Published in final edited form as:

J Black Psychol. 2010 November 1; 36(4): 458–482. doi:10.1177/0095798409355796.

Family Matters: The Role of Mental Health Stigma and Social Support on Depressive Symptoms and Subsequent Help Seeking Among African American Boys

Michael A. Lindsey¹, Sean Joe², and Von Nebbitt³

¹ University of Maryland, Baltimore, USA

² University of Michigan, Ann Arbor, USA

³ Howard University, Washington, DC, USA

Abstract

African American adolescent boys underutilize mental health service due to stigma associated with depression. Gaining an increased understanding of how depressed, African American adolescent boys perceive their mental health needs and engage in help-seeking behaviors might play an essential role in efforts to improve their symptoms and access to care. Using a mixed-methods design, this study examined the influence of mental health stigma and social support on depressive symptoms among African American adolescent boys. Findings indicated the protective effects of social support in decreasing depressive symptoms, especially when participants experienced mental health stigma. Results also revealed the pivotal role of family social support over both professional and peer support for participants who struggled with depressive symptoms. The primacy of family support among the sample, combined with the frequent distrust of professionals and peer networks, would indicate that working with families may improve initial identification of depression among African American adolescent boys and decrease their barriers to care.

Keywords

help seeking; stigma; social support; depression; African American adolescent boys

Adolescent depression is a serious public health concern for families, schools, and mental health practitioners alike. Studies indicate that 1 in 10 children and adolescents in the United States suffer from mental illness severe enough to cause some impairment, and large-scale studies have reported that up to 3% of children and 8% of adolescents suffer from depression (U.S. Department of Health and Human Services [USDHHS], 1999, 2001). Urban, African American adolescents living in high-risk settings (i.e., characterized by high levels of substance abuse, violence, and poverty) have been found to experience depression at greater levels (Hawkins, Hawkins, Sabatino, & Ley, 1998; Nebbitt & Lombe, 2007; Stevenson, 1998; USDHHS, 2001) and at a disproportionately higher rate than adolescents from other racial/ethnic groups in the United States (Roberts, Roberts, & Chen, 1997; Wu et al., 1999). African American adolescent boys may be a particularly vulnerable group regarding depression because of the concomitant risks associated with living in high-risk environments and

Corresponding Author: Michael A. Lindsey, Schools of Social Work and Medicine, University of Maryland, 525 W. Redwood Street, Baltimore, MD 21201, USA, mlindsey@ssw.umaryland.edu.

Declaration of Conflicting Interests

The authors declared no potential conflicts of interests with respect to the authorship and/or publication of this article.

experiencing low social network support (Hammack, Richards, Luo, Edlynn, & Roy, 2004). In particular, risk factors for depression among this group have been linked to having fewer perceived future opportunities (Hawkins et al., 1998); low neighborhood social capital, kinship social support, and social network size (Stevenson, 1998; Ueno, 2005; Zimmerman, Ramirez-Valles, Zapert, & Maton, 2000); older age (Moses, 2009a); and greater exposure to delinquent peers (Brendgen, Vitaro, & Bukowski, 2000; Nebbitt & Lombe, 2008) and violence (DuRant, Getts, Cadenhead, Emans, & Woods, 1995).

While treatable, there are significant racial and gender differences concerning who gets treatment for depression. Although research finds that depression is highly amenable to treatment (Petersen, Compas, Brooks-Gunn, et al., 1993), few children and adolescents, especially African American adolescents with a depressive disorder, receive care (Burns et al., 2004; Garland et al., 2005; USDHHS, 2001). In general, prior studies have shown that adolescents experiencing mental problems typically talk about these problems with informal sources, such as friends and family, prior to and/or in lieu of seeking professional help (Offer, Howard, Schonert, & Ostrov, 1991; Saunders, Resnick, Hoberman, & Blum, 1994). The underutilization of formal mental health services among African American youth with depression has spurred an interest in examining factors that underlie their symptoms and subsequent help-seeking behaviors (Lindsey et al., 2006). For example, Scott, Munson, McMillen, and Snowden (2007) found that mental health problem identification and eventual help-seeking behaviors for African American adolescent boys may be compromised by gender-based notions of help seeking or masculine norms, that is, socialization reinforced by “macho messages” that suggest that males who show their emotions are weak. These help-seeking patterns are important to consider given that males account for more than 80% of suicide among African American adolescents (Joe, 2006). Given these prior findings and the underutilization of mental health services among depressed African American adolescent boys, the purpose of this study was to examine the influence of mental health stigma and social support on depressive symptoms and subsequent help-seeking behaviors for this population.

Stigma and Depression

Much of what is known about mental health stigma among children and adolescents is based on adult studies of mental illness, relies on adults' perception of childhood stigma rather than children's own perceptions, and often does not include race-specific information (Pescosolido, 2007). In a recent study, Perry, Pescosolido, Martin, McLeod, and Jensen (2007) found that adults perceived that children with depression may be more vulnerable to stigmatization than adults. Childhood depression was also viewed as more serious than adult depression, requiring immediate formal treatment (Perry et al., 2007). In a study examining perceptions of mental health stigma among youth aged 8 to 18 years, Walker, Coleman, Lee, Squire, and Friesen (2008) found that depression and attention deficit hyperactivity disorder was more stigmatized than asthma, and depression elicited the most negative stigmatizing responses. That is, youth perceived that peers who were depressed were potentially dangerous, and these youth reported higher levels of social distance with depressed peers (Walker et al., 2008).

Mental illness stigma is reflected in how young people describe their depressive symptoms and gender appears to play an important role. When presented an opportunity to describe their depressive symptoms, Moses (2009a) found that ethnic minority youth, in particular, will not “self-label” or conceptualize their problems in pathological terms. In fact, males may be particularly sensitive to stigma associated with depression and mental health service treatment. Chandra and Minkovitz (2006) found that boys experienced more stigmas concerning mental illness and service use than girls. Results from this investigation also suggest that boys preferred to address their mental health struggles with their family.

What remains unclear, however, is the nature of the direct influence of mental health stigma on depressive symptoms among adolescents, particularly among African American adolescent boys. According to Link, Cullen, Struening, Shrout, and Dohrenwend's (1989) *modified labeling theory*, labeling or stigma may either induce a state of vulnerability that increases the likelihood of a person experiencing repeated episodes of a disorder; or, labeling and stigma may be the cause of negative outcomes (e.g., withdrawn behaviors, shame/secretcy) that place mentally ill persons at risk for recurrence or prolongation of disorders that emanated from other causes. In a study examining the association between mental health stigma and depressive symptoms in a sample of adolescents, Moses (2009b) describes two forms of stigma, *societal devaluation* (or public stigma) and *self-stigma*, and both were associated with higher levels of depressive symptoms. Interestingly, findings from the Moses study also reflected those youths' perceptions that their network members (including family and friends) would not stigmatize them for having an emotional/behavioral disorder. Rather, they felt their peers would tease them about using mental health services, and shame was accorded to receipt of formal mental health treatment (Moses, 2009b). It is unclear from this study whether these findings differed based on ethnic identity.

Social Support and Depression

Social support has received considerable attention in the adolescent literature as a main and interactive effect on adolescent responses to stressors (Zimmerman et al., 2000). As a main effect, research findings among African American adolescents have indicate that higher levels of social support predict lower levels of depressive symptoms for this group (Gaylord-Harden, Ragsdale, Mandara, Richards, & Petersen, 2007; Johnson & Kliewer, 1999; Zimmerman et al., 2000). Research on the interactive effects of social support suggests that this construct may interact with other factors, for example, stress, to buffer or moderate the deleterious effects of stress on an outcome such as depression (Cohen, 1988; Cohen & Willis, 1985). For example, in the presence of stress, individuals who have a high level of social support might be protected from experiencing a related negative reaction to the stressor. Consistent with this proposition, Zimmerman et al. (2000) examined the "stress-buffering" effects of social support on depressive symptoms among African American adolescent boys. They found that parental support had a buffering effect on stressful events for predicting depressive symptoms cross-sectionally; however, depressive symptoms did not activate more parental support for African American adolescent boys over time (Zimmerman et al., 2000).

While the study by Zimmerman et al. (2000) offers support for the stress-buffering effect of social support, findings on the interactive effect of social support among adolescent samples have been mixed. For example, McCarty et al. (2006) found a direct effect of social support on depressive symptoms but did not find support for a moderating influence of social support by gender among a sample of delinquent youth. In a study examining dating violence victimization and depression among African American and Caucasian adolescents, Holt and Espelage (2005) found a moderating effect of maternal social support on the association between victimization and anxiety/depression for African American males. Thus, the stress-buffering effect may only hold for certain types of behavior (e.g., internalizing behaviors), specific sources of support, and the type of problems evaluated (e.g., stress, victimization) (Zimmerman et al., 2000).

Help-Seeking Pathways and the Influence of Social Networks

Concepts derived from the network-episode model (NEM) are well suited to exploring how African American adolescents' networks might influence their response to depression. The NEM suggests that help seeking is not an isolated, rational action; rather, it is a process involving influence from individuals in one's social network: family members, friends, and

close acquaintances (Pescosolido, 1991; Pescosolido & Boyer, 1999; Pescosolido, Gardner, & Lubell, 1998). As social beings, individuals who experience psychiatric illness may have people in their lives that confirm the presence of a problem and help them to negotiate a resolution. This may include identifying or providing emotional support, reminding them of appointments, offering transportation, or ensuring that they adhere to appropriate aftercare. Social network members might also transmit stigma and negative messages about formal services, thereby influencing both an individual's mental health symptoms and their help-seeking behaviors. Examining the social processes within an adolescent's social network will help clarify the mechanisms that underlie their problem identification, symptom expression, and help-seeking behaviors. Previous studies have failed to account for the unique cultural and contextual influences on help seeking among ethnic minority youth, including African American adolescents (Cauce et al., 2002). Understanding these social network influences may provide insight into why contingencies such as age, race, and gender do not fully explain what precipitates their psychological needs and help-seeking behaviors.

Current Study

The extant literature on mental health stigma, social support, and depressive symptoms among African American adolescents is limited. Given the elevated risk for untreated depression among African American adolescents (Wu et al., 1999), the higher risk for suicide among African American adolescent males (Joe, 2006) and the strong relationship between depression and suicide risk (Weissman et al., 1999), a focus on depressive symptom expression and its underlying factors may be particularly salient to early identification of mental health need for this group. Thus, the purposes of this study were to (1) examine the ability of mental health stigma and perceived social support to predict depressive symptoms among urban African American adolescent boys and (2) explore the social network influences on initial problem recognition and eventual help-seeking attitudes/behaviors among adolescents who exhibited elevated depressive symptom levels. Although this study relied on a small convenience sample, it is one of a limited number of studies directly examining the help-seeking behaviors of depressed, African American adolescent boys. Given the disproportionate underutilization of mental health services for depression among African American adolescents and its cost to society (USDHHS, 2001), it is of interest to clarify how social and familial factors influence their depressive symptoms and help-seeking behaviors.

Based on extant literature, we expected to find direct effects for mental health stigma and social support on depressive symptoms for this sample. We also expected to find support for the buffering effect of social support on the relationship between mental health stigma and depressive symptoms. Furthermore, through a qualitative exploration of perceptions of social network influences among African American adolescents with higher levels of depressive symptoms, we expected a greater understanding of the processes and mechanisms by which symptoms were initially identified and the subsequent influence of social support on help-seeking behaviors.

Method

Study Design

The current study applied mixed-methods research, in particular a triangulation design, to address the research aims. Specifically, a variant of the triangulation design, *validating quantitative data model*, was employed whereby quantitative and qualitative data were concurrently collected to best understand the substantive area (Creswell & Plano-Clark, 2007). Thus, quantitative methods were used to identify factors associated with depressive symptoms and help-seeking behavior, while qualitative methods were used to document critical processes and mechanisms through which adolescents understand and respond to the

phenomenon of depression. The aim of the qualitative interviews was to describe rather than verify phenomena. In particular, the investigators sought thick description via the use of qualitative interviews to gain understanding of the unique features of support, as well as content about depressive symptom recognition and subsequent behavioral responses by participants, including their interactions with social networks when experiencing depressive symptoms.

Description of Setting

Participants were recruited from mental health treatment and community-based (nontreatment) settings, including (1) two outpatient community mental health centers, (2) a psychotherapist in private practice, and (3) three community-based programs for high-risk youth (i.e., a truancy abatement program, violence prevention program, and a homeless shelter for teenagers) in a large Northeastern city. These programs were chosen as sample sources because (1) the youths served in these settings were predominantly African American, (2) they met age requirements for inclusion in this study, and (3) many of the clients served in each of the treatment/nontreatment settings were identified as being at risk for depression based on their residence in poor, highly stressed communities, multiple family disruptions, and other associated stressors. This study received institutional review board approval (April 2001).

Depending on the setting, therapists or program staff identified potential participants according to established criteria on age, ethnicity, and gender. Informed consent of the parent/guardian and child assent was secured prior to initiating any data collection procedures. Once consented/assented, participants were then administered a survey that included the Centers for Epidemiologic Studies Depression Scale (CES-D; Radloff, 1977) as an indicator of depressive symptoms. Additional survey items assessed mental health stigma, social support, and demographic characteristics. Eighteen of the 69 participants (i.e., 10 who were in treatment and 8 who were not in treatment) had elevated depressive symptoms (scores of 16 and above) based on the CES-D measure and agreed to participate in the qualitative interview. More information on the CES-D measure is described in the measures section below.

Data Collection

Data were collected from participants in one interview session, which lasted 45 to 60 minutes (i.e., the quantitative study, which included the CES-D measure and the other survey items) or up to 90 minutes for those participating in quantitative and qualitative studies. Interviews were conducted in private rooms located within the mental health centers, community-based organizations, or homes of participants. Participants received a \$25 gift certificate for participating in the quantitative study and a \$35 gift certificate for participating in the quantitative and qualitative studies.

Quantitative Measures

Mental health stigma—The Attitudes Toward Seeking Professional Help Scale (Fischer & Turner, 1970) assessed respondent's personal attitudes about seeking professional help. In particular, the construct was operationalized via the measure *stigma tolerance*, the extent to which participants might be concerned about what others might think if he visited a mental health professional for treatment. The original measure contains 29 items that represent four subscales: in addition to stigma tolerance, *recognition of need for psychotherapeutic help*, *interpersonal openness*, and *confidence in mental health practitioner*. Given its relevance to the original study aims, only the *stigma tolerance* subscale (5 items) was administered to participants. Study participants rated on a 4-point Likert-type scale, ranging from 1 (*strongly disagree*) to 4 (*strongly agree*). Scores ranged between 0 and 30: Lower scores indicated sensitivity to what others would think if he visited a mental health professional for treatment; higher scores represented less concern about what others might think (Fischer & Turner, 1970). Based on reliability statistics, one item from the stigma tolerance subscale was removed

from the final scale used in final analyses (Item: “Had I received treatment from a therapist/counselor, I would not feel it should be ‘covered up.’”). The internal reliability estimate for the stigma tolerance subscale was .65.

Social support—The Social Support Scale (Friedman, Koeske, Silvestre, Korr, & Sites, 2006) assessed the amount of perceived availability of emotional and practical support from individuals comprising the participant’s social network (e.g., mother, father, brothers, friends, teachers, etc.). Participants rated on a 5-point Likert-type scale, ranging from 1 (*not at all*) to 5 (*a great deal*), each network member relative to the amount of support they received. If a respondent did not perceive the availability of support from the indicated network member, “not applicable” may be selected. Ratings, summed for each network member across both emotional and practical support, yielded a final total support score. The internal reliability estimate for this sample was .90.

Depressive symptoms—The CES-D is a 20-item scale that assessed depressive symptoms among adolescents in the study. Participants were asked to indicate on a 4-point scale (ranging from 0 = *less than once a day* to 3 = *most or all the time*) how often during the past week they felt depressed, lonely, sad, unusually bothered by things, or could not get going; higher total scores indicate more depressive symptoms. Total scores on the CES-D have a range of 0 to 60. The internal reliability estimate obtained for African American adolescents in past studies ranged from .64 to .89 (Garrison, Addy, Jackson, 1991; Hawkins et al., 1998; Roberts & Sobhan, 1992). Although several of these studies have used different cutoff points (i.e., 12, 16, or 22) as indicators of being at risk for later development of clinical depression, a cutoff point of 16 was used as a risk indicator and an inclusion criteria for the qualitative interviews in this study. Prevalence of depressive symptoms using CES-D caseness criteria of 16 or greater is in the range of 45% to 55% (Roberts et al., 1997). Twenty-six percent of this sample scored 16 or better on the CES-D. The internal reliability estimate was .84 for this sample.

Demographics—To explicate a profile of the background and family characteristics of participants in the study, demographic information was collected from each participant, including age, current living arrangements and family structure, parent/caregiver level of education, frequency of religious service attendance, and social network size. Examples of questions included the following: Are you currently living with your biological family? Who are your primary caregivers? Who are the people in your life right now who you feel you can depend on for help if you need it? How often do you attend religious services?

Qualitative Interview Procedures

Open-ended questions based on the NEM (Pescosolido, 1991) constituted the qualitative interview. In particular, questions pertaining to the NEM concept *network content* assessed the degree of support from network members, as well as members’ attitudes and beliefs toward mental illness and mental health treatment. In addition to network content, questions were also derived from the literature on help-seeking behaviors among adolescents (i.e., help-seeking pathways when dealing with emotional/psychological problems), as well as the literature on mental health service utilization among African Americans. (See Table 1 for examples of the questions and follow-up probes used in the protocol.) The first author and a trained research assistant conducted the interviews. Participants were encouraged to talk at length about their help-seeking behaviors in relation to their depressive symptoms, with detailed accounts regarding the ways their network influenced their behaviors. They were also asked how they conceptualized and defined mental health and associated depressive symptoms (described in the protocol as “feeling sad or hurt inside”).

Analytic Strategies

Quantitative Data Analysis—The quantitative component involved univariate and multivariate analyses. First, univariate analyses were performed to provide a demographic background for the sample, including a description of their social network characteristics. Second, hierarchical regression analyses were performed to determine (1) the degree to which predictor variables (i.e., age, network size, mental health stigma, and social support) were associated with depressive symptoms and (2) whether social support moderated the association between mental health stigma and depressive symptoms. The hierarchical regression analyses were performed in three steps. In Step 1, age and network size were entered. In Step 2, mental health stigma and social support were entered as predictors. Finally, in Step 3, an interaction term, mental health stigma $\times$ social support, was entered to determine the potential moderating influence of social support. In accordance with recommendations by Cohen, Cohen, West, and Aiken (2003), the predictor variables (mental health stigma and social support) were centered to their respective means to adjust for multicollinearity. Regression analyses were conducted with the centered values of mental health stigma and social support. R^2 statistics across the three steps were evaluated to determine the degree to which predictors were associated with depression. A significant interaction was plotted following (Cohen et al., 2003) guidelines using a word processing application. The y-axis reflects predicted depression values for each group from the full regression equation including unstandardized beta weights and the constant (see Figure 1). Analyses were conducted using SPSS version 16.0.

Qualitative Data Analysis—Qualitative interviews were tape recorded, transcribed, and analyzed using inductive coding techniques (Miles & Huberman, 1994). Three readers, including the first author and two research assistants, independently reviewed and coded transcripts to identify patterns and themes emerging from the data. After review and designation of codes, the readers convened consensus sessions to determine the categories and subcategories of themes and to establish interrater reliability. Through an iterative process involving all reviewers, the research team developed a final coding matrix. The final coding matrix denoting the category and subcategory of themes provided a definition clarifying the meaning for each category and subcategory and identified corresponding sample quotes that best captured the theme.

Results

Descriptive Analyses

Participants in this study had an average age of 15.3 years ($SD = 1.25$). Eighty-five percent ($n = 59$) of the participants were living with their biological family at the time of the interview. Fifty-five percent ($n = 38$) were being reared in mothers-only families, while 29% ($n = 20$) lived with both their mothers and fathers. The participants, on average, lived with 3 to 4 siblings. The mean CES-D score for the sample was 12.01 ($SD = 8.38$), and scores ranged from 0 to 45. See Table 2 for overall sample characteristics.

Multivariate Regression Analyses Predicting Depressive Symptoms

Hierarchical regression analyses were performed to determine the unique associations with depressive symptoms among the study variables. In Step 1, age ($B = 1.28, p > .05$) and network size ($B = .028, p > .05$) were not significant predictors of depressive symptoms. In Step 2, both mental health stigma ($B = -1.07, p < .05$) and social support ($B = -1.99, p < .05$) were significant negative predictors of depressive symptoms, accounting for 22% of the variance. In the final step, the interaction term, mental health stigma $\times$ social support ($B = .789, p < .01$), was a significant positive predictor of depressive symptoms, accounting for 35% of the variance; an increase of 12% from the variance explained in Step 2. See Table 3 for full results.

Qualitative Results

Questions and probes in the qualitative interview assessed social network influences on help-seeking behaviors among participants with elevated depressive symptoms (i.e., scores of 16 or more on the CES-D). Qualitative findings illustrated the behaviors engaged in when initially experiencing depressive symptoms, how family members recognize/identify depressive symptoms, and turning to family members as a first option for help.

Initial Behavioral Responses to Depressive Symptoms

Eleven of the 18 participants shared that they initially spent time alone when dealing with depressive symptoms. One participant noted: “I just stay in my room and lock the door. That’s it ... I don’t want to be bothered.” While in isolation, participants might engage in reading, listening to music, playing video games, or watching television to help ease the pain. These leisure activities might also temporarily serve as a distraction from ruminating about problems. Time alone might additionally provide the opportunity to “self-reflect,” a behavioral response reported by 6 of the 18 participants. As one adolescent male noted, “I try to go within myself so I pretty much get the answers. It’s like a self-conscious.” On the other hand, depressive symptoms might conjure up negative feelings regarding the emotional pain, which then, as reported by 7 out of 18 participants, precipitates anger as a coping response. As noted by one participant, “I might take my anger [about being depressed] out on others because I want them to hurt like I do.”

Family Members First to Recognize/Identify Depressive Symptoms

The majority of participants (12 out of 18) reported it was a family member who helped them to initially identify their depressive symptoms. One participant noted:

Well, my mom, and my aunt, and stuff like that, or granddad, they could actually sit there and tell like when I’m not, when I [don’t] want to be bothered. I’ll sit there and like I block myself off from everybody else. Usually I’m like [an] active talkative type person. Laugh, comedy person. But then when I start becoming—the antistuff then they know that something is wrong [*Referencing the experience of having depressive symptoms*].

Among participants who did not have strong familial support (3 out of 18), identifying their depressive symptoms was something they did in isolation, as one participant noted: “It [identifying the problem] was something I did on my own.”

Help Seeking: Go to Family Members First

In terms of help-seeking behaviors, the majority of participants (11 out of 18) discussed turning first to family members for help with depressive symptoms and felt comfortable with taking their problems to family members before going to “outsiders” (i.e., mental health professionals). Most often mothers played a particularly prominent role among participants who indicated that their mothers would have the “best” perspective regarding their well-being and would provide useful feedback on what they might do to resolve the problem. The following quote captures the theme that family members are the best source and first resort for help when dealing with depressive symptoms:

My first resort [when dealing with a depressive symptom] would be to go to my family ... you really don’t want to skip over them because they really have a good input on you and they really look at you everyday and know a lot of things about you so they could also help you.

Distrusting of Mental Health Professionals and Peer Networks

Participants were likely to experience the combined effects of family support and lack of trust in professional providers. In particular, they shared their negative perceptions of mental health professionals—perceptions that were often transmitted to them by their family members. Participants questioned the authenticity and genuineness of mental health professionals and indicated that professionals would not be able to break down perceptual barriers associated with accessing treatment—barriers family members would more easily penetrate:

They [MH professionals] can't—I mean they don't really know you until you actually spread yourself out to them... Like something to break the ice because everybody has defensive mechanisms. They have to defeat them first to get to know the problem. And when it's someone you know like your family sometimes you may put up defensive mechanisms against them, but also they know your tendencies well. That's why they're there helping you.

Eight out of the 18 participants associated the use of formal mental health treatment for depression with feeling “shame.”

For participants in this study, having depressive symptoms meant that friends would generally not be as supportive as family members. Even expressing an emotion such as “crying” is seen as a sign of weakness among friend networks. Crying as a result of some emotional pain might precipitate feelings of vulnerability and weakness, and these feelings might be conveyed to the peer referent group. If conveyed to the peer referent group, the potential for antagonism increases by peers due to the expression of emotional pain. Thus, peer influence can play a huge role as the one experiencing depressive symptoms engages in risk-averse behaviors (i.e., keep one's feelings to oneself, handle problems on your own without assistance) and therefore attempts to save face by masking his symptoms under the guise of being tough and strong among peers.

Discussion

Overall, findings indicate that mental health stigma and social support both influence depressive symptoms among African American adolescent boys, albeit in different ways. Both constructs also seem to have some influence on eventual help-seeking behaviors. In particular, our quantitative findings support a main and potential moderating effect of social support on the relationship between mental health stigma and depressive symptoms. As a main effect, social support was negatively associated with depressive symptoms. This finding is consistent with previous literature suggesting the positive influence of social support on depressive symptoms (Gaylord-Harden et al., 2007; Hall, Cassidy, & Stevenson, 2008; Zimmerman et al., 2000). Interestingly, in the Hall et al. (2008) study, this main effect was only found for girls. As an interactive effect, regression coefficients indicated that the negative relationship between mental health stigma and depressive symptoms increased with every increase in level of social support. Thus, the existing negative relationship between mental health stigma (i.e., having tolerant attitudes about professional mental health treatment) and lower depressive symptoms was enhanced by the presence of social support, suggesting the potential buffering effect of this construct. Given the exclusive gender focus of this study, findings reflect that social support among African American boys may play an important role in lowering depressive symptoms, particularly when these youth face stigma regarding mental illness and service use.

Qualitative findings in this study helped elucidate the quantitative findings and provide a context for the observed pattern of relationships. In particular, participants reported that their network members were able to “see through” or discern their depressive symptoms. Family members, in particular, were a first source for help. Consistent with this proposition, Scott and Davis (2006) noted that African American males “are particularly averse to sharing personal

vulnerabilities” outside of their family members (p. 732). They further note that help seeking for African American males is bounded within contextual stressors and that these larger systemic stressors (e.g., antagonism from security guards or the police, negative interactions with school personnel) influence their interactions with and unwillingness to connect with “professionals” (Scott & Davis, 2006). Findings from this study suggest, at least partially, that participants felt it was safe to be vulnerable among family, if at all.

Draucker (2005) noted a particular pattern among African Americans relative to Caucasians in a retrospective study of help-seeking behaviors among young adults who were first diagnosed with depressive disorders as adolescents. African Americans in the Draucker study reported heavy reliance upon their social networks. Mental health research has also consistently documented this reality for African Americans. For example, prior research highlights African Americans’ reliance on family and informal help sources when experiencing emotional/psychological problems (Chatters, Taylor, & Neighbors, 1989; Snowden, 2001), their stigma of mental health service use (McKay, Nudelman, McCadam, & Gonzales, 1996; Snowden, 2001), and fear of being perceived negatively by friends and family (Hines-Martin, Brown-Piper, Kim, & Malone, 2003). Based on findings in this study, similar help-seeking patterns and reliance upon the family for emotional/practice support seem to exist for African American adolescent boys.

Peers may be a particularly challenging peer referent group for African American adolescent boys with depressive symptoms. Extant research on African American males’ psychological response to distress and illness also suggests that their display of vulnerability is, in fact, considered weakness among their male counterparts (Majors & Billson, 1992; Rasheed & Rasheed, 1999). In this study, not only were friends generally viewed as unsupportive, but for the adolescent boys in this sample, it was also important that they did not exude or display any depressive symptoms among their male friends. For example, asking for help to deal with depressive symptoms was viewed as weak, and shame was accorded to seeking or using professional mental health services to address symptoms. Consistent with previous research on gender and help-seeking behaviors (Chandra & Minkovitz, 2005; Scott et al., 2007), our findings suggest that boys may be negatively influenced by peer perceptions of mental illness and help seeking.

Linking Qualitative and Quantitative Findings

Similar to previous studies regarding social network influences on help seeking and mental illness (Pescosolido & Boyer, 1999; Pescosolido, Garner, & Lubell, 1998; Pescosolido, Wright, Alegria, & Vera, 1998), quantitative and qualitative findings indicate that networks play a particularly important role regarding stigma associated with depressive symptoms and eventual help-seeking behaviors. In particular, quantitative findings suggested that social networks may buffer potential negative perceptions associated with depressive symptoms. The qualitative findings provided further details regarding what was learned quantitatively by revealing the ways in which both families and friends induced, transmitted, and endorsed stigmas regarding help seeking for depressive symptoms or how one might respond to symptoms. Stigma is a powerful influence and is based on both actual and perceived experiences, which may be largely based on experiences depressed, African American adolescents boys have within their social network. Family members and peers, however, differentially influence help-seeking behaviors related to depression. Family members were the first point of contact for depressive symptoms, offering support for depressive symptoms, whereas peers incited both negative feelings about symptoms and a reluctance to ask for or seek help. Professionals were similarly viewed with skepticism.

Limitations

Confirmatory and comparative analyses from the perspective of actual network members would have been desirable, but limitations of time and funding restricted this study to the adolescents' perceptions of their depressive symptoms, perceived mental health stigma and social network support, and social network influences on help-seeking behaviors. For example, if the investigators had data from parents and peers, further triangulation and verification of the data could have been done. Sample size was expected to be restricted because of the small number of African American adolescent boys who were participants in the community-based programs that provided participants for the study. Thus, this expected small sample size contributed to the decision to use mixed methods that would yield more robust data than would be derived from one method alone (Fielding & Fielding, 1985). An interview procedure was chosen as the data collection strategy because personal contact enhanced the comfort level and facilitated the cooperation of the adolescents who participated in the study. A limitation, however, of this strategy is that participants may have provided socially desirable responses to the survey items and open-ended questions.

Our measurement of mental stigma was based on measure previously developed for adult mental health services research (Fischer & Turner, 1970) and may not be generalizable to the unique experiences of African American adolescent boys. What the measure lacked in cultural and developmental sensitivity, the qualitative study, as part of the mixed-methods design, attempted to augment important gaps in the measurement of stigma. Additionally, researchers have differentiated public versus self-stigma in studies examining this construct (Corrigan & Watson, 2002; Moses, 2009b). For this study, however, we were only able to assess public stigma, that is, stigma tolerance. A more robust measurement of stigma among the participants in this study would provide a richer understanding about which forms of stigma are more influential in both depressive symptom expression and help-seeking behaviors.

The CES-D, as a measure of depressive symptoms, is not equivalent to a clinical diagnosis of depression. A study of ethnic minority adolescents, however, found the CES-D to be predictive of later diagnosis of a depressive disorder, including major depressive disorder (MDD) or dysthymic disorder (DD); the positive predictive value of MDD based on CES-D cutoff scores of 16 was 17%, 13% for DD, and 15% for having both MDD and DD (Prescott et al., 1998). Other studies, which included African American adolescent participants, similarly indicate the predictive ability of the CES-D regarding later diagnosis of MDD or DD among adolescents (Garrison et al., 1991; Roberts, Lewinsohn, & Seeley, 1991). Thus, the depressive symptoms described by participants in this sample may be more consistent with apparent moodiness and not clinically diagnosed depression for which treatment might be required. Given the success of the CES-D in predicting later clinical diagnosis of depression among adolescents, however, this measure may be best suited as an initial screen to confirm the need for more intensive follow-up to confirm a clinical diagnosis of depression. Confirmation of a depressive disorder was not the purpose of this study. Therefore, our findings may be limited to African American youth who exhibit early signs and symptoms of depression and not actual clinical depression.

Finally, given the cross-sectional nature of the data collected, we were not able to determine causality among the study variables. Future research is warranted to examine the influence of mental health stigma and social support on depressive symptoms and help-seeking behaviors longitudinally to determine the true effect of these constructs for this population.

Implications for Research and Practice

Given the findings of this study, future investigations regarding the design of engagement strategies with the families of African American adolescent boys might improve depression symptom identification, stigma reduction, and formal care seeking for this population. In

particular, our findings suggest that mental health practitioners should make concerted efforts to increase their connections to the family social support system of African American adolescent boys with depression to remediate symptoms and enhance the help-seeking behaviors of this group. Moreover, agencies might increase opportunities for families to be involved in the treatment process by providing services at convenient hours or offering other supportive services such as child care and transportation.

Future research should examine the efficacy of antistigma mental illness interventions to help foster a more supportive peer environment for African American adolescent boys with depression. Because of their close proximity to youth, school-based mental health practitioners have a unique opportunity to engage adolescents in the development of schoolwide antistigma campaigns to encourage sensitivity to the mental health challenges faced by students and to educate students and school personnel (e.g., teachers, administrators) about the signs and symptoms of mental health problems such as depression. To develop such campaigns, practitioners might pay particular attention to the rich narratives provided by participants in this study regarding their perceptions of mental illness, services, and providers.

Finally, when treating a population such as African American boys with depression, it might be especially important for providers to display an openness and willingness to explore perceptual barriers held by this group concerning depression and formal service use. Having an honest conversation about the perceptual barriers that have the potential to negatively influence therapeutic engagement and alliance (e.g., issues related to race/ethnic match with therapist; mental health stigma) demonstrates the provider's sincerity and promotes an interaction based on trust. Given this study's findings regarding the positive effects of family support, practitioners might also (1) explore the adolescent and caregiver's convergence regarding perception of depressive symptoms and (2) identify cultural/gender-specific preferences and potential barriers to help seeking and formal service use.

Acknowledgments

Funding

The authors disclosed receipt of the following financial support for the research and/or authorship of this article: This study was funded by the National Institute of Mental Health (1 RO3 MH63593-01) to the first author. The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institute of Mental Health or the National Institutes of Health. Dr. Joe was supported for his time in preparation of this manuscript a grant (R01-MH82807) from the National Institute of Mental Health.

References

- Brendgen M, Vitaro F, Bukowski W. Deviant friends and early adolescent's emotional and behavioral adjustment. *Journal of Research on Adolescence* 2000;10:173–189.
- Burns BJ, Phillips SD, Wagner HR, Barth RP, Kolko DJ, Campbell Y, et al. Mental health need and access to mental health services by youths involved with child welfare: A national survey. *Journal of the American Academy of Child & Adolescent Psychiatry* 2004;43:960–970. [PubMed: 15266190]
- Cauce AM, Domenech-Rodriguez M, Paradise M, Cochran BN, Shea JM, Srebnik B, et al. Cultural and contextual influences in mental health help seeking: A focus on ethnic minority youth. *Journal of Consulting and Clinical Psychology* 2002;70:44–55. [PubMed: 11860055]
- Chandra A, Minkovitz CS. Stigma starts early: Gender differences in teen willingness to use mental health services. *Journal of Adolescent Health* 2006;38:754.e1–754.e8. [PubMed: 16730608]
- Chatters LM, Taylor RJ, Neighbors HW. Size of informal helper network mobilized during a serious personal problem among African Americans. *Journal of Marriage and the Family* 1989;51:667–676.
- Cohen, J.; Cohen, P.; West, SG.; Aiken, LS. *Applied multiple regression/correlation analysis for the behavioral sciences*. 3. Mahwah, NJ: Lawrence Erlbaum; 2003.

- Cohen S. Psychological models of the role of social support in the etiology of physical diseases. *Health Psychology* 1988;7:269–297. [PubMed: 3289916]
- Cohen S, Willis TA. Stress, social support, and the buffering hypothesis. *Psychological Bulletin* 1985;98:310–357. [PubMed: 3901065]
- Corrigan P, Watson A. The paradox of self-stigma and mental illness. *Clinical Psychology: Science and Practice* 2002;9:35–53.
- Creswell, JW.; Plano-Clark, VL. Designing and conducting mixed methods research. Thousand Oaks, CA: Sage; 2007.
- Draucker CB. Process of mental health service use by adolescents with depression. *Journal of Nursing Scholarship* 2005;37:155–162. [PubMed: 15960060]
- DuRant RH, Getts A, Cadenhead C, Emans SJ, Woods ER. Exposure to violence and victimization and depression, hopelessness, and purpose in life among adolescents living in and around public housing. *Developmental and Behavioral Pediatrics* 1995;16:233–237.
- Fielding, N.; Fielding, J. Linking data: Qualitative research methods. Vol. 4. Thousand Oaks, CA: Sage; 1985.
- Fischer EH, Turner JL. Orientation to seeking professional help: Development and research utility of an attitude scale. *Journal of Consulting and Clinical Psychology* 1970;35:79–90. [PubMed: 5487612]
- Friedman MS, Koeske GF, Silvestre AJ, Korr WS, Sites EW. The impact of gender-role nonconforming behavior, bullying, and social support on suicidality among gay youth. *Journal of Adolescent Health* 2006;38:621–623. [PubMed: 16635780]
- Garland AF, Lau AS, Yeh M, McCabe KM, Hough RL, Landsverk JA. Racial and ethnic differences in utilization of mental health services among high-risk youths. *American Journal of Psychiatry* 2005;162:1336–1343. [PubMed: 15994717]
- Garrison CZ, Addy CL, Jackson KL. The CES-D as a screen for depression and other psychiatric disorders in adolescents. *Journal of the American Academy of Child & Adolescent Psychiatry* 1991;30:636–641. [PubMed: 1890099]
- Gaylord-Harden NK, Ragsdale BL, Mandara J, Richards MH, Petersen AC. Perceived support and internalizing symptoms in African American adolescents: Self-esteem and ethnic identity as mediators. *Journal of Youth and Adolescence* 2007;36:77–88.
- Hall DM, Cassidy EF, Stevenson HC. Acting “tough” in a “tough” world: An examination of fear among urban African American adolescents. *Journal of Black Psychology* 2008;34:381–398.
- Hammack PL, Richards MH, Luo Z, Edlynn ES, Roy K. Social support factors as moderators of community violence exposure among inner-city African American young adolescents. *Journal of Clinical Child & Adolescent Psychology* 2004;33:450–462. [PubMed: 15271603]
- Hawkins W, Hawkins M, Sabatino C, Ley S. Relationship of perceived future opportunity to depressive symptomatology of inner-city African-American adolescents. *Children and Adolescent Services* 1998;20:757–764.
- Hines-Martin V, Brown-Piper A, Kim S, Malone M. Enabling factors of mental health service use among African Americans. *Archives of Psychiatric Nursing* 2003;17:197–204. [PubMed: 14608549]
- Holt MK, Espelage DL. Social support as a moderator between dating violence victimization and depression/anxiety among African American and Caucasian adolescents. *School Psychology Review* 2005;34:309–328.
- Joe S. Explaining changes in the patterns of African American suicide in the United States from 1981–2002: An age, cohort, & period analysis. *Journal of Black Psychology* 2006;32:262–284. [PubMed: 19759855]
- Johnson PD, Kliever W. Family and contextual predictors of depressive symptoms in inner-city African American youth. *Journal of Child and Family Studies* 1999;8:181–192.
- Lindsey MA, Korr WS, Broitman M, Bone L, Green A, Leaf PJ. Help-seeking behaviors and depression among African-American adolescent boys. *Social Work* 2006;51:49–58. [PubMed: 16512510]
- Link BG, Cullen FT, Struening E, Shrout PE, Dohrenwend BP. A modified labeling theory approach to mental disorders: An empirical assessment. *American Sociological Review* 1989;54:400–423.
- Majors, R.; Billson, J. Cool pose: The dilemmas of Black manhood in America. New York: Lexington Books; 1992.

- McCarty CA, Vander Stoep A, Kuo ES, McCauley E. Depressive symptoms among delinquent youth: Testing models of association with stress and support. *Journal of Psychopathology and Behavioral Assessment* 2006;28:85–93. [PubMed: 18084634]
- McKay MM, Nudelman R, McCadam K, Gonzales J. Evaluating a social work engagement approach to involving inner-city children and their families in mental health care. *Research on Social Work Practice* 1996;6:462–472.
- Miles, M.; Huberman, A. *Qualitative data analysis: An expanded source book*. 2. Thousand Oaks, CA: Sage; 1994.
- Moses T. Self-labeling and its effects among adolescents diagnosed with mental disorders. *Social Science & Medicine* 2009a;68:570–578. [PubMed: 19084313]
- Moses T. Stigma and self-concept among adolescents receiving mental health treatment. *American Journal of Orthopsychiatry* 2009b;79:261–274. [PubMed: 19485644]
- Nebbitt VE, Lombe M. Environmental correlates of depressive symptoms among African American adolescents living in public housing. *Journal of Human Behavior in the Social Environment* 2007;15:435–454.
- Nebbitt VE, Lombe M. Assessing the moderating effects of depressive symptoms on antisocial behavior among urban youth in public housing. *Child and Adolescent Social Work Journal* 2008;25:409–424.
- Offer D, Howard KI, Schonert KA, Ostrov E. To whom do adolescents turn for help? Differences between disturbed and nondisturbed adolescents. *Journal of the American Academy of Child & Adolescent Psychiatry* 1991;30:623–630. [PubMed: 1890097]
- Perry PL, Pescosolido BA, Martin JK, McLeod JD, Jensen PS. Comparison of public attributions, attitudes, and stigma in regard to depression among children and adults. *Psychiatric Services* 2007;58:632–635. [PubMed: 17463343]
- Pescosolido BA. Illness careers and network ties: A conceptual model of utilization and compliance. *Advances in Medical Sociology* 1991;2:161–184.
- Pescosolido BA. Culture, children, and mental health treatment: Special section on the national stigma study-children. *Psychiatric Services* 2007;58:611–612. [PubMed: 17463339]
- Pescosolido, BA.; Boyer, CA. How do people come to use mental health services? Current knowledge and changing perspectives?. In: Horwitz, A.; Scheid, T., editors. *A handbook for the study of mental health: Social contexts, theories, and systems*. Cambridge, UK: Cambridge University Press; 1999. p. 392–411.
- Pescosolido BA, Garner C, Lubell K. How people get into mental health services: Stories of choice, coercion, and “muddling through” from “first timers. *Social Science & Medicine* 1998;46:275–286. [PubMed: 9447648]
- Pescosolido BA, Wright ER, Alegria M, Vera M. Social networks and patterns of use among the poor with mental health problems in Puerto Rico. *Medical Care* 1998;36:1057–1072. [PubMed: 9674623]
- Petersen A, Compas B, Brooks-Gunn J, Stemmler M, Ey S, Grant K. Depression in adolescence. *American Psychologist* 1993;48:155–168. [PubMed: 8442570]
- Prescott CA, McArdle JJ, Hishinuma ES, Johnson RC, Miyamoto RH, Andrade NN, et al. Prediction of major depression and dysthymia from CES-D scores among ethnic minority adolescents. *Journal of the American Academy of Child & Adolescent Psychiatry* 1998;37:495–503. [PubMed: 9585651]
- Radloff LS. The CES-D scale: A self-report depression scale for research in the general population. *Applied Psychological Measurement* 1977;1:385–401.
- Rasheed, JM.; Rasheed, MN. *Social work practice with African-American men: The invisible presence*. Thousand Oaks, CA: Sage; 1999.
- Roberts RE, Lewinsohn PM, Seeley JR. Screening for adolescent depression: A comparison of depression scales. *Journal of the American Academy of Child & Adolescent Psychiatry* 1991;30:58–66. [PubMed: 2005065]
- Roberts RE, Roberts C, Chen R. Ethnocultural differences in prevalence of adolescent depression. *American Journal of Community Psychology* 1997;25:95–110. [PubMed: 9231998]
- Roberts RE, Sobhan M. Symptoms of depression in adolescence: A comparison of Anglo, African, and Hispanic Americans. *Journal of Youth and Adolescence* 1992;1:639–651.

- Saunders SM, Resnick MD, Hoberman HM, Blum RM. Formal help-seeking behavior of adolescents identifying themselves as having mental health problems. *Journal of the American Academy of Child & Adolescent Psychiatry* 1994;33:718–728. [PubMed: 8056735]
- Scott LD, Davis LE. Young, black, and male in foster care: Relationship of negative social contextual experiences to factors relevant to mental health service delivery. *Journal of Adolescence* 2006;29:721–736. [PubMed: 16364428]
- Scott LD, Munson MR, McMillen JC, Snowden LR. Predisposition to seek mental health care among Black males transitioning from foster care. *Children and Youth Services Review* 2007;29:870–882. [PubMed: 17710190]
- Snowden LR. Barriers to effective mental health services for African Americans. *Mental Health Services Research* 2001;3:181–187. [PubMed: 11859964]
- Stevenson H. Raising safe villages: Cultural-ecological factors that influence the emotional adjustment of adolescents. *Journal of Black Psychology* 1998;24:44–59.
- U.S. Department of Health and Human Services. *Mental health: A report of the Surgeon General*. Rockville, MD: Author; 1999.
- U.S. Department of Health and Human Services. *Mental health: Culture, race, and ethnicity—A supplement to Mental health: A report of the Surgeon General*. Rockville, MD: Author; 2001.
- Ueno K. The effects of friendship networks on adolescent depressive symptoms. *Social Science Research* 2005;34:484–510.
- Walker JS, Coleman D, Lee J, Squire PN, Friesen BJ. Children's stigmatization of childhood depression and ADHD: Magnitude and demographic variation in a national sample. *Journal of the American Academy of Child & Adolescent Psychiatry* 2008;47:912–920. [PubMed: 18596557]
- Weissman MM, Wolk S, Goldstein RB, Moreau D, Adams P, Greenwald S, et al. Depressed adolescents grown up. *Journal of the American Medical Association* 1999;281:1707–1713. [PubMed: 10328070]
- Wu P, Hoven CW, Bird HR, Moore RE, Cohen P, Alegria M. Depressive and disruptive disorders and mental health service utilization in children and adolescents. *Journal of the American Academy of Child & Adolescent Psychiatry* 1999;38:1081–1090. [PubMed: 10504806]
- Zimmerman MA, Ramirez-Valles J, Zapert KM, Maton KI. A longitudinal study of stress-buffering effects for urban African American male adolescent problem behaviors and mental health. *Journal of Community Psychology* 2000;28:17–33.

Biographies

Michael Lindsey, PhD, MSW, MPH, is an assistant professor in the School of Social Work and in the School of Medicine at the University of Maryland, Baltimore. In the School of Medicine, Dr. Lindsey is a faculty affiliate with the Center for School Mental Health (UMB, Department of Psychiatry). Dr. Lindsey's research examines the socio-contextual and familial factors that underlie mental health service use among African American youth across diverse treatment settings.

Sean Joe, PhD, LMSW, is an associate professor in the School of Social Work at the University of Michigan, Ann Arbor, MI. Dr. Joe's research examines the epidemiology of suicide among Blacks, salivary biomarkers, and father-focused family-based interventions to prevent urban African American adolescent males from engaging in multiple forms of self-destructive behaviors.

Von Nebbitt, PhD, is an assistant professor in the School of Social Work at Howard University, Washington, DC. Dr. Nebbitt's research examines the relationships among neighborhood level violence and disorganization, and mental health symptoms and health-risk behaviors in minority adolescents living in urban public housing communities.

Figure 1. Interaction effects: Stigma $\times$ social support on depressive symptoms

NOTE: "Support 1" represents the slope of the relationship between Depression and Stigma when support = 0. "Support 2" represents the slope of the relationship between Depression and Stigma when support increases by 1 point.

Table 1

Sample Qualitative Interview Questions

1	When you start feeling like something makes you feel sad or hurt inside, what do you do?
2	How did you know that you needed to talk with somebody?
3	Was there anyone who helped you to recognize or identify the feelings that you were having?
4	Whom did you turn to first for help?
5	Are there other things you tried to do to help you feel better beyond talking with other people?
6	How did these other things work?

Table 2

Demographic Characteristics

Variable	<i>M (SD, range) or percentage</i>
Age (mean)	15.31 (1.25, 13–18)
Highest grade completed	Grades 6–8 = 44.9% Grades 9–11 = 52.2% Grades 11–12 = 2.9%
Living with biological family	Yes = 85% No = 15%
Primary caretaker	Mother-only = 55.1% Mother and father = 29% Other = 15.9%
Mother's level of education	<12 grade = 7.2% ≥12 grade = 84% Don't know = 8.8%
Size of social network (mean)	7 (4, 1–20)
Frequency of religious service attendance	Never = 11.6% Less than once/year = 5.8% About 1–2 times/year = 10.1% Several times/year = 11.6% About once/month = 10.1% 2–3 times/month = 21.7% Once/week = 20.3% Several times/week = 2.9% Missing = 5.8%
CES-D: depressive symptoms	12.01 (8.38, 0–45)

Note: CES-D = Centers for Epidemiologic Studies Depression Scale.

Table 3

Regression Analyses (Outcome: Depressive Symptoms)

Variable	B	SE B	β	t	p	R ²
Step 1						
Age	1.286	0.813	0.193	1.582	0.119	0.037
Network size	0.028	0.273	0.012	0.101	0.920	
Step 2						
Age	0.959	0.748	0.144	1.282	0.204	0.227
Network size	0.462	0.277	0.206	1.666	0.101	
Mental health (MH) stigma	-1.077	0.503	-0.245	-2.142	0.036	
Social support	-1.996	0.710	-0.357	-2.810	0.007	
Step 3						
Age	0.055	0.740	0.008	0.075	0.940	0.350
Network size	0.444	0.256	0.198	1.733	0.088	
MH stigma	-.415	0.503	-0.094	-0.824	0.413	
Social support	-1.875	0.657	-0.335	-2.852	0.006	
MH stigma $\times$ Social support	0.789	0.230	0.409	3.431	0.001	

NOTE: Dependent Variable = Depressive Symptoms. Model 1: $F = 1.251, p = .293, R^2$ change = .037. Model 2: $F = 4.620, p = .002, R^2$ change = .190. Model 3: $F = 6.682, p = .002, R^2$ Change = .123.