

A Test of Cramer's (1999) Help-Seeking Model and Acculturation Effects With Asian and Asian American College Students

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The generalizability of K. M. Cramer's (1999) help-seeking model was examined for Asian and Asian American college students. The construct of acculturation was then added to Cramer's model to determine if it would improve the model fit. Asian and Asian American ($n = 202$) students completed help-seeking measures and behavioral and value-based measures of acculturation. White ($n = 336$) students completed only help-seeking measures. Although path analyses showed that Cramer's model fit both samples, structural invariance analysis indicated differential model functioning between groups that can be primarily attributed to self-concealment, a concept central to understanding Asians' and Asian Americans' attitudes toward help seeking. The addition of acculturation, especially adherence to Asian value, to Cramer's model improved model fit.

Keywords: Asian and/or Asian Americans, seeking counseling help, self-concealment, acculturation values

Since the 1970s, the literature on the help seeking of Asian Americans has examined the relationship between cultural and counseling variables to explain the use of mental health services (Atkinson, 1985). Researchers have been particularly interested in developing ways to increase the use of counseling services among Asian Americans (Leong & Lau, 2001). Much of previous research on help seeking among Asian Americans has been exploratory, focusing on evaluating the contribution of acculturation (Atkinson & Gim, 1989; Atkinson, Lowe, & Matthews, 1995; Gim, Atkinson, & Whiteley, 1990; Kim & Omizo, 2003; Lau & Takeuchi, 2001; Tata & Leong, 1994; Ying & Miller, 1992). Researchers have yet to use explicit models to evaluate the direct and indirect effects of counseling and acculturation to account for help-seeking behaviors of Asian Americans. One of the few established models of help seeking is Cramer's (1999) path model. Nevertheless, Cramer's model has only been evaluated in predominately White samples of college students. In the present study, we first evaluated how well Cramer's help-seeking model generalized to Asian and Asian American college students. Then we examined the contribution of acculturation to help-seeking behavior within the framework of Cramer's model.

Help-Seeking Model (Cramer, 1999)

Cramer's (1999) model, intended to resolve discrepancies between the regression models of Kelly and Achter (1995) and

Cepeda-Benito and Short (1998), explains college students' help-seeking behavior as a function of four psychological variables: (a) attitude toward seeking counseling; (b) available social support; (c) distress level; and (d) self-concealment, "a predisposition to actively conceal from others personal information that one perceives as distressing or negative" (Larson & Chastain, 1990, p. 440). The studies of Kelly and Achter (1995) and Cepeda-Benito and Short (1998) had many consistent findings and several notable differences. For example, the self-concealment and attitude toward seeking counseling variables were the only significant predictors of help seeking in Kelly and Achter's study. In Cepeda-Benito and Short's study, distress level, attitude toward seeking counseling, available social support, and the interaction between available social support and self-concealment were all significant predictors. In addition, the regression analyses used in both studies evaluated only the direct effect of the four psychological variables on help-seeking behavior. Cramer's synthesis of these models, however, took the form of a path model accounting for both the direct and the indirect effects of these variables on help seeking. In the reanalysis of Kelly and Achter's (1995) and Cepeda-Benito and Short's (1998) data, Cramer (1999) found that students are more likely to seek counseling when their level of distress is high and their attitude toward counseling is positive. He further found that self-concealment was related to having a limited social support network, a high level of distress, and a less favorable attitude toward seeking counseling; a high distress level was also related to having impaired social support networks. With these findings, Cramer's synthesis provided empirical and integrative information on the role of self-concealment and other psychological antecedents in the help-seeking process.

Cramer's (1999) model, however, has yet to be generalized to ethnic minority groups. The samples in the studies combined by Cramer were primarily White (90% from Kelly and Achter's 1995 study, 73% from Cepeda-Benito and Short's 1998 study), so it is not known whether Cramer's model can adequately explain the

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help-seeking processes of Asians and Asian Americans. For this reason, we sought to evaluate the applicability of Cramer's model to Asians and Asian Americans and to determine whether the process of help seeking for Asians and Asian Americans is similar to or different from that of Whites.

It is logical that Cramer's (1999) model should be applicable to this population because several of the concepts in his model are already known to be salient for Asian Americans. For instance, Asian Americans' distress levels are known to be predictive of attitude toward counseling (in terms of willingness to seek counseling; Tracey, Leong, & Glidden, 1986). Cramer's concept of perceived social support may be important, given the finding that Asian Americans may make greater use of social support networks than of professional help in times of crisis (Yeh & Wang, 2000). Finally, self-concealment, a concept central to Cramer's model, has been examined in Asians and Asian Americans from multiple perspectives. One form of self-concealment that may be especially relevant for this population is *loss of face*. In Asian social relations, *face* represents a person's social position or prestige gained by performing social roles that are well recognized by others (Hu, 1944) and serves as a mechanism for maintaining group harmony. Disclosing one's problems to another may be experienced by persons from these cultures as a loss of face; avoiding self-disclosure, even in therapy, may serve to avoid loss of face, subsequently maintaining one's social roles and integrity (S. Sue, Zane, & Young, 1994). Loss of face itself has been associated with psychological difficulties (Ho, 1991). Self-concealment has also been examined in terms of emotional control. The ability to control emotions and resolve psychological problems on one's own is seen as a sign of strength in Asian cultures (Kim, Atkinson, & Umemoto, 2001); this cultural value may be inconsistent with the self-disclosure of feelings and emotions expected in therapy.

Acculturation and Help Seeking

In recent decades, counseling research has begun to recognize the importance of acculturation, the "process by which the attitudes and behaviors of people from one culture are modified over time as a result of contact with a different culture" (Moyerman & Forman, 1992, p. 163). The reasons for this are twofold: Acculturation highlights the great heterogeneity within racial and ethnic immigrant groups, and it is also related to several mental and physical health variables (Ponterotto, Baluch, & Carielli, 1998). Research on acculturation has also established links between it and several of the help-seeking variables in Cramer's (1999) model, including severity of personal concerns, attitude toward counseling, and willingness to seek counseling.

Two of these three relationships have been established quite clearly. Acculturation is inversely related to severity of personal concerns reported by Asian Americans, possibly because less acculturated Asian Americans experience more stress resulting from conflicts between Asian and American cultures, whereas more acculturated Asian Americans, adopting the values, norms, and lifestyle of the majority culture, experience less stress (Gim et al., 1990). Studies examining Asian American acculturation and attitudes toward counseling have shown a positive relationship, with more acculturated Asian Americans having more favorable attitudes toward counseling (Atkinson & Gim, 1989; Tata & Leong, 1994; Ying & Miller, 1992). Given these findings, we

expected that acculturation would be negatively related to severity of personal concerns and positively related to the attitude toward counseling when Cramer's (1999) model is applied to Asians and Asian Americans.

Less clear is the relationship between acculturation and willingness to seek counseling. Gim et al. (1990) found a negative relationship between acculturation and willingness to seek counseling, whereas Atkinson et al. (1995) found no relationship between acculturation and willingness to seek counseling. A third study reported no direct link between value-based acculturation and help-seeking intentions among Chinese American parents (Lau & Takeuchi, 2001).

Kim and Omizo (2003) have suggested that a different model may be necessary to understand the interrelationship of these variables (i.e., acculturation, attitude toward counseling, and willingness to seek counseling). Their findings indicate that attitudes toward counseling mediate the relationship between adherence to Asian value and willingness to seek counseling, whereas adherence to Asian value has no direct effect on willingness to seek counseling. In light of these findings, we examined whether attitudes toward counseling serve as a mediator between acculturation and willingness to seek counseling in Cramer's (1999) model.

We must also point out that there are multiple ways to conceptualize acculturation. Help-seeking research has most frequently relied on a behavior-focused approach, typified by the Suinn-Lew Asian Self-Identity Acculturation Scale (SL-ASIA; Suinn, Rickard-Figueroa, Lew, & Vigil, 1987). The SL-ASIA, based on the multidimensional nature of the acculturation process, measures several behavioral dimensions, including friendship choice; language usages; and movie, music, and food preferences. However, some have criticized this approach because it may not account for the complexity of the broader acculturation process, including the importance of values in acculturation (Kim, Atkinson, & Yang, 1999). By contrast, a value approach focuses on how Asian values influence the behaviors of Asian Americans and is represented by the Asian Value Scale (AVS), which assesses cultural values, including conformity to norms, family recognition through achievement, emotional self-control, collectivism, humility, and filial piety (Kim et al., 1999). We examined both approaches in measuring Asians' and Asian Americans' acculturation and its effect on help seeking in Cramer's (1999) model.

Hypothesized Help-Seeking Models

We used four help-seeking path models to test the generalizability of Cramer's (1999) model and to evaluate the importance of acculturation for Asians and Asian Americans. We first evaluated the generalizability of Cramer's original model to Asian and Asian American students, with no modifications to account for acculturation. As shown in Figure 1, Model 1 (Path 1 to Path 6) is identical to Cramer's model, with the exception that the distress in the path model is replaced by severity of personal concerns. Severity of personal concerns is typically used to assess areas of importance to college students (Gim et al., 1990).

Two tests of generalizability were performed on Model 1. The first evaluated overall fit separately for the Asian and Asian American sample and the White sample. An adequate fit for both samples must be observed at this step before proceeding to the second generalizability test, a structural invariance analysis of the

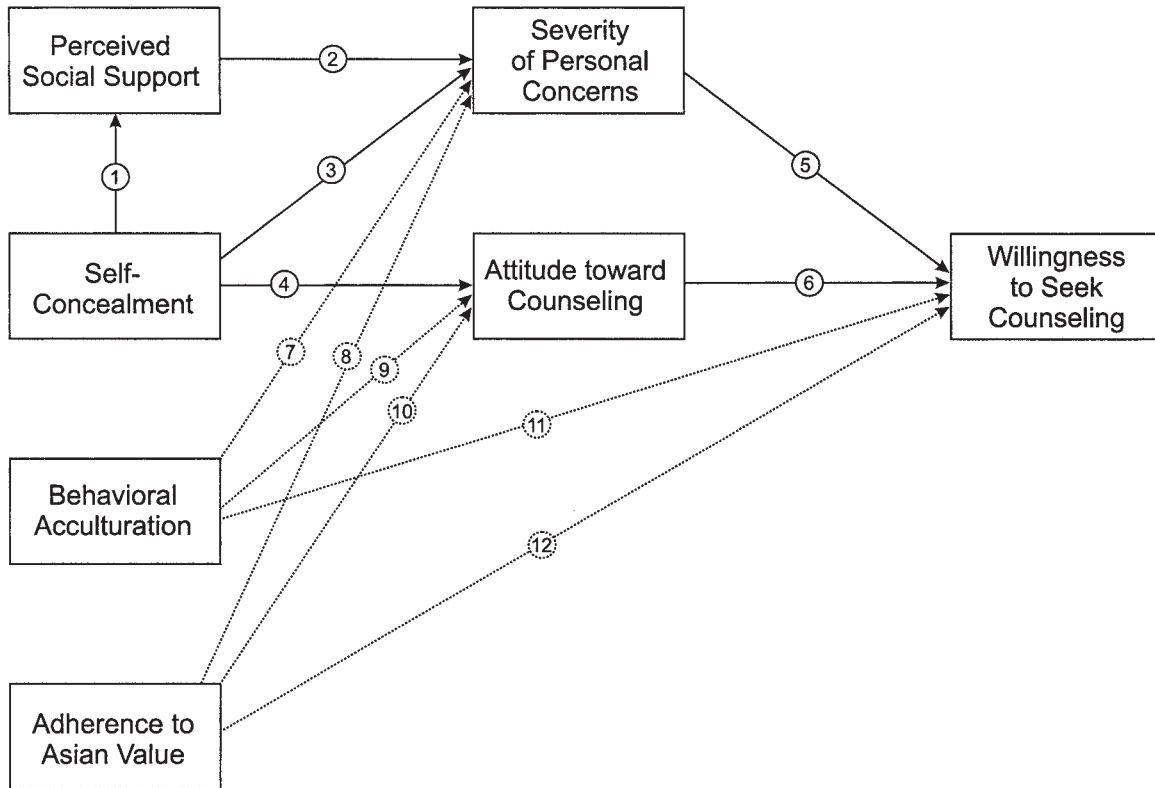


Figure 1. Hypothesized help-seeking models (Models 1, 2, 3, and 4). Model 1 includes Paths 1, 2, 3, 4, 5, and 6. Model 2 includes Paths 1, 2, 3, 4, 5, 6, 9, and 10. Model 3 includes Paths 1, 2, 3, 4, 5, 6, 7, and 8. Model 4 includes Paths 1, 2, 3, 4, 5, 6, 11, and 12.

model between the Asian and Asian American sample and the White sample. Structural invariance analysis differs from the test of model fit by evaluating whether the model functions equally well for both samples. We expected that Cramer's (1999) original model would not be invariant (i.e., would perform differently) across the Asian and Asian American and White samples, given the model does not account for the heterogeneity of the cultural processes known to be important in explaining Asians' and Asian Americans' help-seeking behaviors.

As shown in Figure 1, Model 2 supplements Cramer's (1999) model by including two forms of acculturation (behavioral acculturation and adherence to Asian value) as direct paths to attitude toward counseling (Path 9 and Path 10). This model tests the idea that the level of acculturation influences Asians' and Asian Americans' attitude toward counseling. We expected that Model 2 would have a better fit for the Asian and Asian American sample than would Model 1, on the basis of the importance of acculturation in previous research (e.g., Tata & Leong, 1994).

Built on Model 2, Models 3 and 4 (also see Figure 1) further examine the role of acculturation in Asians' and Asian Americans' help seeking by including additional paths that show relationships between acculturation and other variables. Model 3 includes direct paths from behavioral acculturation and adherence to Asian value to severity of personal concerns (Path 7 and Path 8), a test of previous findings that show less acculturated Asian American students have greater severity of personal concerns than do more

acculturated students (Gim et al., 1990). Model 4 includes paths from behavioral acculturation and adherence to Asian value to willingness to seek counseling (Path 11 and Path 12) to rule out the direct effect of acculturation, replicating the mediation effect of attitude toward counseling reported by Kim and Omizo (2003).

Finally, Models 2–4 include the two types of acculturation previously discussed, behavioral acculturation and adherence to Asian value. Because they are distinct concepts, we expected that these two approaches to conceptualizing acculturation would differ in relation to willingness to seek counseling. However, because this was an exploratory analysis, we offered no prediction for which type of acculturation would fit best.

Method

Participants

The two samples consisted of 538 college students (202 Asians and 336 Whites) from a large, predominately White, Midwestern university. To better capture the heterogeneity of acculturative experiences, we attempted to include Asian college students with a variety of lengths of stay in the United States, regardless of their generation or citizen status. In the Asian and Asian American sample, 72 (35%) were men and 130 (65%) were women, the mean age was 22.6 years, and the ages ranged from 17 to 45 years. The Asian and Asian American sample was distributed across college classes: 26 (13%) were freshmen, 36 (18%) sophomores, 31 (15%) juniors, 45 (22%) seniors, and 64 (32%) graduate students. Of the 202

Asian and Asian American participants, 89 (44%) were born in the United States, and the length of stay in the United States ranged from 1 to 29 years with a mean of 12.2 years ($SD = 8.12$) and a median of 15 years. In terms of citizenship status, 133 (66%) were U.S. citizens or permanent residents, and 69 (34%) were Asian international students. The Asian ethnicities were 50 (24.8%) Chinese, 44 (21.8%) Korean, 36 (17.8%) Taiwanese, 22 (10.9%) Filipino, 17 (8.4%) Asian Indian, 12 (5.9%) Japanese, 4 (2%) Vietnamese, 3 (1.5%) Thai, 1 (0.5%) Cambodian, 1 (0.5%) Iranian, 1 (0.5%) from Singapore, 7 (3.4%) biracial Asian and Asian American, and 4 (2%) unknown.

In the White sample, 158 (47%) were men and 178 (53%) were women, the mean age was 20.49 years, and the ages ranged from 18 to 48 years. The White sample was distributed across college classes: 86 (26%) were freshmen, 96 (29%) sophomore, 42 (12%) juniors, 88 (26%) seniors, 23 (7%) graduate students, and 1 unknown. Of the 336 White participants, 333 (99%) were born in the United States, and the length of stay in the United States ranged from 5 to 48 years with a mean of 20.3 years ($SD = 3.19$) and a median of 20 years.

Procedure

After receiving approval from the human subject review committee, we recruited 336 Whites and approximately 40 Asian and Asian American students from the educational psychology participant pool. We used supplemental means to ensure we had a sufficient number of Asian and Asian American students (i.e., potential participants were approached at campus locations including libraries and the student union). Students recruited via the educational psychology participant pool received course credit and students recruited by other means received a \$5 payment.

All participants were asked to complete the Help-Seeking Survey that included a demographic questionnaire, the Interpersonal Support Evaluation List (ISEL; S. Cohen, Mermelstien, Kamarack, & Hoberman, 1985), the Self-Concealment Scale (SCS; Larson & Chastain, 1990), a revised Attitudes Toward Seeking Professional Psychological Help Scale (ATHS; Fischer & Turner, 1970), and a modified 32-item Personal Problem Inventory (PPI; Gim et al., 1990). Asian and Asian American participants also completed the SL-ASIA (Suinn et al., 1987) and the AVS (Kim et al., 1999). The order of the questionnaires was randomly assigned for each participant. Participants were debriefed after they completed the surveys.

Measures

Perceived social support. The ISEL (S. Cohen et al., 1985) was used as a measure of students' perceived social support. The ISEL assesses four social support areas: tangible assistance (material aid), appraisal (availability of someone to talk to about one's problems), self-esteem (both positive appraisal of self from others as well as positive self-comparison to others), and belonging (people with whom one can do things). The counterbalanced 40 items of the ISEL are answered on a 4-point scale ranging from 0 (*definitely false*) to 3 (*definitely true*). Scores on the ISEL are correlated with several measures of psychological well-being and physical symptomatology, including changes in depression (S. Cohen et al., 1985). The ISEL total scale score has yielded coefficient alphas ranging from .90 to .93 and test-retest reliability coefficients of .83 (4 months) and .74 (6 months; S. Cohen et al., 1985; Fogel, Albert, Schnabel, Ditkoff, & Neugut, 2003; S. L. Johnson, Meyer, Winett, & Small, 2000). In the present study, the coefficient alpha was .84 for the Asian and Asian American sample and .87 for the White sample.

Self-concealment. The SCS was developed by Larson and Chastain (1990) to measure the "predisposition to actively conceal from others personal information that one perceives as distressing or negative" (p. 440). The 10 items on the SCS are answered on a 5-point scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). Cramer and Barry (1999) reported coefficient alphas ranging from .83 to .87 and test-retest reliabilities

of .81 (4 weeks) and .74 (7 weeks), and confirmatory factor analyses supported scale unidimensionality. They also noted that scores on the SCS were positively correlated with physical symptoms, depression, and anxiety and negatively correlated with self-esteem, social support, and willingness to seek psychological help. In the present study, the SCS yielded a coefficient alpha of .85 for both samples.

Attitude toward counseling. The ATHS (Fischer & Turner, 1970) consists of 29 items that can be endorsed on a scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). The total score indicates an overall attitude toward seeking professional help for psychological problems and has been shown to differentiate mental health service users from nonusers (Fischer & Turner, 1970). Evidence of the measure's validity has been established for diverse populations, both within and outside of the United States, and test-retest reliabilities were .86 across 5 days and .84 across 2 months (for further details, including demographic correlates, see the review by Fisher & Farina, 1995). To maximize the relevance of the ATHS for a college student sample, we used the modified version of the scale, as used by Tata and Leong (1994). The modified version replaces *mental problems* with *emotional/personal problems or difficulties*, *mental health clinic* with *counseling center*, and *mental hospital* with *psychiatric inpatient unit*. Reliability analysis for the present study yielded coefficient alphas of .84 and .87 for the Asian and Asian American sample and the White sample, respectively, with both values similar to those observed by other researchers ($\alpha = .89$, Fischer & Turner, 1970; $\alpha = .89$, Simonsen, Blazina, & Watkins, 2000; $\alpha = .80$, Tata & Leong, 1994; $\alpha = .84$, Taylor & Howard-Hamilton, 1995; $\alpha = .88$, Williams, Skogstad, & Deane, 2001).

Severity of personal concerns and willingness to seek counseling. The 24-item PPI (Gim et al., 1990) assesses problems commonly reported by college students. In the current study, respondents rated how much concern each problem is for them on a 5-point scale (from 1 = *not a problem* to 5 = *major problem*), then indicated their willingness to see a counselor for each problem on a 5-point scale if they had that problem (from 1 = *not willing* to 5 = *willing*). To ensure that we would be assessing the range of problems commonly being reported by college students, we consulted with three counseling psychologists at the university counseling center to determine if the original form of the measure ought to be supplemented with additional items. For the purposes of our research, they suggested adding 8 items to the PPI representing the following content areas: sexual and/or physical abuse; eating disorders; gay, lesbian, and bisexual issues; self-esteem; suicidal feelings and/or behavior; learning disabilities; grieving issues; and family issues. On the basis of several principal-component analyses, factors have been extracted from the PPI, including academic, interpersonal, and substance abuse concerns (see Gim et al., 1990; Lopez, Melendez, Sauer, Berger, & Wyssmann, 1998; Ponce & Atkinson, 1989; Solberg, Rutsma, Davis, Tata, & Jolly, 1994).

Behavioral acculturation. The SL-ASIA (Suinn et al., 1987) is a 21-item behavior-oriented measure of acculturation that covers language, identity, friendship choice, behaviors, generation and geographic history, and attitudes. In a review of nine studies using the SL-ASIA, Ponterotto et al. (1998) reported that the modal alpha was in the .80s and that scores on the SL-ASIA have been found to correlate with the respondent's generation since immigration, length of residence in the United States, and self-ratings of cultural identity. Other recent studies have reported coefficient alphas of .88 (Abe-Kim, Okazaki, & Goto, 2001), .92 (Hardin, Leong, & Osipow, 2001), and .80 (M. L. Johnson, Wall, Guanipu, Terry-Guyer, & Velasquez, 2002). In the present study, the coefficient alpha for the SL-ASIA was .93 for the Asian and Asian American sample.

Adherence to Asian value. The AVS (Kim et al., 1999) is a 36-item measure of Asian cultural values, with items representing six major Asian values: conformity to norms, family recognition through achievement, emotional self-control, collectivism, humility, and filial piety. Each item in the AVS is rated on a 7-point scale (from 1 = *strongly disagree* to 7 = *strongly agree*), with higher scores indicative of greater adherence to Asian cultural values, such as those influenced by Buddhist and Confucian

philosophies. As recommended by Kim et al. (1999) and Kim, Yang, Atkinson, Wolfe, and Hong (2001), the AVS's total score was used in the current study because the AVS was better represented by a hierarchical factor structure consisting of a second-order Asian values construct and the six first-order factors. Previous reliability analyses have found that the coefficient alpha for the AVS's total score ranged from .81 to .86 (Kim & Atkinson, 2002; Kim, Atkinson, & Umamoto, 2001; Kim et al., 1999; Kim, Li, & Liang, 2002; Kim & Omizo, 2003), and test-retest reliability across 2 weeks has been measured at .83 (Kim et al., 1999). In the present study, the coefficient alpha for the AVS was .78 for the Asian and Asian American sample. Kim et al. (1999) provided evidence on discriminant validity, showing that behavioral acculturation (measured by the SL-ASIA) and adherence to Asian value (measured by the AVS) were two distinct concepts. The structure of the AVS has been found to be similar across four Asian American ethnic groups: Chinese, Filipino, Japanese, and Korean (Kim, Yang, et al., 2001).

Overview of Analyses

Before evaluating the help-seeking models, we examined the psychometric properties of the 32-item PPI. This involved a preliminary item analysis followed by a principal component analysis to discern the underlying structure of the PPI.

We tested four help-seeking models. First, path analysis was used to test the adequacy of Model 1 (Cramer's model) for the Asian and Asian American sample and the White sample. Path analysis, a special case of structural equation modeling (SEM), tests direct and indirect explanatory relationships among observed variables (Raykov & Marcoulides, 2000). We then conducted structural invariance analysis, a multisample modeling procedure (Jöreskog & Sörbom, 1996a), to examine the structural invariance of Model 1 across the Asian and Asian American and White samples. Multisample modeling is used to analyze the data from several samples simultaneously and involves testing the invariance of path coefficients and error variances across groups (Jöreskog & Sörbom, 1996a). Finally, path analysis was used to test the relative importance of acculturation in Models 2, 3, and 4. We used the LISREL 8.52 (Jöreskog & Sörbom, 2002) maximum likelihood estimation method for the path analysis and the structural invariance analysis.

Results

Preliminary Analysis on the PPI

The item analysis was first conducted on the 32-item PPI on the severity of personal concerns scores. Seven personal concern items (sexual and/or physical abuse; drug addiction; ethnic identity confusion; eating disorders; gay, lesbian, and bisexual issues; suicidal

feelings and/or behavior; and learning disabilities) were deleted because of low endorsement (relatively low mean, low standard deviation, and high skewness). A principle component analysis was then performed on the remaining 25 items. R. A. Johnson and Wichern (1998, p. 475) recommended examining the scree plot of eigenvalues. The point of an elbow in the eigenvalue plot indicates the number of components to retain. Eigenvalues for Components 1 through 6 are 7.68, 1.74, 1.43, 1.29, 1.13, and 1.02. On the basis of the examination of the scree plot, we retained the first component, which accounted for 31% of total sample variance. The component coefficients on the first component ranged from .33 to .76 on the 25 items, and the communality of each item on the first component ranged from .10 to .58, suggesting that the first principle component was essentially an average of the total 25 items. Therefore, the total scores on the 25-item PPI on severity of personal concerns and willingness to seek counseling were used for the present study. As shown in Table 1, the coefficient alphas for the 25-item PPI on severity of personal concerns are .91 for the Asian and Asian American sample and .89 for the White sample, and the coefficient alpha for the 25-item PPI on willingness to seek counseling is .97 for both samples.

Data Screening

For the present study, we used the PRELIS 2 computer program (Jöreskog & Sörbom, 1996b) to perform data screening to handle missing values, evaluate multivariate normality, and provide sufficient accommodations to produce appropriate correlation matrices. We further examined the size of our samples to ensure that we had enough statistical power to yield interpretable and meaningful results.

Descriptive statistics. The means, standard deviations, skewness, and coefficient alphas for both samples are shown in Table 1. We used *t* tests to compare the mean differences between the two samples. The effect size *J. Cohen's* (1988) *d* and significance of mean differences are also shown in Table 1. The analysis of mean differences indicated that Asian and Asian American students had more personal concerns and were more willing to seek counseling help, although they had less favorable attitudes toward seeking counseling compared with White students. The Asian and Asian American students also reported less social support than the White students did. Compared with *J. Cohen's* (1988) benchmarks, where an effect size of .20 is small, .50 is medium, and .80 is large, the

Table 1
Summary Statistics of Measures for the Asian and Asian American Sample and the White Sample

Measure	Asian and Asian American (<i>n</i> = 190)				White (<i>n</i> = 336)				Score limit	<i>d</i>
	<i>M</i>	<i>SD</i>	$\gamma 1$	α	<i>M</i>	<i>SD</i>	$\gamma 1$	α		
Attitude toward counseling	3.21	0.49	0.32	.84	3.37	0.53	-0.09	.87	1-5	.31**
Self-concealment	2.75	0.82	-0.01	.85	2.67	0.88	0.01	.85	1-5	.09
Perceived social support	2.62	0.34	-0.59	.91	2.81	0.31	-1.09	.90	0-4	.59**
Severity of personal concerns	2.30	0.61	0.26	.91	2.07	0.58	0.61	.89	1-5	.39**
Willingness to seek counseling	2.33	1.05	0.73	.97	2.09	1.01	1.04	.97	1-5	.23**
Behavioral acculturation	2.94	0.75	0.13	.93					1-5	
Adherence to Asian value	4.08	0.53	-0.31	.78					1-7	

Note. $\gamma 1$ = skewness.
** *p* < .01.

effect sizes shown in Table 1 are small with the exception of the medium effect size for perceived social support.

Multivariate normality. Before using SEM, it is important to assess whether the data display multivariate normality. McDonald and Ho (2002) argued that the presence of excessive skewness and/or kurtosis in the data could give biased standard errors and incorrect test statistics. We examined the means, standard deviations, and skewness for the variables shown in Table 1 using a graphical display of these distributions, and we found that none of the measures in the present study showed excessive skewness or a floor or ceiling effect, so there was no need to adjust the original values.

Missing data handling and computation of correlation matrices. A second common problem in SEM application is missing data. Traditional methods can be used to handle this issue, such as listwise and pairwise deletions; however, these methods may result in a large proportion of the data being discarded, which may introduce bias. Recently, imputation of missing values (Jöreskog & Sörbom, 1996b, p. 153) has received increased attention in cases where multiple data sets are collected. Application of an imputation procedure leads to set of plausible values replacing the missing values.

In the present study, 16.3% and 5.6% of the cases had missing values in the Asian and Asian American sample and the White sample, respectively. We used PRELIS 2 imputation procedure with listwise deletion (Jöreskog & Sörbom, 1996b) to handle missing values on all variables. The procedure completed 36% and 100% of the cases with missing values in the Asian and Asian American and White samples, respectively, resulting in effective sample sizes of 190 Asian and Asian American students and 336 White students. Pearson product-moment correlation coefficients were then calculated for all variables. The correlation matrices for the Asian and Asian American and White samples are shown in Table 2.

Sample size. SEM typically requires large samples to ensure precision for parameter estimates. It is suggested that the sample size should be at least 200 (Chou & Bentler, 1995) or that the ratio of number of people to number of observed variables should be at least 10:1, if not 15:1 or 20:1 (Mueller, 1997). In the current study, the 336 effective White participants and 190 effective Asian and Asian American participants met the sample size requirement for SEM, and the ratios of sample size to observed variables are above 20:1 for both samples.

Adequacy of Cramer's Model (Model 1)

We first conducted path analysis to test whether Cramer's (1999) model (Model 1) has an adequate fit for both the Asian and Asian American sample and the White sample. Several model-fit indices (root-mean-square error of approximation [RMSEA], standardized root-mean-square residual [SRMR], and comparative fit index [CFI]) were calculated to assess the overall model fit. The RMSEA (Steiger, 1989), an index of lack of fit, measures the discrepancy between the original and reduced matrices per degree of freedom. The SRMR (Bentler, 1995) is the average of the standardized fitted residual. The CFI (Bentler, 1989) measures improvement in fit by comparing a target model with a more restricted, nested baseline model. Hu and Bentler (1998) indicated that these fit indices are fairly robust across methods of estimation and violation of normality. Recent findings from a Monte Carlo simulation study (Hu & Bentler, 1999) indicated that the values of .06 or lower for RMSEA, of .08 and lower for SRMR, and of .95 or higher for CFI suggest a relatively good fit, and the values of .08 or lower for RMSEA, of .10 or lower for SRMR, and of .90 or higher for CFI suggest an acceptable fit.

As shown in Table 3, the fit indices for Model 1 showed an excellent model fit for the Asian and Asian American sample and the White sample, accounting for 74% and 88% of total variances, respectively. Overall, the result from path analysis showed that Cramer's (1999) model had an adequate fit for both samples.

Structural Invariance of Cramer's Model (Model 1)

Structural invariance analysis, a multisample modeling procedure (Jöreskog & Sörbom, 1996a), was used to examine whether the structure of Model 1 is invariant for the Asian and Asian American sample and the White sample. The error variances of the observed variables were not assumed to be the same across samples. A stepwise procedure was performed to investigate to what extent the path coefficients were invariant across the Asian and Asian American and White groups. In the first step, we constrained all the path coefficients to be invariant across two groups. In the steps that followed, we allowed some path coefficients to be different for the two groups while retaining the invariance of the remaining path coefficients. To better discern the extent path coefficients were invariant across two groups, the structural invariance analysis was tested for all the six paths separately rather than simultaneously (see Figure 1, Path 1 to Path 6).

Table 2

Intercorrelations of Measures for the Asian and Asian American Sample and the White Sample

Measure	1	2	3	4	5	6	7
1. Attitude toward counseling	—	-.24**	.17**	-.06	.43**		
2. Self-concealment	-.42**	—	-.48**	.49**	.06		
3. Perceived social support	.28**	-.41**	—	-.48**	-.06		
4. Severity of personal concern	-.16*	.33**	-.39**	—	.31**		
5. Willingness to seek counseling	.36**	.05	.03	.20**	—		
6. Behavioral acculturation	.20**	-.07	.26**	-.04	.00	—	
7. Adherence to Asian value	-.34**	.16*	-.04	.14	-.09	-.18*	—

Note. Correlations for the Asian and Asian American sample ($n = 190$) are reported below the diagonal, and the correlations for the White sample ($n = 336$) are reported above the diagonal.

* $p < .05$, two-tailed. ** $p < .01$, two-tailed.

Table 3
Path Analysis for Model 1 and Model 2

Sample and steps	χ^2	<i>df</i>	$\Delta\chi^2$	Δdf	RMSEA	CI	SRMR	CFI
Model 1								
Asian and Asian American (<i>n</i> = 190)	9.56	4			.086	.006, .160	.046	0.97
White (<i>n</i> = 336)	4.95	4			.027	.000, .090	.026	1.00
Model 2								
Asian and Asian American (<i>n</i> = 190)								
Constrain Path 9 and Path 10 to 0	48.63	12			.130	.092, .170	.086	.81
No constraints	27.07	10	21.56**	2	.096	.053, .140	.061	.91

Note. RMSEA = root-mean-square error of approximation; CI = 90% confidence interval; SRMR = standardized root-mean-square residual; CFI = comparative fit index.

** $p < .01$.

The results from the structural invariance analyses are presented in Table 4. Step 1 was the test of path coefficient invariance across the Asian and Asian American and White samples. The chi-square used for multisample modeling is a measure of overall fit for both groups. In general, this chi-square cannot be decomposed into a chi-square for each group separately (Jöreskog & Sörbom, 1996a). Under the column labeled Invariance constraint in Table 4, the paths with a significant chi-square difference ($p < .05$) are shown. Traditionally, a chi-square difference ($\Delta\chi^2$) test is used to evaluate the invariance of the particular parameters; that is, the lack of the significant chi-square differences between two consecutive steps indicates that the examined parameters were invariant across groups. In the present study, the invariance hypothesis was rejected for the path from self-concealment to attitude toward counseling, $\Delta\chi^2(1) = 4.35$, $p < .05$, whereas the other five path coefficients remained invariant across the two samples.

The estimated path coefficients and standard errors for Model 1 by the Asian and Asian American sample and the White sample are presented in Table 5. Results indicated that Path 4 (self-concealment to attitude toward counseling) showed a stronger effect for the Asian and Asian American sample (path coefficient = $-.42$) compared with the White sample (path coefficient = $-.24$). Overall, the results replicated most of Cramer's (1999) predictions: (a) Students with higher severity of personal concerns and positive attitude toward counseling were more willing to seek counseling; (b) students who were high in self-concealment had less social support, higher severity of personal concerns, and a negative attitude toward counseling; and (c) students with higher perceived social support had lower severity of personal concerns.

In addition to the conventional chi-square difference test, several model fit indices (RMSEA, SRMR, and CFI) were calculated to assess the stability of the overall model fit after setting the path free. As shown in Table 4, the RMSEA, SRMR, and CFI values were not stable across two steps. These results provided additional support for the lack of invariance of Model 1.

Addition of Acculturation

Path analyses were performed on Models 2, 3, and 4 to examine whether the addition of acculturation to Cramer's (1999) model would better explain the help-seeking behavior for Asian and Asian American students. As discussed above, Model 2 is identical to Model 1 with the exception that two acculturation indicators (behavioral acculturation and adherence to Asian value) are added and have direct paths to attitude toward counseling (see Figure 1, Path 9 and Path 10). Both Model 3 and Model 4 build on Model 2. Model 3 has two additional direct paths from the two acculturation indicators to severity of personal concerns (Path 7 and Path 8), and Model 4 has two additional paths from the two acculturation indicators to willingness to seek counseling (Path 11 and Path 12). Both behavioral acculturation and adherence to Asian value were examined to test their differential effect on the help-seeking model.

We first examined the effect of adding two paths of acculturation to attitude toward counseling (Path 9 and Path 10). For a test of Paths 9 and 10, the total number of variables in the model needs to stay the same to receive a statistically valid chi-square test (see Jöreskog & Sörbom, 1996a, pp. 10–11). Therefore, we cannot directly compare Model 1 (without acculturation) and Model 2

Table 4
Structure Invariance Analyses Between the Asian and Asian American Sample and the White Sample for Model 1

Step	Invariance constraint	χ^2	<i>df</i>	$\Delta\chi^2$	Δdf	RMSEA	CI	SRMR	CFI
Step 1	Set all path coefficients invariant	24.10	14			.053	.000, .087	.076	.98
Step 2	Set Path 4 free	19.75	13	4.35*	1	.045	.000, .082	.062	.99

Note. RMSEA = root-mean-square error of approximation; CI = 90% confidence interval; SRMR = standardized root-mean-square residual; CFI = comparative fit index.

* $p < .05$.

Table 5
Path Coefficients and Standard Errors for Model 1 and Model 2

Model and path	Asian and Asian American		White	
	Coefficient	SE	Coefficient	SE
Model 1				
Path 1	-.41**	.07	-.48**	.05
Path 2	-.31**	.07	-.32**	.05
Path 3	.21**	.07	.34**	.05
Path 4	-.42**	.07	-.24**	.05
Path 5	.33**	.05	.26**	.07
Path 6	.45**	.05	.40**	.07
Model 2				
Path 1	-.41**	.07		
Path 2	-.31**	.07		
Path 3	.21**	.07		
Path 4	-.37**	.06		
Path 5	.26**	.07		
Path 6	.40**	.07		
Path 9	.13*	.06		
Path 10	-.26**	.06		

* $p < .05$. ** $p < .01$.

(with acculturation) to test the acculturation effect because without two acculturation variables, Model 1 would still be saturated and would fit the data perfectly because of a small number of degrees of freedom. In general, the procedure involved comparing Model 2 with and without constraints to ensure the same number of variables were tested. In the constrained model, the paths from the two acculturation indicators to attitude toward counseling (Path 9 and Path 10) are set to 0. We used the fit indices (RMSEA, SRMR, and CFI) to assess the overall model fit. We also used the chi-square difference test ($\Delta\chi^2$) to evaluate the relative improvement of model fit when adding or deleting paths from the model.

The fit indices of the constrained and unconstrained Model 2 are displayed in Table 3. The chi-square difference tests and the fit indices revealed that the unconstrained model fits better than the constrained model does, with significant improvement in model fit after two paths (Path 9 and Path 10) are added from two acculturation indicators to attitude toward counseling, $\Delta\chi^2(2, N = 190) = 21.56, p < .01$.

The path coefficients and their standard errors for Model 2 are presented in Table 5. The data showed that a significant relationship between acculturation and attitude toward counseling exists (Path 9 and Path 10), where Asian and Asian American students who were behaviorally acculturated or who endorsed less Asian values exhibited a more favorable attitude toward seeking counseling. Because path analysis was conducted with a correlation matrix, the path coefficients can be compared for their relative importance as predictors (Raykov & Marcoulides, 2000). In the comparison of the path coefficients between two acculturation indicators, the results showed that the path from adherence to Asian value to attitude toward counseling (Path 10, $-.26$), $t(189) = -3.99, p < .01$, was stronger than the behavioral acculturation path (Path 9, $.13$), $t(189) = 2.03, p < .05$.

As shown in Table 5, the strength of the path coefficient in Model 2 from self-concealment to attitude toward counseling ($-.37$ for Path 4) is larger than the path coefficients from adher-

ence to Asian value ($-.26$ for Path 10) and behavioral acculturation ($.13$ for Path 9) to attitude toward counseling. The correlation between self-concealment and adherence to Asian value was significant ($r = .16, p < .05$) and the correlation between self-concealment and behavioral acculturation was not significant ($r = -.07, p > .05$), indicating that self-concealment may be related to Asian values. Overall, compared with adherence to Asian value and behavioral acculturation, the results suggest that self-concealment seems to account for more variance in attitude toward counseling.

To address the relative degree of model improvement achieved from the addition of paths in Model 3 and Model 4, we tested the chi-square difference between Models 2 and 3 and between Models 2 and 4. As shown in Figure 1, Path 7 and Path 8 were added to Model 3 from the two acculturation indicators to severity of four personal concerns. Path 11 and Path 12 were added to Model 4 from the two acculturation indicators to the willingness to seek counseling for the four personal concerns. The results revealed a nonsignificant chi-square difference test for all the paths added to Model 3 and Model 4 ($p > .05$). The lack of significant chi-square difference from Model 2 to Model 3 indicated that both behavioral acculturation and adherence to Asian value did not relate to severity of personal concerns. The lack of a significant chi-square difference from Model 2 to Model 4 indicated that both behavioral acculturation and adherence to Asian value did not directly predict willingness to seek counseling. This finding supported our hypothesis and replicated Kim and Omizo's (2003) study, which showed that attitude toward counseling mediates the relation between acculturation and willingness to seek counseling.

Discussion

Can Cramer's (1999) model be extended to an Asian and Asian American college student population? We found that it can. Cramer's help-seeking model had an adequate overall fit for both the Asian and Asian American sample and the White sample in the present study. These results replicated Cramer's (1999) findings and generalized Cramer's model to Asian and Asian American students. However, although Cramer's model can be seen to fit either population, structural invariance analysis showed that what takes place within the model is not identical for these two groups. Between groups, variation within Cramer's model can be primarily attributed to the concept of self-concealment, a concept that seems to be central to understanding Asians' and Asian Americans' attitudes toward counseling.

The lack of invariance between the student samples was centered on one path: self-concealment to attitude toward counseling. Self-concealment involves the conscious concealment of personal information (thoughts, feelings, actions, or events) that is simultaneously personal and negative. We found that self-concealment was more negatively related to attitude toward counseling for the Asian and Asian American students than for the White students. The strength of the self-concealment relationship for the Asian and Asian American students may involve the issue of shame and loss of face. Shame and loss of face is a salient value in East Asian cultures (Ho, 1991). Avoiding loss of face is essential to maintain one's social roles and integrity. Self-concealment could be viewed as a way of avoiding loss of face. Zane and Yeh (2002) stated that avoiding loss of face is a particularly important interpersonal

dynamic when the relationship involves seeking help for personal concerns. They proposed that face issues could provide explanations for Asian Americans' attitudes toward seeking counseling (S. Sue et al., 1994). Face could be a key to explaining the strong link between self-concealment and attitudes toward counseling.

The fit of Cramer's model for an Asian and Asian American student population can be significantly improved by including acculturation. Both forms of acculturation examined in this study, behavioral acculturation and adherence to Asian value, contributed to model-data fit for Asian and Asian American students. Of the two, adherence to Asian value accounted for more explanatory variance than did behavioral acculturation in predicting attitude toward counseling.

The current study recasts the role of acculturation in understanding Asian and Asian American help-seeking patterns. Previous researchers have tended to examine the direct effects of acculturation on either attitude toward counseling (Atkinson & Gim, 1989; Tata & Leong, 1994; Ying & Miller, 1992) or willingness to seek counseling (Atkinson et al., 1995; Gim et al., 1990; Lau & Takeuchi, 2001) without considering the possibility of a mediation model. We found no evidence that acculturation has a direct effect on willingness to seek counseling; instead, it appears that acculturation influences one's attitude toward counseling, which in turn increases one's willingness to seek counseling. Attitude toward counseling appears to mediate the relationship between acculturation and willingness to seek counseling, a finding that is consistent with that of other researchers who have examined such a mediation model (Kim & Omizo, 2003).

As expected, behavioral acculturation and adherence to Asian value differed in their contributions to willingness to seek counseling. Our revision of Cramer's model shows that adherence to Asian value accounted for more explanatory variance than did behavioral acculturation in predicting Asian and Asian American students' attitudes toward counseling. This finding underscores the multidimensional nature of acculturation, in which various dimensions capture different aspects of acculturation (Kim & Abreu, 2001).

The path analysis showed that self-concealment, as compared with adherence to Asian value, accounted for more explanatory variance in attitude toward counseling. Nevertheless, both variables made independent contributions, indicating that both self-concealment and adherence to Asian value are important in modeling help-seeking behaviors for Asian and Asian American students. There are other ways to model the relationship between these two variables. For example, the significant correlation between self-concealment and adherence to Asian value in the present study indicated that Asian values may have a direct influence on self-concealment, if self-concealment is a way of coping with value-based phenomena such as loss of face. How self-concealment and Asian values interact is an area for future study.

Contrary to previous findings (Gim et al., 1990), the present results did not indicate a significant link between acculturation and the severity of personal concerns. Possibly there are moderators that differentially impact the process between acculturation and severity of personal concerns, such as generation status, religion, and family bond (Roysircar & Maestas, 2002). It may be important to conceptualize the process of acculturation and severity of personal concerns differently. Personal concerns may result from the acculturation process itself or other factors (Sodowsky & Lai,

1997). Roysircar and Maestas (2002) indicated that two kinds of stress occurred as a result of the process of acculturation: acculturative stress and bicultural stress. Acculturative stress occurs when an individual's adaptive resources are insufficient to support adjustment to a new cultural environment. Bicultural stress arises from the conflicts associated with simultaneously belonging to more than one culture. A bicultural Asian American may be highly conflicted when finding him- or herself stuck between two contrasting values (Sodowsky, 1991). In the current study, we tested acculturative stress. It seems important for future research on help-seeking models to incorporate both acculturative stress and bicultural stress.

Limitations and Recommendations

The results of the present study need to be considered in light of several methodological issues. First, the present samples of students restrict the generalizability of the results and may not represent young adults in other contexts. Replication with other samples is recommended. Second, we included international Asian students who were not born in the United States in the present study to ensure the heterogeneity of the Asian population on a college campus. Nevertheless, we are not sure if the construct of acculturation is applicable in the same way to international Asian students, recent Asian immigrants, and Asian Americans who were born in the United States. Third, different sampling procedures (course credit vs. recruitment and incentives) may have differentially affected who was in the Asian and Asian American sample compared with who was recruited for the White sample. Fourth, an adequate model fit does not preclude a more efficient, as yet untested model. Researchers are encouraged to test alternative hypotheses. We also suggest that future research include other more contextual variables in the help-seeking model, such as attractiveness and credibility of the counseling center. Fifth, the use of path analysis on correlational data to draw causal conclusion remains controversial. Despite its greater sophistication, path analysis remains correlational in nature, and causality is a conceptual rather than statistical issue. Finally, we are uncertain how the moderate level of path coefficients can be translated into practice. We encourage further replication of this model to ensure its applicability in practice.

Ajzen (2001) has reviewed research on the attitude-behavior link and concluded that intentions moderate the relationship between attitude and behavior. In the present study, the measure of willingness to seek counseling is intentional in nature, which would likely translate into seeking counseling. Nevertheless, we encourage researchers conducting future studies to test the relationship between intention toward seeking counseling and seeking counseling.

A criticism of acculturation measurement in general and of its use in studying help seeking is that measures reflect a unilinear model of acculturation in which an increased orientation to one culture corresponds to an equivalent decrease in another culture (Cuellar, Arnold, & Maldonado, 1995). The emphasis of unilinear models in acculturation measurement has resulted in a limited understanding of contextual variations in acculturation adaptation (Kim & Abreu, 2001). In contrast, a bilinear model can account separately for acculturation, the process of adapting to the dominant culture, and enculturation, the process of retaining indigenous

cultural orientations (Berry, 1990). Kim and Omizo (2003) have noted this acculturation–enculturation distinction and have suggested that the SL–ASIA is a measure of acculturation and the AVS is a measure of enculturation. Such a distinction applied to the present study indicates that enculturation may have a greater impact on help seeking than acculturation does. This interpretation can serve as a hypothesis for future study.

Recently, a dynamic constructivist approach has been proposed to highlight the process of acculturation as opposed to the outcome of acculturation from traditional linear models (Hong, Morris, Chiu, & Benet-Martínez, 2000). This approach can be assessed through switching between different cultural frames to stimulate the experiences of bicultural individuals. In light of the complexity of the acculturation processes, we encourage future inquiries to continue to develop acculturation–enculturation models that discern how the process of acculturation influences help-seeking behaviors. Consistent with this suggestion, efforts to develop and refine measures to assess acculturation–enculturation are needed. We also invite the evaluation of the present model with other ethnic groups.

Implications for Counseling Practice

The current findings suggest that self-concealment and acculturation are central to the development of positive attitudes toward counseling with Asian and Asian American college students. The primary importance of self-concealment suggests that psychological services need to be more culturally sensitive. Changes in the traditional practices of counseling can have an effect on attitudes toward counseling. Counselors need to be aware that Asian and Asian American clients with interpersonal and emotional problems could have difficulties in disclosing highly intimate and personal issues. Attention to loss-of-face issues can assist in understanding an Asian or Asian American client's interpersonal mechanisms in therapy and avoid early termination due to excessive disclosure (S. Sue et al., 1994). Zane and Yeh (2002) recommended that counselors conduct “face work” to build rapport before using traditional techniques to elicit self-disclosure, such as the facilitation of emotional arousal and active questioning. Face work involves ways counselors can promote the client's sense of self-esteem, autonomy, and solidarity in therapy, which can help reduce the threats of loss of face and shame (Goffman, 1995; Spiers, 1998).

The current findings also suggest that the use of counseling often depends on the degree to which the client is acculturated to the host culture or enculturated to the indigenous culture. Less acculturated or more enculturated Asian American students generally do not believe that traditional counseling will help them, and they terminate counseling prematurely as a result (D. W. Sue & Sue, 1999). An initial step could involve collaborative outreach work among university faculty, ethnic student services, religious leaders, and counselors to meet the psychological needs of enculturated Asian Americans. Knowledge of a client's adherence to Asian values may be of more importance to a counselor than knowing the client's level of behavioral acculturation. Before being assigned to a counselor, an Asian or Asian American client's cultural value orientation should be assessed. Culturally responsive, bicultural, or bilingual counselors can provide a climate of familiarity and are better prepared to understand the variability among behaviors and symptoms within an Asian cultural context.

The success of counseling with less acculturated or more enculturated Asian and Asian American students depends on whether the counselor can provide culturally responsive techniques in therapy, such as expression of cognition rather than emotion, task-oriented content, and immediate symptom relief (Kim, Atkinson, et al., 2001). Overall, attention to cultural values may increase the client's perception of the counselor's credibility, which may lead to a more lengthy and meaningful engagement in the counseling process.

References

- Abe-Kim, J., Okazaki, S., & Goto, S. G. (2001). Unidimensional versus multidimensional approaches to the assessment of acculturation for Asian American populations. *Cultural Diversity & Ethnic Minority Psychology, 7*, 232–246.
- Ajzen, I. (2001). Nature and operation of attitudes. *Annual Review of Psychology, 52*, 27–58.
- Atkinson, D. R. (1985). A meta-review of research on cross-cultural counseling and psychotherapy. *Journal of Multicultural Counseling and Development, 13*, 138–153.
- Atkinson, D. R., & Gim, R. H. (1989). Asian-American cultural identity and attitudes toward mental health services. *Journal of Counseling Psychology, 35*, 209–212.
- Atkinson, D. R., Lowe, S., & Matthews, L. (1995). Asian-American acculturation, gender, and willingness to seek counseling. *Journal of Multicultural Counseling and Development, 23*, 130–138.
- Bentler, P. M. (1989). *EQS structural equation program manual* [Computer program manual]. Los Angeles: BMDP Statistical Software.
- Bentler, P. M. (1995). *EQS: Structural equations program manual* [Computer program manual]. Encino, CA: Multivariate Statistical Software.
- Berry, J. W. (1990). Psychology of acculturation. In J. J. Berman (Ed.), *Cross-cultural perspectives* (pp. 201–234). Lincoln: University of Nebraska Press.
- Cepeda-Benito, A., & Short, P. (1998). Self-concealment, avoidance of psychological services, and perceived likelihood of seeking professional help. *Journal of Counseling Psychology, 45*, 58–64.
- Chou, C.-P., & Bentler, P. M. (1995). Estimates and tests in structural equation modeling. In R. Hoyle (Ed.), *Structural equation modeling: Issues, concepts, and applications* (pp. 37–55). Newbury Park, CA: Sage.
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Hillsdale, NJ: Erlbaum.
- Cohen, S., Mermelstein, R., Kamarack, T., & Hoberman, H. M. (1985). Measuring the functional components of social support. In I. G. Sarason & B. R. Sarason (Eds.), *Social support: Theory, research, and applications* (pp. 73–94). The Hague, the Netherlands: Martinus Nijhoff.
- Cramer, K. M. (1999). Psychological antecedents to help-seeking behavior: A reanalysis using path modeling structures. *Journal of Counseling Psychology, 46*, 381–387.
- Cramer, K. M., & Barry, J. E. (1999). Psychometric properties and confirmatory factor analysis of the self-concealment scale. *Personality and Individual Differences, 27*, 629–637.
- Cuellar, I., Arnold, B., & Maldonado, R. (1995). Acculturation Rating Scale for Mexican Americans–II: A revision of the original ARSMA Scale. *Hispanic Journal of Behavioral Sciences, 17*, 275–304.
- Fischer, E. H., & Turner, J. L. (1970). Orientations to seeking professional help: Development and research utility of an attitude scale. *Journal of Consulting and Clinical Psychology, 35*, 79–90.
- Fisher, E. H., & Farina, A. (1995). Attitudes toward seeking professional psychological help: A shortened form and considerations for research. *Journal of College Student Development, 36*, 368–373.
- Fogel, J., Albert, S. M., Schnabel, F., Ditkoff, B. A., & Neugut, A. I. (2003). Racial/ethnic differences and potential psychological benefits in

- use of the Internet by women with breast cancer. *Psycho-Oncology*, *12*, 107–117.
- Gim, R. H., Atkinson, D. R., & Whiteley, S. (1990). Asian-American acculturation, severity of concerns, and willingness to see a counselor. *Journal of Counseling Psychology*, *37*, 281–285.
- Goffman, E. (1955). On face-work: An analysis of ritual elements in social interaction. *Psychiatry: Journal for the Study of Interpersonal Processes*, *18*, 213–231.
- Hardin, E. E., Leong, F. T. L., & Osipow, S. H. (2001). Cultural relativity in the conceptualization of career maturity. *Journal of Vocational Behavior*, *58*, 36–52.
- Ho, D. (1991). The concept of “face” in Chinese–American interaction. In W. C. Hu & C. L. Grove (Eds.), *Encountering the Chinese: A guide for Americans* (pp. 111–124). Yarmouth, ME: Intercultural Press.
- Hong, Y., Morris, M. W., Chiu, C., & Benet-Martínez, V. (2000). Multi-cultural minds: A dynamic constructivist approach to culture and cognition. *American Psychologist*, *55*, 709–720.
- Hu, H. C. (1944). The Chinese concepts of “face.” *American Anthropologist*, *46*, 45–64.
- Hu, L., & Bentler, P. M. (1998). Fit indices in covariance structure modeling: Sensitivity to underparameterized model misspecification. *Psychological Methods*, *3*, 424–453.
- Hu, L., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling*, *6*, 1–55.
- Johnson, M. L., Wall, T. L., Guanipu, C., Terry-Guyer, L., & Velasquez, R. J. (2002). The psychometric properties of the orthogonal cultural identification scale in Asian Americans. *Journal of Multicultural Counseling and Development*, *30*, 181–190.
- Johnson, R. A., & Wichern, D. W. (1998). *Applied multivariate statistical analysis*. Upper Saddle River, NJ: Prentice Hall.
- Johnson, S. L., Meyer, B., Winett, C., & Small, J. (2000). Social support and self-esteem predict changes in bipolar depression but not mania. *Journal of Affective Disorders*, *58*, 79–86.
- Jöreskog, K. G., & Sörbom, D. (1996a). *LISREL 8: User's reference guide* [Computer program manual]. Chicago: Scientific Software International.
- Jöreskog, K. G., & Sörbom, D. (1996b). *PRELIS 2: User's reference guide* [Computer program manual]. Chicago: Scientific Software International.
- Jöreskog, K. G., & Sörbom, D. (2002). LISREL (Version 8.52) [Computer software]. Lincolnwood, IL: Science Software International.
- Kelly, A. E., & Achter, J. A. (1995). Self-concealment and attitudes toward counseling in university students. *Journal of Counseling Psychology*, *42*, 40–46.
- Kim, B. S. K., & Abreu, J. M. (2001). Acculturation measurement. In J. G. Ponterotto, J. M. Casas, L. A. Suzuki, & C. M. Alexander (Eds.), *Handbook of multicultural counseling* (2nd ed., pp. 394–424). Thousand Oaks, CA: Sage.
- Kim, B. S. K., & Atkinson, D. R. (2002). Asian American client adherence to Asian cultural values, counselor expression of cultural values, counselor ethnicity, and career counseling process. *Journal of Counseling Psychology*, *49*, 3–13.
- Kim, B. S. K., Atkinson, D. R., & Umemoto, D. (2001). Asian cultural values and the counseling process: Current knowledge and directions for future research. *The Counseling Psychologist*, *29*, 570–603.
- Kim, B. S. K., Atkinson, D. R., & Yang, P. H. (1999). The Asian Values Scale: Development, factor analysis, validation, and reliability. *Journal of Counseling Psychology*, *46*, 342–352.
- Kim, B. S. K., Li, L. C., & Liang, C. T. H. (2002). Effects of Asian American client adherence to Asian cultural values, session goals, and counselor emphasis of client expression on career counseling process. *Journal of Counseling Psychology*, *49*, 342–354.
- Kim, B. S. K., & Omizo, M. M. (2003). Asian cultural values, attitudes toward seeking professional psychological help, and willingness to see a counselor. *The Counseling Psychologist*, *31*, 343–361.
- Kim, B. S. K., Yang, P. H., Atkinson, D. R., Wolfe, M. M., & Hong, S. (2001). Cultural value similarities and differences among Asian American ethnic groups. *Cultural Diversity & Ethnic Minority Psychology*, *7*, 343–361.
- Larson, D. G., & Chastain, R. L. (1990). Self-concealment: Conceptualization, measurement, and health implications. *Journal of Social and Clinical Psychology*, *9*, 439–455.
- Lau, A., & Takeuchi, D. (2001). Cultural factors in help-seeking for child behavior problems: Value orientation, affective responding, and severity appraisals among Chinese-American parents. *Journal of Community Psychology*, *29*, 675–692.
- Leong, F. T. L., & Lau, A. S. (2001). Barriers to providing effective mental health services to Asian Americans. *Mental Health Service Research*, *3*, 201–214.
- Lopez, F. G., Melendez, M. C., Sauer, E. M., Berger, E., & Wyssmann, J. (1998). Internal working models, self-reported problems, and help-seeking attitudes among college students. *Journal of Counseling Psychology*, *45*, 79–83.
- McDonald, R. P., & Ho, M. R. (2002). Principles and practice in reporting structural equation analyses. *Psychological Methods*, *7*, 64–82.
- Moyerman, D. R., & Forman, B. D. (1992). Acculturation and adjustment: A meta-analytic study. *Hispanic Journal of Behavioral Sciences*, *14*, 163–200.
- Mueller, R. O. (1997). Structural equation modeling: Back to basics. *Structural Equation Modeling*, *4*, 353–369.
- Ponce, F. Q., & Atkinson, D. R. (1989). Mexican-American acculturation, counselor ethnicity, counseling style, and perceived counselor credibility. *Journal of Counseling Psychology*, *36*, 203–208.
- Ponterotto, J. G., Baluch, S., & Carielli, D. (1998). The Shinn–Lew Asian Self-Identity Acculturation Scale (SL-ASIA): Critique and research recommendations. *Measurement and Evaluation in Counseling and Development*, *31*, 109–124.
- Raykov, T., & Marcoulides, G. A. (2000). *A first course in structural equation modeling*. Mahwah, NJ: Erlbaum.
- Royse, G., & Maestas, M. L. (2002). Assessing acculturation and cultural variables. In K. S. Kurasaki, S. Okazaki, & S. Sue (Eds.), *Asian American mental health: Assessment theories and methods* (pp. 123–139). New York: Kluwer Academic/Plenum Press.
- Simonsen, G., Blazina, C., & Watkins, C. E. J. (2000). Gender role conflict and psychological well-being among gay men. *Journal of Counseling Psychology*, *47*, 85–89.
- Sodowsky, G. R. (1991). Effects of culturally consistent counseling tasks on American and international student observers' perception of counselor credibility: A preliminary investigation. *Journal of Counseling Development*, *69*, 253–256.
- Sodowsky, G. R., & Lai, E. W. M. (1997). Asian immigrant variables and structural models of cross-cultural distress. In A. Booth, A. C. Crouter, & N. Landale (Eds.), *Immigration and the family: Research and policy on U.S. immigrants* (pp. 211–234). Mahwah, NJ: Erlbaum.
- Solberg, V. S., Rutsma, S., Davis, B. J., Tata, S. P., & Jolly, A. (1994). Asian-American students' severity of problems and willingness to seek help from university counseling centers: Role of previous counseling experience, gender, and ethnicity. *Journal of Counseling Psychology*, *30*, 215–220.
- Spiers, J. A. (1998). The use of face work and politeness theory. *Qualitative Health Research*, *8*, 25–47.
- Steiger, J. H. (1989). *EzPATH: A supplementary module for SYSTAT and SYGRAPG*. Evanston, IL: SYSTAT.
- Sue, D. W., & Sue, D. (1999). *Counseling the culturally different: Theory and practice* (3rd ed.). New York: Wiley.
- Sue, S., Zane, N. W. S., & Young, K. (1994). Research on psychotherapy with culturally diverse populations. In A. E. Bergin & S. L. Garfield (Eds.), *Handbook of psychotherapy and behavior change* (4th ed., pp. 783–817). New York: Wiley.

- Suinn, R. M., Rickard-Figueroa, K., Lew, S., & Vigil, P. (1987). The Suinn-Lew Asian Self-Identity Acculturation Scale: An initial report. *Educational and Psychological Measurement, 47*, 401-407.
- Tata, S. P., & Leong, F. T. L. (1994). Individualism-collectivism, social-network orientation, and acculturation as predictors of attitudes toward seeking professional psychological help among Chinese Americans. *Journal of Counseling Psychology, 41*, 280-287.
- Taylor, C. M., & Howard-Hamilton, M. E. (1995). Student involvement and racial identity attitudes among African American males. *Journal of College Student Development, 36*, 337-346.
- Tracey, T. J., Leong, F. T. L., & Glidden, C. (1986). Help seeking and problem perception among Asian Americans. *Journal of Counseling Psychology, 33*, 331-336.
- Williams, M. W., Skogstad, P., & Deane, F. P. (2001). Attitudes of male prisoners toward seeking professional psychological help. *Journal of Offender Rehabilitation, 34*, 49-61.
- Yeh, C., & Wang, Y. (2000). Asian American coping attitudes, sources, and practices: Implications for indigenous counseling strategies. *Journal of College Student Development, 41*, 94-103.
- Ying, Y., & Miller, L. S. (1992). Help-seeking behavior and attitude of Chinese Americans regarding psychological problems. *American Journal of Community Psychology, 20*, 549-556.
- Zane, N., & Yeh, M. (2002). The use of culturally-based variables in assessment: Studies on loss of face. In K. S. Kurasaki, S. Okazaki, & S. Sue (Eds.), *Asian American mental health: Assessment theories and methods* (pp. 123-139). New York: Kluwer Academic/Plenum Press.

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