The generalizability of findings is, therefore, limited to Korean immigrants who are engaged in Korean organizations. Secondly, self-report questionnaires tend to inform the respondents about the researchers' hypotheses; therefore, their responses tend to reflect socially desirable behaviors. Third, this study did not examine other possible reasons why Korean immigrants who adopted more American culture might report more positive affect. At the same time this study has a few strengths. First, using bi-dimensional acculturation approach, we were able to pinpoint the cultural response set decrease in relation to AO. Second, it used standardized measurements for both acculturation and depression. Lastly, it also examined the responses to positive affect and depressive symptoms items in the CES-D separately.

Conclusion

This study examined Korean immigrants' cultural response set to positive affect in CES-D using American and Korean Orientations. The findings confirmed that Cultural response set to the positive affect items in CES-D exits, making it not culturally equivalent for Korean immigrants. Change in response to positive affect items was due to adoption of American culture rather than depression in Korean immigrants. Free expression of positive affect might be acquired through the acculturation process as Korean immigrants become accustomed to the ways of thinking and expressing feelings in the mainstream culture (Jang et al., 2005).

These findings have implications for health care providers assessing depression using the CES-D. High CES-D scores should be investigated to determine whether it is high because patients are truly depressed or due to the patient fail to endorse positive affect while they do not feel depressive symptoms. The high CES-D scores may indicate a person who has not yet internalized American values concerning expression of positive affect, rather than indicating patients are at risk for depression. Future research should identify a reliable depression measure with least response bias. A longitudinal study using a larger sample is necessary in order to observe stability and changes in the influence of acculturation on response set to the CES-D items as Korean immigrants adopt American culture.

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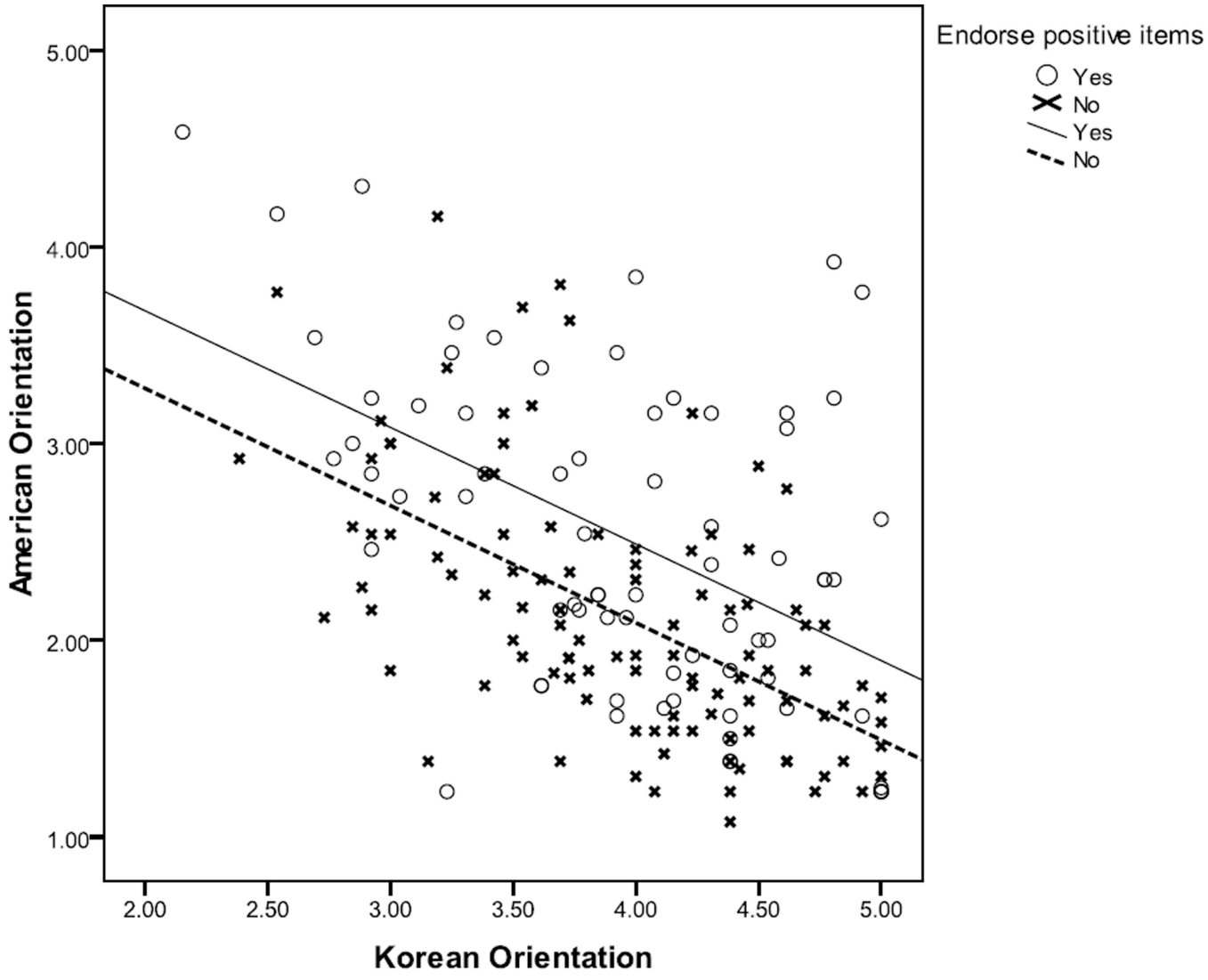

Figure 1.
Positive affect and Korean and American Orientations

Table 1

Descriptives and correlations among main study variables

Variables	Gender	Income	Age	AO	KO	Positive affect††	Depressive symptoms	Total CES-D†
Gender	-							
Income	−.08	-						
Age	−.10	.08	-					
American Orientation (AO)	−.14	.40**	.18*	-				
Korean Orientation (KO)	.13	−.16*	−.14	−.51**	-			
Positive affect mean††	.01	−.26**	.15	−.29**	.05	-		
Depressive symptom mean	.07	−.17*	−.03	−.14	−.01	.28**	-	
Total CES-D score†	.06	−.23**	.03	−.22**	.02	.59**	.94**	-
Mean (SD)			40.90 (3.53)	2.29 (.76)	3.95 (.66)	1.86 (.75)	.50 (.44)	12.60 (8.39)

* p<.05,

** p<.01

* p<.05;

† Responses to positive affect items have been reverse coded to get total CES-D score; high scores indicate higher depressed mood

†† Reported positive affect score; higher scores indicate higher positive affect

Table 2

Gender-, income-, and age-adjusted mean CES-D scores by bi-dimensional acculturation types

Items (for last 7 days)	American Orientation (AO)			Korean Orientation (KO)			Typology
	Low (n=86) Mean (SD)	High (n=86) Mean (SD)	F	High (n=81) Mean (SD)	Low (n=91) Mean (SD)	F	F
CES-D-K total score †	13.72 (8.92)	11.48 (7.56)	2.81	12.28 (8.38)	12.88 (8.42)	.64	1.79
Positive affect ††							
4. As good as other people ††	1.44 (1.07)	1.69 (1.10)	1.92	1.62 (1.10)	1.52 (1.09)	.58	1.41
8. Hopeful about the future ††	1.94 (.93)	2.35 (.87)	8.55**	2.24 (.92)	2.06 (.91)	1.72	3.34 *
12. Was happy ††	2.00 (.88)	2.17 (.84)	1.41	2.14 (.84)	2.03 (.88)	.56	2.55
16. Enjoyed life ††	1.45 (1.04)	1.87 (1.01)	6.67 *	1.76 (1.03)	1.58 (1.08)	1.31	3.93**
Positive affect mean ††	1.71 (.74)	2.02 (.72)	7.58**	1.94 (.73)	1.80 (.76)	1.65	4.64**
Depressive symptom							
1. Bothered by things	.58 (.72)	.67 (.71)	.59	.71 (.76)	.56 (.67)	1.89	1.45
2. Poor appetite	.48 (.73)	.40 (.70)	.50	.51 (.76)	.37 (.68)	1.45	1.00
3. Can't shake off the blues	.57 (.74)	.49 (.69)	.54	.53 (.74)	.53 (.68)	.01	.27
5. Trouble keeping in mind	.80 (.76)	.68 (.72)	1.00	.72 (.73)	.76 (.77)	.16	.55
6. Felt depressed	.68 (.85)	.54 (.68)	1.27	.61 (.77)	.61 (.78)	.00	.48
7. Everything was an effort	.95 (.76)	.88 (.84)	.34	.92 (.86)	.90 (.75)	.02	.18
9. Life has been a failure	.35 (.72)	.27 (.54)	.68	.27 (.60)	.34 (.67)	.51	.33
10. Felt fearful	.46 (.72)	.41 (.62)	.22	.45 (.65)	.43 (.69)	.02	.45
11. Sleep was restless	.40 (.73)	.63 (.77)	3.48	.55 (.76)	.50 (.75)	.26	1.24
13. Talked less than usual	.77 (.89)	.68 (.79)	.40	.74 (.86)	.71 (.83)	.04	.26
14. Felt lonely	.56 (.79)	.53 (.79)	.06	.49 (.73)	.59 (.84)	.65	.47
15. People were unfriendly	.46 (.65)	.31 (.58)	2.30	.38 (.62)	.39 (.61)	.01	1.98
17. Had crying spells	.24 (.58)	.16 (.41)	.95	.15 (.41)	.26 (.57)	1.91	.91
18. Felt sad	.41 (.66)	.42 (.62)	.02	.41 (.65)	.42 (.64)	.01	.01
19. People disliked me	.23 (.56)	.11 (.32)	2.87	.17 (.41)	.17 (.50)	.00	2.09
20. Could not get going	.58 (.79)	.40 (.62)	2.26	.45 (.65)	.52 (.77)	.39	.77
Depressive symptoms mean	.54 (.47)	.47 (.41)	.74	.50 (.45)	.50 (.43)	.00	.52

* p<.05;

† Responses to positive affect items have been reverse coded to get total CES-D score; high scores indicate higher depressed mood

†† reported positive affect score; higher scores indicate higher of positive affect

Integration (n=30)
Marginalization (25)
Sep (61)
Assi (56)

Table 3

Response rate of positive affect items according to their American Orientation level

	American Orientation†			
Positive affect items	**Low (%)**	**Middle (%)**	**High (%)**	**Chi-Square test**
4. As good as other people	43.6	56.5	77.4	10.44***
8. Hopeful about the future	63.6	79.7	90.3	9.87**
12. Was happy	76.3	77.1	93.5	4.49
16. Enjoyed life	43.4	60.0	90.3	20.06***

** p<.01,

*** p<.001

† Americanization: Low 0–2.0, middle 2.1–3.0, high 3.1–5

% indicates Korean immigrants repotting experiencing positive affect 3–7 days a week