Racial and Ethnic Minority College Students' Stigma Associated With Seeking Psychological Help: Examining Psychocultural Correlates

Hsiu-Lan Cheng
New Mexico State University

Kwong-Liem Karl Kwan
San Francisco State University

Todd Sevig
University of Michigan

Many college students underuse professional psychological help for mental health difficulties. The stigma associated with seeking such help appears to be one of the reasons for this underuse. Levels of psychological distress and past use of counseling/psychotherapy have been found to be important correlates of stigma associated with seeking psychological help (Obasi & Leong, 2009; Vogel, Wade, & Haake, 2006). For racial and ethnic minorities, the hindering effects of self-stigma and perceived stigmatization by others on treatment seeking may further be compounded by their relationships with their own ethnic groups, with other ethnic groups, and with the dominant society. This study used structural equation modeling (SEM) to test a model that explored the effects of psychological distress and psychocultural variables (i.e., ethnic identity, other-group orientation, perceived discrimination) on perceived stigmatization by others and self-stigma for seeking psychological help, controlling for past use of counseling/psychotherapy. The sample consisted of 260 African American, 166 Asian American, and 183 Latino American students. SEM multigroup analyses indicated measurement invariance, but partial structural invariance, across racial/ethnic groups. Across all 3 groups, higher levels of psychological distress and perceived racial/ethnic discrimination, respectively, predicted higher levels of perceived stigmatization by others for seeking psychological help, which, in turn, predicted greater self-stigma for seeking psychological help. Higher levels of other-group orientation predicted lower levels of self-stigma of seeking psychological help across groups. Higher levels of ethnic identity predicted lower levels of self-stigma of seeking psychological help only for African Americans. Implications for research and practice are discussed.

Keywords: stigma and psychological help seeking, racial and ethnic minority, perceived discrimination, ethnic identity, other-group orientation

A growing body of research has indicated that although the frequency and severity of mental health problems on college campuses have increased, many students do not seek psychological help (Benton, Robertson, Tseng, Newton, & Benton, 2003; Blanco et al., 2008; Zivin, Eisenberg, Gollust, & Golberstein, 2009). Recent surveys found that about 50% of college students have a diagnosable mental disorder (Blanco et al., 2008; Zivin et al., 2009), but treatment-seeking rate was low among these individuals, ranging from less than 25% (Blanco et al., 2008) to slightly below 50% (Zivin et al., 2009). Racial and ethnic minority (REM) college students were found to underuse

mental health service even more than nonminority students and tended to hold less favorable attitudes toward seeking professional psychological help (Loya, Reddy, & Hinshaw, 2010; Masuda et al., 2009) even while reporting more distress. In a survey of 1,166 help-seeking college students from over 40 universities, European American students were found to attend more counseling sessions than all REM groups; in terms of psychological distress, Asian Americans reported the greatest distress level, followed by Latino Americans, African Americans, and European Americans on the Outcome Questionnaire-45 at intake (Kearney, Draper, & Barón, 2005).

College enrollment of REM students has increased from 15% in 1976 to 33% in 2010 (U.S. Department of Education, 2012). As the number of REM students continues to increase on college campuses, there needs to be a better understanding of the factors and challenges related to seeking psychological help so that the specific needs of these students can be addressed by college mental health professionals. Fear of stigmatization is the most mentioned reason for not seeking professional psychological help (Corrigan, 2004). In this study, we investigated stigma associated with seeking psychological help in a sample of African American, Asian American, and Latino American college students. We specifically focused on how psychological distress and psychocultural vari-

ables may contribute to stigma of seeking psychological help among REM students. Figure 1 summarizes our conceptual model.

Conceptualization of Stigma Associated With Seeking Psychological Help

According to the U.S. Surgeon General's report (U.S. Department of Health and Human Services, 1999), the stigma associated with mental illness is the "most formidable obstacle" to the progress and advancement of mental health. It impedes initiation of mental health treatment and hinders following up with continued care (Link, Struening, Neese-Todd, Asmussen, & Phelan, 2001; Sirey et al., 2001). The stigma associated with mental illness has been applied to understanding the stigma associated with seeking psychological help (Vogel, Wade, & Ascheman, 2009; Vogel, Wade, & Haake, 2006). *Public stigma* associated with seeking psychological help refers to the belief that a person who seeks mental health service is perceived by the general public as flawed and socially undesirable, whereas *self-stigma* refers to an individual's negative perceptions about herself or himself for seeking psychological help (Corrigan, 2004; Vogel et al., 2006; Vogel, Wade, & Hackler, 2007).

Vogel et al. (2009) further differentiate between perceived stigmatization from immediate others (e.g., family, friends) and perceived stigmatization from the general public because stigmatization by people with whom an individual frequently interacts may have greater impact than others in society. Vogel et al. (2009) reported that perceived stigmatization by people with whom one has frequent social contact predicted self-stigma associated with seeking psychological help (i.e., Path c_1 in Figure 1) above and beyond perceived public stigma. Higher self-stigma was associated with less willingness to use professional psychological help (Ludwikowski, Vogel, & Armstrong, 2009; Vogel et al., 2007). In the present study, we investigated REM college students' self-stigma and perceived stigmatization by their family, friends, and professors and/or academic departments for seeking professional psy-

chological help because these are the social agents with whom college students are most likely to interact.

Racial/Ethnic Differences in Stigma and Attitudes Toward Seeking Psychological Help

A considerable body of research has indicated that REM individuals receive mental health treatment at lower rates than European Americans (U.S. Department of Health and Human Services, 2001). This disparity has prompted researchers to explore racial and ethnic differences in stigma and attitudes toward professional help seeking. Most research has concentrated on comparisons between REMs and European Americans. Results have been mixed in that some studies found African Americans and Latino Americans held more negative attitudes toward mental illness and seeking professional psychological treatment than European Americans (Hines-Martin, Usui, Kim, & Furr, 2004; Schnittker, Freese, & Powell, 2000; Whaley, 1997), whereas others found opposite results (Diala et al., 2001; Shim, Compton, Rust, Druss, & Kaslow, 2009). However, research has more consistently indicated that Asian Americans reported more stigmatized views toward mental illness and seeking professional psychological treatment than European Americans (Lee & Mixson, 1995; Rao, Feinglass, & Corrigan, 2007; Whaley, 1997). Among college students, Eisenberg and colleagues (Eisenberg, Downs, Golberstein, & Zivin, 2009; Golberstein, Eisenberg, & Gollust, 2008) found that Asian American and Pacific Islander students reported higher levels of stigma toward mental illness and using professional psychological treatment than students from other racial/ethnic groups.

In a review of REM variations in help-seeking attitudes, Leong, Wagner, and Tata (1995) point out cultural variables (e.g., acculturation, cultural norms, ethnic and cultural identity) are important to assess when considering disparities in psychological treatment seeking. Regarding the most examined variables of enculturation to traditional cultural beliefs and acculturation to Western values,
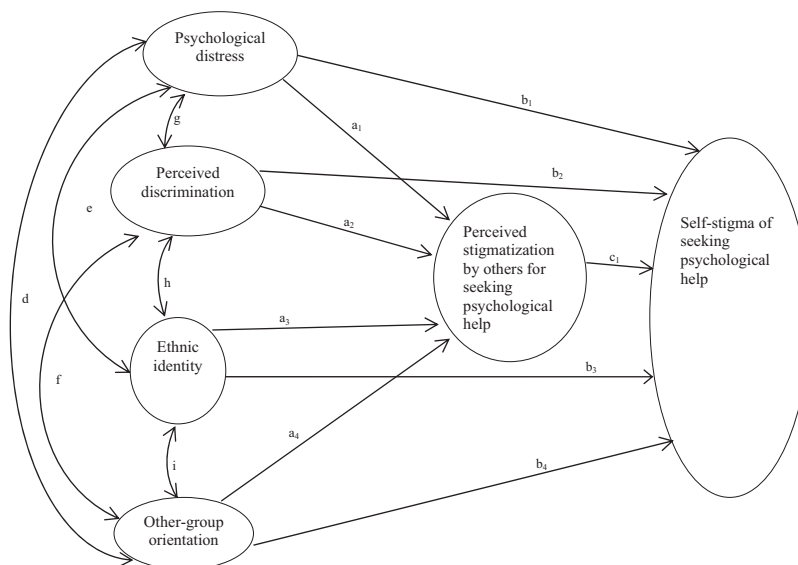

Figure 1. Conceptual model.

research findings have not been consistent (Ramos-Sánchez & Atkinson, 2009). For example, whereas some studies found adherence to ethnic/cultural values was associated with more negative attitudes toward seeking psychological help in African Americans (Obasi & Leong, 2009), Asian Americans (Kim, 2007; Miller, Yang, Hui, Choi, & Lim, 2011), and Latino Americans (Sanchez & Atkinson, 1983), others found maintenance of cultural values was associated with more *positive* attitudes toward seeking psychological help in Latino Americans (Ramos-Sánchez & Atkinson, 2009; Ramos-Sánchez, Atkinson, & Fraga, 1999) or bore no relationship with help-seeking attitudes in African Americans (Wallace & Constantine, 2005) and Asian Americans (Atkinson, Lowe, & Matthews, 1995; Kim & Omizo, 2010).

Although an increasing amount of research has investigated acculturation and cultural values on help-seeking attitudes, relatively little has examined how relationship dynamics among racial/ethnic groups, such as the prevalent experiences of racial discrimination (Kessler, Mickelson, & Williams, 1999) and interactions with people of different ethnocultural groups (Obasi & Leong, 2009), may influence views and perceptions of stigma associated with seeking psychological help. Drawing from theoretical and empirical literature of stigma research across disciplines, Pescosolido, Martin, Lang, and Olafsdottir (2008) propose the *Framework Integrating Normative Influences on Stigma* (FINIS) that delineates *microlevel* (e.g., demographic characteristics such as age, race; culpability of illness), *mesolevel* (e.g., social network characteristics) correlates of stigma, and identifies racism and discrimination as one of the *macrolevel* factors that may influence the construction of stigma associated with mental illness and seeking professional mental health treatment. On the basis of the FINIS model, we explored perceived racial/ethnic discrimination, ethnic identity, and other-group orientation as potential psychocultural correlates of stigma associated with seeking psychological help.

Psychocultural Correlates of Stigma Associated With Seeking Psychological Help

Perceived Discrimination

According to the FINIS model (Pescosolido et al., 2008), the harmful effects of stigma associated with mental illness and psychological help seeking may be amplified by membership in other socially stigmatized categories, including racial/ethnic and sexual orientation minorities, due to the social differentiation that exists between groups. Burgess, Ding, Hargreaves, van Ryn, and Phelan (2008) found that perceived discrimination predicted underuse of professional mental health services even after controlling for access to health care, mental health, and physical health status. Under the influence of institutional and societal racism, REMs have been historically stigmatized as deficient, weak, problematic, or dangerous (Leong et al., 1995; Sue & Sue, 2012). For example, REM clients were more likely to be diagnosed as having more serious mental illnesses and given lower quality of mental health care (e.g., reduced clinician adherence to treatment guidelines) compared with European American clients (Neighbors, Trierweiler, Ford, & Muroff, 2003; Snowden, 2003). REM individuals who have perceived more racial/ethnic discrimination may have greater

concerns about being stigmatized by others for seeking professional psychological help (Path a_2 in Figure 1). In addition to fears of being stigmatized by others, REM individuals may associate needing or seeking psychological help with a negative evaluation of themselves (Path b_2) because some traditional cultures see seeking such treatment as bringing shame to their ethnic groups or reinforcing negative stereotypes directed toward their communities (Leong et al., 1995). In this study, we hypothesized and investigated similar effects of perceived discrimination on stigma variables across the three groups because discrimination is common in REM people's life (Kessler et al., 1999). Even though African Americans tend to report more discrimination than other REM groups (e.g., Cokley, Hall-Clark, & Hicks, 2011), group mean differences on discrimination do not imply that the direction and magnitude of the prediction of discrimination on stigma variables would be different across REM groups.

Other-Group Orientation

Phinney (1992) defined other-group orientation as the attitudes, feelings, and orientations toward other racial/ethnic groups. An open orientation toward other groups is characterized by a positive intergroup approach and appreciation of different worldviews and ways of living (Phinney, Jacoby, & Silva, 2007). Having a positive orientation toward other ethnic groups may involve openness toward diverse strategies of resolving and coping with difficulties, and when encountering psychological problems may include more open and favorable views about seeking psychological help. Obasi and Leong (2009) found that preference for interacting with and participation in other ethnic groups was associated with more favorable attitudes toward seeking psychological help in African Americans. Although we could not locate empirical studies examining other-group orientation and help-seeking attitudes in Asian Americans and Latino Americans, related literature indicated that other-group orientation is associated with more positive self-concept in African American, Asian American, and Latino American adolescents and young adults (R. M. Lee, 2003; Phinney, Cantu, & Kurtz, 1997; Phinney & Devich-Navarro, 1997). Therefore, a higher other-group orientation may be associated with increased interpersonal security and lowered self-stigma for seeking psychological help among REM students, regardless of race/ethnicity. Thus, we hypothesized that a positive other-group orientation would be associated with reduced concerns about being stigmatized by others (i.e., Path a_4) and less self-stigma regarding seeking psychological help (i.e., Path b_4) among African Americans, Asian Americans, and Latino Americans.

Ethnic Identity

Ethnic identity represents an individual's awareness and knowledge of the history and values, affective attachment, sense of pride, and cultural practices related to his or her ethnicity (Phinney, 1992; Phinney & Ong, 2007). Only one empirical study that examined ethnic identity and help-seeking behavior was found (not stigma associated with seeking help). In a sample of African American substance users, Longshore (1999) reported ethnic identity intensified the positive relationship between drug use recognition and help-seeking behavior among those participants whose ethnic identity scores were higher than the sample median. Even though

empirical research has not examined ethnic identity and stigma toward seeking psychological help, it is possible that REM college students with an achieved ethnic identity, as marked by "a secure sense of oneself as a member" of an ethnic group (Phinney, 1992, p. 160), may have fewer concerns about being stigmatized by others and less self-stigma for seeking professional psychological help because of the identity foundation and psychological security they have developed. However, a stronger ethnic identity may involve greater identification with traditional ethnic values, and as previously reviewed, research has found mixed results regarding the relationship between adherence to traditional ethnic values and attitudes toward seeking psychological help. REM groups also often vary in their cultural norms and beliefs (Leong et al., 1995). Therefore, we hypothesized there would be racial/ethnic differences in the links between ethnic identity and perceived stigmatization by others (i.e., Path a_3) and self-stigma (i.e., Path b_3) for seeking psychological help. However, specific patterns of difference were not hypothesized due to limited and mixed evidence related to this area.

Psychological Distress, Psychological Treatment History, and Help-Seeking Stigma

The mixed research findings on racial/ethnic differences on stigma and attitudes toward seeking professional psychological treatment (e.g., Schnittker et al., 2000; Shim et al., 2009) have prompted some researchers (e.g., Diala et al., 2001) to argue that it is important to assess levels of psychological distress when studying this issue. Several studies have found that when psychological distress increases, the likelihood of seeking professional psychological treatment also increases (Constantine, Wilton, & Caldwell, 2003; Cramer, 1999; Vogel & Wei, 2005). Past use of counseling/psychotherapy has been found to predict lower levels of stigma toward seeking professional psychological help (Vogel & Wade, 2009; Vogel et al., 2006). Yet some studies reported that higher levels of psychological distress are associated with more concerns and perceptions of stigma associated with seeking psychological help (Eisenberg et al., 2009; Obasi & Leong, 2009). To better clarify and understand the relationships between the proposed psychocultural variables (i.e., perceived discrimination, ethnic identity, other-group orientation) and stigma associated with seeking psychological help, we included psychological distress as a predictor in our study design (see Figure 1). We hypothesized that higher levels of psychological distress would predict more self-stigma (Path b_1) and concerns of stigmatization by others for seeking psychological help (Path a_1). We did not hypothesize racial/ethnic differences on these two paths because there is no theoretical or empirical basis to suggest such differences might be expected. Finally, to control for the potential confounding effects of past use of counseling/psychotherapy, we included it as a covariate (not shown in Figure 1 for visual simplicity and clarity) in testing our proposed conceptual model.

The Proposed Structural Model

In addition to direct links, our model (see Figure 1) hypothesized perceived stigmatization by others as a mediator between each predicting variable and self-stigma of Seeking Psychological Help (e.g., $a_1 \rightarrow c_1$). Although we could not locate empirical studies examining perceived stigmatization by others as a mediator, previous research indicated perceived public stigma mediated the relationship between depression and attitudes toward seeking psychotherapy (Vogel, Gentile, & Kaplan, 2008). Thus, we expected perceived stigmatization by others would mediate the relationship between psychological distress and self-stigma of seeking psychological help. However, hypotheses regarding the mediating role of perceived stigmatization by others on the relationships between psychocultural variables and self-stigma were preliminary because research has not examined whether the three proposed psychocultural variables would predict perceived stigmatization by others (i.e., Path a_2, a_3, a_4). Nevertheless, the related literature reviewed in the previous section provided a foundation for speculating these links.

Because many paths in our model have not been examined in previous research, we also tested an alternative plausible model in which the proposed psychocultural variables were hypothesized to add no significant predictive variance in stigma variables above and beyond psychological distress and past use of counseling/psychotherapy. If the plausible alternative model provided a better fit to the data or was not significantly different from the proposed conceptual model, it would indicate that for REM students, the psychocultural variables did not add to our understanding of stigma associated with seeking psychological help.

Method

Participants

Data were collected from 609 REM college students from a large midwestern public university where REM students constitute 24.5% of the student population. There were 260 students identified as African American, 166 Asian American, and 183 Latino American. In terms of sex, 439 (72.1%) were female, 168 (27.6%) were male, and two (0.3%) identified as transgender. With regard to sexual orientation, seven (1.1%) identified as lesbian, 21 (3.4%) as gay male, 15 (2.5%) as bisexual, 547 (89.8%) as heterosexual, 10 (1.6%) as questioning, eight (1.3%) as "other," and one did not indicate his or her sexual orientation. Participants ranged from 18 to 55 years of age ($M = 22.65$, $SD = 5.42$). In terms of college status, 102 (16.7%) reported they were first-year students, 107 (17.6%) sophomores, 75 (12.3%) juniors, 108 (17.7%) seniors, 184 (30.2%) graduate students, 30 (4.9%) professional students, and three (0.5%) participants did not indicate their college status. Approximately two thirds (63.5%; $n = 387$) of students reported they had never been in counseling or psychotherapy, whereas about one third (36.3%; $n = 221$) indicated experience with counseling or psychotherapy.

Instruments

Psychological distress. The Counseling Center Assessment of Psychological Symptoms-62 (CCAPS-62; Locke et al., 2010) is a 62-item measure consisting of eight subscales: Depression, Generalized Anxiety, Eating Concerns, Substance Use, Hostility, Social Anxiety, Family Distress, and Academic Distress. Respondents are asked to rate how well each item describes them during the past 2 weeks on a partially anchored 5-point scale ranging from 0 (*not at all*) to 4 (*extremely well*). Positive statement items are

reverse scored so that higher scores indicate greater psychological distress. In the present study, only the Depression (e.g., "I feel sad all the time") and Generalized Anxiety (e.g., "My heart races for no good reason") subscales were used to assess general psychological distress. Locke et al. (2010) reported the 2-week test–retest reliability coefficients for the Depression and Generalized Anxiety subscales were .92 and .84. Internal consistency of the CCAPS-62 has been established across several REM groups, with Cronbach's alphas greater than .88 for the Depression subscale and .81 for the Generalized Anxiety subscale for all groups. Convergent validity of the CCAPS-62 was demonstrated through high correlations between each of its subscales and their respective a priori hypothesized most closely related referent measure (e.g., the Depression subscale with the Beck Depression Inventory; Locke et al., 2010). In the present study, item responses were averaged, and the Cronbach's alphas were .93 and .83 for the Depression and Generalized Anxiety subscale scores, respectively.

Perceived discrimination. The General Ethnic Discrimination scale (GED; Landrine, Klonoff, Corral, Fernandez, & Roesch, 2006) was used to assess lifetime exposure to perceived racial and ethnic discrimination in the present study. The GED is an 18-item measure of racially/ethnically based discriminatory experiences. A sample question is "How often have people misunderstood your intentions and motives because of your race/ethnic group?" Respondents answer each question three times with respect to the frequency of discriminatory experiences in one's entire lifetime, the frequency of those experiences in the past year, and the appraised stressfulness associated with each experience. Because the purpose of our study was to explore the association between lifetime discrimination experience and stigma associated with seeking psychological help, only the lifetime frequency of discriminatory items was assessed. Items were rated on a 6-point fully anchored scale (1 = *Never*, 2 = *Once in a while*, 3 = *Sometimes*, 4 = *A lot*, 5 = *Most of the time*, 6 = *Almost all the time*), with higher scores indicating more frequent occurrence of the discriminatory event in one's lifetime. Landrine et al. (2006) reported good internal consistency (α = .94–.95) and concurrent validity of the GED with the Schedule of Racist Events (Klonoff & Landrine, 1999). Furthermore, the GED has demonstrated equal effectiveness in modeling the factor structure of perceived ethnic discrimination across diverse racial and ethnic groups (Landrine et al., 2006). For the present sample, the Cronbach's alpha for the GED scores was .94.

Ethnic identity. The Ethnic Identity scale of the Multigroup Ethnic Identity Measure (MEIM-EI; Phinney, 1992) has 14 items that measure three dimensions of ethnic identity: Ethnic Identity Achievement (seven items; e.g., "I have spent time trying to find out more about my own ethnic group, such as its history, traditions, and customs"), Affirmation and Belonging (five items; e.g., "I feel good about my cultural or ethnic background"), and Ethnic Behaviors (two items; e.g., "I participate in cultural practices of my own group, such as special food, music, or customs"). The MEIM-EI is rated on a 4-point Likert-type scale ranging from 1 (*strongly disagree*) to 4 (*strongly agree*). Two negative items were reverse scored so that higher scores indicate stronger ethnic identity. Phinney (1992) reported Cronbach's alphas for the overall MEIM-EI scale (.90), the Ethnic Identity Achievement (.80), and the Affirmation and Belonging (.86) subscales in a diverse college student sample. The reliability estimate for Ethnic Behaviors was

not provided due to the fact that this subscale is composed of only two items (Phinney, 1992). With regard to validity, MEIM-EI scores were found to correlate with ethnic self-concept (Phinney, Chavira, & Tate, 1993) and self-esteem in expected directions (Phinney, 1992). The Cronbach's alpha for the total scale scores was .89 in the present sample.

Other-group orientation. The Other-Group Orientation scale of the Multigroup Ethnic Identity Measure (MEIM-OGO; Phinney, 1992) has six items that measure a person's openness to and involvement with individuals from other ethnic groups. A sample item is "I enjoy being around people from ethnic groups other than my own." The MEIM-OGO is rated on a 4-point Likert-type scale ranging from 1 (*strongly disagree*) to 4 (*strongly agree*), with two negative items reverse scored so that higher scores indicate more positive attitudes toward and interactions with ethnic groups other than one's own. Phinney (1992) indicated a Cronbach's alpha of .74 for the MEIM-OGO scale in an ethnically diverse sample of college students. In terms of validity, MEIM-OGO scores demonstrated correlations with multicultural worldview (Pontorotto, Baluch, Greig, & Rivera, 1998) and interracial roommate satisfaction in expected directions (Phelps et al., 1998). The Cronbach's alpha was .72 in the present sample.

Perceived stigmatization by others for seeking psychological help. The Perceptions of Stigmatization by Others for Seeking Help scale (PSOSH; Vogel et al., 2009) was used to assess concerns about being stigmatized by those one knows if one seeks professional psychological help. Vogel et al. (2009) presented the following instructions for the PSOSH: "Imagine you had an academic or vocational issue that you could not solve on your own. If you sought counseling services for this issue, to what degree do you believe that the people you interact with would __" (p. 305). This sentence stem is then followed by five items (e.g., "React negatively to you") rated on a 5-point scale (1 = *Not at all*, 2 = *A little*, 3 = *Some*, 4 = *A lot*, 5 = *A great deal*). Vogel et al. (2009) encouraged future studies to specify who the people are because perceptions of stigma may be affected by the closeness and context of the interpersonal relationships. Therefore, we replaced "the people you interact with" with "your family," "your friends," and "your professors or academic departments" to form three sets of questions, respectively. The PSOSH in our study contains 15 items, with five items each for the three types of people with whom the respondent interacts. With permission from the developers of the PSOSH, we also changed "an academic or vocational issue" to "a personal difficulty" in the instruction to capture a broader range of psychological issues and stigma that help-seeking potentially triggered. Vogel et al. reported a 3-week test–retest reliability of .82 and internal consistency Cronbach's alpha of .78 for the PSOSH. The PSOSH demonstrated concurrent validity through correlations with three different measures of stigma toward counseling and mental illness (Vogel et al., 2009). In the present study, the Cronbach's alphas were .88 for the stigma from family items, .89 for stigma from friends items, and .92 for stigma from professors or academic departments items.

Self-stigma of seeking psychological help. The Self-Stigma of Seeking Help scale (SSOSH; Vogel et al., 2006) is a 10-item measure that assesses an individual's negative views toward oneself for seeking professional psychological help (e.g., "I would feel inadequate if I went to a therapist for psychological help"). Items are rated on a partially anchored 5-point scale (1 = *strongly*

disagree; 3 = *agree and disagree equally*; 5 = *strongly agree*). Five of the items are reverse scored so that higher scores reflect greater degrees of self-stigma associated with seeking psychological help. Vogel et al. (2006) reported a 2-week test–retest reliability of .72 and internal consistency Cronbach's alphas ranging from .86 to .90 in college student samples for the SSOSH. With regard to validity, the SSOSH demonstrated moderate correlations with public stigma for seeking psychological help, anticipated risks of disclosure, intentions to seek counseling, and attitudes toward seeking professional treatment. Furthermore, the SSOSH effectively distinguished college students who sought professional psychological treatment from those who did not (Vogel et al., 2006). The Cronbach's alpha was .86 in the present sample.

Demographic questionnaire. Demographic items of sex, age, race/ethnicity, international student status, year in school, and sexual orientation were included in the survey. An additional item asking respondents "have you ever received counseling or psychotherapy for personal difficulties or mental illness?" was also included.

Procedure

After obtaining approval by the Institutional Review Board (IRB), an e-mail invitation was sent to a random list of 10,000 students generated by the university registrar's office. The e-mail provided a web link to an online survey at a third-party website. A drawing for ten $50 cash prizes was provided as an incentive. A total of 2,583 students initially took the online survey; 396 did not fully complete (with at least one entire measure of interest blank), and six students (17 years old) did not meet IRB's minimum age requirement. This resulted in 2,181 (84%) students completing the survey with usable data. White (non-Hispanic), multiracial, and international students were solicited for the original project but were not included in the present study.

Among the non-White and noninternational REM participants, 265 were African American, 171 were Asian American, and 191 were Latino American (totaling 627). However, 18 (3%) respondents were found to be significant multivariate outliers ($p < .001$) and were discarded on the basis of the Mahalanobis distance procedure recommended by Tabachnick and Fidell (2007). An inspection of the multivariate outliers revealed some patterns: 10 participants had unique combinations of extremely high scores on some stigma variables but extremely low scores on other stigma variables; five participants had a combination of extremely high scores on perceived racial/ethnic discrimination but very low scores on ethnic identity or other-group orientation, or vice versa; and three participants had extremely high scores on Depression and Anxiety subscales. The final sample consisted of 609 students. Missing data was minimal, with 436 (71.6%) participants not having any missing data, 170 (27.9%) missing 1%–10% of items, two (0.3%) missing 11%–20% of items, and one (0.2%) missing 20%–25% of items. Because missing data was found to occur at the item level, we followed Schlomer, Bauman, and Card's (2010) guide to conduct multiple imputation with SPSS 20 before computing scale and subscale scores.

Data Analytic Plan

Structural equation modeling (SEM) multigroup analysis in Mplus Version 6.11 (Muthén & Muthén, 2010) was used to test the hypothesized model in African Americans, Asian Americans, and Latino Americans. Because data demonstrated multivariate non-normality, the maximum likelihood estimation with robust standard errors (MLR) method was used because it provides "maximum likelihood parameter estimates with standard errors and a chi-square test statistic . . . that are robust to non-normality" in the presence of missing data (Muthén & Muthén, 2010, p. 533).

Because observed indicators are required to form latent variables in SEM, the three sets (i.e., family, friends, professors/academic departments) of PSOSH items were used as three indicators of perceived stigmatization by others for seeking psychological help. The Depression and Generalized Anxiety subscales of the CCAPS-62 served as two indicators of psychological distress. For the constructs that only have one single measured variable (i.e., perceived racial/ethnic discrimination, other-group orientation, and self-stigma of seeking psychological help), we followed the procedures recommended by Russell, Kahn, Spoth, and Altmaier (1998) to form three parcels of items as observed indicators for each of the latent variables. Exploratory factor analyses were performed for each variable and a forced one-factor solution was used. Items were then assigned to parcels according to item loadings so that each parcel (i.e., indicator) could load on its correspondent latent variable in a balanced way. These same procedures were also conducted to form three balanced parcels for ethnic identity because although there are three dimensions in MEIM-EI, the Ethnic Behavior dimension only has two items (Phinney, 1992).

After item parcels were formed, we proceeded to conduct SEM multigroup analysis. Three steps are necessary in SEM multigroup analysis (Byrne, 2012): first is the establishment of the configural model, which involves testing the measurement model for each of the three groups separately. The second step pertains to testing measurement invariance, which involves simultaneously testing the measurement model for the three groups to examine whether the constructs were measured equivalently across groups. To determine this, a freely estimated baseline multigroup model in which the factor loadings were unconstrained was compared with a nested multigroup model in which the factor loadings were constrained to be equal across the three groups. A robust chi-square difference test was used to examine invariance. Following measurement invariance, the third step was to test structural invariance to determine whether the structural parameters were equivalent across groups.

To establish relevance of the proposed psychocultural variables in stigma research, a plausible alternative model that hypothesized no effects of the psychocultural variables on stigma variables was examined. Finally, to investigate equivalence or nonequivalence of specific path coefficients across REM groups, parameter equality tests were performed and a partially invariant structural model was examined. In addition, to arrive at a multigroup model that adequately fit the data with parsimony, exploration of more parsimonious models were conducted. After a final model was established, bootstrapping procedures were performed to examine mediation effects. In all of the above described procedures, past use of counseling/psychotherapy was included as a covariate in the model. In evaluating the goodness-of-fit indices for the models, we used four indices: the comparative fit index (CFI; .95 or greater), the Tucker-Lewis Index (TLI; .95 or greater), the standardized root-mean-square residual (SRMR; .08 or less), and the root-mean-square error of approximation (RMSEA; .08 or less), based on

suggestions of Hu and Bentler (1999) and Quintana and Maxwell (1999).

Results

Preliminary Analyses

Table 1 presents the means, standard deviations, and partial intercorrelations among variables with past use of counseling/psychotherapy as a covariate. Consistent with our conceptualization, depression and anxiety scores were significantly and positively associated with perceived stigmatization by others (family, friends, professors/academic departments), and self-stigma related to seeking psychological help for all three REM groups. However, different patterns were observed for the correlations between the proposed psychocultural variables and stigma variables for the three groups. Perceived discrimination was significantly and positively associated with all stigma variables for Asian Americans, but was only significantly associated with perceived stigmatization by friends and professors/academic departments for African Americans and Latino Americans. Other-group orientation was significantly and negatively associated with self-stigma for African

Americans and Asian Americans, but not for Latino Americans. Ethnic identity was significantly and negatively associated with self-stigma for African Americans and Latino Americans, but was not for Asian Americans.

Significant racial/ethnic difference on the percentages of students who had ever been in counseling or psychotherapy was found, $\chi^2(2) = 34.63$, $p < .001$. Post hoc analysis indicated the least use of counseling/psychotherapy among Asian Americans (18.8%), followed by African Americans (38.8%), then Latino Americans (48.6%). As a preliminary step to illuminate testing of potential group difference in our conceptual model (see Figure 1), the means of stigma variables by race/ethnicity were compared. Asian Americans ($M = 1.72$) scored higher on perceived stigmatization by family for seeking psychological help, $F(2, 606) = 15.98$, $p < .001$, $\eta^2 = .05$, than African Americans ($M = 1.38$) and Latino Americans ($M = 1.35$). Asian Americans ($M = 1.55$) also scored higher on perceived stigmatization by friends, $F(2, 606) = 11.65$, $p < .001$, $\eta^2 = .04$, than African Americans ($M = 1.37$) and Latino Americans ($M = 1.27$). Finally, Asian Americans ($M = 2.73$) scored higher on self-stigma, $F(2, 606) = 23.04$, $p < .001$, $\eta^2 = .07$, than African Americans ($M = 2.30$) and Latino Americans ($M = 2.21$).

Table 1

Means, Standard Deviations, and Partial Intercorrelations Among Research Variables Controlling for Past Utilization of Counseling/Psychotherapy

VAR	DEP	ANX	PD	OGO	EI	FAM	FRD	PRF	M	SD
African American ($n = 260$)										
DEP	—								.90	.87
ANX	.72*	—							.94	.75
PD	.21*	.27*	—						2.10	.70
OGO	−.15*	−.08	−.10	—					3.50	.45
EI	−.28*	−.14*	.28*	.02	—				3.23	.52
FAM	.24*	.24*	.10	.00	−.08	—			1.38	.63
FRD	.35*	.29*	.17*	−.01	−.19*	.41*	—		1.37	.56
PRF	.26*	.30*	.33*	−.09	.06	.31*	.44*	—	1.53	.76
SS	.32*	.23*	.05	−.15*	−.24*	.28*	.28*	.22*	2.30	.74
Asian American ($n = 166$)										
DEP	—								1.00	.77
ANX	.74*	—							1.00	.70
PD	.36*	.40*	—						1.74	.59
OGO	−.16*	−.03	−.19*	—					3.52	.43
EI	−.11	.01	.08	.16*	—				2.99	.50
FAM	.28*	.28*	.25*	−.05	.04	—			1.72	.81
FRD	.20*	.19*	.30*	−.29*	.00	.41*	—		1.55	.60
PRF	.31*	.36*	.37*	−.13	−.13	.43*	.59*	—	1.56	.68
SS	.23*	.27*	.22*	−.26*	.05	.33*	.35*	.25*	2.73	.79
Latino American ($n = 183$)										
DEP	—								.94	.82
ANX	.77*	—							1.12	.79
PD	.04	.19*	—						1.60	.63
OGO	−.10	−.00	.06	—					3.61	.38
EI	.32	−.11	.41*	.26*	—				3.12	.55
FAM	.27*	.25*	.03	−.10	−.05	—			1.35	.65
FRD	.23*	.21*	.16*	−.01	−.08	.38*	—		1.27	.45
PRF	.19*	.24*	.24*	−.03	−.00	.36*	.45*	—	1.48	.69
SS	.31*	.26*	−.02*	−.14	−.16*	.33*	.24*	.13	2.21	.78

Note. VAR = Variable; DEP = Depression; ANX = Anxiety; PD = Perceived racial/ethnic discrimination; OGO = Other-group orientation; EI = Ethnic identity; FAM = Perceived stigmatization by family members for seeking psychological help; FRD = Perceived stigmatization by friends for seeking psychological help; PRF = Perceived stigmatization by professors/academic departments for seeking psychological help; SS = Self-stigma of seeking psychological help.
* $p < .05$.

Testing the Group Models (Measurement Invariance and Structural Noninvariance)

Table 2 presents the results of the measurement model tested separately for each of the REM groups. The goodness-of-fit indices indicated an adequate fit of each group's measurement model to the data. All factor loadings of the observed variables on their respective latent variables were statistically significant ($p < .001$), suggesting the observed indicators adequately measured their latent constructs. Therefore, this model was used as the baseline for testing measurement and structural invariance. The model fit results for the multigroup baseline model, obtained by testing the measurement model for the three groups simultaneously, yielded $\chi^2(345) = 558.86$, $p < .001$; CFI = .96; TLI = .94; SRMR = .05; RMSEA = .06.

In the SEM multigroup test for measurement invariance, the baseline measurement model (i.e., factor loadings freely estimated) and its nested model (i.e., factor loadings constrained to be equal across groups) were compared. The robust chi-square difference test, calculated based on the procedures described on the Mplus website (http://www.statmodel.com/chidiff.shtml), was not significant, $\Delta\chi^2(22) = 21.20$, $p > .05$, indicating measurement invariance across groups (see Model B in Table 2). Therefore, the REM group measurement models are equivalent, which provides sufficient basis for testing structural invariance.

We then proceeded with SEM multigroup analysis for structural invariance across groups. We compared the multigroup baseline model and the structural invariance model in which, in addition to all factor loadings (resulting from measurement invariance), all structural parameters (i.e., prediction paths, covariances between predictors, and paths from the covariate to variables in the model) were fixed to be equal across groups. The robust chi-square difference test was statistically significant, $\Delta\chi^2(64) = 87.54$, $p < .05$, indicating structural noninvariance (see Model C in Table 2).

Thus, we released the equality constraints imposed on the structural parameters and freely estimated the multigroup model (see Model D in Table 2). Figure 2 summarizes the path coefficients of the freely estimated structural model for the three groups. The model explained 33%, 29%, and 18% of variance in perceived stigmatization by others, while accounting for 31%, 29%, and 26% of variance in self-stigma for African Americans, Asian Americans, and Latino Americans, respectively.

Plausible Alternative Model

We tested a plausible alternative model that hypothesized the proposed psychocultural variables were not predictive of the stigma variables and would not add predictive variance to the model. We conducted a comparison between the freely estimated structural model (i.e., Model D in Table 2) resulting from the previous step (see Figure 2) and a plausible alternative model in which only psychological distress was hypothesized to be predictive of the stigma variables in the model, but the paths from psychocultural variables to the stigma variables were constrained to be zero, as well as the covariances between psychocultural variables and psychological distress. The robust chi-square difference test was statistically significant, $\Delta\chi^2(27) = 140.96$, $p < .001$, indicating that the plausible alternative model was not equivalent with the proposed model (see Model E in Table 2). In African Americans, Asian Americans, and Latino Americans, constraining the above-mentioned prediction paths and covariances to be zero resulted in a decrease in explained variance in perceived stigmatization by others of 4%, 11%, and 5%, and self-stigma of 6%, 5%, and 5%, respectively. Therefore, the plausible alternative model was not a viable alternative to the proposed model, leading us to retain the initial model for exploration of model parsimony and possible partial structural invariance.

Table 2

Goodness-of-Fit Indices for Model Results

Model description	χ^2	df	$\Delta\chi^2$	Δdf	CFI	TLI	SRMR	RMSEA
African American model ($n = 260$)	227.53	115			.95	.93	.06	.06
Asian American model ($n = 166$)	171.24	115			.96	.95	.05	.05
Latino American model ($n = 183$)	160.77	115			.97	.96	.05	.05
Model A: Multigroup baseline model (no equality constraints)	558.86	345			.96	.94	.05	.06
Model B: Multigroup measurement invariance model (i.e., Model A with all factor loadings constrained equal)	575.06	367	21.20	22	.96	.95	.06	.05
Model C: Multigroup structural invariance model (i.e., Model B with all structural parameters constrained equal)	643.86	409	87.54*	64	.95	.95	.09	.05
Model D: Multigroup structural noninvariance model (i.e., Model B with all structural parameters freely estimated)	575.06	367	21.20	22	.96	.95	.06	.05
Model E: Plausible alternative model (i.e., Model D with a_2, a_3, a_4, b_2, b_3, b_4, d, e, g parameters in Figure 1 fixed to be zero, while other parameters freely estimated)	723.69	394	140.96*	27[a]	.93	.92	.11	.06
Model F: Multigroup partial invariance structural model (i.e., Model D with a_1, a_2, a_3, a_4, b_1, b_2, b_4, c_1, d parameters in Figure 1 constrained equal, while other parameters freely estimated)	583.70	385	32.32	40	.96	.95	.06	.05
Model G: Multigroup partial invariance parsimonious structural model (i.e., Model F with PD→SS; EI→OS, and OGO→OS eliminated from the model)	589.82	388	36.15	43	.96	.95	.07	.05

Note. CFI = comparative fit index; TLI = Tucker-Lewis Index; SRMR = standardized root-mean-square residual; RMSEA = root-mean-square error of approximation; PD = Perceived discrimination; SS = Self-stigma of seeking psychological help; EI = Ethnic identity; OS = Perceived stigmatization by others for seeking psychological help; OGO = Other-group orientation.
[a] Model E was tested relative to Model D, whereas all other models were tested relative to Model A (i.e., the multigroup baseline model).
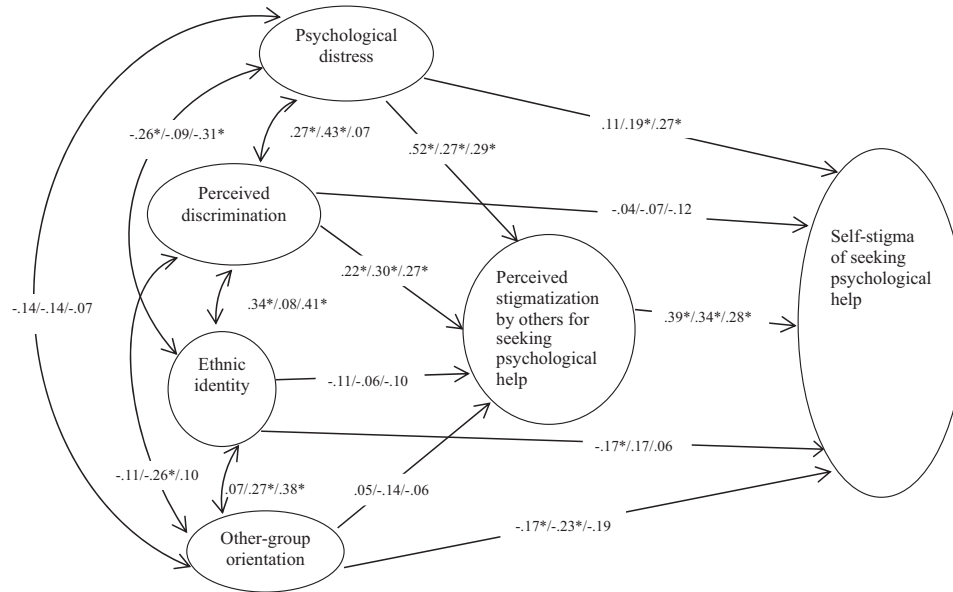* $p < .05$.

Figure 2. Parameter estimates of the freely estimated structural model. Parameter estimates indicated are standardized values. Estimates shown on the left are for African Americans. Those shown in the middle are for Asian Americans, and those shown on the right are for Latino Americans. $^*p < .05$.

Partial Structural Invariance and Model Parsimony

Although SEM multigroup structural noninvariance was indicated in the previous step (see Table 2), an overall model noninvariance does not preclude the possibility of partial invariance—that is, some parameters may be equivalent across groups (Byrne, 2012). To examine whether certain parameters in the freely estimated model (see Figure 2) were statistically equivalent despite overall structural model noninvariance across groups, Wald chi-square test of parameter equalities (Muthén & Muthén, 2010) was performed to compare individual parameters between groups. Among the nine prediction paths (a_1, a_2, a_3, a_4, b_1, b_2, b_3, b_4, c_1) in Figure 1, the Wald chi-square test was only significant ($p < .05$) for the path from ethnic identity to self-stigma (i.e., Path b_3), indicating this path's coefficients were statistically different across groups. Other prediction paths, despite seemingly different coefficients, did not reach statistical significance in Wald chi-square tests, suggesting these paths were equivalent across groups.

Wald chi-square test for the covariances (d, e, f, g, h, i in Figure 1) among the four predictor variables, however, were all statistically significant except for the "d" link in Figure 1, indicating that the covariances among the predictor variables were nonequivalent across groups, except the one between psychological distress and other-group orientation. Therefore, we conducted a multigroup partially invariant structural model in which the above-mentioned six parameters that had significant Wald test results were freely estimated while the remaining nine parameters in Figure 1 were constrained to be equal across groups. This partially invariant structural model was then tested relative to the baseline model. Robust chi-square difference test was not significant, $\Delta\chi^2(40) = 32.32$, $p > .05$, indicating this partially invariant model was an equivalent fit to the data (see Model F in Table 2).

Model parsimony was then explored on the basis of this partially invariant structural model by eliminating parameters that were statistically nonsignificant across groups. This resulted in the following paths being eliminated: perceived discrimination to self-stigma, ethnic identity to perceived stigmatization by others, and other-group orientation to perceived stigmatization by others. This trimmed partially invariant model was tested relative to the baseline model, yielding $\Delta\chi^2(43) = 36.15$, $p > .05$ (see Model G in Table 2), indicating that eliminating the nonsignificant parameters did not affect model fit. Therefore, this partially invariant parsimonious model (see Figure 3) was chosen to be the final model over the freely estimated saturated model (see Figure 2) because it provided equivalent model fit but was more parsimonious. Specifically, the prediction path from ethnic identity to self-stigma was nonequivalent across groups, but the rest of the prediction paths were all statistically equivalent across groups. The path coefficients of the final model are summarized in Figure 3.

Bootstrapping Procedures to Test Mediation Effects

To examine the mediator role of perceived stigmatization by others for seeking psychological help, we performed bootstrap procedures recommended by Shrout and Bolger (2002) with Mplus to generate 1,000 bootstrap samples from the original data in the final structural model (i.e., Figure 3). To estimate the path coefficients, 1,000 bootstrap samples were run with the bias-corrected percentile method. Point estimates of the magnitude of the indirect effect were indicated by the products of the alpha path (i.e., from the independent variable to the mediator variable) and beta path (i.e., from the mediator variable to the dependent variable). The associated 95% confidence interval was also estimated through the same 1,000 bootstrap samples. If the confidence interval for the mean indirect effect excludes zero, the indirect effect is then considered significant at the .05 level (Shrout & Bolger, 2002). Results from the bootstrap analyses (see Table 3) indicated that the confidence intervals for the indirect effects examined all excluded
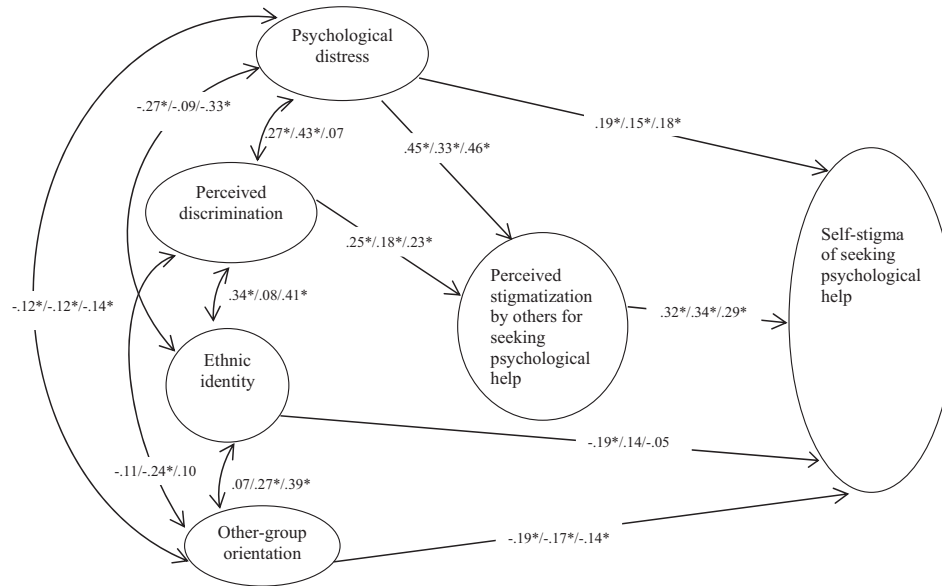
Figure 3. Parameter estimates of the partially invariant parsimonious model. Parameter estimates indicated are standardized values. Estimates shown on the left are for African Americans. Those shown in the middle are for Asian Americans, and those shown on the right are for Latino Americans. $^*p < .05$.

zero, indicating statistical significance ($p < .05$) and shows support for our hypothesis regarding perceived stigmatization by others for seeking psychological help as a mediator variable. Moreover, because of parameter equivalence in the examined paths (Path a_1, a_2, c_1), all indirect effects examined showed equal magnitude across REM groups.

Discussion

In the present study, we tested a structural model that explored the relationships among psychological distress, psychocultural variables (i.e., perceived discrimination, ethnic identity, and other-group orientation), perceived stigmatization by others for seeking psychological help, and self-stigma of seeking psychological help in a sample of African American, Asian American, and Latino American college students. Consistent with previous research

(Eisenberg et al., 2009; Obasi & Leong, 2009), higher levels of psychological distress predicted more perceived stigmatization by others and self-stigma associated with seeking psychological help. However, our goal was to move beyond this understanding and to investigate whether the proposed psychocultural variables predicted stigma associated with seeking psychological help in REM students, taking into account their levels of psychological distress and past use of counseling/psychotherapy. Results found that the hypothesized model provided a good fit for each of the REM groups, and the proposed psychocultural variables added significant unique variance to the stigma variables. As hypothesized, SEM multigroup comparison analysis found that the path from ethnic identity to self-stigma was not equivalent across groups, whereas other prediction paths in the structural model were statistically equivalent across groups.

Table 3
Bootstrap Analysis of Structural Model, Magnitude, and Statistical Significance of Indirect Effects

Independent variable	Mediator variable(s)	Dependent variable	β (standardized path coefficient and product)	Mean indirect effect (b)[a]	SE of mean[a]	95% confidence interval for mean indirect effect[a] (lower and upper)
African American (n = 260)						
Distress →	Other-stigma →	Self-stigma	.45 × .32 = .144	.148	.041	[.085, .247]
PD →	Other-stigma →	Self-stigma	.25 × .32 = .080	.096	.029	[.050, .175]
Asian American (n = 166)						
Distress →	Other-stigma →	Self-stigma	.33 × .34 = .112	.148	.041	[.085, .247]
PD →	Other-stigma →	Self-stigma	.18 × .34 = .061	.096	.029	[.050, .175]
Latino American (n = 183)						
Distress →	Other-stigma →	Self-stigma	.46 × .29 = .133	.148	.041	[.085, .247]
PD →	Other-stigma →	Self-stigma	.23 × .29 = .067	.096	.029	[.050, .175]

Note. Distress = Psychological distress; PD = Perceived racial/ethnic discrimination; Other-stigma = Perceived stigmatization by others for seeking psychological help; Self-stigma = Self-stigma of seeking psychological help.
[a] These values are based on unstandardized path coefficients.

Results of the present study confirmed a number of relationships hypothesized in the structural model. First, perceived stigmatization by others significantly and positively predicted self-stigma across REM groups (see Figure 3). The more REM students are concerned with stigmatization by others for seeking psychological help, the more likely they may stigmatize themselves for seeking psychological help. Results are in line with previous findings based on predominantly Caucasian samples (e.g., Ludwikowski et al., 2009; Vogel et al., 2009) that stigmatization from close others predicts self-stigma regarding seeking psychological help. Table 1 indicates the present sample reported small amounts of stigmatization from family, friends, and professors/academic departments for seeking psychological help, which is comparable to previous findings (Vogel et al., 2009). Nevertheless, even low levels of perceived stigma from one's social system may have important relevance to the attitudes toward psychological treatment (Vogel et al., 2009) as indicated by the strong relationship path from perceived stigmatization by others to self-stigma (see Figure 3). However, our findings are based on cross-sectional data and causal inference cannot be made; an equally plausible explanation could be self-stigma predicts perceived stigmatization by others.

Second, perceived discrimination had a significant positive effect on perceived stigmatization by others across REM groups (see Figure 3), indicating the more REM students perceived discrimination, the more likely they were concerned with being stigmatized by others for seeking psychological help. Results provided empirical support for macrolevel factors (e.g., racism, discrimination) as correlates of perceived stigmatization associated with seeking professional psychological treatment (Pescosolido et al., 2008). Because discriminatory experiences are associated with heightened concerns of being stigmatized by others for seeking psychological help, psychologists working with REM college students need to demonstrate sensitivity and the initiative to explore experiences of discrimination and potential concerns about how their important social system (e.g., family, friends, professors/academic advisors) views psychological help seeking. Perceived discrimination, however, had no significant direct effect on self-stigma associated with seeking psychological help (see Figure 2) across groups as it was mainly through perceived stigmatization by others that discrimination predicted self-stigma. In future studies, the association between perceived racial/ethnic discrimination and self-stigma of seeking psychological help may be explored by differentiating among lifetime exposure to discrimination, past-year experience of discrimination, and the appraised stress related with discrimination (Landrine et al., 2006).

Third, higher ethnic identity predicted lower self-stigma associated with seeking psychological help for African American college students. This implies that being anchored in one's ethnic group may provide a secure psychological foundation (e.g., "a secure sense of oneself as a member" of an ethnic group; Phinney, 1992, p. 160) that may lessen negative self-evaluation and stigmatization for seeking psychological help among African American college students. This predictive effect, however, was not found for Asian Americans and Latino Americans. Future studies may explore concomitantly ethnic identity and related constructs (e.g., ethnic value enculturation, acculturation to the dominant society) in stigma research to better clarify the relationships between ethnic identity and stigma associated with seeking

psychological help for Asian Americans and Latino Americans. Preliminary analyses of our study found that Asian Americans scored significantly higher on self-stigma and perceived stigmatization by family and friends for seeking psychological help than African American and Latino American students. This finding appears to align with other research indicating that traditional Asian cultures discourage disclosure of personal issues outside of the family and that seeking professional psychological help may be viewed as bringing shame to the family (Kim, 2007) and a "loss of face" of the person and the family or community (Zane & Yeh, 2002).

Also revealed in our study was that higher other-group orientation predicted lower self-stigma associated with seeking psychological help across REM groups (see Figure 3). REM students who were more open toward other cultures and felt more connected with people from other groups held less negative views toward themselves if they sought professional help. Relatedly, previous research showed a positive connection between other-group orientation and positive self-concept (Phinney & Devich-Navarro, 1997). Individuals with higher other-group orientation may have more positive regards toward themselves and, thus, may be less likely to stigmatize themselves for seeking psychological help. It is also likely that other-group orientation, as characterized by a positive intergroup approach and appreciation of different worldviews (Phinney et al., 2007), serves as a psychological asset that is related to more openness to diverse ways of dealing with difficulties, including reduced self-stigma of seeking psychological help. Future research may explore whether self-esteem or coping styles mediate the direct link between other-group orientation and self-stigma.

Finally, we tested how perceived stigmatization by others mediated the relationships between the predictor variables and self-stigma of seeking psychological help. Table 3 indicates that perceived stigmatization by others significantly mediated the relationship between psychological distress and self-stigma of seeking psychological help, and between perceived discrimination and self-stigma of seeking psychological help. Furthermore, SEM multigroup comparison indicated no significant difference on these hypothesized relationships in the mediation model across groups, suggesting the mediated effects were statistically equivalent for African Americans, Asian Americans, and Latino Americans. This means the higher levels of psychological distress that REM college students experienced, or the more racial/ethnic discrimination they perceived, the more likely they were concerned about stigmatization by others for seeking psychological help, which, in turn, predicted increased self-stigma of seeking psychological help. However, the reverse direction of prediction is equally plausible (e.g., self-stigma predicts perceived stigmatization by others, which then predicts perceived discrimination) because of the cross-sectional nature of our data. The indirect effects of ethnic identity and other-group orientation, respectively, on self-stigma, however, were not tested because of the nonsignificant paths between these two predictors and perceived stigmatization by others.

Limitations

A number of limitations must be addressed when interpreting the present findings. First, according to Cohen's (1992) classifi-

cation of effect size, the variances accounted for in the stigma variables in our final parsimonious model were modest: 27%, 20%, and 27% of variance in perceived stigmatization by others and 30%, 26%, and 23% of variance in self-stigma of seeking psychological help in African Americans, Asian Americans, and Latino Americans, respectively. Effect sizes in related studies were typically small; for example, demographic variables, acculturation, and cultural values accounted for 10% of total variance in attitudes toward seeking psychological help in Ramos-Sánchez and Atkinson's (2009) study, whereas demographic covariates, psychological distress, and maintenance of heritage cultural beliefs as a whole accounted for 12% of variance in stigma tolerance toward seeking psychological help in Obasi and Leong's (2009) study. Given there is a dearth of empirical literature integrating psychological, sociological, and contextual constructs in stigma research (Corrigan, Markowitz, & Watson, 2004), our study made an initial step to understand whether the proposed psychocultural variables would be associated with stigma associated with seeking psychological help. Building on our findings, future research may include other microlevel (e.g., family income), mesolevel (e.g., racial/ethnic composition in one's community), and macrolevel (e.g., mental health care policy) variables (Pescosolido et al., 2008) to empirically identify the most powerful predictors and exhaustive models of stigma associated with seeking psychological help.

Second, the completion rate of survey with usable data was 22% (i.e., 2,181 out of 10,000), which, although not uncommon in online data collection, is lower than desired and limits generalizability. The sample consisted of significantly more women (72.1%) than men (27.6%), further limiting generalizability. Studies have reported that men reported higher levels of stigma regarding seeking psychological help than women (Golberstein et al., 2008; Vogel et al., 2006). Third, there were 17 observed indicators for the six latent variables and one observed covariate variable (i.e., past counseling/psychotherapy) in our SEM model, and thus based on the 10:1 ratio of number of participants to number of observed variables suggested by Mueller (1997), a minimum sample size of 180 is desired. Although the African American ($n = 260$) and the Latino American ($n = 183$) groups met this criterion, the Asian American group ($n = 166$) fell slightly below this suggested sample size. Larger and more even sample sizes across groups are suggested for future studies. Fourth, participant responses do not indicate actual psychological help-seeking behaviors associated with stigma, which is a common limitation of attitudinal survey research.

Fifth, cross-sectional research does not confirm causality; a model with all the prediction paths revered (e.g., self-stigma predicts other-group orientation) may be equally plausible. Longitudinal research is needed to confirm the chronological causal influence of psychocultural variables on psychological help-seeking stigma. Finally, among all prediction paths, parameter nonequivalence was found only for the ethnic identity to self-stigma path. As the structure of ethnic identity in the original MEIM has been questioned (Phinney & Ong, 2007; Roberts et al., 1999), future studies may use newer versions of the MEIM (e.g., Phinney & Ong, 2007) or certain dimensions of ethnic identity to understand more specifically whether and how ethnic identity may be associated with stigma and help-seeking attitudes differentially for different groups. Future studies may also add group-specific variables

(e.g., loss of face for Asian Americans; Zane & Yeh, 2002) to the existing model to assess how psychocultural experiences important to specific groups affect stigma associated with seeking psychological help.

Implications

Despite these limitations, findings of the present study extended the literature on psychocultural correlates of stigma associated with seeking help in REM college students. The present study highlights that as psychological distress increases, REM students' perceived stigmatization and self-stigma associated with seeking psychological help also increase. However, even after psychological distress and past counseling/psychotherapy are taken into account, REM students' self-stigma regarding seeking psychological help may, in part, be attributable directly to their attitudes and inclination to establish relationships with people from other ethnic groups and their perceptions of how family, friends, and professors stigmatize psychological help seeking. Furthermore, double stigmatization (Pescosolido et al., 2008) may occur for REM students grappling with discrimination and psychological help-seeking stigma because the present study suggests that stigmatization based on one's racial/ethnic group membership (i.e., racial/ethnic discrimination) may promote concerns about being stigmatized by others for seeking professional help for psychological problems.

Outreach programs (e.g., parent orientation) that relay accurate knowledge about mental health services and normalize psychological help seeking may be useful to reduce stigmatized views from REMs' close others (e.g., family members) about psychological treatment. Such outreach programs are also important to nonminority students because college students overall underuse needed professional psychological help (Blanco et al., 2008; Zivin et al., 2009). Along with preventive interventions targeting the presumed support system (e.g., family, friends, advisors/professors) of REM college students, psychoeducational work can also take place at the individual level. Our findings suggest a positive attitude and involvement with other ethnic groups is associated with decreased self-stigmatized views about seeking psychological help across REM groups, whereas for African Americans, a greater identification with one's ethnic group is predictive of less self-stigma of seeking psychological help. Workshops that promote appreciation of ethnic diversity and participation in intergroup connections, exploration and commitment to ethnic group identity, and social justice-oriented campus climates may provide a secure basis for REM students (and likely for nonminority students, too) to develop more open attitudes and lessened stigma toward seeking professional psychological help.

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