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# Mental Illness Stigma as a Mediator of Differences in Caucasian and South Asian College Students' Attitudes Toward Psychological Counseling

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Previous research has established that Asian Americans use mental health services less frequently and hold poorer attitudes toward psychological counseling than Caucasians. The authors directly tested whether stigmatizing beliefs regarding mental illness might explain such differential attitudes toward counseling in a South Asian and Caucasian student sample. Using mediation analyses, the authors examined 2 aspects of stigma posited to affect help-seeking attitudes: personal stigmatizing views and perceptions of the public's stigmatizing views directed toward persons with mental illness. First, the authors found that Caucasian ( $n = 74$ ) college students revealed more positive attitudes toward counseling than did South Asian ( $n = 54$ ) students. Second, in terms of mediation, increased personal stigma, but not perceived stigma, expressed by South Asians partially mediated and accounted for 32% of the observed difference in attitudes toward counseling services. These findings support a long-standing conjecture in the literature regarding the increased significance of stigma processes on disparities in majority-minority help-seeking attitudes. They also suggest that efforts to reduce disparities in attitudes toward counseling for South Asian students specifically should incorporate interventions to reduce the increased stigma expressed by this community, particularly related to a desire for social distance from persons with a mental illness.

*Keywords:* mental illness, stigma, help-seeking attitudes, South Asian

Several recent large-scale, representative national surveys of the college population indicate that mental health problems are highly prevalent and constitute a growing concern for college counseling centers. The National Epidemiologic Study on Alcohol and Related Conditions (Blanco et al., 2008) found that approximately 50% of the college population met diagnostic criteria for a psychiatric disorder in the preceding 12 months, with less than 25% of these persons receiving any mental health treatment. Such findings are consistent with national survey data on directors of college counseling centers (Gallagher, 2009), in which over 90% of respondents reported concerns about the growing severity of mental health problems on their campuses and the low frequency with which students use counseling services (10.4% of the student population). Service underutilization represents a major public health concern due to the associated economic and societal costs of untreated mental health problems (Kessler et al., 2008), particularly given the wide availability of empirically supported treatments (Chambless & Ollendick, 2001). Understanding factors related to service underutilization for Asian Americans in particular is important because this group tends to use services less frequently than majority groups, across both general (U.S. Department of Health and Human Services [DHHS], 2001) and college populations (Eisenberg, Golberstein, & Gollust, 2007). To encourage Asian American college students to use counseling services

more frequently, an understanding of major obstacles and key mechanisms preventing help seeking in this population is needed.

Asian Americans represent the third largest ethnic group in the United States, and South Asians comprise the third largest and fastest growing ethnic subpopulation within this group (U.S. Census Bureau, 2000), estimated at more than 2 million persons. *South Asian* refers to persons whose ethnicity originates in countries of the Indian subcontinent. However, extant research on this population remains extremely limited. Research on Asian American college students in general reveals that they hold relatively less positive attitudes toward counseling services and use them less frequently than do Caucasian students (Eisenberg et al., 2007; Masuda et al., 2009), often in spite of the increased need found in this community (Kearney, Draper, & Baron, 2005). In addition, research indicates that Asian Americans may be reluctant about counseling because of familial and community stigma and shame (Yang, Phelan, & Link, 2008).

Little research has focused specifically on the South Asian college community, particularly in relation to the help-seeking process. This gap is disconcerting given (a) the rapid growth of this community in the United States and (b) findings that rates of service use differ considerably by ethnic subgroups within the broader Asian American community (Barreto & Segal, 2005). Furthermore, South Asians are at increased risk for suicide (Neelman, Mak, & Wessely, 1997) and report significant acculturative and intergenerational stress (Inman, Ladany, Constantine, & Morano, 2001). Thus, we examined cross-cultural differences in factors and attitudes related to help seeking among South Asian and Caucasian college students.

Models accounting for help-seeking behaviors (e.g., Pescosolido, 1992) consider the decision to seek help as the end result of a sociocultural process, heavily influenced by preexisting attitudi-

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nal beliefs about mental illness and its treatment. For example, Mojtabai, Olfson, and Mechanic (2002) found that positive attitudes toward seeking mental health services, controlling for symptom severity and functional impairment, were associated with nearly a 2.5-fold increase in both perceiving a need for treatment and in using services among those persons who perceived a need. Similarly, Eisenberg et al. (2007) reported that college students' attitudes toward psychological counseling were strongly associated with their perception of need for service use and their actual rate of service use from college counseling centers. Although these models are ultimately concerned with accounting for behavioral decisions, attitudinal beliefs do serve as potent antecedents affecting behavior (Kraus, 1995).

The stigma associated with mental illness is widely cited as one of the most influential attitudinal factors affecting the help-seeking process. Theoretical accounts (Corrigan, 2004; Link, Cullen, Struening, Shrout, & Dohrenwend, 1989) suggest that when individuals consider whether to seek counseling services, perception of societal discrimination (perceived stigma) is a key motivational factor influencing relevant decisions. That is, persons may choose not to seek services in order to avoid being labeled as a "counseling client," with attendant stigma. Previous research has shown that perceived stigma from both the general public and mental health professionals is negatively related to help-seeking attitudes and behaviors (Barney, Griffiths, Jorm, & Christensen, 2006; Sirey et al., 2001; Vogel, Wade, & Hackler, 2007). Individuals' own stigmatizing views (personal stigma) are also relevant (Cooper, Corrigan, & Watson, 2003), as these are posited to affect attitudes toward counseling if they become self-relevant (i.e., internalized) when a person self-identifies as a member of the stigmatized group through obtaining treatment. Schomerus, Matschinger, and Angermeyer (2009) recently examined the relative contributions of these two components of stigma on help-seeking attitudes for depression using a representative sample ( $N = 2,303$ ) in Germany, finding that personal stigma, but not public stigma, predicted help-seeking intentions. Their relative influence for South Asian and Caucasian college students remains unexamined, however.

The heightened level of mental illness stigma experienced by ethnic minorities is often advanced as a key explanation underlying ethnic disparities in attitudes toward service use (DHHS, 2001; Snowden & Yamada, 2005). Yet, surprisingly little research to date has focused on cross-cultural differences in stigmatizing attitudes and their relation to help-seeking attitudes. Preliminary evidence does suggest that, relative to majority groups, South Asian college students may express poorer attitudes toward using counseling services and increased stigma toward persons with mental illness. Several cultural factors central to Asian identity in general (Sue & Sue, 2003) and South Asian identity in particular (Das & Kemp, 1997) have been identified as key avoidance variables that interfere with the help-seeking process (Vogel, Wester, & Larson, 2007), including societal stigma and avoidance of shame (i.e., "saving face"), discomfort with self-disclosure outside the family, emotional restraint and self-control, and social conformity. Particularly relevant for South Asians are cultural values that emphasize a collectivist orientation and a hierarchical family structure, dictating that problems be dealt with privately or within the family unit (Das & Kemp, 1997). A collectivist orientation, entailing beliefs about the role and importance of extended family, honor, interdependence, obedience, and filial piety (Sue &

Sue, 2003; Tata & Leong, 1994), suggests that discussing problems with persons outside the family, such as counselors, is a breach of family loyalty. As such, it would be highly stigmatized, bringing shame to the individual and the family.

In addition, Das and Kemp (1997) note that specific goals of counseling, such as individual growth, self-expression, and self-determination, are in direct opposition to South Asian ideas regarding the role of family in an individual's life. South Asian immigrants tend to retain these cultural values over successive generations (Inman et al., 2001); adherence to such values has been shown to influence help-seeking attitudes for Asian college students (Kim, 2007). Finally, stigma toward mental illness has been identified as a major concern in South Asian culture (Ng, 1997) and serves a key impediment to the use of counseling services in this community (Bradby et al., 2007).

The present investigation was designed to gain a better appreciation for the differential impact of stigmatizing views on help-seeking attitudes for South Asian and Caucasian college students. As such, we have two main objectives. First, we tested the broad conjecture that ethnic disparities in help-seeking attitudes could be attributed to the purportedly heightened degree of stigma found within these communities, using a Caucasian and South Asian college sample. We are aware of no previous studies that have used mediation analyses to examine stigma as a potential mechanism underlying ethnic differences in attitudes toward counseling. Second, we examined the differential impact of two aspects of stigma hypothesized to relate to help-seeking attitudes, namely, individuals' personal attitudes toward persons with mental illness and perceptions of the public's stigmatizing attitudes.

## Method

### Participants

The sample consisted of 128 participants enrolled at a large, publicly funded research university in Northern California, located in an urban setting and serving an ethnically diverse student population. Recruitment was limited to participants self-identifying as either Caucasian ( $n = 74$ ; 58%) or South Asian ( $n = 54$ ; 42%). The majority of the sample was female (60%); the mean age was 20.7 years ( $SD = 3.39$ ; interquartile range = 2.0). The sample comprised both undergraduate (91%; 18% first year, 20% second year, 31% third year, 22% fourth year or greater) and graduate students (9%). Thirty-seven percent of the South Asian sample identified as first generation, and 63% identified as second generation; South Asian students reported to have lived in the United States for a mean duration of 17.2 years ( $SD = 6$ ; interquartile range = 5.0).

### Measures

**Ethnicity.** The independent variable for this investigation was ethnicity, measured through participants' self-identification as either "White" (0) or "South Asian" (1) on a demographic questionnaire.

**Social Distance Scale.** (SDS; Link, Cullen, James, & Wozniak, 1987). Perceptions of participants' own stigmatizing views were assessed via the SDS, a commonly used seven-item self-report questionnaire measuring desire for social distance from persons labeled as mentally ill. Participants rated from 0 (*definitely*

willing) to 3 (*definitely unwilling*) their willingness to interact with persons with a mental illness in circumstances of varying degrees of intimacy (sample item: "How would you feel about having a person with a mental illness as a neighbor?"). The internal consistency of scores from the overall sample ( $\alpha = .86$ ) and in each demographic group ( $\alpha_{\text{Caucasian}} = 0.83$ ;  $\alpha_{\text{South Asian}} = 0.84$ ) was excellent and consistent with previous research ( $\alpha = .92$ ; Link et al., 1987). Validity for this measure has been shown by associations with the perceived dangerousness of persons labeled as mentally ill (Link et al., 1987).

**Devaluation-discrimination (DD).** (Link, 1987). This 12-item self-report measure assessed participants' perceptions of the discrimination and stigma faced by persons with mental illness from the broader community. Participants rated from 1 (*strongly agree*) to 6 (*strongly disagree*) the degree to which they believe *most people* in the community would devalue or discriminate against a person with a mental illness, with higher scores reflecting greater public stigma. The wording was changed, which originally inquired about the anticipated devaluation and discrimination of *former mental patients*, to reference *persons with mental illness*. The goal was to be more inclusive of all persons with mental illness. The DD has excellent psychometric properties, with internal consistency estimates ranging from .73 to .82 across community and diagnosed samples (Link, 1987). Estimates of internal consistency from the present overall sample ( $\alpha = .82$ ) and in the demographic groups ( $\alpha_{\text{Caucasian}} = 0.83$ ;  $\alpha_{\text{South Asian}} = 0.80$ ) were excellent. Validity has been shown through associations with measures of internalized stigma among persons with a mental illness (Ritscher, Otilingam, & Grajales, 2003).

**Inventory of Attitudes toward Seeking Mental Health Services (IASMHS).** (Mackenzie, Knox, Gekoski, & Macaulay, 2004). The attitudes toward psychological counseling services were assessed via the 24-item IASMHS, an adaptation and extension of Fischer and Turner's (1970) classic Attitudes toward Seeking Professional Psychological Help Scale, incorporating conceptual and methodological refinements. Participants rated from 0 (*Disagree*) to 4 (*Agree*) their agreement with statements such as the following: "There is something admirable in the attitude of people who are willing to cope with their conflicts and fears *without* resorting to professional help." The IASMHS yields both a total help-seeking score and three subscale scores (Psychological Openness, Help-Seeking Propensity, and Indifference to Stigma). Because of concern that items related to Indifference to Stigma could promote conceptual and mathematical overlap between the stigma mediators and the IASMHS variable, they were removed. Mackenzie and colleagues (2004) reported internal consistency ( $\alpha = .86$ ) and 3-week test-retest reliability ( $r = .73$ ) statistics, based on a college sample. The internal consistency of scores for our modified version of the IASMHS was  $\alpha = .81$  for the total sample and  $\alpha = .83$  and  $\alpha = .70$  for Caucasian and South Asian participants, respectively. The IASMHS differentiates between persons who have and have not received previous psychological counseling and those who do and do not intend to use psychological counseling services (Mackenzie et al., 2004).

## Procedure

College students were recruited to participate in this study through the university's research participation program (RPP) and

via targeted solicitations delivered to university-affiliated listservs intended for South Asian subscribers (e.g., cultural groups). Persons subscribing to these lists were sent an e-mail request to participate in a study on South Asians' attitudes toward mental illness, underscoring the dearth of available research on South Asians in the United States. All interested participants provided their contact information to the experimenter, who, in turn, sent potential participants an individualized link to the online survey; this procedure ensured that participants could not have filled out the survey multiple times. Participants provided their consent online prior to filling out the battery of questionnaires. Participants recruited via RPP received partial course credit for their participation; all other participants received \$10 compensation for their involvement. The university's Committee for the Protection of Human Subjects approved all study procedures and consent forms.

## Data Analytic Plan

To test the hypothesized mediation model, recommendations by Shrout and Bolger (2002) and Mallinckrodt, Abraham, Wei, and Russell (2006) were followed. Accordingly, the magnitude and significance of the mediated and direct effects were examined using bootstrap procedures. Various simulations (MacKinnon, Lockwood, Hoffman, West, & Sheets, 2002) have shown that the bootstrap procedure yields greater statistical power and more accurate Type I error rates than traditional regression procedures (Baron & Kenny, 1986); it has also been explicitly recommended for counseling research involving small samples (Mallinckrodt et al., 2006).

The bootstrap procedure consists of empirically generating a series of new bootstrap "samples" using observations from the original data. In these analyses, 10,000 bootstrap samples were created through random selection with replacement from the original data. Individual path coefficients were computed for the indirect effects for every bootstrap sample, aggregated to form a single estimate for each mediated pathway. Empirical distributions of the mediated effects were constructed on the basis of all 10,000 bootstrap samples; 99% bias-corrected confidence intervals (CIs) were formed on the basis of this distribution. Point estimates of the mediated effects were considered significant if the CI did not contain zero (Shrout & Bolger, 2002). Gender and age, known correlates of help-seeking attitudes, were controlled in all analyses.

## Results

### Preliminary Analysis

Prior to all analyses, we checked for univariate and multivariate outliers, per procedures in Tabachnick and Fidell (2006). No outliers were found.

Table 1 displays means, standard deviations, and partial correlations among personal stigma, perceived stigma, and help-seeking attitudes, controlling age and gender. Partial correlations showed that help-seeking attitudes were negatively associated with personal stigma, but not perceived stigma, across the entire sample. Personal stigma and perceived stigma were not significantly related to each other. Comparisons of study variables by ethnicity revealed that South Asian students

Table 1  
Means, Standard Deviations, and Partial Correlations of Study Variables

Variable	1	2	3	Caucasians	South Asians	<i>t</i> (126)	<i>d</i>
				<i>M</i> ( <i>SD</i> )	<i>M</i> ( <i>SD</i> )		
1. Public stigma	—	.05	.09	4.10 (0.71)	3.85 (0.69)	2.02*	0.36
2. Personal stigma	—	—	-.40***	1.02 (0.49)	1.42 (0.50)	-4.48***	0.80
3. Help-seeking attitudes	—	—	—	42.6 (9.53)	35.3 (7.82)	4.59***	0.82

Note. *N* = 128. Effects of gender and age were controlled for in correlational analyses.  
\* *p* < .05. \*\*\* *p* < .001.

expressed greater personal stigma toward persons with mental illness,  $t(126) = -4.48$ ,  $p < .001$ ,  $d = 0.80$ , than did Caucasian students. However, South Asian students perceived less stigma than Caucasian students,  $t(126) = 2.02$ ,  $p < .05$ ,  $d = 0.36$ . Finally, South Asian students revealed attitudes toward help seeking that were less positive than those of Caucasian students,  $t(126) = 4.59$ ,  $p < .001$ ,  $d = 0.82$ .

### Assessment of Mediated Effects

Our primary interest was in examining individuals' personal stigmatizing views and their perceptions of societal stigma as potential mediators of the association between ethnicity and help-seeking attitudes, for South Asian and Caucasian college students. Results are depicted in Figure 1. The direct effect of ethnicity on help-seeking attitudes, controlling gender and age, was significant ( $\beta = -0.75$ ,  $CI_{99} = -1.18, -0.33$ ), such that South Asian students, as noted above, showed less positive attitudes. In addition, assessment of the indirect effects based on the empirical distribution of bootstrap estimates showed that the 99% CI did not contain zero for the effect transmitted via individuals' personal stigmatizing views ( $\beta = -0.24$ ,  $CI_{99} =$

$-0.54, -0.02$ ), indicating a significant effect. However, the indirect effect of ethnicity on help-seeking attitudes through individuals' perception of the public's stigmatizing views was not significant, as the 99% CI did include zero ( $\beta = -0.02$ ,  $CI_{99} = -0.15, 0.05$ ). With the inclusion of these stigma mediators in the full model, the direct effect of ethnicity on help-seeking attitudes was reduced substantially ( $\Delta\beta = -0.26$ ,  $CI_{99} = -0.56, -0.03$ ;  $\beta_{full} = -0.50$ ), providing evidence for partial mediation (Baron & Kenny, 1986). The indirect effect transmitted via personal stigma accounted for 32% of the direct effect of ethnicity on help-seeking attitudes.

Finally, to verify that each individual pathway of the mediated effect was in the intended direction, we performed a series of separate regression analyses.<sup>1</sup> These analyses indicated that each individual pathway of the significant indirect effect was as expected. That is, South Asian students expressed greater personal stigma toward persons with mental illness than did Caucasian students; such attitudes, in turn, were associated with less positive attitudes toward counseling services.

### Discussion

Our goal was to empirically test a commonly advanced conjecture in the help-seeking literature, to the effect that ethnic disparities in attitudes toward counseling services among college students can be accounted for by increased levels of mental illness stigma present in minority groups. We examined this hypothesis via mediation analyses using a sample of Caucasian and South Asian college students, the latter comprising a fast-growing and important ethnic minority group in the United States that is the subject of sparse empirical attention. Additionally, we examined cross-cultural associations between two aspects of mental illness stigma—personal stigmatizing views and perceptions of the general public's stigmatizing views toward persons with mental illness—and help-seeking attitudes. Our results reveal that (a) South Asian college students, relative to Caucasian college students, evidenced poorer attitudes and greater reluctance toward the use of counseling services for mental health-related problems and (b) heightened levels of personal stigma, but not perceived stigma, toward persons with mental illness expressed by South Asian students accounted for 32% of these differential attitudes. These findings are consistent with previous research (e.g., Schomerus et al., 2009) re-

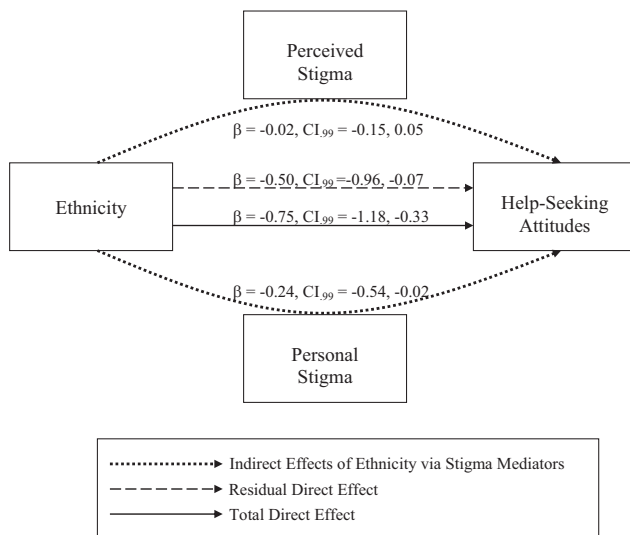


Figure 1. Multiple mediator model and results of bootstrap analyses ( $n = 10,000$ ) for the indirect effect of personal and perceived stigma on the relationship between ethnicity and help-seeking attitudes for Caucasian ( $n = 74$ ) and South Asian ( $n = 54$ ) college students. CI = confidence interval.

<sup>1</sup> The regression analyses are not reported here; however, results are available from the first author upon request.

vealing associations between personal stigma, but not perceived stigma, and help-seeking attitudes for the general public. Our findings are among the first (see Nadeem et al., 2007) to provide empirical support for a long-standing conjecture regarding the increased significance of stigma processes on help-seeking attitudes for ethnic minorities.

Importantly, our results suggest that the increased relevance of stigma processes for South Asian students is related to a preference to exclude, reject, and distance themselves from persons with a mental illness across a variety of common social interactions. Both modified labeling theory (Link et al., 1989) and conceptualizations of the role of stigma on the help-seeking process (Corrigan, 2004) consider that the internalization of personally endorsed stigmatizing views threaten the well-being of persons with mental health-related problems. Consequently, persons may not seek help as a means to allay many of the potential consequences, both personal (e.g., lowered self-esteem) and societal (e.g., discrimination), that are associated with being labeled as a member of the counseling population. Within a South Asian context, disruptions to the social fabric in the form of internalized fears of rejection and ostracism from the community appear to contribute to poorer attitudes toward help seeking. Although we did not directly assess self-stigma associated with help seeking, internalized expectations of rejection have been shown to shape the coping strategies of afflicted individuals (Link, 1987) and nondiagnosed persons (Vogel et al., 2007), including attitudes toward counseling services, disclosure decisions, and withdrawal from the community.

Understanding the processes that contribute to increased societal rejection of persons with a mental illness by South Asian students is of particular relevance in working with this community to develop more positive attitudes toward counseling and encourage greater service use. Central to this understanding is acknowledging the unique way that being identified as someone with mental health problems threatens the institutions, relationships, and opportunities of greatest importance to this community (Yang et al., 2008). For example, as in other Asian cultures, what appears most at stake for South Asians is the potential for mental illness to affect the prospects, well-being, and integrity of the family unit. Lauber and Rossler (2007) reported that the degree to which stigma results in societal disapproval for the family of persons identified as having a mental health-related issue, most notably in restrictions on marriage (Malhotra, Inam, & Chopra, 1981), greatly distinguishes developing nations in Asia from Western countries. In addition, Raguram, Rahu, Vountasou, and Weiss (2007) reported that psychiatric inpatients in India are overwhelmed by concerns of how their *mentally ill* status may curtail prospects for their entire family lineage. For the prototypical South Asian college student, being identified as a counseling client may adversely affect his or her entire social network such that both the individual and the network itself are at risk for being stigmatized (Das & Kemp, 1997). Poor attitudes toward counseling services may therefore serve as a defensive response that protects the entire family lineage from the dire consequences of stigmatization, but with the cost of limiting prospects for recovery and rehabilitation.

Our results also indicate that differential perceptions of societal stigma for South Asian and Caucasian college students are not related to differences in their help-seeking attitudes.

Contrary to expectations, the South Asian students in our study perceived less societal stigma toward mental illness than did Caucasian students. This finding is inconsistent with previous research; a possible explanation for these discrepant results is the way that perceived stigma was operationalized across studies. For example, in Golberstein, Eisenberg, and Gollust (2008), perceived stigma was assessed through perceptions of societal views about seeking help for psychological problems, whereas we evaluated perceived stigma through perceptions of discrimination faced by persons with a mental illness. Inferring societal views is an inherently ambiguous process, and may be particularly so for recent immigrant groups because they must contend with varied societal views and expectations (Inman et al., 2001). Assessing perceptions of stigmatizing views present in one's social network (see Vogel, Wade, & Aschmen, 2009), rather than in the general public, may be of increased relevance in assessing cross-cultural relations between stigma and help-seeking attitudes.

Our results suggest that destigmatizing efforts aimed at reducing disparities in help-seeking attitudes between South Asian and Caucasian college students should focus on improving South Asians' stigmatizing views rather than their perception of the public's views. Encouraging greater use of counseling services for South Asians students may require assessing and then addressing specific stereotypical views of mental illness held in this community (e.g., increased violence; Rao, Feinglass, & Corrigan, 2007) through targeted educational campaigns using social marketing techniques. Educational initiatives that provide factual information about mental illness and counseling have been found to be effective in various cultural contexts (see Sartorius & Schulze, 2005), especially when delivered by a person with a mental illness (e.g., Sadow & Ryder, 2008), as contact with mentally ill persons has been shown to be one of the most effective means of reducing stigma (Kolodziej & Johnson, 1996). It may also be important to address how stigmatizing views of South Asians become internalized and threaten their self-concept (Link et al., 1989) through normalizing the process of seeking help and emphasizing the utility of the counseling process (see Vogel, Wester, & Larson, 2007).

Several limitations suggest areas for future research. First, our measure of ethnicity was entered into our statistical models as a dichotomous variable. Operationalizing ethnicity in this fashion treats all members of an ethnic group as a homogenous entity, obscuring potentially significant within-group heterogeneity. Future studies could profitably incorporate cross-cultural assessments of specific cultural values (e.g., conformity to norms) related to the help-seeking process. Relatedly, future studies should look at the process of acculturation to Western cultural values and enculturation to South Asian values as potential influences on the association between stigma and help-seeking attitudes for South Asian college students specifically. Previous research has established positive links between acculturation and help-seeking attitudes with Chinese college students (Liao, Rounds, & Klein, 2005), but these have not yet been replicated within a South Asian context. Additionally, our study assessed attitudes toward the use of *psychological counseling* for mental health-related problems, but it is posited (DHHS, 2001) that Asian Americans may use nontraditional or informal sources of care more frequently.

Future studies should include attitudes toward nontraditional and informal treatments.

Second, interpretation of our findings must be tempered by the correlational nature of our study. Although mediational analyses are typically used to determine causal structures and mechanisms, the cross-sectional and nonexperimental design of our study prevents any causal interpretations from being made. Future studies can address this limitation by using longitudinal methodologies in examining the impact of mental illness stigma on the development of future help-seeking attitudes within minority and majority groups.

Third, the present results are based on an assessment of the stigma associated with the label of *mental illness*. The label of mental illness is sufficient to evoke a broad range of stigmatizing responses (Link et al., 1987), yet individuals typically seek counseling services for specific problems. It is important to determine whether South Asians have heightened levels of stigma for the specific problems common on college campuses (e.g., alcohol abuse), with direct consequences for help seeking. Moreover, the use of the global term *mental illness* may be an inaccurate representation of the entire population of students who is in need of or seeking counseling services. It will also be important for future studies to assess for cross-cultural differences in stigma related to help-seeking attitudes for problems beyond *mental illness* per se (e.g., stress). Future research may also consider the moderating role of gender on the indirect effects of stigma on ethnic differences in help-seeking attitudes. Women have been shown to express less stigma and more positive attitudes toward counseling than men (Vogel, Wade, & Hackler, 2007); this gender difference may be more pronounced among South Asian college students (Inman et al., 2001).

An additional limitation regards the participants used in our study and the ecological validity of our findings. First, our study was conducted using a modestly sized convenience sample of college students. Because we recruited South Asian participants through direct advertisements aimed at university-based cultural organizations, these students may not be representative of all South Asian students. Larger, more representative samples should enhance external validity. Second, to gain a better appreciation of the cross-cultural role of stigma on the help-seeking process for persons in actual need of psychological services, it is important to replicate these findings using participants who are experiencing psychological distress.

Of note, our findings are limited to the differential effects of stigma on *attitudes* toward counseling. It is important to determine whether cross-cultural differences in stigma can explain actual disparities in treatment *behaviors*, including rates of service use, length of treatment, treatment adherence, and, ultimately, symptom remission. Finally, our findings suggest that additional variables are needed to fully account for differences in help-seeking attitudes among South Asian and Caucasian college students, such as differential beliefs in treatment efficacy or explanatory attributions (e.g., genetic causation) for mental illness.

Overall, understanding factors that contribute to ethnic disparities in rates of service use has become a top public health priority. Despite hypotheses that ethnic minorities' underutilization of services and poorer attitudes toward counseling are related to higher levels of stigma, this conjecture has not been explicitly tested in the literature on ethnic differences in help-seeking attitudes. Our findings suggest that increased levels of personal stigma, but not perceived stigma, accounted for dif-

ferences in attitudes toward counseling services in South Asian students. Understanding the specific ways that South Asian college students stigmatize mental illness should help inform interventions tailored to the unique needs of this community, with the goal of increasing service use for interpersonal and psychological difficulties before they result in significant occupational, societal, and personal impairment.

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