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Testing a Multiple Mediation Model of
Asian American College Students' Willingness to See a Counselor

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Abstract

Adapting the theory of reasoned action (TRA), the present study examined help-seeking beliefs, attitudes, and intent among Asian American college students ($N = 110$). A multiple mediation model was tested to see if the relation between Asian values and willingness to see a counselor was mediated by attitudes toward seeking professional psychological help and subjective norm. A bootstrapping procedure was used to test the multiple mediation model. Results indicated that subjective norm was the sole significant mediator of the effect of Asian values on willingness to see a counselor. The findings highlight the importance of social influences on help-seeking intent among Asian American college students.

Keywords: Asian American, help-seeking attitudes, theory of reasoned action (TRA), social influences on help-seeking

Testing a Multiple Mediation Model of

Asian American College Students' Willingness to See a Counselor

Asian Americans generally tend to underutilize mental health services when faced with psychological problems (Abe-Kim et al., 2007). Furthermore, the low utilization rates are not because of lesser need. On the contrary, both Asian American community samples (Barreto & Segal, 2005) and Asian American college samples (Lee, Okazaki, & Yoo, 2006; Okazaki, 1997) have reported more symptoms than comparison groups. One possible reason for underutilization is the influence of Asian cultural values (e.g., Kim, 2007; Kim & Omizo, 2003). The present study examined how Asian cultural values might be related to this pattern of underutilization among Asian American college students.

Scholars have pointed to various Asian cultural values that may influence the willingness to use mental health services among Asian Americans, such as fear of losing face (Zane & Mak, 2003), denial of one's own suffering for the sake of others (True & Guillermo, 1996), and the importance of the family in problem resolution (Ahn Toupin, 1980). Relatively little empirical evidence, however, is available about the process by which cultural values and help-seeking intent are related. Addressing this gap in the literature, two studies based on Asian American college samples found that attitudes toward seeking professional psychological help mediate the relation between Asian values and willingness to see a counselor (Kim & Omizo, 2003; Liao, Rounds, & Klein, 2005). Although these studies provided an individual-level explanation for how Asian cultural values and willingness to see a counselor are related, questions still remain as to the possible existence of other collective-level explanations, such as social norms. Thus, the present study was designed to investigate the potential mediating mechanisms involved in the relation between Asian cultural values and willingness to see a counselor.

Theory of Reasoned Action

Although prior studies on the help-seeking attitudes of Asian Americans have provided valuable empirical data on the help-seeking process, very few studies, to our knowledge, have applied established theoretical models to frame research questions in this area (see Liao et al., 2005, for an exception). Given the importance of theory-driven science (e.g., Strong, 1991), we chose to adapt the theory of reasoned action (TRA; Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975) to frame our research questions. We selected the TRA because of its parsimony (Chang, Piliavin, & Callero, 1988), applicability to Asian American samples (e.g., Abrams, Ando, & Hinkle, 1998; Linnehan, Konrad, Reitman, Greenhalgh, & London, 2003), and predictive validity in the domain of help-seeking among college students (Vogel, Wade, & Hackler, 2007).

The TRA predicts an individual's behavior from *behavioral intention*, which in turn is influenced by the individual's *attitude toward the behavior* and *subjective norm* (Ajzen & Fishbein, 1980). Attitude toward the behavior is "the person's judgment that performing the behavior is good or bad" (Ajzen & Fishbein, 1980, p. 6). Subjective norm is the "person's perception of the social pressures put on him to perform or not perform the behavior in question" (Ajzen & Fishbein, 1980, p. 6) and is a function of an individual's *normative beliefs* ("beliefs that specific individuals or groups think he should or should not perform the behavior," Ajzen & Fishbein, 1980, p. 7), weighted by the individual's motivation to comply with these social referents. In the present study, subjective norm specifically represented the individual's perception of the social pressure to seek or not seek mental health services and his/her willingness to comply with that pressure.

This conceptualization of attitudes as comprising two distinct components is critical to the present study, which tested the contributions of both individual attitude and social norm to

help-seeking intent. We operationalized attitude toward behavior as *attitudes toward seeking professional psychological help*, subjective norm as *subjective norm related to help-seeking*, and intention as *willingness to see a counselor* (see Figure 1). We operationalized intention as willingness to see a counselor because (a) behavioral intention has been equated with “willingness to perform the behavior” (Albarracín, Fishbein, Johnson, & Muellerleile, 2001, p. 143), (b) willingness to see a counselor has been conceptualized as more proximal to actual help-seeking behavior than general attitudes toward seeking psychological help (Kim & Omizo, 2003), and (c) previous studies have examined willingness to see a counselor and attitudes toward seeking professional psychological help as two related but distinct constructs (e.g., Kim & Omizo, 2003; Liao et al., 2005).

Representing a modification of the TRA, we tested *Asian cultural values* as a predictor of attitudes toward seeking professional psychological help and subjective norm. We included Asian values as a predictor for two reasons. From a theoretical perspective, Ajzen and Fishbein’s (1980) description of attitudes toward behavior as “the person’s judgment that performing the behavior is good or bad” (p. 6) suggested that an individual’s values may influence his or her attitudes and behavioral intention. Empirically, previous studies have supported the relations of Asian values with attitudes and intent to seek counseling (Kim & Omizo, 2003), as well as with variables reflecting the importance of social norms for the individual, such as interdependent self-construal (Kim, Li, & Ng, 2005). Figure 1 summarizes the modified TRA model. We chose to focus on the values, attitudes, and help-seeking intent portion of the model because the mechanisms that are most influenced by the cultural context seem to occur prior to actual mental health service utilization.

A Multiple Mediation Model

We investigated *attitudes toward seeking professional psychological help* and *subjective norm* as important mediators between Asian cultural values and willingness to see a counselor by testing a multiple mediation model. A multiple mediation model tests “simultaneous mediation by multiple variables” (Preacher & Hayes, 2008, p. 880). As outlined in Preacher and Hayes (2008), the benefits of the multiple mediation model include: (a) ability to examine a set of potential mediators, (b) ability to control for other mediating effects, (c) decrease in parameter bias, and (d) testing of competing theories.

Previous empirical studies have demonstrated the mediating effect of attitudes toward seeking professional psychological help in the relation between Asian values and willingness to see a counselor (Kim & Omizo, 2003; Liao et al., 2005). However, little prior work has tested this variable as a mediator in conjunction with other attitudinal mediators. In the present study, attitudes toward seeking professional psychological help was hypothesized to help explain the relation between Asian values and willingness to see a counselor.

We also tested *subjective norm related to help-seeking* as a mediator between Asian values and willingness to see a counselor. Social influences related to help-seeking among Asian Americans have been theorized to be negative overall. For example, Asian Americans tend to discourage family members from seeking mental health services because of profound shame associated with seeing a mental health professional (Araneta Jr., 1993). This shame may extend beyond the immediate family to the extended family and even ancestors (Lin & Lin, 1981). Moreover, Yang, Phelan, and Link (2008) found evidence for communal shame related to using Western forms of mental health treatment among Chinese Americans, implying that perceived societal influences (i.e., communal shame) may affect help-seeking. The impact of social norms on help-seeking attitudes and intent among Asian Americans, however, remains untested. We

reasoned that Asian Americans would perceive negative social expectations from salient referents (e.g., parents, siblings, relatives) about mental health service utilization.

Furthermore, the level of the individual's desire to meet others' expectations may reduce or amplify the strength of normative beliefs related to help-seeking, and thus, we also assessed motivation to comply. Since Asian cultures typically emphasize respect for those in authority, filial piety, collectivism, and conformity to norms (Kim, Atkinson, & Yang, 1999), it is likely that in-group members exert significant social influence on one another. Also, the definition of the self in Asian cultures – namely, an interdependent self-construal – suggests that significant others play a central role in defining goals and decision making (Markus & Kitayama, 1991). For instance, one study showed that for more interdependent individuals, the views of family and friends were more likely to be factored into making major decisions (Cross, Bacon, & Morris, 2000). Interdependent individuals may have a stronger desire to preserve close relationships and avoid situations that can potentially harm those relationships (Cross & Vick, 2001), such as seeking psychological help. Thus, subjective norm was hypothesized to mediate the relation between Asian values and willingness to see a counselor.

In sum, we utilized the conceptual relations of the TRA to test a multiple mediation model by which Asian values and help-seeking intent might be related. Specifically, we hypothesized that subjective norm and attitudes toward seeking professional psychological help would mediate the relation between Asian values and willingness to see a counselor (see Figure 1). Total and specific indirect effects associated with the two hypothesized mediators were tested.

Method

Participants

Participants were 110 undergraduate students (59% female) who self-identified as: Korean ($n = 26$), Chinese ($n = 20$), Vietnamese ($n = 11$), Filipino ($n = 10$), multiracial ($n = 8$), Asian Indian ($n = 7$), multiple Asian ancestries ($n = 7$), Japanese ($n = 3$), Pacific Islander ($n = 2$), and South Asian ($n = 1$). Fifteen participants identified only as Asian or Asian American. The mean age was 19.15 years ($SD = 2.06$). Participants self-identified as first generation (19%), 1.5 generation (19%), second generation (52%), other (8%), and 2% did not specify. Participants had lived, on average, 75% ($SD = 34.01$) of their lives in the United States, or 14 years ($SD = 6.27$). Sixty-two percent of the participants were freshmen, 15% sophomores, 12% juniors, and 12% seniors. Twenty-one percent of the participants reported prior use of counseling services. The mean number of psychology courses taken was 0.92 ($SD = 1.14$).

Procedure

Participants were recruited via introductory psychology courses, telephone, e-mail, and visitations to campus organizations at a Midwestern university. Some participants completed the questionnaire packet in one session, while others completed it in two separate sessions in a laboratory setting.¹ Participants received research credit in a psychology course or were given a chance to win bookstore gift cards valued at \$15, \$25, or \$50.

Measures

Demographics. Age, gender, level of education, generational status, length of U.S. residency, number of psychology courses taken, and prior utilization of counseling services were obtained through a demographic questionnaire.

¹ We tested for any significant effects of participant group (completion of study in one vs. two sessions) on the outcome variables. No significant group differences emerged on the outcome variables.

Asian values. The Asian American Value Scale-Multidimensional (AAVS-M; Kim et al., 2005) consists of 42 items on a 7-point Likert scale (1 = *strongly disagree*; 7 = *strongly agree*) assessing adherence to Asian cultural values. The five subscales assess: (a) conformity to norms, (b) collectivism, (c) emotional self-control, (d) family recognition through achievement, and (e) humility. The initial validation of the AAVS-M on Asian American college students demonstrated good reliability, ranging from .75-.95 (Kim et al., 2005). A similar pattern of internal consistency was found in the present study, .79-.90. The total mean score was used in the main analysis, with higher scores indicating a stronger endorsement of Asian values.

Attitudes toward seeking professional psychological help. The Attitudes toward Seeking Professional Psychological Help-Short Form (ATSPPH-SF; Fischer & Farina, 1995) consists of 10 items on a 4-point Likert scale (0 = *disagree*; 3 = *agree*) assessing opinions about psychological services. Previous studies have utilized the ATSPPH-SF in investigating help-seeking attitudes among Asian American college students (e.g. Kim, 2007; Kim & Omizo, 2003). The authors of the measure reported evidences of good reliability (.84) and validity based on college students (Fischer & Farina, 1995). In the present sample, the Cronbach's alpha for ATSPPH-SF was adequate (.77). The total mean score was used in the analysis, with higher scores indicating more positive attitudes toward seeking professional psychological help.

Willingness to see a counselor. The Willingness to See a Counselor (WSC; Gim, Atkinson, & Whiteley, 1990) consists of 24 items on a 4-point Likert scale (1 = *not willing*; 4 = *willing*) assessing one's intent to see a counselor for various issues. As Kim and Omizo (2003) noted, the measure was adapted for use with Asian American college students by Gim et al. (1990) from Ponce and Atkinson's (1989) multiculturally-applicable version of the Personal Problems Inventory (Cash, Begley, McCown, & Weise, 1975). Previous studies have utilized the

WSC in investigating help-seeking attitudes among Asian Americans (e.g. Kim & Omizo, 2003; Liao et al., 2005). Prior research involving the WSC has yielded a coefficient alpha of .92 (Kim & Omizo, 2003). In the present sample, Cronbach's alpha for the WSC was .93. The total mean score was used in the analysis, with higher scores reflecting stronger intent to see a counselor.

Subjective norm. Normative beliefs related to seeing a counselor was assessed with 6 items on a 7-point Likert scale ($-3 = I \text{ should not}$; $3 = I \text{ should}$). Salient referents were father, mother, siblings, relatives, ancestors, and professors. A sample item is "My father believes I should/should not see a professional counselor when personal problems arise." Motivation to comply with the referent's stance on mental health service was assessed with 6 items on a 4-point Likert scale ($0 = \text{not at all}$; $3 = \text{strongly}$). A sample item is "I want to do what my father wants me to do, related to seeing a professional counselor." These questions were developed following guidelines recommended by Ajzen and Fishbein (1980) for assessing subjective norm. Previous studies have used this method to assess subjective norm among Asian Americans (e.g. Uomoto & Gorsuch, 1984). Subjective norm scores were computed by summing the products of the normative beliefs scores and motivation to comply scores. In the present sample, Cronbach's alpha for normative beliefs was .78. Cronbach's alpha for motivation to comply was also adequate, $\alpha = .78$. The total mean score was used in the analysis, with higher scores on the subjective norm measure indicating more positive social norms related to seeing a counselor.

Data Analytic Strategy

We investigated the study hypotheses (see Figure 1) by testing: (a) the total indirect effect of Asian values on willingness to see a counselor through attitudes toward seeking professional psychological help and subjective norm; (b) the specific indirect effect of Asian values on willingness to see a counselor through attitudes toward seeking professional psychological help;

and, (c) the specific indirect effect of Asian values on willingness to see a counselor through subjective norm.

Bootstrapping procedure. The bootstrapping method is recommended to overcome potential problems caused by unmet assumptions (Preacher & Hayes, 2008). Thus, we used bootstrapping procedures to obtain estimates of the indirect effects and to test their significance by using confidence intervals. We used an SPSS macro (available for download on quantpsy.org) that accompanies the paper by Preacher and Hayes (2008) on testing multiple mediation models to conduct the main analyses.

The total indirect effect associated with the two proposed mediators was tested using the formula $a_1b_1 + a_2b_2$, where the two terms represent (a) the indirect effect of Asian values on willingness to see a counselor through attitudes toward seeking professional psychological help, and (b) the indirect effect of Asian values on willingness to see a counselor through subjective norm. Calculation of the specific indirect effects (i.e., a_1b_1 and a_2b_2) involved four steps (see Preacher & Hayes, 2008): 1) From our original dataset of 110 cases, a bootstrap sample of 110 cases was generated using random sampling with replacement; 2) the regression coefficients (a and b) and the indirect effect estimates (ab) were calculated based on this bootstrap sample; 3) by repeating this process 5000 times, 5000 estimates of the indirect effect of interest were obtained; and, 4) the mean of the 5000 indirect effect estimates was calculated. If a zero was not included in the 95% confidence interval of the estimate, we concluded that the indirect effect was statistically significant (Preacher & Hayes, 2008; Shrout & Bolger, 2002). These bootstrapped indirect estimates were used in the multiple mediation model. The investigation of a multiple mediation model also allowed us to test the significance of the specific indirect effects associated with each mediator.

Results

Table 1 displays the means, standard deviations, and correlations for the study variables. As expected, subjective norm was negatively correlated with Asian values ($r = -.21, p < .05$) and positively correlated with willingness to see a counselor ($r = .38, p < .01$). Gender also was significantly correlated with Asian values ($r = -.20, p < .05$; males scored higher on Asian values). Previous experience in counseling was positively correlated with attitudes toward seeking professional psychological help ($r = .23, p < .05$). Given these significant associations, we controlled for gender and previous counseling experience in all subsequent analyses. That is, the mediation model tested the indirect effect of Asian values on willingness to see a counselor, above and beyond the impact of gender and previous counseling experience.

The correlations between the AAVS-M subscales and ATSPPH-SF and WSC, respectively, were also examined in the interest of comparison with previous findings (e.g., Kim et al., 2005). The AAVS-M emotional self-control subscale was negatively correlated with ATSPPH ($r = -.21, p < .05$) and subjective norm ($r = -.24, p < .05$). Correlations between the other AAVS-M subscales and the study variables (ATSPPH, WSC, and subjective norm) were all non-significant.

Main Findings

Table 2 displays the bootstrapped estimates for the total and specific indirect effects obtained from the main analysis. The total indirect effect of Asian values on willingness to see a counselor through attitudes toward seeking professional psychological help and subjective norm was not statistically significant, as the confidence intervals contained a zero.

Specific indirect effects. Because it is possible to have significant specific indirect effects in the presence of a non-significant total indirect effect (e.g., due to a suppression effect; see

MacKinnon, Krull, & Lockwood, 2000), we proceeded to investigate the significance of the specific indirect effects associated with the two mediators. The following indirect effects were tested: (a) the indirect effect of Asian values on willingness to see a counselor through attitudes toward seeking professional psychological help, controlling for the indirect effect of subjective norm, and (b) the indirect effect of Asian values on willingness to see a counselor through subjective norm, controlling for the indirect effect of attitudes toward seeking professional psychological help. For both indirect effects, gender and previous counseling experience were entered as control variables.

The specific indirect effect of Asian values on willingness to see a counselor through subjective norm was statistically significant, as its confidence interval did not contain a zero (see Table 2). That is, subjective norm was found to be a significant mediator. The direction of the associations were as expected: the relation between Asian values and subjective norm was negative ($B = -.23, p < .05$), and the relation between subjective norm and willingness to see a counselor was positive ($B = .27, p < .01$; see Figure 2). Stronger endorsement of Asian values was associated with a negative subjective norm related to seeing a professional counselor, and negative subjective norm in turn was associated with less willingness to see a counselor.

The specific indirect effect of Asian values on willingness to see a counselor through attitudes toward seeking psychological help was not statistically significant, as its confidence interval contained a zero (see Table 2). Although the indirect effect was not statistically significant, the direction of both associations was as expected: a stronger endorsement of Asian values was negatively associated with attitudes toward seeking professional psychological help ($B = -.10, p = .29$), and more positive attitudes toward seeking psychological help were associated with more willingness to see a counselor ($B = .39, p < .001$; see Figure 2).

Post-hoc Analyses

Based on the significant mediating effect of subjective norm, we further explored the differences between the salient referents' subjective norm scores (i.e., father, mother, siblings, relatives, professors, ancestors). Overall, there was a significant effect of salient referents on subjective norm scores, $F = 11.72, p < .001$. Post-hoc analysis using Scheffe's method indicated that pairwise contrasts between professor and father, mother, siblings, relatives, and ancestors, respectively, were all statistically significant at the .05 level. Family and extended family were perceived to have more negative social norms related to seeing a counselor than professors.

Second, we tested the mediating effect of the subjective norm for each salient referent, above and beyond the mediating effect of the other salient referents' subjective norm scores. That is, the multiple mediation model included (a) Asian values as predictor, (b) willingness to see a counselor as criterion, and (c) the six subjective norm scores associated with each of the salient referents as individual mediators. Gender and previous counseling experience were entered as covariates; attitudes toward seeking professional psychological help was entered as an additional mediator. The bootstrapped estimates indicated that none of the indirect effects were significant, indicating that no single referent explained the relation between Asian values and willingness to see a counselor above and beyond the influence of the other referents.

Discussion

The present study tested a multiple mediation model in which subjective norm and attitudes toward seeking professional psychological help served as potential explanatory variables in the relation between Asian values and willingness to see a counselor. Our findings indicated that subjective norm was a significant mediator. Post-hoc analyses revealed that Asian American college students perceive that family and extended family members generally have

more negative perceptions of seeking counseling than non-family members (i.e., professors). These findings demonstrate the importance of social influences, especially those of family and extended family, as a mechanism that explains the link between Asian values and the intent to seek (or not seek) counseling. These results are consistent with the literature on help-seeking attitudes among Asian Americans that theorize that help-seeking outside the family for mental health issues may be perceived as bringing shame to the family (Root, 1993; Yeh, 2000) and to the larger ethnic community (Yang et al., 2008). However, to our knowledge, no study has empirically tested whether or not social influences explain the relation between Asian cultural values and help-seeking intent among Asian Americans. Thus, the significant indirect effect associated with subjective norm found in the present study advances the empirical research literature on the role of social influences in shaping help-seeking attitudes and intent among Asian Americans.

At the same time, our results indicated that the mediation effect through attitudes toward seeking professional psychological help (both by itself and in combination with subjective norm) was non-significant. Specifically, the path between Asian values and attitudes toward seeking psychological help was non-significant in contrast to previous help-seeking studies that have indicated a significant relation between these two variables (Kim, 2007; Kim & Omizo, 2003; Liao et al., 2005). One explanation for this discrepancy is that prior studies used the older version of the Asian Values Scale (AVS; Kim et al., 1999), whereas the present study used the newer Asian American Values Scale – Multidimensional (AAVS-M; Kim et al., 2005). The older AVS includes a filial piety factor, but the AAVS-M does not. Given the present findings indicating the importance of family influences on help-seeking intent, it is possible that the lack of a filial piety factor in the AAVS-M contributed to the non-significant relation between Asian

values and attitudes toward seeking professional psychological help. Further empirical studies are needed to clarify which specific Asian cultural values may be most strongly linked with help-seeking attitudes.

It is also important to note that attitudes toward seeking professional psychological help may not be entirely eliminated as a potential mediator, because the present study assessed attitude toward behavior using a pre-established measure of attitudes, the ATSPPH-SF (Fischer & Farina, 1995). Although the use of the ATSPPH-SF increased the comparability of the present study with prior research, it is possible that broader or different measures of attitudes (e.g., eliciting attitude components from the population, as suggested by Ajzen & Fishbein, 1980) may have obtained different results. This is a direction for future research in the application of the TRA model to Asian American help-seeking and is discussed further below.

Although subjective norm was a significant mediator between Asian cultural values and willingness to see a counselor, no single salient referent stood out as a significant mediator, when controlling for the influence of the other salient referents. The results suggest that the salient referents examined in the present study may share similar amounts of influence on help-seeking intent among Asian American college students. However, due the exploratory nature of these findings, replication of these results is needed before firm conclusions can be drawn.

More broadly, the present study was designed to identify potential explanatory variables underlying the pattern of underutilization of mental health services among Asian Americans—namely, through the investigation of values, attitudes, and intention. By adapting the theory of action (TRA) framework, this study provides a new theoretical lens to the area of help-seeking research and simultaneously adds a cultural component to this application of the TRA through the addition of Asian cultural values as an exogenous variable. It is especially interesting to

relate the current findings to Ajzen and Fishbein's (1980) assertion that individual attitudes and social norms may not be weighted equally in predicting a certain behavior. In the present study, subjective norm contributed to the explanation of willingness to see a counselor, above and beyond the effects of attitudes toward seeking psychological help. Thus, subjective norm stood out as an important component of the TRA when predicting help-seeking intent of Asian American college students.

Implications for Research and Theory

The present findings have implications for multicultural research and theory related to help-seeking among Asian American college students. First, the results indicate that social influences are integral to explaining how Asian cultural values influence willingness to see a counselor. Previous research has examined the individual's attitudes toward seeking professional psychological help as a mediating variable (e.g., Kim & Omizo, 2003; Liao et al., 2005) but has paid relatively less attention to perceptions of others' opinions about mental health services utilization. Thus, the present study's main research contribution is in highlighting one important mediating mechanism between Asian values and willingness to see a counselor – namely, social influences related to help-seeking.

The present findings also have implications for theory. First, the applicability of the TRA in predicting intent to use mental health services was partially demonstrated in the present study, such that subjective norm was an important mediator between Asia cultural values and willingness to see a counselor. The TRA has received relatively little attention in predicting help-seeking intent and behaviors among Asian Americans (see Uomoto & Gorsuch, 1984, for an exception). The present findings highlighted the TRA's utility in the domain of help-seeking attitudes. Second, the case for the introduction of additional variables to the TRA for use with

Asians has been made elsewhere (e.g., Bagozzi, Wong, Abe, & Bergami, 2000), and our inclusion of Asian values as an exogenous variable based on previous studies (Kim & Omizo, 2003; Liao et al., 2005) suggests that the TRA can be modified to be culturally appropriate for Asian American college samples.

Implications for Clinical Outreach and Practice

The present findings may assist mental health professionals who seek to increase willingness to see a counselor among Asian American college students. First, the study results suggest that help-seeking intent may be increased by intervening at the subjective norm level. Educational programs targeting family and other in-group members may prove fruitful in reducing negative social norms related to help-seeking. Second, the results also offer psychologists with greater insight into why some Asian American college students are reluctant to seek psychological services (either for the first time or after an unsuccessful initial session), which in turn may lead to more effective programs designed to increase service utilization. The advantage of the TRA model in bringing about behavioral change in a population has been recently discussed in the counseling literature (see Romano & Netland, 2008), and identifying the attitudinal components that contribute to help-seeking intent can be a starting point in ultimately reducing the disparities in help-seeking behaviors of Asian Americans. Specifically, social norms (vs. individual attitudes) may be operating to influence a given student's help-seeking intent. Failing to make the distinction between collective and individual attitudes in assessing help-seeking attitudes can result in overlooking their differential contribution to willingness to see a counselor and by-passing potential resources to improve accessibility to, and retention in, mental health services.

Study Limitations and Future Directions for Research

The present findings should be interpreted in light of the study limitations, which in turn provide some direction for future research. First, the multiple mediation model tested in the present study did not extend to a behavioral outcome of interest such as mental health service utilization. Future research should assess utilization as the outcome variable in the mediation model. Such investigations would lead to further tests of the TRA's utility in predicting behaviors. Second, because the mediation analysis was cross-sectional, and results were correlational in nature, causal relationships can not be established and estimates may be biased (Cole & Maxwell, 2003). Longitudinal studies and efficacy research may help clarify the direction of effects in the relations between values, and help-seeking attitudes, and help-seeking intent. Third, the variance explained in the multiple mediation model was approximately 28%; future studies should test other possible mediators (e.g., beliefs about the etiology of mental illness and its treatment; peer pressure) in the relation between Asian values and willingness to see a counselor. Related, other predictors of willingness to see a counselor such as stigma and psychological distress should also be examined. Fourth, the present study's college sample may have higher acculturation and socioeconomic status than a community-based sample. Testing potential moderators, such as English language proficiency, would clarify how individual differences may impact the relation between Asian values and willingness to see a counselor. Fifth, it is possible that the assessment of subjective norm using Ajzen and Fishbein's (1980) methods, and the assessment of attitudes and intent using established measures (i.e., ATSPPH-SF and WSC), may partially explain why one mediator (i.e., subjective norm) was significant whereas the other mediator (i.e., ATSPPH-SF) was not. At the same time, the use of established measures in our study allowed us to contextualize our results against previous studies (e.g., Kim & Omizo, 2003; Liao et al., 2005). Nonetheless, future studies adhering strictly to the TRA's

measurement guidelines for assessing attitudes and social norm may increase the explained variance by reducing measurement asymmetries. Sixth, although the present study applied the TRA as one theoretical model that can help elucidate the help-seeking process, there are also alternative theoretical models that could be applied. We encourage researchers to test other theoretical models that may shed light on how and why cultural influences affect the help-seeking process. One such alternative model is the theory of planned behavior (Ajzen, 1985), a more recent extension of the TRA that includes the perceived behavioral control component, defined as the “perceived ease or difficulty of performing the behavior” (Ajzen, 2002, p. 665). Future studies could test the perceived behavioral control component related to help-seeking among Asian American college students to investigate the hypothesis that social norms can impact how much control one has over behaviors such as help-seeking.

The present study was conducted with the goal of contributing to the literature explaining Asian American college students’ mental health service underutilization, by identifying multiple mediators that transmit the effect of cultural values on help-seeking intent. One such mediator identified in the study was subjective norm related to mental health service use. Our hope is that the present findings will stimulate further exploration of explanatory mechanisms that underlie the help-seeking process among Asian American college students as well as benefit clinicians working with Asian American college students.

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Table 1

Demographic Variables, Independent Variables, and Dependent Variables: Correlations and Descriptive Statistics (N = 110)

Variables	1	2	3	4	5	6	7
1. Age	–						
2. Percentage of life in the U.S.	.39**	–					
3. Number of psychology classes	.13	.09	–				
4. AAVS-M total	.18	-.10	.05	–			
5. WSC	-.05	-.07	.01	-.08	–		
6. ATSPPH-SF	.16	.00	.15	-.15	.45**	–	
7. Subjective norm	.08	-.15	.18	-.21*	.38**	.31**	–
<i>M</i>	19.15	74.52	.92	4.20	2.41	1.60	-0.22
<i>SD</i>	2.06	34.01	1.14	0.66	0.63	0.54	2.15

Note. AAVS-M = Asian American Values Scale – Multidimensional; WSC = Willingness to See a Counselor; ATSPPH – SF =

Attitudes Toward Seeking Professional Psychological Help – Short Form.

* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 2

Indirect Effects of Asian Values on Willingness to See a Counselor Through Attitudes Toward Seeking Professional Psychological Help and Subjective Norm (5,000 Bootstrap Samples)

Mediator	Bootstrap		BCa 95% CI	
	Estimate	<i>SE</i>	Lower	Upper
ATSPPH	-.04	.05	-.16	.06
Subjective Norm	-.06	.04	-.16	-.01
Total Indirect Effect	-.10	.07	-.23	.03

Note. ATSPPH = Attitudes Toward Seeking Professional Psychological Help; BCa = Bias corrected and accelerated.

Figure Captions

Figure 1. The hypothesized multiple mediation model, informed by the theory of reasoned action (TRA; Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975).

Figure 2. The estimated multiple mediation model. *Note.* The numbers in the figure represent standardized regression coefficients derived from a bootstrap procedure.

* $p < .05$. ** $p < .01$. *** $p < .001$; $R^2 = .28$.

Figure 1

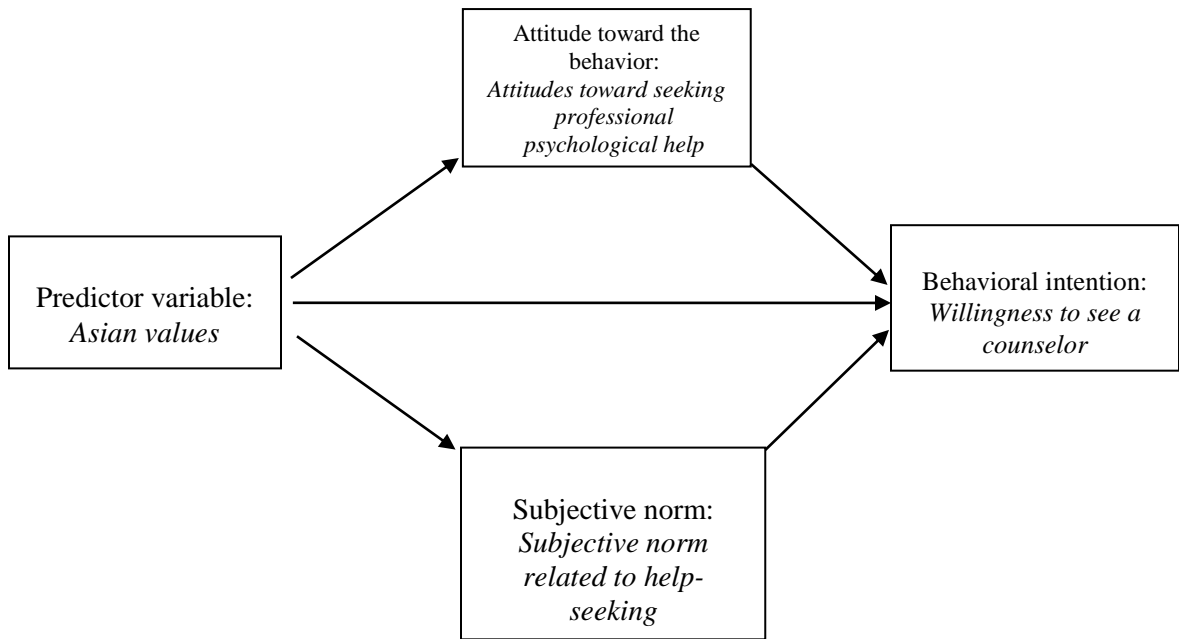


Figure 2

