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ORIGINAL PAPER

Associations Between Depression Literacy and Help-Seeking Behavior for Mental Health Services Among High School Students

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Abstract

Despite the growth in school-based mental health services (SBMHS), rates of mental health help-seeking among adolescents remain low, especially for ethnic minority youth. This study examined factors associated with adolescents' help-seeking of mental health services among a sample of 369 racially diverse high school students (age $M = 15.5$ years, SD $= 0.72$, 81.3% were ethnic minorities). We examined the relationships among mental health literacy for depression, knowledge barriers related to services and providers, perceived stigmatization by others, emotional/behavioral difficulties, and actual help-seeking behavior. Logistic regression results showed that adolescents with higher mental health literacy for depression and more emotional/behavioral difficulties are more likely to report seeking help in general and from providers outside of school specifically, but not for services inside of school alone. Asian-American students were less likely to seek help than Caucasian peers. It is important to promote mental health literacy to encourage help-seeking among high school students.

Keywords Help-seeking behavior · Mental health literacy · Stigma · Emotional and behavioral difficulties

Introduction

Mental health issues are prevalent during adolescence with approximately one in five youth suffering from a mental illness (Costello, Copeland, & Angold, 2011; Kessler et al., 2005). Despite the growth of school-based mental health services (SBMHS), most students (50–80%) in need of mental health support still do not receive the services they need (Becker, Buckingham, & Brandt, 2015; Kataoka, Zhang, & Wells, 2002). Rates of mental health service use are even lower among ethnic minority youth (Anyon, Ling Ong, & Whitaker, 2014; Gudino, Lau, Yeh, McCabe, & Hough, 2009). School is the most likely place for students to receive mental health services compared to other settings (Atkins, Hoagwood, Kutash, & Seidman, 2010; Lyon, Ludwig, Stoep, Gudmundsen, & McCauley, 2013; Vanderbleek, 2004), yet ethnic minority students are still less likely to receive SBMHS compared with their Caucasian peers (Anyon et al., 2014).

Based on Cauce's model of mental health help-seeking (Cauce et al., 2002), before an individual can seek help for mental health difficulties, he or she must first recognize the symptoms of mental disorders and recognize the need for psychological help. Therefore, low mental health service utilization could be attributed to several barriers, including low mental health literacy (e.g., Cheng, Wang, McDermott, Kriedel, & Rislin, 2018) and high levels of stigma (e.g., Chandra & Minkovitz, 2006). Therefore, it is important to examine how these factors relate to actual help-seeking behavior. Prior research mainly examined youth seeking help

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from community providers outside of school. The factors predicting help-seeking outside of school may be different from help-seeking inside of school. With the increased interest in school-based mental health services, it is important to identify specific factors associated with help-seeking inside school. In the current study, we investigated factors that are associated with actual help-seeking behavior, specifically for SBMHS, among a diverse sample of adolescents. Instead of measuring intent or attitude toward help-seeking, we specifically examined adolescent report of their actual help-seeking behavior from different service providers inside and outside of school. Examining the factors that relates to adolescents' actual help-seeking behavior may shed light on ways to facilitate help-seeking behaviors and provide insights to increase help-seeking among ethnic minority students.

Mental Health Literacy

Mental health literacy (MHL), defined as "the knowledge and beliefs about mental disorders which aid their recognition, management, or prevention" (Jorm et al., 1997, p. 2), has been linked to increased likelihood of help-seeking. For example, adolescents who recognized depression as a mental health problem and who reported having discussed mental health in class were more likely to say that they would share mental health concerns about a peer with the school counselor (Olsson & Kennedy, 2010). Similarly, high school students with higher MHL (recognizing depression) were more likely to recommend others to seek help (Coles et al., 2016). Milin et al. (2016) also found that among high school students, the increase in mental health knowledge over time contributed to more positive attitude toward individuals with mental illness. These existing studies on MHL among adolescents have only examined help-seeking attitude, intention, or recommending others to seek help. More studies are needed to examine the relationship between MHL and actual help-seeking behavior among adolescents.

Research has shown some notable ethnic/racial differences in help-seeking and MHL. For example, Asian-American and Latino American youth were less likely to seek mental health services compared to their Caucasian peers (Anyon et al., 2014; Gudino et al., 2009). Related to the lower rates of help-seeking, Asian and African-American college students also had lower MHL compared to non-Hispanic whites, as fewer were able to accurately identify generalized anxiety disorder from a vignette (Cheng et al., 2018). It is important to examine MHL among ethnic minority students because culture-specific notions of "the nature, causes, and cures of mental illness" may prevent ethnic minority adolescents from seeking mental health services (Leong & Lau, 2001, p. 203). The current study extends prior works on MHL of depression in a diverse sample of adolescents in the USA by examining the relationship between MHL and seeking mental health services at school as well as outside of school.

Among numerous mental disorders, depression is prevalent among adolescents (Center for Behavioral Health Statistics & Quality, 2015). Existing research on depression literacy among children and adolescents is limited (Georgakakou-Koutsonikou & Williams, 2017). Available data suggest that depression literacy is low among adolescents in the USA (Chandra & Minkovitz, 2006; Coles et al., 2016; Olsson & Kennedy, 2010). For example, less than 50% of adolescents recognized depression as a mental illness (Coles et al., 2016; Olsson & Kennedy, 2010). Eighth graders on average answered 4.53 out of six depression knowledge questions correctly (75% accurate; Chandra & Minkovitz, 2006) and 42% of them answered two or more items of a six-item depression knowledge questionnaire incorrectly (Chandra & Minkovitz, 2006). Therefore, we focused on depression literacy as one indicator for MHL in the current study.

Knowledge Barriers Related to Services and Providers

In addition to knowledge about the symptoms of mental illness, MHL also includes knowledge about mental health treatment, such as "knowing when and where to seek help" (Kutcher, Wei, & Coniglio, 2016, p. 155). However, most existing research on MHL and help-seeking focused on symptom recognition, with fewer studies examining other aspects of MHL, such as knowledge about services and providers. Based on Cauce's model of mental health help-seeking (Cauce et al., 2002), after recognizing the mental health symptoms, knowing where to seek help (or lacking such knowledge) also contributes to the service selection process. Research has also shown that the knowledge of counseling services on campus was the strongest and most significant predictor of college students' help-seeking behavior (Gagnon et al. 2017). On the other hand, knowledge barriers (or not knowing where to seek help) may prevent adolescents from seeking mental health services (Wang, Do, Frese, & Zheng, 2018). Knowledge barriers may also hinder help-seeking from SBMHS. Therefore, we examined the influence of knowledge of services/providers for SBMHS on adolescents' help-seeking behavior.

Stigma

Another factor preventing adolescents' help-seeking is stigma (Georgakakou-Koutsonikou & Williams, 2017; Gulliver, Griffiths, & Christensen, 2010). Mental health stigma has been defined as "objectifying and dehumanizing a person known to have or appearing to have a mental disorder" (Mendoza, Masuda, & Swartout, 2015, p. 206). The

literature on mental health stigma is vast; however, most studies have focused on adults or college students. Furthermore, few studies have examined the relationship between stigma and help-seeking for SBMHS among ethnic minority students. This is important to study because ethnic minority individuals often experience a "double stigma," as they encounter negative perceptions from having a mental illness with the added burden of racism or being discriminated against as a minority in society (Gary, 2005).

Available research does suggest that adolescents, similar to adults, have high stigmatizing attitude toward mental illness. For example, Chandra and Minkovitz (2006) found that over one-third (34.6%) of 8th graders in the USA reported moderate to high levels of stigma related to the utilization of mental health services, which predicted unwillingness to utilize these services. However, Chandra and Minkovitz did not specify whether these mental health services were inside or outside of school. Other studies have also identified concerns of being stigmatized as the most significant barrier for seeking SBMHS as reported by adolescents in Canada and Australia (Bowers, Manion, Papadopoulos, & Gauvreau, 2013; Rickwood, Deane, Wilson, & Ciarrochi, 2005).

Recently, researchers have begun to make distinctions between different types of stigma (Corrigan & Kosyluk, 2014). Perceived stigma or perceived stigmatization by others is defined as the perception from others that it is not socially acceptable to seek psychological services (Vogel, Wade, & Ascheman, 2009), while self-stigma "represents the internalized psychological impact of public stigma" (Corrigan & Kosyluk, 2014, p. 162). Some researchers have suggested that perceived stigma often serves as a precursor for other types of stigma (e.g., self-stigma; Bathje & Pryor, 2011; Vogel, Bitman, Hammer, & Wade, 2013). Because adolescents have a strong desire to belong and to be accepted by peers, they may be more sensitive to perceived stigma. We seek to examine how perceived stigma may impact adolescents' help-seeking behavior.

Interactions Between Mental Health Knowledge and Stigma

Research has shown that higher MHL relates to lower stigma (Chandra & Minkovitz, 2006; Sheffield, Fiorenza, & Sofronoff, 2004). Corrigan, Druss, and Perlick (2014) proposed the integrative model of mental health care seeking and suggested that knowledge may moderate the relationship between stigma and help-seeking. Specifically, low MHL or lack of knowledge about mental illness and its treatment may predict higher levels of stigma. On the other hand, the relationship between stigma and help-seeking is less negative for students who have higher levels of MHL. Conversely, stigma is more negatively associated with help-seeking among students who have lower levels of MHL. More studies are needed to examine the interaction between MHL and stigma and their influence on help-seeking behavior among adolescents. The current study will provide an empirical test of the integrative model of mental health help-seeking by examining the interaction between depression literacy and perceived stigma on help-seeking behavior among adolescents.

Emotional and Behavioral Difficulties

Emotional and behavioral difficulties (or symptoms of mental illness) are also associated with help-seeking behavior (e.g., Mariu, Merry, Robinson, & Watson, 2011); however, findings are often not consistent. For example, after controlling for demographics, Amaral, Geierstanger, Soleimanpour, and Brindis (2011) found that students were more likely to seek SBMHS if they reported more mental health symptoms possibly due to perceived needs (e.g., sadness, difficulties sleeping, suicidal ideation). On the contrary, negative correlations between depressive symptoms and help-seeking have also been documented (Rickwood, Deane, Wilson, & Ciarrochi, 2007). To account for the relationship between mental health symptoms and help-seeking behavior, we include this as a control variable in our study.

Current Study

The current study investigated factors associated with high school students' help-seeking behavior in general, and, specifically, help-seeking behavior for SBMHS. This study addressed two research questions: (a) Are there group differences (gender and race) on help-seeking behavior, depression literacy, knowledge barriers about services/providers, stigma, or emotional/behavioral difficulties? (b) Do depression literacy, knowledge barriers about service/providers, perceived stigma, and emotional/behavioral difficulties associate with whether or not a student seeks help for mental health? (c) Do depression literacy interact with perceived stigma to predict whether or not a student seeks help for mental health? We speculated that there may be gender and racial differences, but this question was more explorative in nature due to the limited literature. We hypothesized that more depression literacy, fewer knowledge barriers about services/providers, lower stigma, and more emotional/behavioral difficulties would be associated with higher likelihood of help-seeking (*H1*). We also hypothesized depression literacy would interact with stigma to influence help-seeking behavior (*H2*).

Methods

Participants

Participants included 369 high school students (grade 9th through 12th) from two ethnically diverse, urban schools in Southern California. The majority (83.7%) were in the 10th grade and were female (50.4%). The average age of the total sample was 15.5 years (SD .72 years). Almost half (48.2%) of the students were identified as Hispanic/Latino, followed by Caucasian (18.7%), black/African-American (8.4%), and Asian/Pacific Islander (4.9%). Quite a few students were also identified as multiracial (15.2%), while a smaller percentage identified as "other" (4.3%). Most students (73.4%) spoke at least one other language in addition to English. Among students who spoke another language, 94.1% rated their English language skills in reading as "fairly strong" or "very strong."

Procedures

The university's internal review board approved the current study. We also sought approval from the school district and school principals prior to data collection. The school principals from two high schools assisted the researchers in arranging participating classrooms based on scheduling, availability, and teachers' willingness to participate. Consent forms were sent to parents in participating classrooms and were posted on classroom Web sites regularly used to communicate information to parents. Passive consent was used, whereby parents could withdraw their student(s) from participating in this study by returning the consent form stating that they did not want their adolescent to participate. Approximately 190 forms were sent home to students at each high school. Only one student from the first high school and two from the second high school withdrew from the study. These three students were given alternate activities during data collection sessions.

Students filled out online surveys (through Qualtrics) using their laptops in the classroom during a designated class time at school. Before data collection began, one researcher (the second author) briefed all students on the details of the study and encouraged them to answer items truthfully so that research findings could be aggregated and shared with school leaders to improve SBMHS. The researcher also instructed students to read all items and directions carefully and to fill out all questionnaires. Student assent was obtained before they completed the surveys. The researcher was available to address questions and concerns throughout the 20- to 30-min data collection sessions. All surveys were anonymous, and no personal identifying information was collected. All students with consent and assent were eligible to participate in this study, and no specific exclusion criteria were used. Following data collection and analysis, aggregated results were shared with district-level personnel, as well as school administrators and mental health professionals.

Measures

Help-Seeking Behavior

Past help-seeking behavior was measured using a modified version of the Actual Help-Seeking Questionnaire by adding school-specific providers (AHSQ; Rickwood et al., 2005). Participants indicated whether (1 = Yes and 0 = No) they had sought mental health-related help from 11 different sources (e.g., parents, doctors, school psychologists) in the past. Because we were interested in whether or not students sought help, we treated help-seeking as a dichotomous variable to distinguish between *help-seekers* (if they answered Yes to at least one of the help-seeking items) versus *non-help-seekers* (if they answered No on all of the help-seeking items). Three types of help-seeking were calculated, from school, outside of school, and combined. Help-seeking from school-based mental health sources consisted of three items: (a) school psychologist, (b) school counselor, and (c) school mental health counselor. We did not include school social worker because there was no school social worker in these schools, and school counselors served similar roles as social workers in these schools. Help-seeking from services outside of school included two items: (a) family doctor/pediatrician and (b) mental health professional (e.g., a counselor, psychologist, or psychiatrist) outside of school. The reliability (internal consistency) for this measure was $\alpha = .78$ in our study and $\alpha = .71$ in a prior study (Nagai, 2015).

Depression Literacy

Depression literacy was measured using 12 items from the Knowledge subscale of the Adolescent Depression Knowledge Questionnaire (ADKQ; Hart et al., 2014). ADKQ was originally developed through collaborations with mood disorder experts and researchers to measure changes in depression knowledge and attitude after students completed the Adolescent Depression Awareness Program (ADAP) (Hart et al., 2014). ADKQ has been empirically refined and developed over time (e.g., Hess, Pearrow, Hazel, Sander, & Wille, 2017; Swartz et al., 2010), and it consists of two subscales (i.e., knowledge and attitude). For the knowledge section, participants rated whether different statements about depression were true or false (e.g., "Major depression is a normal part of adolescence"). The ADKQ has been validated with

a national sample of high school students, and researchers found a one-factor latent structure for the knowledge section of ADKQ, which had high internal consistency of .89 (Hart et al., 2014). In our study, we removed one item (i.e., "Five percent of all teenagers will suffer a major depression") from the analysis, because only 13.9% of the sample correctly identified this statement as true, and it did not correlate with the total score. In our study, the reliability index using Kuder–Richardson Formula 20 was .61. We assigned one point to each correct item. Scores were summed, with higher scores reflecting higher depression literacy.

Knowledge Barriers About Services and Providers

Knowledge barriers about services and providers was assessed using five items modeled after the Barriers to Care measure (Guo, Kataoka, Bear, & Lau, 2014). Students indicated the extent to which each of the items would stop them from seeking mental health services at school (e.g., "I do not know how to schedule an appointment or when walk-in hours are available for counseling services," "I am not familiar with the school counselor at my school"). Responses were rated on a five-point Likert scale, ranging from 1 (*Strongly disagree*) to 5 (*Strongly agree*). In this study, items were averaged ($\alpha = .86$), with higher scores indicating greater endorsement of knowledge barriers about mental health services and providers.

Perceived Stigma

Perceived stigmatization by others for seeking psychological help was measured using the Perceptions of Stigmatization by Others for Seeking Help scale (PSOSH; Vogel et al., 2009). Participants were instructed to imagine that they have a problem needing to be treated by a mental health professional and were asked to rate the degree to which they believe people would react across five different statements (e.g., "react negatively to you" or "think you may be more dangerous to others"). Responses ranged from 1 (*Not at all*) to 5 (*A great deal*), with higher scores indicating greater levels of perceived stigma.

The measure has been validated with college students, yielding adequate internal consistencies ($\alpha = .78$–$.89$; Vogel et al., 2009). PSOSH scores were also moderately correlated with other measures of stigma, such as the Stigma of Seeking Professional Psychological Help ($r = .31$; Komiya, Good, & Sherrod, 2000) and the Self-Stigma of Seeking Help ($r = .37$; Vogel, Wade, & Haake, 2006). Although this measure has not been validated with an adolescent sample, the readability of the measure has been reported appropriate for 13- to 15-year-olds (Vogel et al., 2009). In the current study, internal consistency was adequate ($\alpha = .89$).

Emotional and Behavioral Difficulties

The Strengths and Difficulties Questionnaire (SDQ; Goodman, Meltzer, & Bailey, 1998) was used to measure emotional and behavioral difficulties. Analyses were conducted with four problem subscales (20 items): emotional symptoms (e.g., "I am often unhappy, depressed, or tearful"), conduct problems (e.g., "I am often accused of lying or cheating"), hyperactivity (e.g., "I am restless, I cannot stay still for long"), and peer relationship problems (e.g., "Other children or young people pick on or bully me"). Participants rated items on a three-point Likert scale (1 = *Not true* to 3 = *Certainly true*) based on their experience in the previous six months. Prior studies have reported good reliability ($\alpha = .82$; Hawes & Dadds, 2004) and validity (SDQ correlated strongly with Child Behavior Checklist total score, $r = .87$; Goodman & Scott, 1999).

As recommended by the scale developer and other researchers (Australian Mental Health and Classification Network, 2005; Goodman et al., 1998; Richter, Sagatun, Heyerdahl, Oppedal, & Røysamb, 2011), we summed all items to generate the total difficulties score. A total score between 16 and 19 is considered slightly raised, which may reflect clinically significant problems, and a score of 20 or higher is considered high, suggesting there is a substantial risk of clinically significant problems (Australian Mental Health and Classification Network, 2005). For the current study, after reverse coding five items, a total SDQs score was calculated by summing all 20 items ($\alpha = .74$), with higher scores indicating more emotional/behavioral problems.

Data Analysis

For the first research question, we used ANOVA and cross-tabulations to examine group differences on the variables of interest. For the second and third research question, we used hierarchical logistic regression to examine how different factors were associated with the likelihood of help-seeking. Analyses were conducted separately with three outcome variables: help-seeking in school, help-seeking outside of school, and help-seeking in general (combining in school and outside of school). Depression literacy and stigma were mean-centered prior to creating the interaction terms. In step 1, we entered age, gender, and race as control variables. In step 2, we added depression literacy, knowledge barriers about services/providers, stigma, and emotional/behavioral difficulties as predictors. The interaction terms (depression literacy * stigma) was added in the last step.

Results

Descriptive Results

A total of 58 students (15.7%) sought any mental health help inside or outside of school in the past. A small percentage of students ($n = 28$, 7.6%) reported seeking help from SBMHS, and slightly more ($n = 48$, 13.0%) reported using mental health services outside of school. These rates are similar to what has been found in the literature. Many students identified knowledge barriers about services/providers preventing them from seeking help at school, including "not familiar with the school psychologist at school" (70.1% scored 3 or more on the five-point Likert scale), "not familiar with the school counselor at school" (58.4%), "not knowing whom to talk to or whom to seek help from" (64.4%), "do not know how to schedule an appointment or when walk-in hours are available for counseling services" (60.6%), and "did not know that mental health or counseling services were available at my school" (52.2%).

Regarding SDQ, 26.1% ($n = 97$) of the participants reported slightly elevated scores (16–19) indicating a slightly elevated risk of clinically significant problems, and 19.2% ($n = 71$) reported high scores (20 or above) indicating a substantial risk of clinically significant problems. For students who reported high scores (20 or above), only 26.8% sought any mental health services in the past. Participants reported relatively low depression literacy. On average, students answered about 64% of the questions correctly. This number is lower than what was found in previous studies in which students answered 72–84% of the questions correctly (Hess et al., 2017; Swartz et al., 2010).

Correlation results (Table 1) showed that SDQ scores were positively correlated with knowledge barriers ($r = .29$, $p < .001$) and stigma ($r = .34$, $p < .001$). Students who reported more emotional/behavioral difficulties are more likely to endorse more knowledge barriers related to services and providers, and reported higher perceived stigma for seeking psychological help. Knowledge barriers also positively correlated with stigma ($r = .22$, $p < .001$). Students who endorsed more knowledge barriers perceived higher levels of stigma for seeking psychological help. Because the three dependent variables were dichotomous variables, we did not include them in the correlation.

Table 1 Correlations for variables of interest

Variable	1.	2.	3.	4.
1. SDQ	…			
2. Dep literacy	− .03	…		
3. Know barriers	.29***	.02	…	
4. Stigma	.34***	− .01	.22***	…
Mean	15.02	7.63	2.88	1.69
SD	5.09	2.41	1.07	.87
Minimum	3.00	2.00	1.00	1.00
Maximum	29.00	12.00	5.00	5.00

SDQ emotional and behavioral difficulties based on Strengths and Difficulties Questionnaire, *Dep* depression, *Know barriers* knowledge barriers relating to services/providers

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

Gender and Racial Differences

Results showed that there were no significant gender differences on help-seeking behavior, depression literacy, knowledge barriers about services/providers, perceived stigma, or emotional/behavioral difficulties. As for racial/ethnic differences, ANOVA results showed significant differences in depression literacy ($F(5, 361) = 7.56$, $p < .001$, partial $\eta^2 = .10$) and knowledge barriers relating to services and providers ($F(5, 362) = 3.04$, $p < .05$, partial $\eta^2 = .04$). Specifically, Bonferroni post hoc tests showed that Caucasian American ($M = 8.67$, SD 2.19) and multiracial participants ($M = 8.57$, SD 2.33) reported higher depression literacy than Latino students ($M = 6.97$, SD 2.32), $ps < .001$. Caucasian American students ($M = 3.20$, SD 1.12) also reported more knowledge barriers than their multiracial peers ($M = 2.60$, SD 1.16), $p < .05$.

Cross-tabulation results showed that there were significant associations between race and help-seeking outside of school, χ^2 (4) = 11.52, $p < .05$, and help-seeking combined, χ^2 (4) = 11.48, $p < .05$, but not for help-seeking inside of school, χ^2 (4) = 5.72, $p > .05$. Specifically, post hoc analyses using 2 * 2 cross-tabulation showed that Asian-American students were less likely than Caucasian students to seek help outside of school or combined, χ^2 (1) = 7.16, 7.73, $ps < .01$, respectively. In fact, Asian-American students did not report seeking any help. Racial/ethnic group differences were not detected in regard to stigma or emotional/behavioral difficulties.

Logistic Regression Results

For research questions 2 and 3, logistic regression results showed that emotional/behavioral difficulties ($b = .08$, SE .03, $p < .05$) and depression literacy ($b = .16$, SE .07, $p < .05$; Table 2) were significant predictors of combined help-seeking behavior. The odds of help-seeking combined were 1.08 times higher for each unit increase in emotional/behavioral difficulties and 1.17 times higher for each unit increase in depression literacy. Emotional/behavioral difficulties ($b = .10$, SE .03, $p < .01$) and depression literacy ($b = .17$, SE .08, $p < .05$) were also significant predictors of help-seeking outside of school. The odds of seeking help outside of school

Table 2 Odds ratios and 95% confidence intervals for predictors and covariates in predicting three types of help-seeking

	Help-seeking in school			Help-seeking outside school			Help-seeking combined		
	Model 1 Odds ratios [CI]	Model 2 Odds ratios [CI]	Model 3 Odds ratios [CI]	Model 1 Odds ratios [CI]	Model 2 Odds ratios [CI]	Model 3 Odds ratios [CI]	Model 1 Odds ratios [CI]	Model 2 Odds ratios [CI]	Model 3 Odds ratios [CI]
Age	1.53 [.91–2.59]	1.60 [.94–2.75]	1.58 [.92–2.72]	1.06 [.68–1.65]	1.08 [.68–1.72]	1.06 [.67–1.70]	1.07 [.71–1.60]	1.11 [.73–1.70]	1.10 [.72–1.69]
Female	.81 [.37–1.77]	.73 [.33–1.63]	.73 [.33–1.63]	1.01 [.54–1.87]	.90 [.47–1.70]	.89 [.47–1.70]	.91 [.52–1.62]	.82 [.45 -1.48]	.82 [.45–1.48]
Asian	.00 [.00–.00]	.00 [.00–.00]	.00 [.00–.00]	.00 [.00–.00]	.00 [.00–.00]	.00 [.00–.00]	.00 [.00–.00]	.00 [.00–.00]	.00 [.00–.00]
Black	.27 [.03–2.33]	.36 [.04–3.13]	.37 [.04–3.21]	.27 [.06–1.27]	.35 [.07–1.71]	.36 [.07–1.75]	.38 [.10–1.42]	.52 [.13–2.00]	.52 [.14–2.04]
Latino	.60 [.23–1.62]	.80 [.28–2.29]	.82 [.29–2.34]	.47 [.22–1.01]	.67 [.30–1.52]	.69 [.30–1.56]	.56 [.27–1.15]	.80 [.37–1.74]	.82 [.38–1.77]
Others	1.13 [.38–3.35]	1.37 [.44–4.28]	1.40 [.45–4.36]	.85 [.37–1.98]	.94 [.38–2.34]	.97 [.39–2.42]	1.02 [.46–2.28]	1.25 [.53–2.96]	1.29 [.55–3.05]
SDQ		1.06 [.98–1.16]	1.06 [.98–1.15]		1.10** [1.03–1.18]	1.10*** [1.03–1.18]		1.08* [1.02–1.15]	1.08 * [1.01–1.15]
Dep literacy		1.13 [.94–1.34]	1.12 [.94–1.34]		1.19* [1.02–1.37]	1.19* [1.03–1.38]		1.17 * [1.02–1.33]	1.16* [1.02–1.33]
Know barriers		1.25 [.83–1.89]	1.24 [.83–1.88]		1.16 [.83–1.61]	1.16 [.83–1.61]		1.28 [.94–1.73]	1.28 [.94–1.73]
Stigma		.89 [.54–1.45]	.92 [.56–1.51]		1.02 [.70–1.49]	1.07 [.73–1.56]		.96 [.67–1.37]	1.00 [.69–1.43]
Dep * stigma			.92 [.75–1.13]			.92 [.78–1.08]			.92 [.79–1.07]
−2LL	189.36	183.40	182.78	273.23	255.79	254.75	308.73	291.94	290.83
Nagelkerke R^2 (%)	6	9	10	6	14	15	5	13	13
χ^2 (*df*)	8.55 (6)	14.50 (10)	15.13 (11)	11.48 (6)	28.92 (10)***	29.96 (11)**	11.59 (6)	28.38 (10)**	29.49 (11)**

SDQ emotional/behavioral difficulties, *Dep* depression, *Know barriers* knowledge barriers relating services/providers

White is the reference group for all four race variables

$N = 369$. *$p < .05$; **$p < .01$; ***$p < .001$

were 1.10 times higher for every unit increase in emotional/behavioral difficulties and 1.19 times higher for every unit increase in depression literacy. There were no significant interactions between depression literacy and stigma in any of three regression models. By adding the interaction into the model, the model fit did not improve.

Discussion

The current study advanced current knowledge about MHL by examining whether depression literacy, knowledge barriers related to services and providers, perceived stigma, and emotional/behavioral difficulties contribute to help-seeking behavior for SBMHS and services outside of school among high school students. Overall, results demonstrate the importance of MHL and emotional/behavioral difficulties in adolescents' help-seeking (combined and outside of school). This is consistent with prior research among adolescents and college students showing that higher MHL is linked to more positive attitude toward help-seeking (Cheng et al., 2018), better recognition of mental health needs in others (Coles et al., 2016), and sharing mental health concerns about a peer with the school counselor (Olsson & Kennedy, 2010). Our study adds to the existing literature by directly linking MHL to actual help-seeking behavior. Consistent with previous studies (Amaral et al., 2011; Mariu et al., 2011; Sheffield et al., 2004), we also found that adolescents who experienced more emotional/behavioral difficulties were more likely to seek mental health services from providers outside of school, possibly because these adolescents perceived higher needs for services.

The low rate of mental health service utilization (15.7%) is alarming, but somewhat consistent with prior research showing that about 5–10% of the youth (Kataoka et al., 2002; Rickwood et al., 2005) and about 7.6–14.5% of college

students (Kim, Saw, & Zane, 2015) had used professional mental health services in the past. As expected, the rates of help-seeking vary by the mental health needs of the participants, and the rates were higher when the students reported more mental health struggles (Kim et al., 2015). However, it is important to point out that the low rates of help-seeking in our sample are not due to lack of mental health concerns, because 45.3% of our sample reported elevated mental health symptoms on the SDQ. Among 311 students who did not seek any mental health services, 42.8% had elevated risk of clinically significant problems, and 16.7% had substantial risk of clinically significant problems. The rate of help-seeking was even lower for SBMHS (7.6%) than for services outside of school (13%), possibly due to the knowledge barriers, as many students (more than 58%) endorsed barriers such as not being familiar with the school-based mental health providers or not knowing where to seek help. It is important to for SBMH providers to identify ways to reduce these barriers.

Similarly, low depression literacy among high school students is also concerning. On average, students in our sample only answered about 64% questions correctly. This number is lower than what was found in previous studies in which students answered 72–75% of the questions correctly (Hess et al., 2017; Swartz et al., 2010). This again echoes the concern about low mental health literacy among adolescents in the USA (Chandra & Minkovitz, 2006; Coles et al., 2016; Olsson & Kennedy, 2010). These results highlight the urgent needs to promote mental health literacy among high school students.

Our results also identified a few subgroups of students who may experience higher risks and warrant more attention from SBMHS providers. Specifically, among students who experienced high levels of emotional/behavioral difficulties, only 26.8% sought any mental health services in the past. More attention is needed for this group of students who have elevated symptoms but did not seek help. In addition, higher SDQ scores also correlated with higher levels of perceived stigma and more knowledge barriers. As a result, it is important to conduct routine mental health screening (e.g., yearly) through SBMHS to identify students with elevated emotional and behavioral difficulties and connect them with mental health services at school. We also need to target this group to promote their mental health awareness and reduce stigma and knowledge barriers specific to SBMHS.

Interventions should specifically target Asian-American students who did not seek any metal health services, despite the fact that they reported similar levels of mental health difficulties (based on the SDQ) as youth from other racial/ethnic groups. Asian-American students were also significantly less likely than Caucasian students to seek help. This is consistent with prior research (Anyon et al., 2014). They may experience culture-specific barriers that prevent them from seeking SBMHS. Therefore, culturally sensitive interventions are needed to reduce stigma and encourage help-seeking among this group (Wang et al., 2018). Another group that needs attention is Latino American students who reported lower MHL than Caucasian and multiracial students. This is one of the first studies to examine racial differences on MHL among high school students. Considering the racial differences identified in our sample, it is important to continue studying MHL among ethnic minority youth, because MHL is influenced by a variety of cultural factors, such as language, familiarity with mental illness and mental health services, and cultural norms or expectations regarding appropriate ways to seek help (Altweck et al., 2015; Collier et al., 2012).

To our surprise, stigma did not predict help-seeking. One reason may be that endorsements of perceived stigma were relatively low ($M = 1.69$, SD .87, range: 1 = low to 5 = high). The low endorsements of perceived stigma may be due to district-wide efforts toward mental health promotion, including the promotion of trauma-informed practices at school. These efforts may have helped to reduce stigma toward seeking professional help. It should also be noted that we only examined perceived stigma from others, but not other forms of stigma (e.g., self-stigma). We initially hypothesized that perceived stigma from others would predict help-seeking behavior, because adolescents are sensitive to the perceptions of others, and fear of stigmatization has been identified as the top barrier for seeking SBMHS in past research (Bowers et al., 2013; Chandra & Minkovitz, 2006). However, some studies have implicated that other forms of stigma (e.g., self-stigma toward seeking help) may be more important in predicting help-seeking (Cheng et al., 2018; Vogel et al., 2006, 2007) than perceived stigma from others. Future studies should explore other types of stigma and their relationships to help-seeking behavior to better understand adolescent help-seeking pathways.

Finally, contrary to our hypothesis, depression literacy did not interact with perceived stigma to predict help-seeking behavior (inside or outside of school). This is somewhat consistent with Cheng et al.'s (2018) study showing that self-stigma did not interact with MHL (measured by symptom recognition for anxiety, attributing to anxiety or depression to stress) to predict help-seeking attitude among college students.

Limitations and Future Studies

Although our study contributes to new understandings of MHL, perceived stigma, and help-seeking among diverse students, several limitations should be noted. First, data were collected from two schools. Even though the sample was ethnically diverse, results may not be representative of all high

school students in the USA. Second, data were collected from student self-report, and thus, shared method variance may be a concern. Future studies should collect data from different schools and use multiple informants (e.g., parents and teachers). Third, although our study extends previous research by examining actual help-seeking behavior, it is based on a cross-sectional design and no causal relationships can be inferred from the present findings. Future research should use longitudinal designs to solidify this area of evidence.

Fourth, the internal consistency for the ADKQ was very low, possibly because our sample was ethnically diverse (81.3% were ethnic minorities), and students had lower scores on the ADKQ compared with previous studies (Hess et al., 2017; Swartz et al., 2010). Researchers have suggested that individuals from ethnic minority backgrounds may have culturally different beliefs about mental illness and conceptualize mental health problems differently compared with European Americans (Na, Ryder, & Kirmayer, 2016; Sue, 1994). For example, one review study suggested that Asian immigrants tend to attribute the causes of depression to common life stress and personality characteristics (e.g., having a weak character or lacking will power), instead of to the biological causes of depression (Na et al., 2016). Many participants in our sample also agreed with statements such as "Depression can be controlled through willpower," and "Someone who has a major stress (like having parents get a divorce) always develops a depressive illness." These culture-specific beliefs about depression may negatively impact the internal consistency of the ADKQ. In addition, students only answered about 64% of the questions accurately, which is lower than previous studies where students typically answered 72–75% of the ADKQ questions correctly, even prior to any intervention (Hess et al., 2017; Swartz et al., 2010). After the ADAP intervention, students' depression literature improved, and they answered 84% of questions correctly (Swartz et al., 2010). The previous study showing high reliability (.89) for the ADKQ sampled less ethnically diverse students and used data collected after the ADAP intervention, which resulted in higher ADKQ scores (Hart et al., 2014). The low scores on the ADKQ in the current study may also contribute to low internal consistency. Future studies should continue to refine the ADKQ and examine MHL among ethnic minority students.

Finally, responses for help-seeking were measured based on a dichotomous scale (Yes/No). Although this dichotomous format has been used in other studies (e.g., Anyon et al., 2014; Rickwood et al., 2005), it may not be the most sensitive measure to assess help-seeking. In addition to assessing the sources of help-seeking, future studies should consider measuring the frequency of help-seeking (e.g., number of sessions attended) to illuminate our understanding of adolescent help-seeking.

Implications

Because MHL (depression literacy) predicted help-seeking, and school is the natural place for students to learn about mental health and MHL, school psychologists and mental health providers should collaborate with other school staff, such as health teachers, to integrate evidence-based MHL programs into existing school curriculum (e.g., health education curriculum). Research has shown that students who reported having discussions about mental health in health class were more willing to seek help (Olsson & Kennedy, 2010). However, such discussions appear to be lacking in our schools in the USA. Although mental health education was mandated, most adolescents did not remember discussing mental health topics at school (Olsson & Kennedy, 2010).

Our results together with findings from prior research (Chandra & Minkovitz, 2006; Coles et al., 2016; Olsson & Kennedy, 2010) suggest low MHL among adolescents in the USA. This speaks to the need for implementing high-quality and evidence-based MHL curriculums in school to increase MHL, decrease stigma, and promote help-seeking among adolescents. For example, Teen Mental Health First Aid from Australia has been found to improve youth MHL, help-seeking intention, confidence in helping a peer, and reduce stigmatizing attitude (Hart, Mason, Kelly, Cvetkovski, & Jorm, 2016). The Curriculum Guide from Canada (delivered by classroom teachers) has been found to improve youth MHL and attitude toward help-seeking (Kutcher, Wei, & Morgan, 2015). The Adolescent Depression Awareness Program is effective in increasing depression awareness, reducing stigma, and encouraging help-seeking among high school students in USA (Miller, Musci, & D'Agati, 2018). However, few studies have examined the acceptability, feasibility, and effectiveness of existing MHL interventions for ethnic minority adolescents in the USA, suggesting an urgent need for both research and practice.

It is concerning that among students who reported elevated scores on the SDQ, about three quarters of them did not seek any help. The rates of help-seeking for mental health services inside of school were even lower than outside of school. School psychologists and school counselors play a vital role in serving adolescents with mental health difficulties at school; however, most students reported being unfamiliar with these mental health providers and the services they provide, which prevented them from seeking help. In order to help students with mental health needs, SBMHS providers need to be more visible at school and ensure that all students know about the availability of mental health services and how to seek those services (e.g., where to go, how to schedule appointments, and who is available to offer services). SBMHS providers can present to all students during orientations and to parents at parent–teacher conferences about the importance of mental health and the mental

health services available at school. They may want to conduct annual mental health screening to identify students with elevated symptoms and link them to mental health services.

In addition, these services need to be culturally responsive to address the needs of ethnic minority students who may experience culture-specific barriers for help-seeking. Last but not least, researchers have suggested that adolescents' attitude toward help-seeking is influenced by their parents and other adults in their life (Lindsey & Marcell, 2012). In some collectivistic cultures (such as Asian and Latino culture), lack of parents' "buy-in" and support for mental health services is a barrier for youth to seek professional help (Barlis, 2018). As a result, it will also be important for SBMHS providers to offer psychoeducational workshops to parents and family members to promote parent MHL and reduce stigma toward help-seeking in the community (Wang et al., 2018).

Compliance with Ethical Standards

Conflict of interest The authors declare that they have no conflict of interest.

Ethical Approval All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki Declaration and its later amendments or comparable ethical standards.

Informed Consent Informed consent was obtained from all individual participants included in the study.

References

Altweck, L., Marshall, T. C., Ferenczi, N., & Lefringhausen, K. (2015). Mental health literacy: A cross-cultural approach to knowledge and beliefs about depression, schizophrenia and generalized anxiety disorder. *Frontiers in Psychology*, *6*, 1272. https://doi.org/10.3389/fpsyg.2015.01272.

Amaral, G., Geierstanger, S., Soleimanpour, S., & Brindis, C. (2011). Mental health characteristics and health-seeking behaviors of adolescent school-based health center users and nonusers. *Journal of School Health, 81*(3), 138–145. https://doi.org/10.1111/j.1746-1561.2010.00572.x.

Anyon, Y., Ling Ong, S., & Whitaker, K. (2014). School-based mental health prevention for Asian American adolescents: Risk behaviors, protective factors, and service use. *Asian American Journal of Psychology, 5*(2), 134–144. https://doi.org/10.1037/a0035300.

Atkins, M. C., Hoagwood, K. E., Kutash, K., & Seidman, E. (2010). Toward the integrations of education and mental health in schools. *Administration and Policy in Mental Health and Mental Health Services Research, 37,* 40–47. https://doi.org/10.1007/s10488-010-0299-7.

Australian Mental Health and Classification Network. (2005). *Strength and Difficulties Questionnaire training manual.* Retrieved December 24, 2018 from https://www.amhocn.org/sites/default/files/publication_files/sdq_manual_0.pdf.

Barlis, J. (2018). *Mental health literacy, stigma, and attitudes toward help-seeking at school for Asian- and Latino-American adolescents.* Master thesis. University of Maryland, College Park.

Bathje, G. J., & Pryor, J. B. (2011). The relationships of public and self-stigma to seeking mental health services. *Journal of Mental Health Counseling, 33,* 161–176.

Becker, K. D., Buckingham, S. L., & Brandt, N. E. (2015). Engaging youth and families in school mental health services. *Child and Adolescent Psychiatric Clinics of North America, 24*(2), 385–398.

Bowers, H., Manion, I., Papadopoulos, D., & Gauvreau, E. (2013). Stigma in school-based mental health: Perceptions of young people and service providers. *Child and Adolescent Mental Health, 18,* 165–170.

Cauce, A. M., Domenech-Rodriguez, M., Paradise, M., Cochran, B. N., Shea, J. M., Srebnik, D., & Baydar, N. (2002). Cultural and-contextual influences in mental health help seeking: a focus on ethnicminority youth. *Journal of Consulting and Clinical Psychology*, *70*, 44–45. https://doi.org/10.1037//0022-006X.70.1.44.

Center for Behavioral Health Statistics and Quality. (2015). *Behavioral health trends in the United States: Results from the 2014 National Survey on Drug Use and Health.* (HHS Publication No. SMA 15-4927, NSDUH Series H-50). Retrieved December 24, 2018 from http://www.samhsa.gov/data/.

Chandra, A., & Minkovitz, C. S. (2006). Stigma starts early: Gender differences in teen willingness to use mental health services. *Journal of Adolescent Health, 38,* 754.e1–754.e8.

Cheng, H., Wang, C., McDermott, R., Kriedel, M., & Rislin, J. (2018). Self-stigma, mental health literacy, and attitudes toward seeking psychological help. *Journal of Counseling and Development*. https://doi.org/10.1002/jcad.12178.

Coles, M. E., Ravid, A., Gibb, B., George-Denn, D., Bronstein, L. R., & McLeod, S. (2016). Adolescent mental health literacy: Young people's knowledge of depression and social anxiety disorder. *Journal of Adolescent Health, 58,* 57–62.

Collier, A. F., Munger, M., & Moua, Y. K. (2012). Hmong mental health needs assessment: a community-based partnership in a small mid-western community. *American Journal of Community Psychology*, *49*, 73–86.

Corrigan, P. W., Druss, B. G., & Perlick, D. A. (2014). The impact of mental illness stigma on seeking and participating in mental health care. *Psychological Science, 15,* 37–70. https://doi.org/10.1177/1529100614531398.

Corrigan, P. W., & Kosyluk, K. A. (2014). Mental illness stigma: Types, constructs, and vehicles for change. In P. W. Corrigan (Ed.), *The stigma of disease and disability: Understanding causes and overcoming injustices* (pp. 35–56). Washington, DC: American Psychological Association. https://doi.org/10.1037/14297-003.

Costello, E. J., Copeland, W., & Angold, A. (2011). Trends in psychopathology across the adolescent years: What changes when children become adolescents, and when adolescents become adults? *Journal of Child Psychology and Psychiatry, 52*(10), 1015–1025. https://doi.org/10.1111/j.1469-7610.2011.02446.x.

Gagnon, M. M., Gelinas, B. L., & Friesen, L. N. (2017). Mental health literacy in emerging adults in a university setting: Distinctions between symptom awareness and appraisal. *Journal of Adolescent Research, 32*, 642–664. https://doi.org/10.1177/0743558415605383

Gary, F. A. (2005). Stigma: Barrier to mental health care among ethnic minorities. *Issues in Mental Health Nursing, 26,* 979–999. https://doi.org/10.1080/01612840500280638.

Georgakakou-Koutsonikou, N., & Williams, J. M. (2017). Children and young people's conceptualizations of depression: A systematic review and narrative meta-synthesis. Child: Care. *Health & Development, 43,* 161–181. https://doi.org/10.1111/cch.12439.

Goodman, R., Meltzer, H., & Bailey, V. (1998). The Strengths and Difficulties Questionnaire: A pilot study on the validity of the self-report version. *European Child and Adolescent Psychiatry, 7,* 125–130.

Goodman, R., & Scott, S. (1999). Comparing the strengths and difficulties questionnaire and the child behavior checklist: Is small beautiful? *Journal of Abnormal Child Psychology, 27,* 17–24.

Gudino, O. G., Lau, A. S., Yeh, M., McCabe, K. M., & Hough, R. L. (2009). Understanding racial/ethnic disparities in youth mental health services: Do disparities vary by type? *Journal of Emotional and Behavioral Disorders, 17*(1), 3–16. https://doi.org/10.1177/1063426608317710.

Gulliver, A., Griffiths, K. M., & Christensen, H. (2010). Perceived barriers and facilitators to mental health help-seeking in young people: a systematic review. *BMC Psychiatry, 10*(113), 1–9. https://doi.org/10.1186/1471-244X-10-113.

Guo, S., Kataoka, S. H., Bear, L., & Lau, A. S. (2014). Differences in school-based referrals for mental health care: Understanding racial/ethnic disparities between Asian American and Latino youth. *School Mental Health, 6,* 27–39. https://doi.org/10.1007/s12310-013-9108-2.

Hart, S. R., Kastelic, E. A., Wilcox, H. C., Heley, K. M., Ruble, A. E., & Swartz, K. L. (2014). Achieving depression literacy: The Adolescent Depression Knowledge Questionnaire (ADKQ). *School Mental Health, 6,* 213–223. https://doi.org/10.1007/s12310-014-9120-1.

Hart, L. M., Mason, R. J., Kelly, C. M., Cvetkovski, S., & Jorm, A. F. (2016). 'Teen Mental Health First Aid': A description of the program and an initial evaluation. *International Journal of Mental Health Systems, 10*(3), 1–18. https://doi.org/10.1186/s13033-016-0034-1.

Hawes, D. J., & Dadds, M. R. (2004). Australian data and psychometric properties of the Strengths and Difficulties Questionnaire. *Australian and New Zealand Journal of Psychiatry, 38*(8), 644–651.

Hess, R., Pearrow, M., Hazel, C., Sander, J., & Wille, A. (2017). Enhancing the behavioral and mental health services within school-based contexts. *Journal of Applied School Psychology, 33*(3), 214–232.

Jorm, A., Korten, A., Jacomb, P., Christensen, H., Rodgers, B., & Pollitt, P. (1997). "Mental health literacy": A survey of the public's ability to recognise mental disorders and their beliefs about the effectiveness of treatment. *The Medical Journal of Australia, 166*(4), 182–186.

Kataoka, S. H., Zhang, L., & Wells, K. B. (2002). Unmet need for mental health care among U.S. children: Variation by ethnicity and insurance status. *The American Journal of Psychiatry, 159,* 1548–1555. https://doi.org/10.1176/appi.ajp.159.9.1548.

Kessler, R. C., Berglund, P., Demler, O., Jin, R., Merikangas, K. R., & Walters, E. E. (2005). Lifetime prevalence and age-of-onset distributions of DSM-IV disorders in the National Comorbidity Survey Replication. *Archives of General Psychiatry, 62*(6), 593–602. https://doi.org/10.1001/archpsyc.62.7.768.

Kim, J. E., Saw, A., & Zane, N. (2015). The influence of psychological symptoms on mental health literacy of college students. *American Journal of Orthopsychiatry, 85,* 620–630. https://doi.org/10.1037/ort0000074.

Komiya, N., Good, G. E., & Sherrod, N. B. (2000). Emotional openness as a predictor of college students' attitudes toward seeking psychological help. *Journal of Counseling Psychology, 47,* 138–143.

Kutcher, S., Wei, Y., & Coniglio, C. (2016). Mental health literacy: Past, present, and future. *The Canadian Journal of Psychiatry/La Revue Canadienne De Psychiatrie, 61*(3), 154–158. https://doi.org/10.1177/0706743715616609.

Kutcher, S., Wei, Y., & Morgan, C. (2015). Successful application of a Canadian mental health curriculum resource by usual classroom teachers in significantly and sustainably improving student mental health literacy. *The Canadian Journal of Psychiatry/La Revue Canadienne De Psychiatrie, 60*(12), 580–586. https://doi.org/10.1177/070674371506001209.

Leong, F. T., & Lau, A. S. (2001). Barriers to providing effective mental health services to Asian American. *Mental Health Services Research, 3*(4), 201–214.

Lindsey, M. A., & Marcell, A. V. (2012). "We're going through a lot of struggles that people don't even know about": The need to understand African American males' help-seeking for mental health on multiple levels. *American Journal of Men's Health, 6*(5), 354–364.

Lyon, A. R., Ludwig, K. A., Stoep, A. V., Gudmundsen, G., & McCauley, E. (2013). Patterns and predictors of mental healthcare utilization in schools and other service sectors among adolescents at risk for depression. *School Mental Health, 5,* 155–165. https://doi.org/10.1007/s12310-012-9097-6.

Mariu, K. R., Merry, S. N., Robinson, E. M., & Watson, P. D. (2011). Seeking professional help for mental health problems among New Zealand secondary school students. *Clinical Child Psychology & Psychiatry, 17,* 284–297. https://doi.org/10.1177/1359104511404176.

Mendoza, H., Masuda, A., & Swartout, K. M. (2015). Mental health stigma and self-concealment as predictors of help-seeking attitudes among Latina/o college students in the United States. *International Journal for The Advancement of Counselling, 37*(3), 207–222. https://doi.org/10.1007/s10447-015-9237-4.

Milin, R., Kutcher, S., Lewis, S. P., Walker, S., Wei, Y., Ferrill, N., et al. (2016). Impact of a mental health curriculum on knowledge and stigma among high school students: A randomized controlled trial. *Journal of the American Academy of Child and Adolescent Psychiatry, 55,* 383–391. https://doi.org/10.1016/j.jaac.2016.02.018.

Miller, L., Musci, R., D'Agati, D., et al. (2018). Teacher mental health literacy is associated with student literacy in the Adolescent Depression Awareness Program. *School Mental Health*. https://doi.org/10.1007/s12310-018-9281-4.

Na, S., Ryder, A. G., & Kirmayer, L. G. (2016). Toward a culturally responsive model of mental health literacy: Facilitating Help-Seeking Among East Asian Immigrant to North America. *American Journal of Community Psychology, 58*(1–2), 211–225. https://doi.org/10.1002/ajcp.12085.

Nagai, S. (2015). Predictors of help-seeking behavior: Distinction between help-seeking intentions and help-seeking behavior. *Japanese Psychological Research, 57,* 312–322. https://doi.org/10.1111/jpr.12091.

Olsson, D., & Kennedy, M. (2010). Mental health literacy among young people in a small US town: Recognition of disorders and hypothetical helping responses. *Early Intervention in Psychiatry, 4,* 291–298. https://doi.org/10.1111/j.1751-7893.2010.00196.x.

Richter, J., Sagatun, Å., Heyerdahl, S., Oppedal, B., & Røysamb, E. (2011). The strengths and difficulties questionnaire (SDQ)—Self Report. An analysis of its structure in a multiethnic urban adolescent sample. *Journal of Child Psychology and Psychiatry, 52*(9), 1002–1011.

Rickwood, D., Deane, F. P., Wilson, C. J., & Ciarrochi, J. (2005). Young people's help seeking for mental health problems. *AeJAMH (Australian e-Journal for the Advancement of Mental Health)*. https://doi.org/10.5172/jamh.4.3.218.

Rickwood, D. J., Deane, F. P., Wilson, C. J., & Ciarrochi, J. (2007). When and how do young people seek professional help for mental health problems? *The Medical Journal of Australia, 187,* S35–S39.

Sheffield, J. K., Fiorenza, E., & Sofronoff, K. (2004). Adolescents' willingness to seeking psychological help: Promoting and preventing factors. *Journal of Youth and Adolescence, 33,* 495–507. https://doi.org/10.1023/B:JOYO.0000048064.31128.c6.

Sue, D. W. (1994). Asian-American mental health and help-seeking behavior: Comment on Solberg et al., (1994), Tata and Leong (1994), and Lin (1994). *Journal of Counseling Psychology, 41,* 292–295.

Swartz, K. L., Kastelic, E. A., Hess, S. G., Cox, T. S., Gonzales, L. C., Mink, S. P., et al. (2010). The effectiveness of a school-based adolescent depression education program. *Health Education & Behavior, 37,* 11–22. https://doi.org/10.1177/1090198107303313.

Vanderbleek, L. M. (2004). Engaging families in school-based mental health treatment. *Journal of Mental Health Counseling, 26*(3), 211–224.

Vogel, D. L., Bitman, R. L., Hammer, J. H., & Wade, N. G. (2013). Is stigma internalized? The longitudinal impact of public stigma on self-stigma. *Journal of Counseling Psychology, 60,* 311–316. https://doi.org/10.1037/a0031889.

Vogel, D. L., Wade, N. G., & Ascheman, P. L. (2009). Measuring perceptions of stigmatization by others for seeking psychological help: Reliability and validity of a new stigma scale with college students. *Journal of Counseling Psychology, 56,* 301–308. https://doi.org/10.1037/a0014903.

Vogel, D. L., Wade, N. G., & Haake, S. (2006). Measuring the self-stigma associated with seeking psychological help. *Journal of Counseling Psychology, 53,* 325–337. https://doi.org/10.1037/0022-0167.53.3.325.

Vogel, D. L., Wade, N. G., & Hackler, A. H. (2007). Perceived public stigma and the willingness to seek counseling: The mediating roles of self-stigma and attitudes toward counseling. *Journal of Counseling Psychology, 54,* 40–50.

Wang, C., Do, K. A., Frese, K., & Zheng, L. (2018). Asian immigrant parents' perception of barriers preventing adolescents from seeking school-based mental health services. *School Mental Health*. https://doi.org/10.1007/s12310-018-9285-0.