A Multi-Method Analysis of Stigma, Social Support, and Suicide Ideation Among Black College Students

by

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Dedication

This dissertation is dedicated to Shaina Marie Simpson. There are no words adequate enough to fully capture or describe how much your friendship means to me.

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"I won't win this battle with the strength of my own hands.
You're the mountain mover, and only you can.
I won't build my life on sinking sand.
You're my hope forever; the rock where I stand."
-Steffany Gretzinger and Bobby Strand

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Abstract

This dissertation explores correlates of adverse mental health outcomes (e.g., depressive symptoms and suicide ideation) among three samples of Black college students. Using data from the Healthy Minds Study, Study 1 sought to determine which specific coping strategies moderated the relationship between depressive symptoms and suicide ideation. Confirmatory and exploratory factor analysis were used to first assess dimensionality of the Brief COPE Inventory and the PHQ-8 measures. Next logistic regression was performed and predicted probabilities were calculated to plot interactions. Substance use and behavioral disengagement/self-blame coping strategies were positively associated with depressive symptoms. Each of the coping strategies moderated the link between depressive symptoms and suicide ideation. Next, structural equation modeling was applied in Study 2 to assess whether perceived public stigma of receiving mental health treatment was directly and indirectly associated with suicide ideation via informal help-seeking and depressive symptoms. Findings showed that among a sample of 18-30-year-old Black college men, perceived public stigma was indirectly associated with suicide ideation via depressive symptoms. Help-seeking, however, was directly associated with fewer depressive symptoms, though perceived public stigma was directly linked to more depressive symptoms. Directionality cannot be confirmed, as data were collected at one time point. Nevertheless, this preliminary study offers some initial evidence of important relations between stigma, help-seeking, depressive symptoms, and suicide ideation that should be examined across time and social contexts. Study 3 analyzed interviews collected from 27 Black men enrolled at a large public university in the Midwest. Data were drawn from a larger intervention— The Young

Black Men, Masculinities, and Mental Health Project (Daphne C. Watkins, PI). Six themes were extracted for the first research question that explores sources of social support. Here participants reported looking to their peers, teachers and coaches in high school, and family members for social support. Participants also described instances when they looked specifically to the women in their lives when in need of support. Male peers, fraternities, and on-campus student groups also served as critical sources of social support. From there seven themes were extracted when analyzing the second research question that focuses on the circumstances when Black college men describe receiving or needing support. Adjusting to college life, navigating relationships with others, and needing material support were identified by participants as circumstances when they needed support from others. Participants also discussed their struggles with depression, along with issues that arose when developing their own ideas around manhood, emotions, and identity as pivotal moments in their lives. Lastly, dealing with instances of discrimination and facing academic challenges were also specific circumstances when Black college men described needing support. Moreover, men in the study demonstrated vulnerability and spoke about their emotions in ways that challenge existing ideas around men's help-seeking and masculine norms. As such, findings from this study offer much needed insight into some of the specific challenges young Black men face throughout their time on college campuses. University administrators, faculty, and campus counseling center staff should all be prepared to work in tandem in order to develop and implement sustainable supports that enhance Black college student mental health, as this could have direct implications for their well-being throughout their time in college and beyond.

Chapter 1 Introduction

Suicide is the 4th leading cause of death for Black females ages 20-24, the 3rd leading cause of death among Black males ages 15-24, and the 2nd leading cause of death among all college students in the U.S. (American Foundation for Suicide Prevention, 2018; Centers for Disease Control Prevention, 2017). As such, one might anticipate that there would be an extensive amount of research dedicated to assessing matters of suicide among those who lie at the intersection of these identities. This, however, is not the case— as students of color broadly, and Black college students specifically, have gone largely overlooked within much of the existing suicide research. Consequently, a gap exists in our understanding and assessment of suicidality among Black Americans, as empirical investigations examining suicide in this particular group are scant (Cha et al., 2018). Researchers would be remiss to ignore the current state of mental health for young Black Americans, as suicide rates for this group have steadily increased since the 1980s (Joe, 2006; Joe, Baser, Breeden, Neighbors, & Jackson, 2006; CDC, 2017). Moreover, a recent analysis of data collected from the CDC Youth Risk and Behavior Survey found that rates of suicide attempt among Black youth increased between 1991 and 2017, though rates of suicide attempt for youth of other race groups either decreased or experienced no statistically significant change (Lindsey, Sheftall, Xiao, & Joe, 2019). Thus, it is imperative for researchers to interrogate culturally-relevant correlates of suicide among Black college students, as they remain sorely understudied within the extant literature.

It is also important to note that while women consistently report higher rates of suicide ideation and attempt, men in the U.S. are still 3.5 times more likely to die by suicide (American

Foundation for Suicide Prevention, 2018). This figure is heightened for Black Americans, as Black men are four to six times more likely to die by suicide than are Black women (Joe, Scott, & Banks, 2018). There is, however, a dearth of suicide-related studies that focus specifically on the experiences of Black men in the U.S. (Goodwill, Taylor, & Watkins, 2019). As such, the three studies presented in this dissertation aim to redress these gaps by assessing how psychological factors like coping, public stigma, and social support influence the mental health experiences of both Black college students generally and Black college men specifically. In doing so, special consideration is given to examining the effects of particular coping strategies, as the ways in which individuals manage stress has direct implications for their mental health across the lifespan (Lazarus & Folkman, 1984; Vannucci, Flannery, & Ohannessian, 2018). From there other factors like perceived public stigma of receiving mental health treatment are modeled alongside help-seeking behaviors to further understand links between stigma and adverse mental health outcomes (e.g., depression and suicide ideation). Likewise, social support has been found to be particularly effective in thwarting suicide intent among youth and youth adults (King & Merchant, 2008; King, Klaus, Kramer, Venkataraman, Quinlan, & Gillespi, 2006; You, Van Orden & Conner, 2011). Therefore, this dissertation also analyzes Black college men's descriptions of social support and experiences of receiving help from others.

Purpose and Aims

This dissertation is guided by three primary aims:

Aim 1: Identify which specific coping strategies buffer against suicide ideation for Black college students generally;
Aim 2: Examine the effects of stigma by assessing its relationship with help-seeking behaviors, depressive symptoms, and suicide ideation for Black college men; and
Aim 3: Identify which sources of social support are most salient to Black college men

Survey and interview responses were analyzed across three separate, but related studies in order to address these aims. By doing so Study 1 focuses on the experiences of Black college students broadly, while studies 2 and 3 focus exclusively on the lived experiences of Black college men. Additional details regarding guiding research questions, study hypotheses, and analytic plans are provided in the *Methods* section for each study. Focusing on these specific aims serves as an initial exploratory effort to critically assess how interpersonal resources like coping, stigma, and social support function in the lives of Black college students. Moreover, in order to prevent death by suicide, one must first determine which factors are associated with suicide ideation. Therefore, the studies presented in this dissertation examine associative relationships with suicide ideation only, and do not account for measures related to suicide planning or attempt.

Study Overview and Methodology

Suicide is a complex occurrence that requires rigorous methodological analyses. As such, both quantitative and qualitative approaches were employed to explicate culturally-relevant factors associated with depression and suicide ideation. In Study 1 exploratory and confirmatory factor analysis were first used to determine the factor structure of the Brief COPE Inventory (Carver, 1997) and the PHQ-9 (Kroenke, Spitzer, & Williams, 2001). Logistic regression was used to examine relationships between specific coping strategies and the binary outcome of past-year suicide ideation. From there interaction tests were performed and plotted to determine which specific coping strategies moderate the strength of the association between depressive symptoms and suicide ideation. Next, Study 2 utilizes structural equation modeling procedures to investigate direct and indirect relationships between measures of perceived public stigma, help-seeking, depressive symptoms, and suicide ideation. Study 2 focuses solely on Black men, as they are at elevated risk for suicide (Joe et al., 2018). Lastly, Study 3 will use the RADaR

Technique (Watkins, 2017) and applied thematic analysis (Guest, MacQueen, & Namey, 2012) to better understand Black college men's sources and reasons for needing social support. Identifying the experiences and events when Black college men describe receiving social support from others has implications for both their academic success and psychological well-being. Further, the findings generated from this study offer interdisciplinary considerations that are pertinent to researchers in social work, psychology, and education.

Theoretical Framing

Study 1 uses the *stress-buffering hypothesis* (Cohen & Wills, 1985) to locate interactive effects between depressive symptoms and specific coping strategies when predicting suicide ideation among Black college students broadly. Corrigan and Watson's (2002) framework on public stigma and self-stigma of mental illness is used to guide Study 2 and works to discern whether public stigma of receiving mental health treatment is directly and indirectly associated with help-seeking behaviors, depressive symptoms, and suicide ideation for Black college men. Lastly, Study 3 takes an inductive approach to exploring Black college men's sources of social support, along with examining the reasons they describe needing support from others.

Sample and Participants

Data from Study 1 were collected from the 2015-16 cohort of the Healthy Minds Study, while data from Study 2 were collected using the 2007-2018 versions of the Healthy Minds Study (HMS; PI: Daniel Eisenberg). The HMS is a cross-sectional, nation-wide survey of college students that focuses specifically on matters related to their mental health and well-being. Survey responses from 468 Black college men and women were analyzed in Study 1, and responses from 1196 Black college men were assessed in Study 2. Some aspects of the HMS questionnaire

change from year to year, which explains why the sample size is inconsistent across the two studies. Conversely, Study 3 analyzes interviews with 27 Black college men who participated in the 2017 iteration of the Young Black Men, Masculinities, and Mental Health (YBMen) Project (PI: Daphne Watkins). Interviews were conducted both in-person and via online video conferencing software. All participants were currently enrolled undergraduate or graduate students attending a large public university in the Midwest USA. Specific information regarding participants' background and demographic information is provided in the following chapters.

Anticipated Contributions

Findings derived from the constellation of the three studies offer insight into the traditionally understudied and largely ignored experiences of Black college students. As such, each study ends with a set of implications and potential applications for those who work directly with Black college students. Results yielded from Study 1indicate which specific coping strategies promote and protect against suicide ideation. Findings from Study 2 reveal how public stigma of receiving mental health treatment influences help-seeking behaviors, which in turn informs men's personal experiences with depression and suicide ideation. Lastly, Study 3 directly asks participants to share who they look when they need support. Study 3 also considers the different circumstances in which Black college men report that they actually needed help. Taken together, findings derived from these exploratory studies work to extend previous research by interrogating various psychological factors related to depression and suicide ideation, while also pursing the overarching goal of centering the lived experiences of those whose experiences have been neglected in research for far too long.

Chapter 2 Which Coping Strategies Moderate the Depression-Suicide Ideation Link in Black College Students?

While everyone who experiences depression does not go on to contemplate or attempt suicide (Klonsky & May, 2014), depression is still recognized as a leading risk factor for suicidal behaviors among youth and young adults in the U.S. (Borges et al., 2010; Kessler, Mickelson, & Williams, 1999; Nock & Kessler, 2006; Twenge, Joiner, Rogers, & Martin, 2018). Previous studies have examined associations between coping strategies and adverse mental health outcomes like depressive symptoms (Malooly, Flannery, & Ohannessian, 2017; Vannucci, Flannery, & Ohannessian, 2018), though few have extended these efforts to determine whether associations exist between specific coping strategies and suicide ideation (Horwitz, Czyz, Berona, & King, 2018; Horwitz, Hill, & King, 2012) — and even fewer researchers have examined relations between coping, depression, and suicide among racial and ethnic minority groups.

The underrepresentation of Black youth and adults in research on coping, depression, and suicide is particularly concerning, as suicide is the third-leading cause of death for Black males and the fourth leading cause of death among Black females ages 15-24 (Centers for Disease Control and Prevention, 2017). Thus, assessing coping strategies, depressive symptoms, and suicidal behaviors specifically among young Black men and women in the U.S. is warranted. The current study aims to redress these gaps by exploring the moderating effects of specific coping strategies on the relationship between depressive symptoms and suicide ideation among

464 Black college men and women who participated in the 2015-2016 iteration of the Healthy Minds Study (HMS). Recommendations for research and practice are discussed.

Coping Defined

Coping is one of the most well-examined topics of inquiry within the social science and public health literatures, and various definitions and interpretations of coping exist (see Endler & Parker, 1990; Ridder, 1997; Thoits, 1995). For the purposes of this study, definitions of coping proposed by Lazarus and Folkman (1984) were used to guide development of hypotheses and interpretation of study findings. As such, *coping* is defined as, "constantly changing cognitive and behavioral efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding the resources of the person" (Lazarus & Folkman, p.141, 1984). Here a process-oriented approach to coping is introduced as a departure from earlier foci on ego-based conceptualizations of coping which viewed coping as more of a psychoanalytic trait or style that predicted an individual's future behavior or ability to manage subsequent stress-inducing circumstances (Lazarus & Folkman, p.120, 1984).

Conversely, Lazarus and Folkman (1984) consider coping as a "dynamic process," which differs from the traditional psychoanalytic approach that classified individuals based on their coping style or trait. Arguably the most important feature of Lazarus and Folkman's transactional model of stress and coping is that coping is described as a constant interplay between the person and the environment— hence the name 'transaction.' The authors note that direct applications of this theory must account for individual differences and changes in coping strategies across time (Lazarus & Folkman, pg. 299, 1984). The current study uses a cross-sectional design and is not

suited to test the transactional nature of this theory. Further, the transactional model does not explain how interpersonal and environmental factors may buffer against stress, and instead proposes that appraisal mediates, or helps explain why the relationship between stress and coping exits. Thus, an alternative conceptual framework was needed for this study to explicate the links between coping, depression, and suicide ideation.

Guiding Theoretical Model

The primary theory used to guide analysis for the current study is Cohen and Wills' (1985) *stress-buffering hypothesis*. This framework proposes that an interaction exists between stress and social support in that social support buffers (or protects) against adverse health outcomes. The *stress-buffering hypothesis* identifies two forms of support— structural social support and functional social support— as the two major types of support that largely influence health outcomes. Structural forms of social support refer to the number of relationships to which a person has access, while functional forms of social support focus more on the type and quality of one's social relationships. Cohen and Wills (1985) propose that structural forms of social support are most appropriate for testing direct (or main) effects, while functional forms of social support are well-suited for exploring potential buffering effects. According to the *stress-buffering hypothesis,* there are a number of criteria that are considered optimal when testing for a potential buffering effect. First, statistically significant relationships must exist between the stress and the outcome variables. Second, the authors note that large sample sizes are needed in order for the study to have sufficient statistical power (Cohen & Wills, p.316, 1985). Third, researchers should also be careful to ensure that their stress and social support (e.g., independent

and moderating) variables are not measuring the same constructs (i.e., multicollinearity). Lastly, longitudinal study designs that include measures of strong psychometric properties and reasonable variability among the predictor and criterion variables are considered ideal, but are not required conditions when examining the influence of social support within the context of health and well-being (Cohen & Wills, 1985).

Concerns Regarding Current Approaches to Research on Coping

Though efforts have been made to understand the relations between coping and adverse mental health outcomes, concerns regarding existing conceptualizations and measurement of coping must be addressed (Riddler, 1997). Historically, researchers have used two broad coping categories— problem-focused and emotion-focused coping— to understand how individual responses to stress influence mental health outcomes (Carver, 1997; Carver, Scheier, & Weintraub, 1989; Carver & Scheier, 1994). These two categories of coping were first introduced by Lazarus and Folkman (1980) and their conceptualization of these two groups has guided much of the coping literature ever since. *Problem-focused coping* is defined as cognitive or behavioral efforts that either assuage or completely eradicate stress-inducing encounters; *emotion-focused coping* processes are characterized as strategies used to regulate emotional responses to stressful encounters (Folkman & Lazarus, 1980; Matud, 2004). Alternative modalities of coping (e.g., avoidance coping) have since been introduced and implemented within empirical research (Endler & Parker, 1990). In doing so, avoidance coping has been found to represent relevant aspects of both emotional and problem-focused coping practices (Endler & Parker, 1991, 1992). Studies that adhere to the traditional categorizations of coping strategies report that emotion-focused types of coping are associated with higher rates of psychological

distress and depressive symptoms, versus problem-focused coping strategies which have generally been linked to decreased risk of anxiety and depression (Horowitz et al., 2011; Matud, 2004; Wang, Nyutu, & Tran, 2012). Researchers have also found that avoidance-coping techniques adversely influence mental health outcomes and are oftentimes evidenced by tactics of denial, withdrawal, and isolation (Endler & Parker, 1990).

Though certainly laudable, Lazarus and Folkman's initial attempts to structure and organize coping strategies into larger groups or categories has three primary limitations. First, the authors offer no systematic way of organizing coping strategies into larger groups, nor does their system of categorization account for the likelihood of co-occurring or overlapping coping strategies. Second, the coping categories (e.g., problem-focused, emotion-focused) proposed by Lazarus and Folkman are not reflective of sociocultural context, nor are they inclusive of the experiences of those from underserved or marginalized groups (Utsey, Adams, & Bolden, 2000). For example, Greer (2007) notes that the developers of the COPE inventory considered religious coping to be an emotion-focused coping strategy (Carver et al., 1989), though others might argue that religious coping strategies, particularly for African Americans, most closely align with problem-focused coping strategies. The same could be said for the venting coping strategy, which has previously been categorized as a maladaptive coping strategy (see Carver, 1997; Horowitz et al., 2011), though may be beneficial for some groups and individuals. These inconsistencies may appear insignificant, but could be consequential when developing interventions and informing policy regarding mental health promotion and prevention. Thus, a more concise, standardized and rigorous approach thoughtful approach towards the

categorization and measurement of coping that reflects the sociocultural realities of underserved communities is warranted.

How is Coping Related to Depression and Suicide?

Many studies have examined linkages between various coping strategies and psychological distress or depression (Keyes, Barnes, & Bates, 2011; Laveist, Thorpe, Pierre, Mance, & Williams, 2014; Mahmoud, Staten, Hall, & Lennie, 2012; Taylor & Stanton, 2007; Thompson et al., 2010; Wingo, Baldessarini, & Windle, 2015), yet few studies have extended this focus to explore the potential relationships between coping and suicide ideation (Horwitz et al., 2011; Horwitz et al., 2017; Molock, Puri, Matlin, & Barksdale, 2006). Findings indicate that among a sample of adolescents and adults, problem-solving and cognitive restructuring coping strategies (e.g., "trying to learn from the situation") protected against increased risk for depressive symptoms (Connor-Smith et al., 2000, p. 980; Thompson et al., 2010). Results from this investigation align with later work which determined that emotion-focused forms of coping during late adolescence predicted higher rates of anxiety and depression in adulthood, while utilization of task-oriented coping strategies in adolescence was associated with lower odds of substance use in adulthood (Wingo et al., 2015).

Relatedly, concerns regarding organization of coping strategies emerge in suicide-related studies where both broad and specific coping strategies have been linked to suicidal behaviors across the life course (Czyz, Horowitz, Arango, Cole-Lewis, Berona, & King, 2016; Horwitz et al., 2011, 2017; Wang, Lightsey, Pietruszka, Uruk, & Wells, 2007). For example, Horowitz and colleagues analyzed specific subscales (e.g., denial, substance use) and broad coping categories

(e.g., emotion-focused, problem-focused coping, avoidance) and found that behavioral disengagement and feelings of self-blame were positively associated with suicide ideation among youth (Horwitz et al., 2011). Findings from this study provide support for a later query that identified self-blame and reframing coping strategies as predictors of suicide ideation and attempt for clinical psychiatric patients (Horwitz et al., 2017). It is, however, important to note that these inconsistent, and oftentimes conflicting, categorizations of coping strategies makes it increasingly difficult to understand the true relationship between coping and mental health outcomes. Thus, additional work is needed to 1) clarify concerns regarding measurement of coping strategies within empirical studies; and 2) identify which specific coping strategies are most salient when working to reduce mental health disparities.

Why Focus on Suicide in Black college students?

Suicide is currently the 5th leading cause of death among Black females ages 15 to 24, the 3rd leading cause of death among Black males ages 15 to 24, and the 2nd leading cause of death among college students in the U.S. (Centers for Disease Control and Prevention, 2017; Brody, 2018). Despite these daunting statistics, empirical investigations that examine suicide at the intersections of the aforementioned groups are scant. Few studies have assessed matters related specifically to suicide among Black youth and young adults (some exceptions include Hooper, Tomek, Bolland, Church, Wilcox, & Bolland, 2015; Hooper et al., 2017; Walker, Francis, Brody, Simons, Cutrona, Gibbons, 2017), and nearly all of the work on suicide among college students has included samples comprised primarily of White U.S. college students (Cha et al., 2018). Moreover, the studies that have included samples of Black students typically assess broad race-based differences and do not probe for potential gender differences or within-group comparisons

(see Goodwill & Zhou, 2020; Lipson & Eisenberg, 2018). As a result, a gap exists in our knowledge and understanding of factors that promote and prevent suicidal behaviors among Black college students. The current study aims to rectify these concerns.

One viable next step in working to reduce disparities and prevent suicide death may include critically interrogating the role of coping strategies among Black college students, as their response to environmental and interpersonal stressors may influence their well-being and academic trajectory throughout their time in college and beyond (Goodwill, Watkins, Johnson, & Allen, 2018). Additionally, the transition from adolescence to emerging adulthood is recognized as a particularly vulnerable developmental time period where new decisions, opportunities, and problems may arise (Arnett, 2000). These stressors may be exacerbated by the unique demands of college life that require students to navigate additional expectations and responsibilities tied to academic performance, social integration, and financial strain (Greer & Chawliz, 2007; Grier-Reed, 2013). One recent study found that racial and ethnic minority students report significantly lower odds of help-seeking and mental health treatment when compared to White college students (Lipson, Kern, Eisenberg, & Breland-Noble, 2018). These findings align with previous work that found higher depression and anxiety symptoms among students of color relative to their White peers (Eisenberg, Hunt, & Speer, 2013), and suggest that simply gaining admission to college is not enough to protect Black students from experiencing adverse mental health outcomes. Additional support is needed to ensure that students develop healthy coping responses to stress that will allow them to perform at optimal levels in all areas of their lives.

Trends in Coping, Depression and Suicide among Black College Students

Some studies on coping among Black college students have focused specifically on Black women's experiences and found that the interaction between life stress and ritual-centered coping strategies like "lighting a candle for strength and seeking guidance in dealing with the problem" was associated with more psychological distress (Greer, 2011a, p.219), while other investigations report that some coping strategies do not protect Black college women from adverse psychological outcomes (Greer, 2011b). Researchers have also focused exclusively on Black college men and report their descriptions of coping processes often include trying to handle the problem themselves or turning to informal networks of support for encouragement and guidance (Goodwill et al., 2018; Mincey, Alfonso, Hackney, & Luque, 2015). Some investigations include mixed gender samples of Black college men and women, but do not report gender-specific findings, possibly due to concerns regarding statistical power and underrepresentation of men in their samples (Blackmon, Coyle, Davenport, Owens, & Sparrow, 2016; Greer & Chwalisz, 2007; Greer, Ricks, & Baylor, 2015; Utsey, Ponterotto, Reynolds, & Cancelli, 2000).

Importantly, Brown and colleagues (2011) used all 14 subscales of the Brief COPE Inventory (Carver, 1997) and uncovered that the differences that emerged among Black college men and women varied by the type of stressor. For example, Black college men were more likely to use humor and substance use when dealing with racism-related stress, while Black college women were more likely to utilize religious and emotional support systems when dealing with general stressors (Brown et al., 2011). These findings do not align with results from a previous study that used factor analysis to organize the subscales from the Brief COPE Inventory into two higher order factors of approach coping and avoidance coping and determined that

differences in coping emerged by institution type, with students enrolled in HBCUs reporting greater use of approach-coping strategies than those enrolled at PWIs (Greer & Chawaliz, 2007). Again, concerns regarding the categorization and measurement of coping strategies arise when attempting to synthesize across studies, as different terminology and psychometric approaches have been used to inspect the role of coping in the lives of Black college students. The current study employs the use of exploratory and confirmatory factor analysis as a response to the measurement concerns outlined above.

Other researchers have linked coping to distress and depressive symptoms among Black college students (Greer & Brown, 2011; Mosher, Prelow, Chen, & Yackel, 2006; Prelow, Mosher, & Bowman, 2006; Szymanski & Lewis, 2015), yet few researchers have extended these questions to determine whether coping is associated with suicide ideation (Kimbrough, Molock, & Walton, 1996; Molock, Kimbrough, Lacy, McClure, & Williams, 1994; Walker & Bishop, 2005). Fostering strong interpersonal networks of peer and faculty support, family cohesion, and problem-oriented coping strategies are recognized as sources that protect against stress and depressive symptoms (Greer & Brown, 2011; Grier-Reed, 2013), in comparison to the detachment and avoidance coping strategies, which are associated with increased risk of experiencing depressive symptoms (Mosher, Prelow, & Chen, 2006; Szymanski & Lewis, 2016).

Other investigations report that higher rates of hope and utilization of avoidance coping strategies are negatively associated with suicide ideation among Black college students (Davidson et al., 2010; Hollingsworth, Wingate, Tucker, O'Keefe, & Cole, 2016). These findings run contrary to work by Wang and colleagues (2012) who found that utilization of emotion-focused coping strategies were associated with greater likelihood of suicide ideation. Further,

collaborative religious coping styles were found to protect Black youth from experiencing depressive symptoms and suicide ideation (Molock et al., 2006), though gender differences did emerge in youths' utilization of religious coping strategies (Molock et al., 2006; Spann, Molock, Barksdale, Matlin, & Puri, 2006). In this we see that more research is needed to critically assess the influence of coping and its relationship with depression and suicidal behaviors among Black youth and young adults, as discoveries within this line of research could ultimately lead to early detection of suicide onset and depression severity.

Psychometric Considerations when Measuring Coping Strategies

As mentioned earlier, Pearson and colleagues (2014) used factor analysis to assess dimensionality of the Brief COPE Inventory in their work with a convenience sample of Black undergraduate students and found that the initial 14-factor model proposed by Carver (1997) did not fit the data well, and an alternative 8-factor model was used to guide their analyses. Similarly, Greer (2007) tested the factor structure of the full 60-item COPE Inventory (Carver et al., 1989) and found that when administering this measure among Blacks college students, many of the initial subscales derived from the scale's developers proved to be "culturally inaccurate" (p. 262). In turn, the author ultimately proposed an alternative model of coping that integrated items from the Africultural Coping Systems Inventory (Utsey et al., 2000).

Other researchers, like Mahmoud and colleagues (2012), organized subscales from the Brief COPE Inventory (Carver, 1997) into two overarching groups— adaptive and maladaptive coping strategies— and found that maladaptive strategies of self-blame, denial, and substance use (as a coping strategy) were associated with higher rates of anxiety symptoms, depressive

symptoms, and substance use among undergraduate students (Mahmoud et al., 2012). Others studies using the Brief COPE Inventory organized coping strategies into different categories, thus yielding dissimilar findings across analytic samples (Brown, Phillips, Abdullah, Vinson, & Robertson, 2011; Greer & Chwalisz, 2007; Pearson et al., 2014). From this it is evident that additional work is needed to confirm the factor structure of the Brief COPE Inventory when working with Black populations. Hence, the current study works to address these concerns by assessing the factor structure of the Brief COPE Inventory among a sample of Black college men and women.

Current Study

The current study purposes to explore how utilization of specific coping strategies influences mental health outcomes among Black college students. Previous investigations have found evidence for associations between coping and depression (Vannuci et al., 2018) and coping and suicidal behaviors (Czyz et al., 2016; Horowitz et al., 2018); the current study builds upon earlier work by testing whether specific coping strategies buffer the effects of depressive symptoms on suicide ideation. As such, three primary research questions were examined:

1. What is the factor structure of the Brief COPE Inventory among Black college students?
2. Which specific coping strategies are associated with suicide ideation among Black college students?
3. Which specific coping strategies moderate the relationship between depressive symptoms and suicide ideation among Black college students?

When considering the myriad of inconsistencies and concerns regarding the categorization and measurement of coping strategies, the factor structure of the Brief COPE Inventory must first be

determined in research question 1 before attempting to answer research questions 2 and 3. As such, this study is exploratory in nature and no a priori hypotheses were used to guide the analyses. This study contributes to the existing body of literature by (1) examining the factor structure of the Brief COPE Inventory, (2) assessing specific coping strategies that promote or inhibit suicide ideation, and (3) offering recommendations pertinent to research, intervention and practice with Black college students.

METHOD

Procedure and Recruitment

This investigation utilizes a cross-sectional survey design to examine associations between coping strategies, depressive symptoms, and suicide ideation in Black college men and women. Responses from a nation-wide sample of students who participated in the 2015-16 Healthy Minds Study (HMS)— an annual survey that focuses on the mental health needs of college students in the U.S. — were assessed. Researchers from the Health Minds Study team have administered various versions of mental-health focused surveys each year since 2007. In this work members of the HMS team partner with colleges across the nation to offer online surveys exclusively to undergraduate and graduate students who are currently enrolled at one of the participating institutions. Though the HMS survey has previously been offered at both public and private 4-year universities and community colleges, the recruitment process varies based on the number of students currently enrolled at each institution. For example, a random sample of 4,000 students are invited via email to participate in the study at schools whose enrollment

exceeds 4,000; whereas the entire student body will be invited via email to participate in the survey at schools whose enrollment is less than 4,000. Similarly, versions of the online survey can be tailored to meet the unique needs of each campus, as HMS offers a menu of available services and survey options. Although three primary modules are included in every survey, irrespective of what school students attend, school administrators can elect to have additional modules included in the surveys that students on their campus receive.

The standard modules include the *demographics*, *mental health status,* and the *mental health service utilization and help-seeking behaviors* sections. The elective modules are comprised on the following: *substance use, sleep, eating and body image, sexual assault, overall health, knowledge and attitudes about mental health and mental health services, upstander/bystander behaviors, mental health climate, climate for diversity and inclusion, competition, resilience and coping, persistence and retention, financial stress,* and *attitudes about mobile resources*. Thus, everyone who completes the HMS survey receives the first three modules, though the number of students who complete any combination of the elective modules is determined entirely by the campus administrators. Fees to administer the HMS survey are based on 1) number of enrolled students, and 2) number of elective modules to be included in the survey, as customizable packages and options are available. It is important to note that school-level information is not made available in the public datasets, as it is considered confidential (see healthymindsnetwork.org).

Sample

A total of 23 colleges/universities elected to participate in the HMS during the 2015-2016 academic year. Eligibility criteria required students to be currently enrolled either part-time or full-time at one of the partnering institutions. Compensation was offered in the form of gift-card raffle. A total of 33,551 students elected to participate in the study— and of these 464 participants were Black/African American students who completed the modules and measures of interest that were assessed in this study.

Measures

Demographics. Background information describing participant's age, gender, sexual orientation, and relationship status are reported in Table 1. Parent education level and degree program are reported here as well.

Coping Strategies. Coping strategies were measured using the Brief COPE Inventory (Carver, 1997), which asks respondents to indicate how often they endorse specific behaviors in response to stressful events and encounters. Items are assessed on a 4-point Likert scale with options that range from 1= "I haven't been doing this at all" to 4= "I've been doing this a lot." There are 28 total items and 14 subscales included in the Brief COPE (2 items are assigned to each subscale). The subscales are listed as follows: *active coping, use of emotional support, use of instrumental support, positive reframing, humor, religion, acceptance, planning, denial, self-distraction, disengagement, venting, substance use, and self-blame.* Sample items include, "I've been blaming myself for things that have happened," "I've been refusing to believe it has happened,"

and “I’ve been taking action to try and make the situation better.” This measure is a revised and abbreviated version of the full 60-item COPE Inventory (Carver et al., 1989). Many of the same subscales that are included in the Brief COPE appear in the original measure, just with fewer items assigned to each subscale. Both the original and revised forms of the Brief COPE have been used in studies that included Black Americans and report good internal consistency (Greer & Brown, 2011; Mosher et al., 2006). Concerns regarding the amount of time it took participants to complete the inventory arose, and in turn Carver (1997) developed a brief version of the measure in hopes of increasing the likelihood of participant completion. Instructions and scoring information are provided in Appendix A.

Depressive Symptoms. Depressive symptoms were measured using the Patient Health Questionnaire-8 (PHQ-8; Kroenke, Spitzer, & Williams, 2002). When considering that the main dependent variable of interest for this study was suicide ideation, the last item in the PHQ-9 was removed from this analysis, and the PHQ-8 was used instead. Developers of the PHQ report that both the 8 and 9-item versions of the scale are permissible to use when measuring depressive symptoms in non-clinical samples (Kroenke et al., 2002). This self-report measure asks participants to indicate how often they experienced various symptoms within the past two weeks. Though originally developed using DSM-IV criteria, the PHQ can be calculated using cutoff scores with five thresholds of severity. These cutoff scores, however, were not used in this report, as only the first 8 items were assessed in this study. Instead a composite score was calculated with higher numbers representing greater severity of depressive symptoms (see Hankerson, Lee, Brawley, Braswell, Wickramaratne, & Weissman, 2015; Ward & Brown, 2015).

Sample items include, “Trouble falling or staying asleep, or sleeping too much,” and “Feeling down, depressed, or hopeless.” Responses in the HMS survey were captured using a 4-point Likert scale with options ranging from 1=”Not at all” to 4=”Nearly every day.” Most studies of depression among Black youth and young adults have used the CESD-12 (Radloff, 1977), yet few studies have used the PHQ-9. The full questionnaire is provided in Appendix B.

Suicide Ideation. Participants were asked to respond to a 1-item question indicating whether they had considered ending their life at any time during the past 12 months (0=no, 1=yes). This question was adapted from the National Comorbidity Study (Eisenberg et al., 2013).

Data Analysis

Research question 1, “*What is the factor structure of the Brief COPE Inventory for Black college* students?” was answered using exploratory factor analysis (EFA) and confirmatory factor analysis (CFA). Utilizing these procedures allows researchers to uncover dimensionality of latent constructs that reflect coping strategies among Black college students. In doing so, the sample was first randomly split into two groups; EFA was performed using one half of the dataset, while CFA was used for the other. When performing EFA, geomin (oblique) rotation methods were applied alongside the WLSMV estimator, as each item was treated as categorical (Worthington & Whittaker, 2006). The factor solution was determined by reviewing the following sources of information: 1) number of eigenvalues > 1 (e.g. Kaiser’s criterion); 2) scree plot results; and 3) model fit indices produced by Mplus Version 8.1 (Muthen & Muthen, 2017). Hu & Bentler (1999) propose that RMSEA values ≤ .05, CFI and TLI values ≥ .95, SRMR values < .06, and non-significant χ_2 values indicate good model fit. These same fit indices and respective cutoff

values were used to guide interpretation of results for this study. Item loadings that are statistically significant and greater than .40 were retained (Worthington & Whittaker, 2006). Next, results from the EFA were tested with the other half of the sample using CFA, and again cutoff criteria proposed by Hu and Bentler (1999) were used to determine overall model fit. The number of factors extracted from the EFA and CFA results were then included as specific coping strategies for the subsequent analyses. Missing data were handled using full information maximum likelihood (FIML) which is automatically applied in Mplus (Kline, 2016).

Research questions 2 and 3 were analyzed using Stata 16 (StataCorp, 2019). Sampling weights and clusters were applied to account for potential differences between participants and non-responders, while also taking into account that some students were nested within the same college or university (Eisenberg et al., 2013). Eight separate logistic regression tests were performed to measure which coping behaviors were associated with suicide ideation. Next, interaction terms were calculated to uncover which specific coping behaviors moderate the relationship between depressive symptoms and suicide ideation. Lastly, predicted probabilities were generated using Stata's *margins* command to ensure that the odd ratios derived from the logistic regression results could be easily interpreted and recognized as meaningful results (Long & Freese, 2005; Norton, Dowd, & Maciejewski, 2018; Viera, 2008).

RESULTS

Descriptives

Participant demographics are presented in Table 1. Women made up 70.16% of the sample (n= 308), while men made up the remaining 29.84% (n= 131) of participants. Sixty-eight

percent of students were currently pursuing a bachelor's degree at a four-year college or university, while the remaining 32% were either pursuing a graduate or associate degree. Most participants identified as heterosexual (86%), though 14% identified as a member of a sexual minority group. Ten percent of students reported that they had experienced suicidal thoughts at some point within the past 12 months. Nearly 25% of the sample reported that they had been diagnosed with either a mental illness, learning disability, eating disorder, personality disorder, or substance abuse disorder. Sixty-five percent of students reported being single at the time of their participation in the study, with 23% being in a relationship and a little over 9% being married or in a domestic partnership.

Forty-seven percent of the sample lived in on-campus residence halls or apartments at the time of the study, with an additional 36% living in off-campus non-university housing. Very few (n=9) students reported that they lived in a co-op or fraternity/sorority house. Nearly 11% of students lived with their parents or other family members. Twenty-four percent of the sample came from households where at least one of their parents earned a bachelor's degree, with another 24% reporting that one of their parents earned a graduate or advanced degree. Twenty-two percent of students shared that their parents either attended some college or earned an associate's degree, followed by nearly 19% whose parents completed high school but did not go on to college. Less than 10% of students reported that their parents did not finish high school or earn a GED.

Pearson correlations were calculated to assess relationships among key study variables. Age was negatively correlated with depressive symptoms at the $p<.001$ level ($r = -.20$). Similarly, age was negatively associated with *substance use* ($r = -.10$, $p = .02$) and *behavioral*

disengagement/self-blame (r = -.24, p<.001), but was positively associated with social support (r = .10, p = .03), *active planning/acceptance* (r = .14, p = .001), *reframing* (r = .19, p<.001), and *religious coping strategies* (r = .21, p<.001). Gender (coded as 1=men and 2=women) was significantly associated with *social support* (r = .13, p= .01) and religious coping strategies (r = .13, p = .01), indicating that women reported greater use of social support and religious coping than men. Sexual orientation (coded 0= heterosexual and 1=sexual minority) was positively correlated with *substance use* (r = .23 p< .001) and *depressive symptoms* (r = .12, p = .01), yet was negatively correlated with *religious coping strategies* (r = -.19, p< .001), suggesting that students who identified as member of a sexual minority group reported greater reliance on substance use coping strategies, while heterosexual students reported relatively greater use of religious coping strategies when compared to their sexual minority peers. Depressive symptoms were significantly associated with behavioral *disengagement/self-blame* (r = .53, p<.001) and nearly all of the coping strategies— with the exception of *humor* (p = .91). Further, the strongest relationship among the coping strategy variables emerged between *reframing* and *active planning/acceptance* (r = .49, p<.001); all other intercorrelations were below this value. Additional details are provided in Table 2.

Exploratory Factor Analysis

Exploratory factor analysis (EFA) was first used to assess dimensionality for the PHQ-8 (Kronke et al., 2002) and Brief COPE inventory measures (Carver, 1998). EFA is a helpful tool for detecting the number of latent or underlying factors that should be retained within a psychometric measure. Model specification and selection was determined by the following

sources: (1) model fit criteria proposed by Hu and Bentler (1999); (2) Kaiser's criterion (e.g., eigenvalues >1); (3) review of scree plots; and (4) theoretical guidance or interpretation. When conducting EFA for the PHQ-8, the 1, 2, and 3-factor models were assessed for model comparison (Table 3). The 1-factor model, however, proved to be the best fitting model, as the global fit indices were within an acceptable range (χ_2 = 51.60, p <.001, RMSEA = .085, CFI = .98, TLI= .98, SRMR= .04). Further, review of the scree plot shows a distinct drop when moving from the 1 to 2-factor models, as only one eigenvalue was above 1. Lastly, all items for the 1-factor model loaded significantly onto the latent factor and ranged between .72 and .85.

Given that the Brief COPE Inventory includes 28 items, I began the EFA for coping strategies by reviewing the 7, 8, 9, and 10-factor models. Examining competing models offers much needed insight into items that may cross-load onto different factors across the models. In these analyses 8 eigenvalues were found to be above 1, and review of the scree plot showed a slight dip in the number of eigenvalues between factors 8 and 9— leading to the retention of the 8-factor model. However, item 9, *"I've been saying things to let my unpleasant feelings escape"* and item 21, *"I've been expressing my negative feelings"* loaded onto more than one factor and were removed from the analyses. A second EFA for coping strategies was conducted with the remaining 26 items. Again the 8-factor model proved to be the best fit (χ_2 = 216.40, p <.001, RMSEA = .05, CFI = .99, TLI= .97, SRMR= .04). As such, the final 8-factor model represents the following subscales and was used to guide the subsequent analyses: *denial, substance use, behavioral disengagement/self-blame, social support, active planning/acceptance, reframing, humor,* and *religion*. An overview of items and latent factors is provided in Table 3.

Confirmatory Factor Analysis

Next, confirmatory factor analysis was applied to the other half of the sample (n=232). Here the 8-factor model appeared to be an acceptable fit to the data (χ_2 = 549.49, p <.001, RMSEA = .035, CFI = .95, TLI= .94, SRMR= .08). Standardized loadings for the Brief COPE Inventory (Carver, 1998) were all above .40, which is within the appropriate range proposed by Worthington & Whittaker (2006). Similarly, all standardized loadings for the PHQ-8 (Kroenke et al., 2002) met cutoff criteria and ranged between .66 and .92. No shared error was identified between any of the items. After confirming the factor structure for depressive symptoms and coping strategies measures, each of eight latent factors representing coping strategies were tested as individual moderators in the depression-suicide ideation link. In doing so, eight separate regression tests were performed, with each subscale representing a distinct coping strategy. I recognize that some scholars might prefer to enter each of the 8 subscales into one regression model, and from there test interactions for only the variables that are significantly associated with the dependent variable. However, it is important to note that issues of power arise when including several predictor variables and interaction terms into a single model. Therefore, each coping strategy was entered into a single logistic regression test where both the main effects and interactions were assessed to determine which specific coping strategies buffer against the effects of depressive symptoms on suicide ideation.

Logistic Regression

Main Effects

Results from the first logistic regression test indicate that *denial* was not significantly associated with suicide ideation (Table 5). *Substance use*, however, did emerge as a significant predictor of increased odds of suicide ideation in the second logistic regression model (OR=2.43, 95% CI = 1.24 – 4.77). Next, results from the third logistic regression test showed that *behavioral disengagement/self-blame* was also significantly associated with an increase in suicide ideation (OR= 2.23; 95% CI = 1.24 – 4.01). Here we see that one-unit increase in *behavioral disengagement/self-blame* is associated with more than twice the odds of experiencing past-year suicide ideation. No main (or direct) effects were found in the five remaining models that measured direct links between the following coping strategies and suicide ideation: (4) *social support,* (5) *active planning/acceptance*, (6) *reframing,* (7) *humor*, and (8) *religious coping strategies*.

Interactions and Predicted Probabilities

Testing interactions within a logistic regression framework can be challenging to decipher and difficult to interpret (Ai & Norton, 2003; Karaca-Mandic, Norton, & Dowd, 2012; Viera, 2008). Odds ratio for the interaction terms are not as intuitive when compared to the typical linear model, and oftentimes the beta coefficients and/or p-values for these interaction terms are misleading (Ai & Norton, 2003; Long & Freese, 2008). Thus, it is recommended that researchers plot the interactions when using logistic regression, as this offers more precise estimates and insight into potentially moderating effects (Ai & Norton, 2003; Norton, Ai, &

Wang, 2004; Karaca-Mandic et al., 2012). As such, the margins command in Stata was used to generate predicted probabilities and plot interactions for the current study (Long & Freese, 2008; Norton, Dowd, & Maciejewski, 2018; Norton, Dowd, & Maciejewski, 2019). The *plottig* scheme in Stata version 16 was implemented to construct the graphs (Bischof, 2016; StataCorp, 2020).

Interactions were plotted for each of the 8 interaction terms (Figures 1-8). Scores for each of the coping strategies were plotted at the mean, one standard deviation above the mean (+1 SD), and one standard deviation below the mean (-1 SD). When reviewing the plot for the first coping strategy of *denial*, we see that evidence of an interaction does seem to exist (Figure 1). The probability of suicide ideation is low when depressive symptoms are low. However, for students who report low levels of the *denial* coping strategy, the predicted probability of experiencing suicide ideation increases as scores of depression increase (Figure 1). All three slopes for the *denial* coping strategy were statistically significant (Table 6). The next plot models the interaction between depressive symptoms and *substance use* (Figure 2), which again offers evidence that an interaction exists in this relationship. As such, it appears that those who utilize *substance use as a* coping strategy are more likely to experience suicide ideation, but this effect exists only for people at the highest levels of depressive symptoms (Figure 2). Again, the relations between depressive symptoms and suicide ideation was statistically significant at all three levels of *substance use* (Table 6). The third interaction assesses the relations between depressive symptoms and *behavioral disengagement/self-blame* coping strategies (Figure 3). A similar pattern is noticed here where the predicted probabilities of experiencing suicide ideation are generally higher for students who have high levels of *behavioral disengagement/self-blame.* However, this trend changes as scores on the depression measure increase, as those who are at or

below mean levels of *behavioral disengagement/self-blame* are more likely to consider suicide when experiencing the highest levels of depressive symptoms (Figure 3). Only the slopes representing low (-1 SD) and mean levels of *disengagement/self-blame* are statistically significant (Table 6).

In the fourth interaction plot we see that the *social support* coping strategy appears to moderate the relations between depressive symptoms and suicide ideation at all three levels (Table 6). As such, the predicted probability of suicide ideation for Black college students with lower levels of social support is above 40% (Figure 4). The *active planning/acceptance* coping strategy also appears to moderate the relations between depressive symptoms and suicide ideation at the -1 SD and mean levels only (Figure 5 and Table 6). The same trend is noticed for both the *humor* (Figure 6) and *reframing* coping strategies (Figure 7 and Table 6).

The eighth and final plot suggests that an interaction exists between depressive symptoms and *religious coping* strategies again at the lowest and average levels of *religious* coping (Figure 8). Here we see that the predicted probability of suicide ideation reaches above 60% for Black college students who utilize low levels (-1 SD) of *religious coping* strategies and who experience the highest levels of depressive symptoms. Interestingly, the slope representing the mean scores of religious coping is statistically significant, and the predicted probability of suicide ideation for this group drops to around 25% (Table 6 and Figure 8). Taken together, these exploratory findings offer preliminary evidence of potentially protective and deleterious coping strategies as it relates to understanding patterns of coping in relation to suicidality in Black college students.

DISCUSSION

The current investigation sought to examine the relationship between coping strategies, depressive symptoms, and suicide ideation in Black college students. Exploratory and confirmatory analyses were first applied to examine the factor structure of the coping and depression measures. From there, both direct (main) and moderating effects were assessed to determine which specific coping strategies moderate the depression-suicide ideation link. Study findings reveal that *substance use* and *behavioral disengagement/self-blame* coping strategies were both directly associated with significantly greater odds of past-year suicide ideation. Further, plots of the interactions offer preliminary evidence that various specific coping strategies moderate the strength of the association between depressive symptoms and suicide ideation.

While both the PHQ-8 (Kroenke et al., 2002) and the Brief COPE Inventory (Carver, 1998) are popular measures within the social sciences, few studies have used these constructs among samples comprised entirely of Black Americans. Interestingly, participants' race was not included when reporting initial validation of the PHQ-8 (Kroenke et al., 2002). Black Americans did, however, make up 34% of the sample in Carver's (1998) validation of the Brief COPE Inventory. It is worthwhile to note, though, that the total sample represented in the Brief COPE inventory included 168 adults who had been "seriously affected" by Hurricane Andrew (p. 95). This unique and unfortunate circumstance certainly shaped participant responses and engagement with the study and should be considered. Moreover, there were only 57 Black participants included in the entire sample (see Carver, 1997), further calling into question the validity of this measure when applied to other racial and ethnic groups. Thus, it was important

for me to assess the psychometric properties of the coping and depression measures before attempting to make any inferences about relationships amongst these variables.

The factor structure of the PHQ-8 detected in this sample was found to be the same as the original study led by Kroenke and colleagues (2001). However, dimensionality for the Brief COPE Inventory differed in this sample when compared to the original factor structure proposed by Carver (1997). For example, the Brief COPE Inventory (Carver, 1997) states that there are 28 items with 14 subscales that represent distinct coping strategies. However, findings generated from this investigation found only 8 underlying or latent factors that represent specific coping strategies for Black college students. Aside from differences in sample characteristics, this discrepancy may be primarily due to decisions regarding factor analytic techniques. Oblique rotation methods were used in both studies, though Carver (1997) used exploratory factor analysis alone and did conduct confirmatory factor analysis.

Psychometricians note that it is important to confirm the factor structure derived from an EFA by ideally recruiting another sample and conducting CFA to determine if the proposed model is still a good fit to the data (Kline, 2016). If the proposed model does not hold when performing CFA, then the researchers would need to go back to the EFA and begin to inspect for troublesome items when testing the model with different samples (Kline, 2016). Thus, the absence of CFA in Carver's (1997) initial validation of the Brief COPE Inventory may offer some insight as to why the factor structure yielded for this investigation does not align with the psychometric properties originally identified by Carver (1997). Demographic differences in the samples are also important to consider within this context, as participants in the current study all identified as college-enrolled Black adults. Therefore, it will be worthwhile for future

psychometric investigations of the Brief COPE inventory to revisit the factor structure for this measure among community-dwelling Black adults and other non-student groups.

Greer and colleagues (2007, 2015, 2019) have produced relevant work with Black college students and community-dwelling adults by examining the factor structure of the full 60-item COPE Inventory (Carver et al., 1989). In doing so, Greer (2007) used Meyers' (1988) Africentric as a basis to propose an alternative factor structure for coping strategies specific to Black Americans. Here the full 60-item COPE Inventory was administered to a sample of undergraduate students; their responses were then organized into four latent factors based on conceptual descriptions of Africentric coping outlined by Meyers (1988). Next, two tests for CFA were performed using the factor structure proposed in the original COPE inventory (Carver et al., 1989) and Greer's (2007) revised Africentric model.

More pointedly, the original 60-item COPE Inventory (Carver, 1989) asserts that there are 3 overarching latent factors of emotion-focused coping, problem-focused coping, and behavioral disengagement (Carver et al., 1989). Greer (2007), however— when drawing from Meyers (1988)— proposed four alternative latent factors representing constructs of *spirituality, problem-oriented coping*, *disengagement,* and *interconnectedness*. To be clear, Greer (2007) did not generate new items before proposing these four revised latent constructs, and instead determined which items belong to each latent construct based on conceptual descriptions of Meyers' (1988) Africentric coping. Nevertheless, results from both CFA models were acceptable ranges for model fit indices (Greer, 2007). Notably, no tests for EFA were conducted, which is concerning because some of the items from the full 60-item COPE Inventory may have had poor loadings when being examined among an all-Black sample. Further, it seems plausible that some

of the items included in Greer's (2007) four factor model may cross-load onto more than one factor— which would only be detected by first performing EFA. Therefore, revisiting this measure by conducting EFA alongside CFA will be a helpful next step in attempting to confirm the Africenteric version of the COPE Inventory and moving this line of research forward.

Nevertheless, the foci of this study still offer unique contributions to the literature by identifying specific coping strategies that are directly linked to suicide ideation in Black college students. For instance, *substance use* was associated with increased odds of past year suicide ideation. This finding aligns with other research that has found positive associations between substance use and adverse mental health outcomes like depression and self-harm among college students generally (Serras, Saules, Cranford, & Eisenberg, 2010; Taliaferro & Muehlenkamp, 2015), and Black college men specifically (Barry et al., 2017). While several studies measure the harmful effects of substance use on college student mental health, fewer studies make direct connections between substance use and suicidality (see Dvorak, Lamis, & Malone, 2013; Lamis & Malone, 2011; Lamis, Malone, & Jahn, 2014)— and even fewer studies measure these associations specifically among Black college students.

Research suggests that using substances may be considered a normative part of college student development that is socially acceptable and even expected among students from their peers (Buckner, 2013; Iwamoto, Cheng, Lee, Takamatsu, & Gordon, 2011). One unexpected consequence of this expectation from peers is that some students may utilize engaging in substance use as means to mask their struggles with mental health. For example, some students may use substances to conceal their mental health problems, while others may experience serious mental health concerns as a result of recurrent substance use. These speculations are preliminary

and have not been examined longitudinally among Black college students. Nevertheless, social workers, psychologists, and other clinical staff employed at campus counseling centers should pay particular attention to students' beliefs and behaviors surrounding substance use, as this could potentially offer some indication into deeper underlying mental health concerns. In particular, this study does not focus on frequency or use of specific substances, though these are important areas worthy of future inquiry when working to prevent suicidality among college students.

Along those same lines and consistent with extant literature, the *behavioral disengagement/self-blame* coping strategy was also associated with increased odds of suicide ideation. Self-blame may be particularly pronounced among college students as they learn to navigate intense academic stressors and new environmental or social pressures. Many students struggle in getting acclimated to the demands of college life and may require additional support (Carter, Locks, & Winkle-Wagner, 2013). This is not unique to one group of college students, yet these concerns may be even more pronounced for students from traditionally underrepresented backgrounds (Carter et al., 2013; Harper & Newman, 2016). Thus, special attention should be paid to curtailing feelings of behavioral disengagement and self-blame for students during this developmentally vulnerable life stage.

Moreover, coping strategies like *behavioral disengagement* and *self-blame* may be heightened for Black students who oftentimes report feeling isolated and are made to feel as if they do not belong on campus (Strayhorn, 2008, 2013, 2018). Other studies have confirmed that a positive relationship exists between self-blame coping strategies and suicidality among Chinese college students (Zhang, Wang, Xia, Liu, & Jung, 2012) and youth visiting psychiatric

emergency rooms (Horowitz, Hill, & King, 2011; Horowitz, Czyz, Berona, & King, 2018). It is unclear whether these relationships have been established in samples of Black college students. However, the items that loaded onto the *behavioral disengagement/self-blame* factor in this study appear to represent related constructs of hopelessness and hyper criticism of self (Table 4). Specific language of "giving up" is used in two items, while words like "blame" and "criticism" are highlighted in the others. The link between hopelessness and self-criticism is important to explore, as hopelessness may impede an individual's ability to believe that the situation will get better, while self-criticism may tell the individual that they can never do anything right and that they will not get better. Belief that both that the situation at hand and the person themselves will not get better could place an individual at greater risk for self-harm and suicidality. Thus, university faculty, staff, and administrators should be prepared to recognize these patterns among college students, as campus leaders are well-positioned to model strategies for avoiding feelings of self-blame and hopelessness both within and outside of the classroom.

Evidence of interactions for each of the 8 coping strategies (Table 6). More pointedly, the significant depressive symptoms by social support interaction lends support to the *stress-buffering hypothesis*, which proposes that social support moderates the strength of the association between stress and health outcomes (Cohen & Wills, 1985). In answer to research question 3, specific coping strategies do appear to either buffer or exacerbate the depression – suicide ideation link. While interactions for the *social support* and *religious coping* strategies plotted in the anticipated direction, some of the other interactions derived from this study point to interesting considerations for deeper inquiry. For instance, students with low levels of *denial* and high scores of depressive symptoms had a greater probability of experiencing suicide ideation

when compared to students who utilize only moderate or high levels of *denial* (Figure 1). *Denial* may not be an effective long-term coping strategy, and these findings do not suggest or encourage students to embrace denial when experiencing serious mental health concerns.

Instead, I speculate that students with low levels of *denial* may be correctly assessing their current conditions and, as a result, feel hopeless or discouraged about their ability to get better. Similarly, students with lower levels of *substance use* and high levels of depressive symptoms also had a greater probability of experiencing suicidal thoughts at some point within the past year (Figure 2). It seems likely that *substance use* would exacerbate the relationship between depression and suicide ideation, though this claim was unfounded. When working to understand this trend, it is possible that persons who utilize high levels of the *substance use* coping strategy are already in treatment or receiving care from a mental health professional. These sources, in turn, may provide needed support and guidance in moments of crisis and distress, further protecting them from adverse mental health outcomes like suicide ideation. Conversely, it is also possible that individuals with greater frequency of substance use may mask their experiences with depression and suicide ideation by telling themselves that thoughts of ending their life are a direct result of their drug use instead of recognizing suicidal thinking as more serious mental health concern. Again, it is important to remember that these data were collected at one time point, and future longitudinal work is needed to observe these relationships overtime.

Notably, slopes for the low (-1 SD) and mean levels of *religious coping* strategies were statistically different from zero (Table 6) — so much so that the predicted probability of experiencing suicide ideation was 63% for Black college students who utilize low levels of

religious coping and have high levels of depressive symptoms (Figure 8). This probability drops to 25% for Black college students who report mean levels of *religious coping* strategies and high levels of depressive symptoms (Figure 8). Despite reports that young people today are generally less involved with organized religion and are less likely than previous generations to be religiously affiliated (Pew Research Center, 2014), several scholars offer more nuanced contributions by confirming that religion continues to play a critical role in the lives of Black college students and young adults (McGuire, 2019; Pew Research Center, 2018).

Results from this investigation suggest that religious coping appears to be a beneficial resource that could help protect against the onset of suicidal thoughts for Black college students. Specific practices of "finding comfort in my faith" along with praying or mediating" seem to be particularly salient for Black college students. It is important to note that these items reflect more existential connections with the divine versus other measures like church attendance or religious involvement. Other dimensions of religiosity, however, like having a personal relationship with God and institutional support were not included in the Brief COPE Inventory items— though future work would indeed benefit from measuring how all of the aforementioned concepts are related to suicidal behaviors for Black college students.

A similar pattern was noticed in the *social support* coping strategy, as the predicted probability for suicide ideation is 46.88% for students with low levels of social support and high levels of depressive symptoms (Figure 4). This percentage falls to 37.89% for those with high levels (+1 SD) of *social support* and high levels of depressive symptoms. The items measuring social support in the Brief COPE Inventory do not specific a source or person from whom the respondent receives support. Therefore, it will be imperative for future studies to consider the

differential influence of social support provided from family members, friends, student organizations, and other pertinent sources of support for Black college students.

Moreover, it will be worthwhile for researchers to consider the unique role of online social support and connection that is offered to students through virtual engagement, as it is possible that Black college students may respond more favorably to social support offered via the Internet. Nevertheless, specifying both the source and mode of social support will be critical in identifying ways to effectively reach and treat adverse mental health occurrences in Black college students. I am currently unaware of any other investigation that has modeled interactions between depressive symptoms, specific coping strategies, and suicide ideation. As such, researchers should replicate these exploratory models with members of other marginalized groups who are also at elevated risk for suicidal behaviors.

Next Steps and Future Directions

Odds ratios are not always easy to interpret (Ai & Norton, 2003; Viera, 2008). Therefore, future studies that measure outcomes of suicidality using a binary dependent variable should consider converting odds ratios to predicted probabilities in efforts to ease interpretability of study findings. Predicted probabilities are presented in percentages instead of odds and represent the probability that the event will occur (For examples see Ma & Grogan-Kaylor, 2017; Lee, Sanchez, Grogran-Kaylor, Lee, & Albuja, 2018). This seems like an important approach to adopt within suicide research and other topics that have critical public health implications. Applying the *margins* command in Stata (Long & Freese, 2014) or using the *predicted probabilities* code in R are recommended by researchers and allow for excellent graphing capabilities (Long & Freese, 2014). In short, researchers have a responsibility to ensure that findings generated from

their studies are shared in ways that are most accessible to the communities to which they work with and serve; converting odds ratios to predicted probabilities is just one way of doing so.

Following Greer's (2007) recommendation, future research on coping and suicide should also consider measuring coping using scales that were specifically designed to highlight the complex ways in which Black Americans respond to and cope with stress. One viable option may be to apply the Africultural Coping Systems Inventory (ACSI; Utsey, Adams, & Bolden, 2000) which identifies four distinct coping behaviors germane Blacks in the U.S. Utsey and colleagues (2000) present (1) *cognitive/emotional debriefing coping*, (2) *spiritual-centered coping*, (3) *collective coping*, and (4) *ritual-centered coping* as the four primary domains of Africultural coping behaviors. Since then other studies have used the ACSI to assess relationships between coping and quality of life (Utsey, Bolden, Lanier, & Williams, 2007; Utsey, Bolden, Williams, Lee, Lanier, & Newsome, 2007), along with coping and psychological distress (Thomas, Witherspoon, & Speight, 2008). One recent investigation found that among a sample of Black college women, the *spiritual-centered coping* strategy was associated with significantly lower odds of past year suicide ideation, lifetime suicide ideation, and past year suicide attempt (Morrison & Hopkins, 2019). Additional efforts are needed to determine whether this same pattern holds for Black college men. Though issues of non-invariance were found when testing the ACSI across groups of Black American, Black Caribbean, and Continental African adults (Utsey, Brown, & Bolden, 2004), it is still worthwhile for researchers to use this measure when working to better ascertain the relationship between coping and suicide in Black Americans moving forward.

Lastly, employing qualitative research will be a critical next step in working to understand suicide among Black college students. At present, most of the existing suicide research has analyzed Black college students' experiences with suicidality using online questionnaires (see Goodwill & Zhou, 2020; Wang et al., 2013; Hollingsworth et al., 2017; Walker & Bishop, 2005; Lester & Walker, 2017). Indeed, these efforts are commendable and offer much needed insight into the current trends for members of this group. Nevertheless, a dearth persists in our understanding of the interpersonal, environmental, and sociocultural factors that contribute to and/or prevent suicide among young Black men and women. Thus, it is imperative that researchers adopt creative ways to collect qualitative data in their work with Black students. Some scholars have already used vignettes in focus groups with Black church-going youth and report that adolescents prefer seeking help for mental health concerns from young adults in their communities (Molock et al., 2007). This is essential information for researchers, clinicians, and interventionists to know, and reiterates the utility and usefulness of qualitative research. Moving forward, utilizing one-on-one interviews and daily-diary studies may serve as particularly beneficial tools to consider, as they typically offer more privacy than focus groups and facilitate opportunities for participants to directly share their experiences with members of the research team. For example, it will be helpful to probe more into Black men's descriptions of self-blame. From what context do feelings of self-blame originate? Are there specific circumstances that lead Black college men to feeling an inordinate amount of guilt and self-blame that in turn makes them feel that they no longer want to live? Thus, redressing issues of self-blame using both qualitative and quantitative studies will be an important venture within this line of research.

Limitations

There are three primary limitations that should be considered when interpreting findings from this study. First, the online survey instructs participants to describe how they respond to "stressful situations" generally and does not inquire about specific life stressors or events. Thus, the current study is designed to only assess participants' experiences with general sources of stress and cannot speak to more explicit stressors that may be pertinent to the lived experiences of Black college students. For example, the question stem used in the online survey was listed as follows: "The next questions will ask you about how you respond to stressful situations. Remember that your responses are confidential..." Moving forward, it will advantageous to assess Black college students' experiences of coping with specific sources of stress like family conflict, academic concerns, and racial discrimination (see Pearson et al., 2014). Second, there were approximately 132 Black college men included in this sample. As such, more Black male participants would be required in order to probe for potential gender differences without compromising statistical power of the study. More investigations that assess gender differences in suicidal behaviors among Black Americans is needed, as Black men are more likely to die by suicide than are Black women (Joe et al., 2018). Thus, it will be imperative for researchers to ensure that a sizable portion of Black men are recruited to participate in the study, as a means to redress this gap in the literature. Lastly, this study did not examine differences across institution type. It is, however, possible that students enrolled at Historically Black College and Universities (HBCUs) or other Minority Serving Institutions (MSIs)

experience different stressors (Watkins & Neighbors, 2007), and in turn may utilize different coping strategies when faced with challenging circumstances and burdensome life events.

Conclusion

This investigation explored the association between coping, depressive symptoms, and suicide ideation in Black U.S. college students. Before attempting to assess relationships amongst these constructs, it was important to first examine dimensionality of the depression and coping measures. While dimensionality for the PHQ-8 aligned with validation described in the original measure (Kroenke et al., 2002), the factor structure for the Brief COPE Inventory among Black students in this sample did not fit the model originally proposed by Carver (1998). For example, some items had poor loadings while other items loaded onto different latent factors than that described by the scale's developer. Thus, the coping measure could have easily been misapplied when working with this traditionally understudied group.

As such, psychometrics should be regarded as a critical equity and inclusion issue, as the long-standing exclusion of Black Americans in research should lead researchers to question the validity of any measure that has yet to be validated among this population. An equitable and inclusionary approach to quantitative methods would be to conduct EFA and CFA and review specific loadings for individual items before modeling statistical relations between the variables. Moreover, anyone who conducts quantitative research with marginalized groups should be prepared to address issues surrounding psychometrics in their work. The findings of this study revealed that the *substance use* and *behavioral disengagement/self-blame* coping strategies appeared to be particularly deleterious to Black college student's mental health, as both strategies

were directly linked to greater odds of past year suicide ideation. Further, preliminary evidence of interactive relationships emerged when plotting interactions between depressive symptoms and each of the specific coping strategies. Taken together, these findings point to promising areas of future inquiry and substantiate claims that suicide among young Black men and women is an urgent public health challenge that is worthy of our immediate attention and ardent concern.

Table 1. Participant demographics and sample characteristics

	M or (%)	SD or (n)	Range (if applicable)
Age	24.17	8.30	18-67
Gender			
Women	70.69%	328	
Men	29.31%	132	
Degree Program			
Associate Degree (2-year)	11.6%	54	
Undergraduate (4-year university)	68.75%	319	
Graduate or Professional Degree	19.61%	91	
Sexual Orientation			
Heterosexual	85.81%	399	
Sexual Minority	14.19%	66	
On or Off-campus Housing			
On-campus residence hall or apartment	48.71%	227	
Co-op or fraternity/sorority house	1.93%	9	
Off-campus non-university housing	36.27%	169	
With parents or relatives	10.52%	49	
Parent Education			
No HS degree	9.04%	42	
HS degree or GED	18.92%	88	
Some college or Associate's degree	22.37%	104	
Bachelor's Degree	23.87%	111	
Graduate or advanced degree	24.30%	113	
Coping Strategies			
Denial	2.77	1.29	2-8
Substance use	2.59	1.28	2-8
Behavioral disengagement/Self-blame	7.81	2.92	4-16
Social Support	10.27	3.59	4-16
Active planning/Acceptance	17.37	3.92	6.24
Reframing	5.27	1.82	2-8
Humor	4.26	1.94	2-8
Religious coping	5.06	2.26	2-8
Depressive Symptoms	14.79	5.48	8-32
Past Year Suicide Ideation			
Yes	10.15%	47	
No	89.85%	416	

[a] PHQ-8 for this study was scored using a 1-4 instead of the 0-

Table 2. Intercorrelations of key study variables

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1. Age	1.00												
2. Gender	0.05	1.00											
3. Sexual orientation	-0.10***	-0.02	1.00										
4. Depressive symptoms	-0.20**	0.05	0.12**	1.00									
5. Suicide ideation	-0.12*	0.01	0.04	0.29***	1.00								
6. Denial	0.03	0.04	0.07	0.24***	0.11*	1.00							
7. Substance use	-0.10*	-0.05	0.23***	0.31***	0.21***	0.24***	1.00						
8. Behav. diseng/ Self-blame	-0.24***	0.04	0.09	0.53***	0.31***	0.32***	0.29***	1.00					
9. Social support	0.10*	0.13**	0.04	-0.15***	-0.06	0.01	0.02	-0.03	1.00				
10. Active planning/Acceptance	0.14**	-0.08	-0.08	-0.19***	-0.09	-0.05	-0.09	-0.10*	0.39***	1.00			
11. Reframing	0.19***	-0.02	-0.06	-0.27***	-0.16***	0.08	-0.12**	-0.22***	0.31***	0.49***	1.00		
12. Humor	-0.07	-0.15**	0.08	0.00	-0.08	0.10*	0.06	0.12**	0.11*	0.21***	0.28***	1.00	
13. Religious coping	0.21***	0.13**	-0.19***	-0.22***	-0.16***	0.02	-0.13**	-0.14**	0.23***	0.30***	0.33***	-0.03	1.00

* shows significance at the .05 level, ** at the p= .01 level, and *** at the p<.001 level.

Table 3. EFA results for the Brief COPE Inventory and the PHQ-8

	Chi-square	***df***	**p-value**	**RMSEA**	**CFI**	**TLI**	**SRMR**
Brief COPE Inventory							
7-factor	282.51	164	<.001	.06	.98	.96	.05
8-factor	216.40	145	<.001	.05	.99	.97	04
9-factor	183.76	127	<.001	.04	.99	.97	.03
10-factor	134.41	110	.06	.03	1.00	.99	.02
PHQ-8							
1-factor	51.60	20	<.001	.08	.98	.98	.07
2-factor	19.19	13	0.12	.05	.99	.99	.03
3-factor	5.81	7	0.56	0.00	1.00	1.00	0.12

Table 4. Results from the Measurement Model: Factor Loadings for Latent Variables

	Standardized Estimate	***SE***
Brief COPE Inventory (Carver, 1998)		
Denial		
3. I've been saying to myself "this isn't real."	.74*	.01
8. I've been refusing to believe that it has happened.	1.00	.07
Substance Use		
4. I've been using alcohol or other drugs to make myself feel better.	.94*	.05
11. I've been using alcohol or other drugs to help me get through it.	1.00*	.03
Behavioral Disengagement/Self-blame		
6. I've been giving up trying to deal with it.	.85*	.03
13. I've been criticizing myself.	.78*	.04
16. I've been giving up the attempt to cope.	.88*	.03
26. I've been blaming myself for things that happened.	.78*	.04
Social Support		
5. I've been getting emotional support from others.	.83*	.03
10. I've been getting help and advice from other people.	.85*	.02
15. I've been getting comfort and understanding from someone.	.81*	.03
23. I've been trying to get advice or help from other people about what to do.	.92*	.02
Active Planning/Acceptance		
2. I've been concentrating my efforts on doing something about the situation I'm in.	.68*	.04
7. I've been taking action to try to make the situation better.	.89*	.03
14. I've been trying to come up with a strategy about what to do.	.86*	.03
20. I've been accepting the reality of the fact that it has happened.	.60*	.05
24. I've been learning to live with it.	.41*	.07
25. I've been thinking hard about what steps to take.	.82*	.03
Reframing		
12. I've been trying to see it in a different light, to make it seem more positive.	.67*	.05
17. I've been looking for something good in what is happening.	.91*	.04

Humor		
18. I've been making jokes about it.	.91*	.05
28. I've been making fun of the situation.	.95*	.06
Religious Coping		
22. I've been trying to find comfort in my religion or spiritual beliefs.	.76*	.04
27. I've been praying or meditating.	1.16*	.05
PHQ-8 (Kroenke et al., 2002)		
Depressive symptoms		
1. Little interest or pleasure in doing things	.73*	.03
2. Feeling down, depressed, or hopeless	.87*	.04
3. Trouble falling asleep, staying asleep, or sleeping too much	.73*	.06
4. Feeling tired or having little energy	.66*	.04
5. Poor appetite or overeating	.68*	.05
6. Feeling bad about yourself—or that you are a failure or have let yourself or your family down	.92*	.03
7. Trouble concentrating on things, such as reading the newspaper or watching television	.73*	.05
8. Moving or speaking so slowly that other people could have noticed; or the opposite – being so fidgety or restless that you have been moving around a lot more than usual	.77*	.05

*Represents statistically significant loadings at $p \leq .001$.

Table 5. Logistic regression tests of past year suicide ideation: Odds ratios represented

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
Age	.95	.95	.98	.95	.95	.96	.95	.95
Gender	1.35	1.32	1.24	1.40	1.47	1.46	1.07	1.32
Sexual Orientation	1.52	1.03	1.47	1.50	1.49	1.75	1.49	1.58
Depressive Symptoms	1.21**	1.26**	1.44*	1.20*	1.27	1.25*	1.18	1.34**
Denial	1.52	-	-	-	-	-	-	-
Depress X Denial	.98	-	-	-	-	-	-	-
Substance Use		2.43**	-	-	-	-	-	-
Depress X Substance Use		.97[a]	-	-	-	-	-	-
Behav.Dis/Self-Blame			2.23**	-	-	-	-	-
Depress X Behav.Dis/Self-Blame			.97 [a]	-	-	-	-	-
Social Support				1.08	-	-	-	-
Depress X Social Support				.99	-	-	-	-
Active Plan/Acceptance					1.08	-	-	-
Depress X Active Plan/Acceptance					.99	-	-	-
Reframe						1.16	-	-
Depress X Reframe						.98	-	-
Humor							.84	-
Depress X Humor							.99	-
Religious Coping								1.61
Depress X Religious Coping								.96

* shows significance at the .05 level, ** at the p= .01 level, and *** at the p<.001 level.

Table 6. Slopes for the interaction terms

	dy/dx	Delta Method SE	t	p-value	95% CI
Denial					
-1 SD	.17	.04	4.08	<.001	.08 - .25
Mean	.14	03	4.48	<.001	.08 - .21
+1SD	.12	.03	3.68	<.001	.05 - .19
Substance use					
-1 SD	.19	.06	3.33	.003	.07 - .31
Mean	.15	.05	3.28	.003	.05 - .24
+1SD	.11	.04	2.64	.02	.02 - 19
Behav.Diseng./Self-blame					
-1 SD	.22	.08	2.78	01	06 - .39
Mean	.14	.05	2.92	.01	.04 - .25
+1SD	.06	.04	1.57	.13	-.02 - .15
Social Support					
-1 SD	.15	.04	3.98	<.001	.07 - .23
Mean	.14	.04	3.83	<.001	.06 - .21
+1SD	.12	.06	2.20	.04	.01- .24
Active planning/Acceptance					
-1 SD	.16	04	3.84	<.001	.07 - .24
Mean	.14	.04	3.55	.002	.06 - .22
+1SD	.11	.06	1.76	.09	-0.02 - 25
Reframing					
-1 SD	.16	.04	3.76	<.001	.07 - .24
Mean	.12	.04	3.29	.003	.05 - .20
+1SD	.09	.06	1.63	.12	-0.02 - .20
Humor					
-1 SD	.15	.05	2.94	.008	.04 - .26
Mean	.14	.04	3.67	.001	.06 - .22
+1SD	.13	.08	1.65	.11	-0.03 - .29
Religious coping					
-1 SD	.19	.05	3.48	.002	.08 - .30
Mean	.10	.04	2.57	.02	.02 - .18
+1SD	.01	.06	.22	.82	-0.11 - .15

Figure 1. Predicted probabilities of suicide ideation for the interaction between depressive symptoms and the **denial** coping strategy

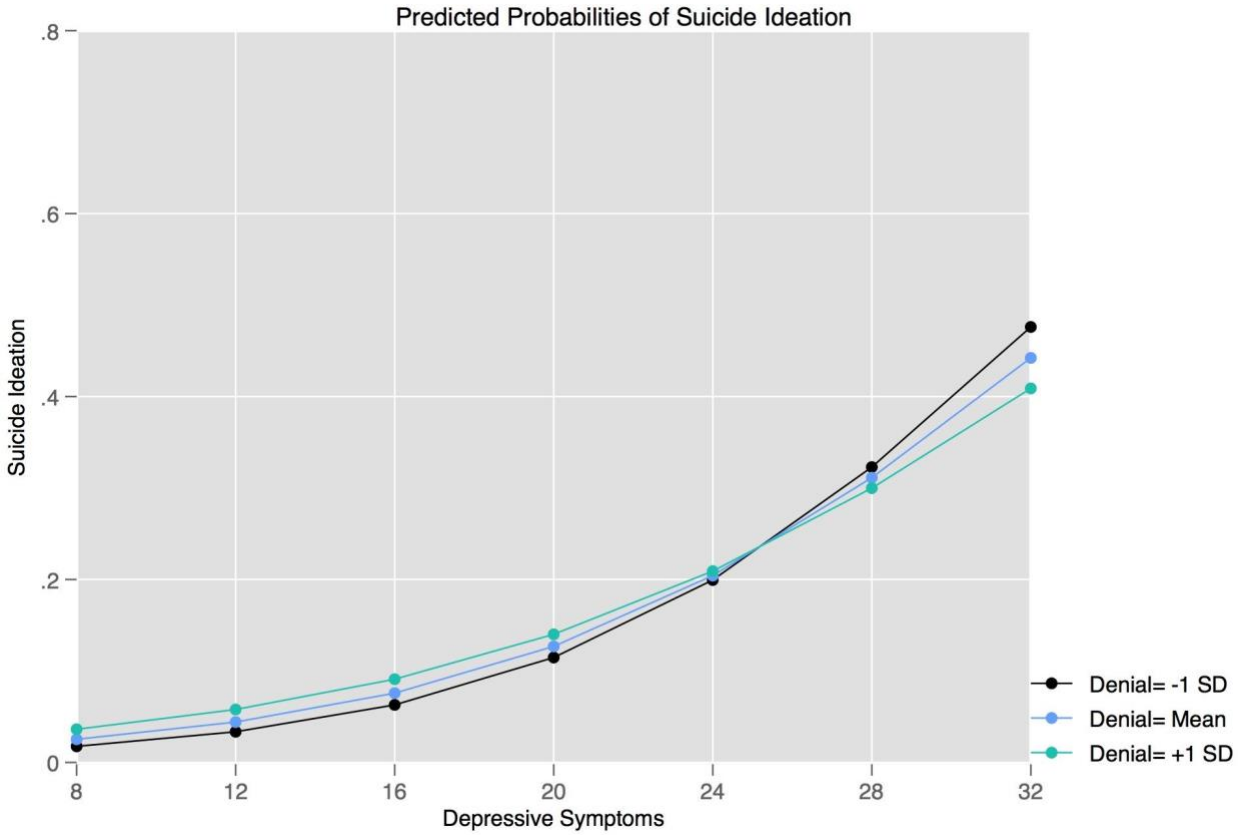


Figure 2. Predicted probabilities of suicide ideation for the interaction between depressive symptoms and the **substance use** coping strategy

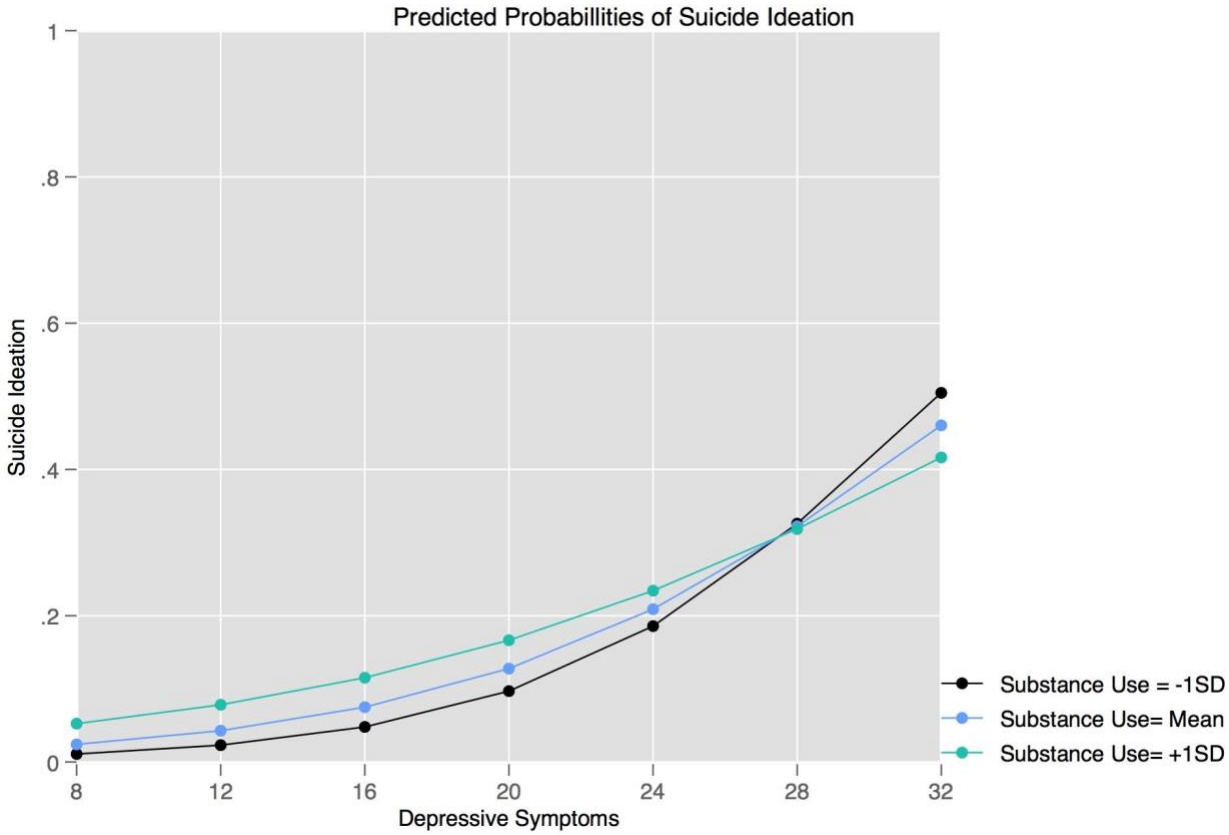


Figure 3. Predicted probabilities of suicide ideation for the interaction between depressive symptoms and the **behavioral disengagement/self-blame** coping strategy

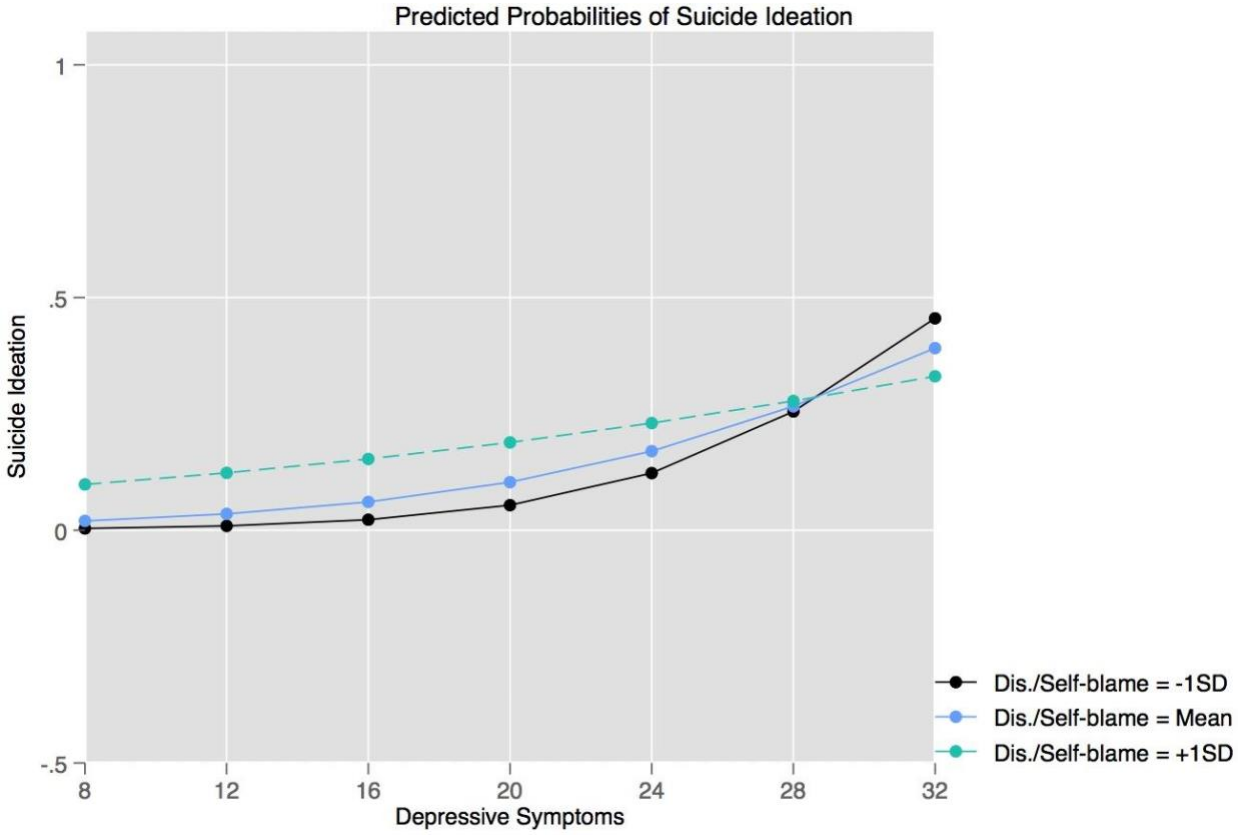


Figure 4. Predicted probabilities of suicide ideation for the interaction between depressive symptoms and the **social support** coping strategy

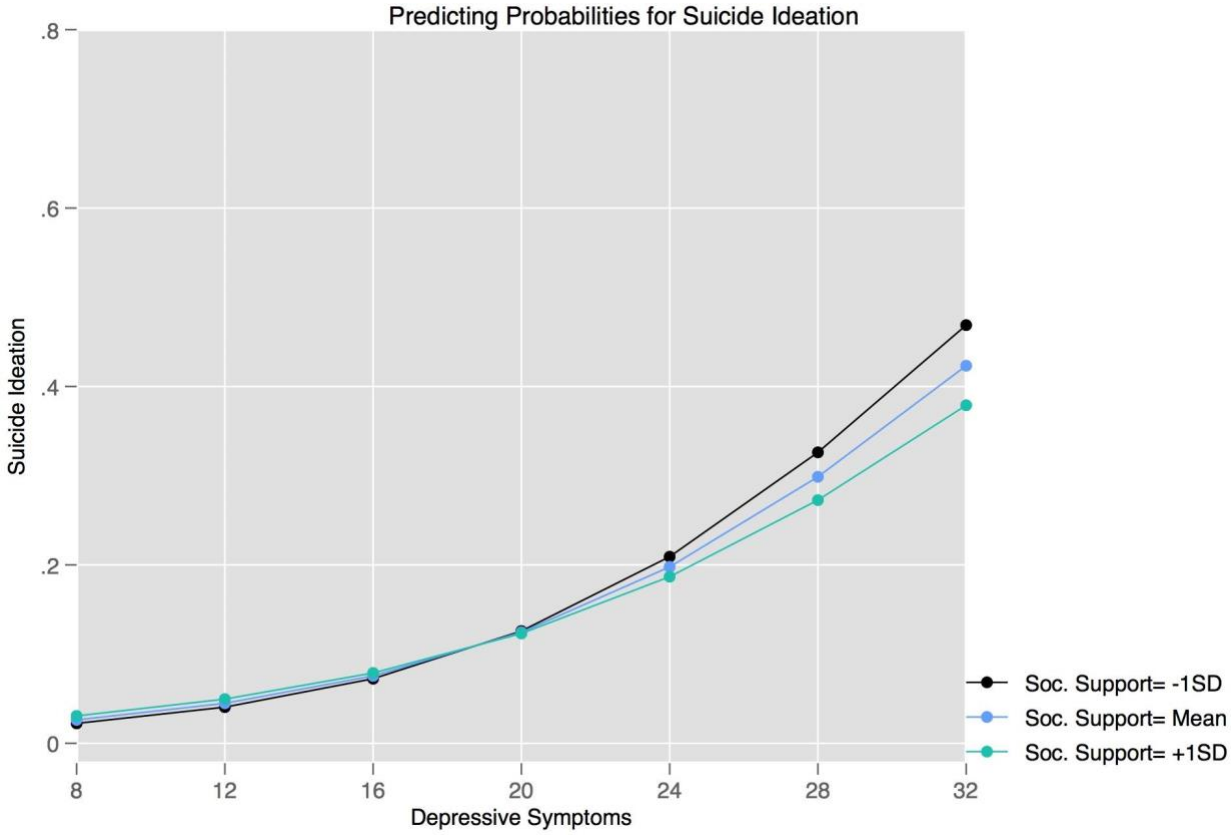


Figure 5. Predicted probabilities of suicide ideation for the interaction between depressive symptoms and the **active planning/acceptance** coping strategy

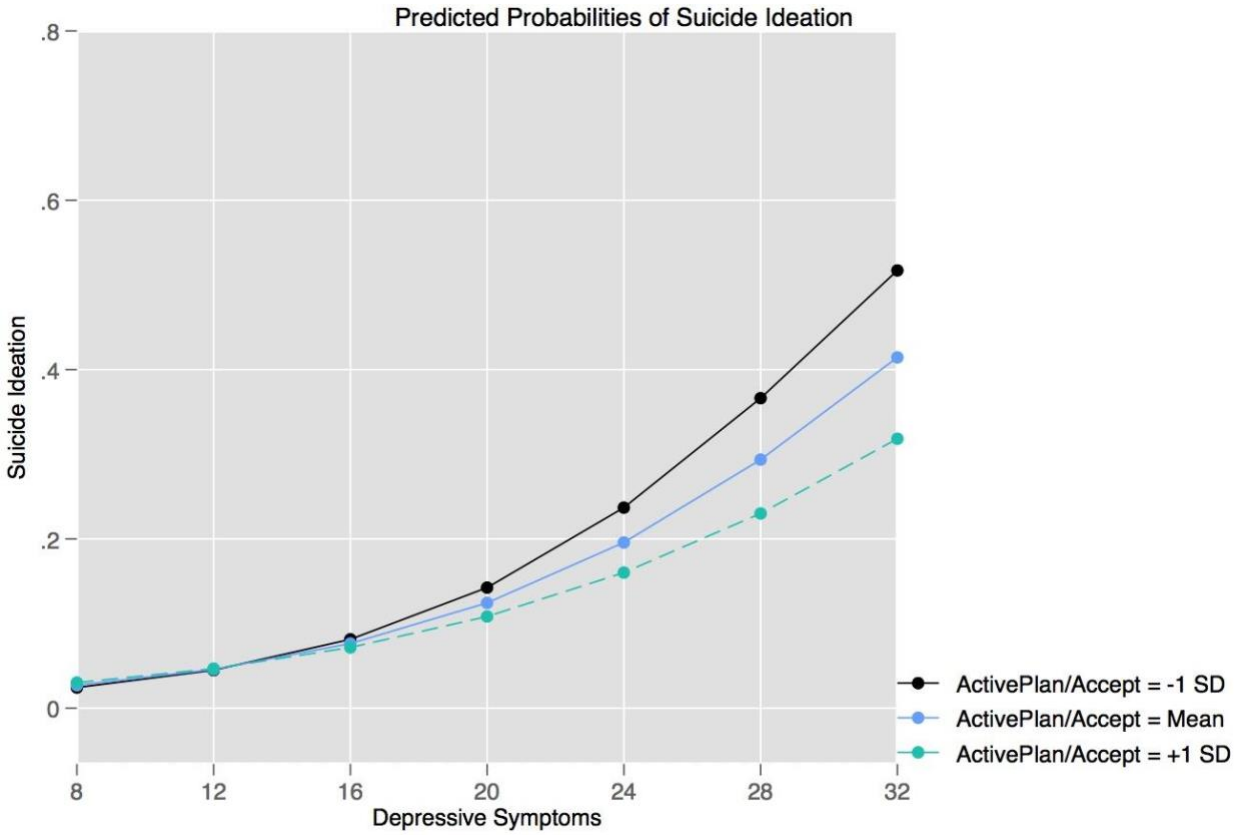


Figure 6. Predicted probabilities of suicide ideation for the interaction between depressive symptoms and the **reframing** coping strategy

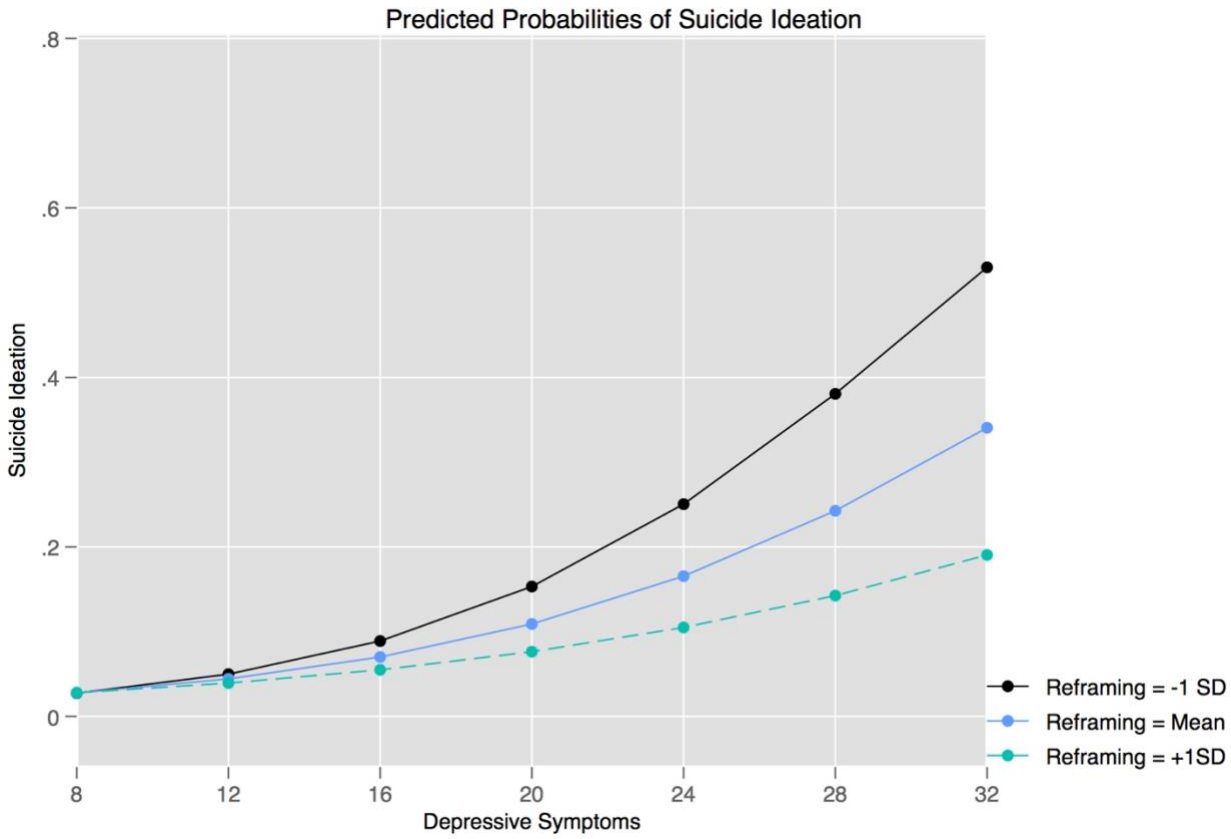


Figure 7. Predicted probabilities of suicide ideation for the interaction between depressive symptoms and the **humor** coping strategy

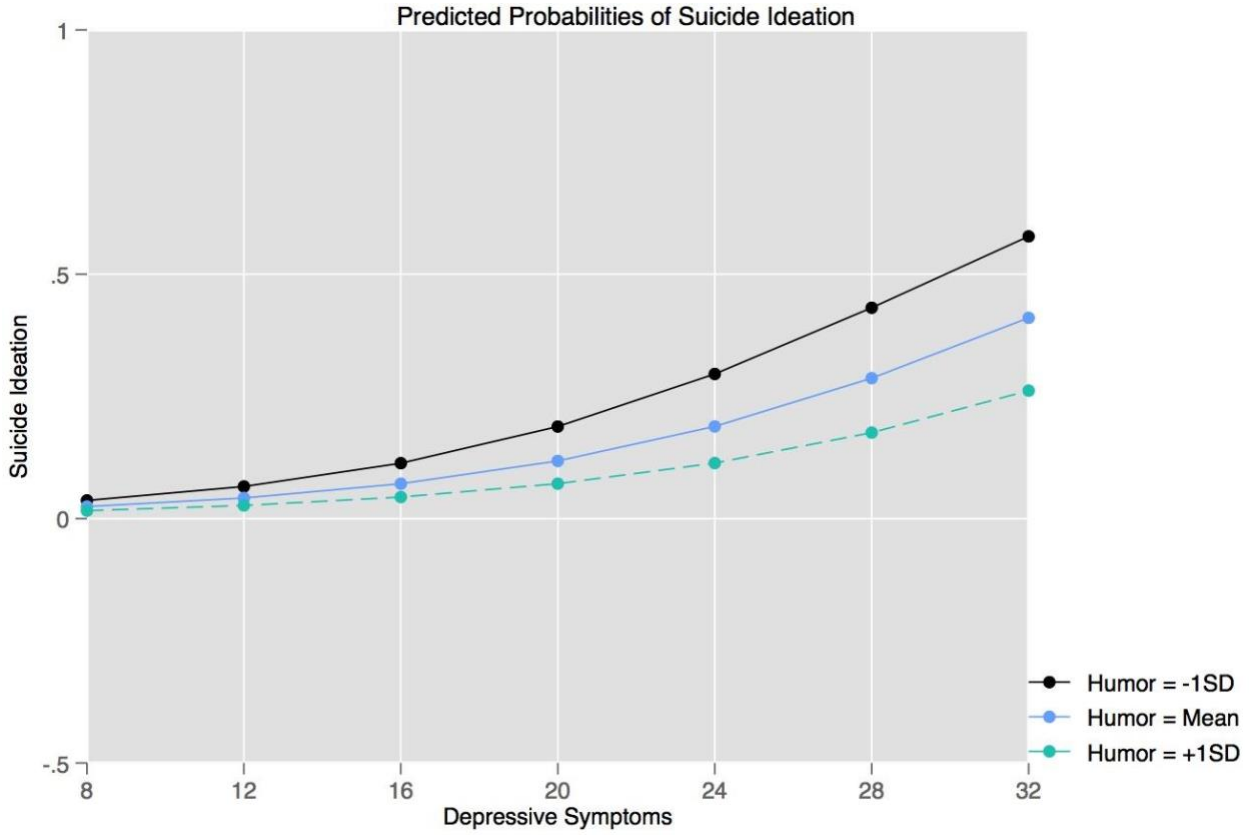
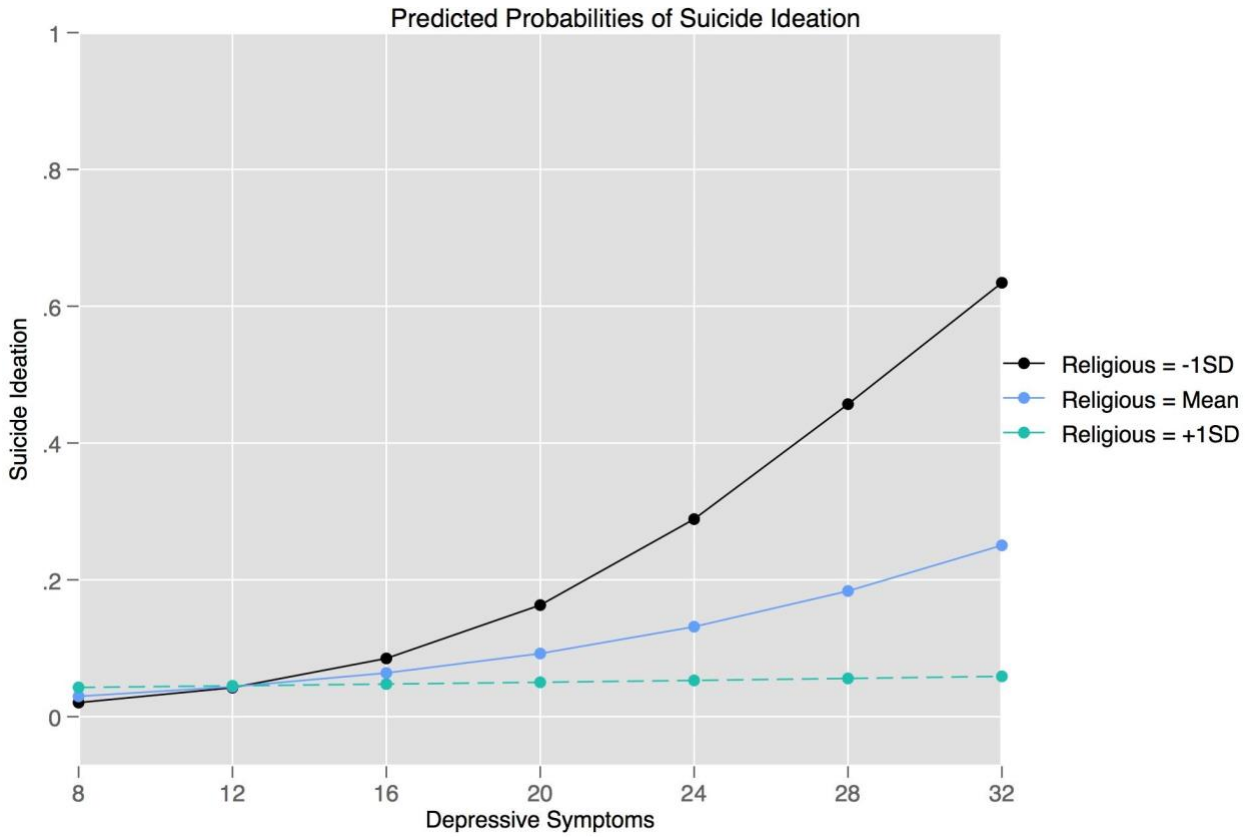


Figure 8. Predicted probabilities of suicide ideation for the interaction between depressive symptoms and the **religious coping** strategy



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Chapter 3 Is Stigma More Harmful Than We Think? Assessing Relationships Between Stigma, Help-Seeking Behaviors, Depressive Symptoms, and Suicide Ideation Among Black College Men

Black men in the U.S. are four to six times more likely to die by suicide than are Black women (Joe, Scott, & Banks, 2018). Yet, investigations that critically assess the processes that contribute to suicidal behaviors specifically among Black men remain scant. Previous research has found that experiences with discrimination, financial insecurity, job uncertainty, and chronic health conditions may place Black men at greater risk for experiencing adverse mental health outcomes like depression and suicide ideation (Britt-Spells, Slebodnik, Sands, & Rollock, 2018; Holden, McGregor, Blanks, & Mahaffey, 2012; Ward & Besson, 2013; Watkins, Walker, & Griffith, 2010). Additionally, Black men are less likely than men from other race groups to ask for help when faced with concerns related to their mental health (Call & Shafer, 2018; Hudson, Eaton, Banks, Sewell, & Neighbors, 2018), largely due to stigma surrounding mental health and help-seeking.

Stigma surrounding mental health help-seeking behaviors are particularly important to consider within the context of race and gender-specific research, as existing research has shown that men who endorse stigma are less likely to seek help and, in turn, are likely to experience higher rates of depressive symptoms (Addis, 2008; Vogel, Heimerdinger-Edwards, Hammer, & Hubbard, 2011). College may be an opportune time to assess Black men's experiences with mental health and help-seeking, as social networks typically expand and students have more opportunities for autonomy and increased connection with peers (Gray, Vitak, Easton, &

Eillison, 2013). Thus, the current study aims to extend this work by uncovering whether stigma and help-seeking behaviors are associated with suicide ideation specifically among Black college men. I will also test whether help-seeking mediates the relationship between public stigma and adverse mental health outcomes like depressive symptoms and suicide ideation. In doing so, survey responses from 1196 Black men who participated in the 2007-2018 versions of the Healthy Minds Study will be analyzed to determine meaningful pathways and associations among key study variables.

Theoretical Approaches to Mental Health Stigma and Help-Seeking

Bruce Link's seminal work through *Modified Labeling Theory* (1987) asserts that 'mental patients', or persons who are diagnosed with a mental illness, internalize negative ideas, beliefs, and attitudes about their condition. The stigma associated with being labeled with a mental illness is harmful to the individual's self-concept and ultimately influences their self-efficacy and self-esteem. Further, the effects of labeling are tempered by two primary sources—demoralization and discrimination. Here Link (1987) theorizes that these two factors work in tandem and prevent persons living with mental illness from experiencing improved quality of life outcomes due to 1) the devaluation of oneself after being diagnosed with a mental illness; and 2) withdrawal from society in efforts to avoid social rejection as a result of the mental illness.

Other researchers have built upon, and even challenged, some of Link's initial ideas as it relates to mental illness stigma, as his theory does not explain differences or decisions regarding mental health service utilization. For example, Corrigan and Watson (2002) suggest that internalized perceptions of stigma alone are not enough to explain the true function of mental

illness stigma. Instead, the authors introduce concepts of public stigma and self-stigma to help explicate the function of stigma among persons experiencing mental illness. *Public stigma* can be understood as, "the reaction that the general population has to people with mental illness" (p. 37). Conversely, *self-stigma* is regarded as negative or unfavorable views about one's own abilities, character, and contributions to the world as a result of a mental illness diagnosis (Corrigan & Watson, 2002). Though both are considered to be deleterious to mental health outcomes, Corrigan and Watson (2002) counter Link's (1987) earlier theoretical assertions by denoting that the concept of mental illness stigma itself may be paradoxical in that receiving a diagnosis does not inherently lead to lower rates of self-esteem and efficacy. On the contrary, feelings of 'righteous anger' may develop after diagnosis, and the individual may, in turn, come to identify and stand in solidarity with others living with the same diagnosis (Corrigan, 2001). As such, additional work is needed to ascertain the differential influence of public and self-stigmas.

It is important to note that Link (1987), Corrigan and Watson (2002), and other leading scholars (e.g., Pescosolido, Martin, Lang, & Olafsdottir, 2008) situate their work by focusing specifically on the stigma related to mental illness; and while their efforts are helpful, these theoretical approaches do not speak to the experiences of persons who may actually need treatment, but have not sought help or received a formal diagnosis. As such, it is important to examine how stigma related to seeking psychological help, irrespective of diagnosis status, influences health outcomes. Tucker and colleagues (2013) addressed this tension by using factor analysis and regression tests to confirm that *mental illness stigma* and *psychological help-seeking stigma* were differentially associated with attitudes towards seeking help, thus challenging previous work that used the terms interchangeably. The current study attends to these concerns

by exploring how stigma related to seeking help for mental health treatment influences informal (e.g., friends and family) help-seeking behaviors. While recent studies have since shown that help-seeking stigma is associated with higher rates of distress and depressive symptoms and decreased likelihood of attending counseling or therapy (Call & Schafer, 2018; Jennings et al., 2015), it remains unclear how stigma functions in the lives of Black men, as more work is needed to explain the disparate rates of adverse mental health outcomes among members of this group.

Public Stigma and help-seeking behaviors

Stigma has generally been examined as a predictor of help-seeking behaviors among adults (Corrigan & Watson, 2002; Gitlin, Chernett, Dennis, & Hauck, 2012; Latalova, Kamaradova, & Prasko, 2014) and U.S. college students (Cheng, Kwan, & Sevig, 2013; Eisenberg, Downs, Golberstein, & Zivin, 2009; Vinson, Abdullah, & Brown, 2016; Vogel et al., 2011). These studies overwhelmingly support the notion that persons who endorse higher rates of self-stigma are less likely to seek psychological help when faced with a mental health concern (Cheng et al., 2013; Eisenberg et al., 2009; Fripp & Carlson, 2017; Heath, Brenner, Lannin, & Vogel, 2018; Tucker et al., 2013; Vogel et al., 2011). The findings are mixed as to whether public stigma directly influences help-seeking behaviors. For example, some cross-sectional investigations report no association between public stigma and psychological help-seeking behaviors (Brown et al., 2010; Eisenberg et al., 2009; Vogel et al., 2007). These findings align with a longitudinal study of college students where public stigma bore no relation to help-seeking behaviors at baseline or at the two-year follow up (Golberstein, Eisenberg, & Gollust,

2009). Instead, others suggest that public stigma influences perceptions of self-stigma, which in turn influences willingness to seek psychological help Vogel, Wade, & Hackler, 2007. This alternative model that examines self-stigma as a mediator between public stigma and help-seeking behaviors has been replicated in subsequent studies (Conner, Koeske, & Brown, 2009; K.S. et al., 2015; Kuhlman, McDermott, Kridel, & Kantra, 2018; Vogel, Wade, & Hackler, 2007; Vogel et al., 2011) and highlights the complex role of help-seeking stigmas.

It is increasingly difficult to ascertain how stigma influences help-seeking behaviors among Black Americans broadly— and Black men specifically— as few studies have conducted within-group analyses among Black samples, and even fewer have probed for potential gender differences. Some studies focus on the stigma and help-seeking experiences of Black adults broadly (Masuda, Anderson, & Edmonds, 2012; Obasi & Leong, 2009), or Black women specifically (Nadeem et al., 2007). As a result, the voices and lived experiences of Black men have yet to be centered within extant literature. For example, findings from studies inclusive of mixed gender Black samples purport that an inverse relationship exists between self-stigma and psychological help-seeking (Cheng et al., 2013; Fripp & Carlson, 2015). Similarly, increased rates of public stigma have been linked to less favorable attitudes towards seeking mental health treatment (Brown et al. 2010; Conner et al., 2009). Cross-racial investigations provide further evidence that suggests Black adults endorse significantly higher rates of stigma related to psychological help-seeking, as compared to their White counterparts (Conner et al., 2009; Latalova et al., 2014). In one departure from the existing body of research, Alvidrez and colleagues (2010) uncovered that concerns regarding medication, not stigma, predicted lower odds of enrolling in mental health treatment for Black men and women. It is, however, important

to note that this study included a small sample of 42 participants, as such the generalizability of the study's findings to larger samples is unclear. Nevertheless, the general consensus within this body of literature suggests that stigma operates as a pernicious force that ultimately impedes psychological help-seeking for Black adults who are in need of access to mental health resources.

While evidence exists that links stigma to decreased likelihood of seeking mental health treatment or formal psychological help, it remains unclear whether this association also exists when examining informal help-seeking behaviors, as much of the research exploring stigma has focused solely on formal help-seeking behaviors or mental health service use (Fripp & Carlson, 2017; Golberstein, Eisenberg, & Gollust, 2009; Vogel et al., 2007; Woodward, 2011). One recent investigation cites that college students are more likely to rely upon informal sources of help-seeking and support, namely their friends and other peers within the university setting (Kuhlman et al., 2018). The current study follows in a similar vein by interrogating the role of informal help-seeking behaviors (e.g., talking to family and friends) in the lives of Black men.

Help-seeking and adverse mental health outcomes

While research connecting Black men's experiences with stigma and help-seeking is limited, the literature on help-seeking and its relation to mental health outcomes is more robust. Similarly, it is important to note that much of the research exploring men's psychological help-seeking behaviors has focused on formal approaches to help-seeking through either traditional therapy or counseling services (Addis & Hoffman, 2017; Berger, Addis, Green, Mackowiak, & Goldberg, 2013; Call & Shafer, 2018; Vogel & Wester, 2003; Vogel, Wester, Hammer, &

Downing-Matibag, 2014). Results yielded from these investigations suggest that men who utilize formal help-seeking processes report lower rates of anxiety, depression, and suicidal behaviors compared to those who avoid treatment (Addis & Mahalik, 2003; Vogel et al., 2007, 2003). Studies also report that men are reluctant to receive clinical diagnoses and actively work against mental illness labels (Berger et al., 2013; Call & Shafer, 2018; River, 2018), thus making it more difficult to effectively identify and treat mental health disorders at the onset. As such, rates of adherence to mental health treatment among men remain relatively low (Addis, 2008; Addis & Mahalik, 2003; Substance Abuse and Mental Health Services Administration, 2015).

When working to determine best practices in psychological help-seeking among men, one study reports that men prefer talk therapy approaches over other options, and are hesitant to accept prescribed mood disorder or antidepressant medications (Berger et al., 2013). Since then, an updated qualitative investigation found that formal help-seeking patterns and activities for suicidal men were inconsistent and varied— with some men willingly adhering to therapeutic treatment and others agreeing to mental health services only after being treated for an unrelated medical concern (River, 2018). These findings align with recent work by Call and Shafer (2018) who uncovered that men were more likely to seek psychological help for depression from a medical provider instead of a mental health professional. Notably, each of the aforementioned studies included limited representation (e.g. <10%) of Black participants or men from other marginalized identities, thus underscoring the need for more diverse and flexible assessments of psychological help-seeking among members of underrepresented groups.

Further, descriptions of help-seeking become more complex when examining the sociocultural and contextual factors that shape the lived experiences of Black Americans. Some

studies have examined the influence of help-seeking behaviors on mental health outcomes among mixed gender samples of Black adults (Chatters, Taylor, Lincoln, & Schroepfer, 2002; Hays & Lincoln, 2017; Neighbors et al., 2007; Snowden, 2001; Woodward, 2011), while others have focused more specifically on Black adolescents and/or Black boys (Lindsey et al., 2006; Lindsey, Barksdale, Lambert, & Ialongo, 2010; Molock et al., 2007; Murry, Heflinger, Suiter, & Brody, 2011). These studies indicate that help-seeking is a complex and multifaceted construct that influences mental health outcomes among Black Americans via various mechanisms and pathways across the life course.

For example, Snowden (2001) affirmed that Black adults utilize formal psychological help-seeking approaches while simultaneously relying upon their informal networks of family and friends. These findings support later work that identified help-seeking profiles where most Black adults either utilized formal sources of mental health help-seeking, or sought help from both informal sources (e.g. family/friends) and primary care doctors together (Hays & Gilreath, 2017). A similar analysis determined that help-seeking class membership seemed to be largely influenced by rates of religious involvement instead of seemingly relevant demographic characteristics (e.g. age, gender, socioeconomic status (Hays & Lincoln, 2017). Both studies analyze data from a nationally-representative probability sample of Black adults, which offers some insights into generalizability of study findings. Alternatively, interviews and focus groups have also been used to account for more nuanced perspectives related to help-seeking and mental health among Black youth and adults in the U.S. (Avent, Cashwell, & Brown-Jeffy, 2015; Molock et al., 2007; Murray et al., 2011).

Findings derived from the qualitative reports indicate that while family and friends oftentimes serve as facilitators of mental health help-seeking behaviors, they are also likely to deter loved ones from seeking formal mental health treatment options (Molock et al., 2007; Murray et al., 2011) — largely as a result of shame, stigma, and ridicule. Instead, religious leaders (e.g. ministers, pastors) and church family members play critical roles within Black communities, as Black youth and adults oftentimes seek psychological help from those within their religious communities and of their particular faith traditions (Chatters, Taylor, Woodward, Bohnert, Peterson, & Perron, 2017; Chatters, Mattis, Woodward, Taylor, Grayman, & Woodward, 2011; Molock et al., 2007; Murray et al., 2011; Taylor, Woodward, Chatters, Mattis, & Jackson, 2011). Engaging in these forms of help-seeking appear to be less threatening and assuage concerns regarding fear, shame, and stigma related to psychological help-seeking (Avent et al., 2015; Murray et al., 2011). Though these investigations highlight the experiences of Black youth and adults, they do not explicitly address questions regarding gender differences in help-seeking behaviors among Black men and women. As such, a deeper examination of the unique factors related to Black men's lived experiences is needed.

Some researchers have, however, begun to examine matters related to help-seeking and mental health outcomes specifically among Black men (see Duncan, 2003; Hudson et al., 2018; Jacoby, Rich, Webster, & Richmond, 2018; Lindsey & Marcell, 2012; Mays, Jones, Cochran, Taylor, Rafferty, & Jackson, 2018; Woodward, Taylor, & Chatters, 2011). And when considering that Black men report low levels of treatment adherence (Mays et al., 2018), and are less likely than men of other racial groups to seek help for depression and other mental health concerns (Call & Shafer, 2018), it is particularly important to delve deep in working to eliminate

disparities in representation within extant literature. Current research demonstrates that Black men utilize mixed sources of support from family, friends, religious leaders, and mental health specialists when experiencing depressive symptoms (Hays & Gilreath, 2017; Woodward et al., 2011). Others have continued in the tradition of examining help-seeking sources and found that specific characteristics, like emotional control, are associated with lower odds of reaching out for help, irrespective of source or type of support (Scott, McMillen, & Snowden, 2015).

Experiences of medical mistrust also prevent many Black men from utilizing readily available avenues of help for physical and mental health concerns alike (Duncan, 2003; Hammond, Matthews, Mohottige, Agyemang, & Corbie-Smith, 2010; Hudson et al., 2018). This delay or lapse in time between recognizing a mental health concern and actually seeking psychological help can be consequential and is oftentimes precipitated by stigma, which has been recognized as a recurring (or persistent) barrier to seeking mental health treatment for Black boys and men (Lindsey et al., 2006; Lindsey, Joe, & Nebbitt, 2010; Samuel, 2015). Ward and Besson (2013), however, used interviews to uncover that the men in their study did not consider stigma as a barrier to treatment and instead seemed to hold favorable views towards seeking psychological help.

Conversely, recent focus group findings from Hudson et al., (2018) report that matters related to fears of being judged, social norms about manhood, and financial costs for treatment all hinder Black men from participating in psychological help-seeking. Much of the work specifically surrounding Black men's mental health help-seeking behaviors has used qualitative approaches (see Hudson et al., 2018; Jacoby et a1., 2018; Lindsey et al., 2006; Lindsey, Joe, & Neblett, 2010; Lindsey & Marcell, 2012; Samuel, 2015; Ward & Besson, 2013;Watkins &

Neighbors, 2007), and quantitative reports that include measures of stigma and help-seeking among Black men are sparse. As such, existing research has limited predictive power in working to uncover statistical associations between stigma, help-seeking, and adverse mental health outcomes (e.g. depression and suicide) in the lives of Black men. Moreover, applying diverse methodologies is necessary in order to effectively meet the unique needs of Black men.

A Call to Focus on Black College Men

Suicide is the 10th leading overall cause of death in the U.S., but has served as the 3rd leading cause of death for emerging adult Black males since 1995 (CDC, 2017). Similarly, rates of suicide death among Black boys has increased significantly over the past twenty years, though rates of suicide death among White boys have decreased during this same time frame (Bridge et al., 2015; Lindsey et al., 2019). Despite these disparate and compelling estimates, concerns regarding adequate representation of Black males in research persists. Moreover, the unique stressors that can emerge during Black college men's time on campus (e.g., hypervigilance, discrimination) may be harmful towards both their academic success and mental health (Brooms, 2017). These matters are of particular concern for Black men enrolled at Predominately White Institutions, as students are oftentimes forced to confront many painfully complex events and occurrences throughout their time on campus while still navigating responsibilities and relationships with family members at home (Watkins & Neighbors, 2007). In short, college serves as a critical social context worthy of exploration and deep assessment, and we as researchers should not presume that enrollment in college alone is enough to protect Black college men from facing serious mental health challenges.

As such, an insufficient amount of research has critically interrogated the interpersonal and psychological factors that contribute to mental health and suicidal behaviors among Black men across the lifespan. Furthermore, Black men's mental health experiences have been equated to or conflated with those of Black women. While previous studies have examined links between stigma and help-seeking (Addis, 2008; Berger et al., 2013; Vogel et al., 2007) and help-seeking and mental health outcomes (Hays & Gilreath, 2017; Hays & Lincoln, 2017), few have yet to consider that stigma and help-seeking behaviors are inextricably linked psychological facets that work in tandem to ultimately influence the mental health experiences of Black men. Moreover, studies have found positive associations between stigma and depressive symptoms, though it remains unclear whether stigma is directly associated with suicidality among Black men. The current study attends to these concerns by investigating whether help-seeking mediates the relationship between stigma and outcomes of depression and suicide ideation. Delineating this sort of information will allow researchers, clinicians, and practitioners to locate areas of perceived need, and will be helpful in attenuating the harmful and potentially far-reaching effects of stigma in this population.

Current Study

This study aims to uncover whether public stigma is deleterious in contributing to adverse mental health outcomes among Black men, while also assessing whether informal help-seeking mediates the relationship between stigma and adverse mental health outcomes. Existing research on Black men has either examined associations between stigma and help-seeking, or separate relationships between help-seeking and mental health outcomes. As such, a gap exists in

our understanding of the interplay between stigma, help-seeking, and mental health outcomes for Black men. This investigation intends to redress this gap by drawing from Corrigan and Watson's (2002) framework to determine whether public stigma is directly and indirectly associated with suicide ideation via depressive symptoms and help-seeking behaviors. Survey responses from 1,196 Black men who completed the Healthy Minds Survey in years 2007 – 2018 were evaluated within a cross-sectional design. Gaining additional insight into the direct and indirect pathways that are related suicide ideation will be helpful preventing the onset suicidal behaviors while also highlighting specific areas for recommendation and next steps. This study is guided by the following hypotheses:

H_1: Public Stigma will be directly associated with help-seeking, depressive symptoms and suicide ideation
H_2: Public Stigma will be indirectly associated with suicide ideation via help-seeking
H_3: Public Stigma will be indirectly associated with suicide ideation via depressive symptoms

METHOD

Procedure and Recruitment

The current study is a secondary analysis of data originally collected through the Healthy Minds Study (HMS) — a nationally representative survey that assesses college student mental health in the U.S. (Eisenberg, Hunt, & Speer, 2013). Each year surveys are administered online via email to both undergraduate and graduate students who are currently enrolled at private and public 4-year universities across the country. The HMS survey has also been made available to students attending community college and smaller liberal arts schools. As such, the recruitment process depends solely on the number of students currently enrolled at each institution. Random

sampling procedures are employed when the study body population is greater than 4,000. However, all students are invited to complete the HMS survey when the total school enrollment count is less than 4000. Three main modules that include information about mental health service utilization and help-seeking behaviors are included in every survey, though administrators can elect to have additional modules added to the surveys offered to students at their respective institution. Customizable packages are available to meet the specific needs of each institution. Costs are determined by 1) the total number of students currently enrolled and 2) the number of elective modules included in the final survey. Identifying school-level information is restricted, making this information unavailable in the public datasets.

Sample

Data were collected from students enrolled at 51 colleges/universities across the U.S. who participated in the 2007-2018 versions of the Healthy Minds Study. Students were required to be enrolled either part-time or full-time at one of the participating institutions in order to be eligible for the study. Those who completed the survey had the opportunity to have their name entered into a gift-card raffle as compensation. All participants were given an online mental health resource list. More than 150,000 students elected to participate in the study over the years. Of these, 1196 identified as Black/African American men and completed the modules of interest that were assessed in this study.

Measures

Perceived Public Stigma. Public stigma was assessed using two revised items from the Perceived Devaluation-Discrimination Scale (Link, Mirotznik, & Cullen, 1991). Items used in

the HMS survey were reworded to reflect concerns related to seeking help for mental health treatment (Eisenberg et al., 2009; Golberstein et al., 2009). All items were measured using a 6-point Likert scale with response options ranging from 1=”Strongly agree” to 6=”Strongly disagree.” Higher scores represent greater endorsement of stigma. Sample items include, “*most people would willingly accept someone who has received mental health treatment as a close friend*,” and “*most people think less of a person who has received mental health treatment*.” These measures of stigma have been used in previous studies with college students broadly (Golberstein et al., 2009), though these measures have yet to be examined specifically among Black college men.

Informal Help-seeking. Informal help-seeking was measured by one item that asked, “In the past 12 months have you received counseling or support for your mental or emotional health from any of the following sources?” Participants could select any of the following options: roommate, friend (who is not a roommate), significant other, family member, religious counselor or other religious contact, support group, other non-clinical source, and none of the above. While the first 7 options were select all that apply, the last option was mutually exclusive. As such, a dichotomous variable was created and coded to represent 1 = any informal support and 0= no informal support.

Depressive Symptoms. The Patient Health Questionnaire was used to measure depressive symptoms (PHQ-8; Kroenke, Spitzer, & Williams, 2001). Participants were asked to indicate how often they have experienced a series of symptoms within the last two weeks. Responses were captured using a 4-point Likert scale with options that range from 0= “Not at all” to

3=”Nearly every day. Sample items include, “Feeling bad about yourself, or that you are a failure or have let yourself or your family down,” and “Feeling down, depressed, or hopeless.” Some previous studies have used the PHQ-8 to measure depressive symptoms among mixed gender samples of Black Americans (Nicolaidis et al., 2013; Ward & Besson, 2013), though it remains unclear whether the PHQ-8 has been used to assess depressive symptoms in studies that focus specifically on Black men. The last item of the PHQ-8 has previously been used to measure suicide ideation, and in turn was not included in this analysis. The Cronbach’s alpha reliability coefficient for depressive symptoms using the first 8 items is $\alpha = .85$.

Suicide Ideation. Suicide ideation was measured using a revised question from the National Comorbidity Study (Eisenberg et al., 2013; Kessler et al., 2005) that asks: “In the past year, did you ever seriously think about attempting suicide?” Responses were coded 1=yes and 0=no.

Data Analysis

Structural equation modeling (SEM) was used to assess direct and indirect relationships between stigma, help-seeking, depressive symptoms, and suicidal behaviors among Black college men. SEM is beneficial in that it adjusts for measurement error among the latent and observed constructs while also estimating how well the proposed model fits the data (Kline, 2016). Further, SEM was used to test how each of the indicators for public stigma and depressive symptoms load onto the latent constructs before assessing relationships among key study variables. The mean-and variance-adjusted weighted least squares (WLSMV) estimator was used instead of the maximum likelihood (ML) estimator, as the indicator variables for the public

stigma and depressive symptoms measures are considered to be categorical and are not normally distributed (Bowen & Masa, 2015; Kline, 2016). RMSEA values ≤ .05, CFI and TLI values ≥ .95, SRMR values < .06, and non-significant χ^2 values were used to determine model fit (Hu & Bentler, 1999). Full information maximum likelihood (FIML) was used to handle missing data (Muthen & Muthen, 2017). Results from the measurement model (e.g. CFA) are presented in Table 2, while results from the structural model are presented in Figure 1. Structural equation modeling procedures were conducted using MPlus version 8.1 (Muthen & Muthen, 2017).

RESULTS

Measurement Model

Results from confirmatory factor analysis indicate that the model was a good fit to the data (χ^2 = 80.266, p= <.001, RMSEA=.035, CFI= .977, TLI= .969, SRMR= .039). Though the chi-square test was statistically significant, this specific measure is oversensitive to sample size (Hu & Bentler, 1999). Nevertheless, the four other fit indices were within the anticipated range and were used to assess model fit (Hu & Bentler, 1999). Loadings for each of the items ranged between 0.62 and 0.86, which is above the recommended minimum cutoff value of 0.40 proposed by Worthington & Whittaker (2006). The two latent factors representing perceived public stigma and depressive symptoms were positively correlated (r= 0.20, p<.001). No shared error was identified between any of the items. Values for each of the item loadings are provided in Table 8.

Structural Model

After assessing dimensionality of the perceived public stigma and depressive symptoms latent factors, tests of the structural model were then implemented to examine direct and indirect effects among key study variables. Again, the proposed model proved to be a very good fit to the data (χ_2 = 104.825, p= <.001, RMSEA=.031, CFI= .973, TLI= .964, SRMR= .039). Perceived public stigma was negatively associated with informal help-seeking (β = -0.11, p<.01). Conversely, a positive association emerged between perceived public stigma and depressive symptoms (β = 0.17, p<.001). Further, informal help-seeking was significantly associated with fewer depressive symptoms (β = -0.25, p<.001). And as expected, depressive symptoms was positively associated with suicide ideation ((β = 0.26, p<.01). Neither perceived public stigma nor informal help-seeking were found to be directly associated with suicide ideation. Additional information is presented in Figure 9.

Tests for indirect effects showed that perceived public stigma was indirectly associated with suicide ideation via depressive symptoms where a one-unit increase in perceived public stigma was associated with a 4.4% increase in the likelihood of suicide ideation via depressive symptoms (β = -0.44, p= .012, 95% CI = .015 - .073). The indirect effect from stigma to suicide ideation through informal help-seeking, however, was not statistically significant (β = .002, p= .192, 95% CI = .-0.002 - .006). Further, it is worthwhile to note that while the current investigation sought to assess the indirect relationship between stigma and suicide ideation, there were other statistically significant indirect effects that emerged from this analysis. For example, perceived public stigma was indirectly associated with depressive symptoms via informal help-seeking (β = .027, p= .020, 95% CI = .008 - .046). Moreover, informal help-seeking was

indirectly associated with suicide ideation via depressive symptoms (β = -0.065, p <.001, 95% CI = -0.093 to -0.093).

Alternative Model

As mentioned earlier, the current study analyzes cross-sectional survey responses. Thus, matters related to bi-directionality of the variables cannot be confirmed. Scholars propose that one effort to redress this problem is to conduct sensitivity analyses by changing the order of the variables in order to not only test whether the independent variable significantly predicts the mediating variable, but to also assess whether the mediating variable significantly predicts the independent variable (Kline, 2016). When testing an alternative model in the current study, informal help-seeking was treated as the primary independent variable, while perceived public stigma was entered as the (potentially) mediating variable. Depressive symptoms and suicide ideation were still treated as outcome measures. Fit indices derived from the alternative model (χ_2 = 101.717 p= <.001, RMSEA=.031, CFI= .972, TLI= .962, SRMR= .044) were nearly identical to fit indices generated from the original model. The only notable difference is that the SRMR value was slightly higher in the alternative model. Further, the indirect effect from informal help-seeking to suicide ideation via depressive symptoms was statistically significant (β= -0.106, p-value = .012, 95% CI = -0.090 to -0.034). Stated more clearly, having sought help from an informal source at any time within the past 12 months was associated with a 10% decrease in the likelihood of suicide ideation via depressive symptoms. The indirect effect, however, from informal help-seeking to suicide ideation via perceived public stigma was not statistically significant.

DISCUSSION

The present investigation sought to examine direct and indirect effects of stigma on Black college men's experiences with stigma, help-seeking and mental health outcomes. Study hypotheses were partially supported in that perceived public stigma was directly associated with depressive symptoms, but not with suicide ideation. Informal help seeking was also found to be negatively associated with depressive symptoms. Further, the indirect relationship between public stigma and suicide ideation via depressive symptoms was statistically significant. Thus, Black college men who endorse more perceived public stigma are likely to experience more depressive symptoms which, in turn, is associated with increased likelihood of considering suicide within the past year. Pertinent implications and considerations are delineated hereafter. In line with hypothesis one, perceived public stigma was linked to less informal help-seeking. Hence, the Black college men who endorsed more stigmatized beliefs about receiving mental health treatment were less likely to seek help from informal sources within their network (e.g., friend, family). This finding is particularly interesting to consider specifically within the context of university life, as one might assume that informal sources of support abound and are readily accessible. However, for Black college men enrolled at Predominately White Institutions (PWIs), this might not be the case. While other studies indicate that endorsement of public stigma is negatively associated with willingness to seek psychological help from a clinician or therapist (Clement et al., 2015; Corrigan, Druss, & Perlick, 2014; Vogel et al., 2007), the current study supports existing work by offering evidence which suggests public stigma is also linked to actual – and not just anticipated – informal help-seeking behaviors in Black college men.

Additional resources that offer students practical strategies in building strong and inclusive informal support networks could help in curtailing negative perceptions of stigma related to seeking help for a mental health concern. Moreover, it will be worthwhile for future studies to capture experiences of both informal and formal help-seeking behaviors, as one study found no significant relationship between perceived public stigma and formal mental health service use two years later (Golberstein, Eisenberg, & Gollust, 2009). Thus, more concerted efforts will be required in order to appropriately account for the role of both formal and informal help-seeking behaviors within the lives of Black college men.

Study findings also revealed that endorsement of perceived public stigma was significantly associated with more depressive symptoms. This result bolsters much of the previous research by affirming that stigma is not only related to help-seeking attitudes and behaviors (Brown et al., 2010; Fripp & Carlson, 2017; Masuda et al., 2009), but is also directly linked to some adverse mental health outcomes, like depressive symptoms. However, contrary to study hypotheses, perceived public stigma was not directly associated with suicide ideation. This finding contrasts with recent work by Goodwill and Zhou (2020) who report that a positive association exists between perceived public stigma and suicide ideation when testing this relation among a nation-wide and racially-diverse sample of over 150,000 college students. Other investigations report mixed findings when examining direct relationships between perceived public stigma and suicide ideation (Gaddis et al., 2018; Oexle et al., 2019). As such, these differential findings may be due to differences in sample foci (e.g., all college students versus Black men college students only) and inclusion of various covariates across the studies. More

work is needed to clarify, capture, and confirm the relationship between public stigma and suicidality overtime.

Another result yielded from the current report shows that informal help-seeking was negatively associated with depressive symptoms. This encouraging finding offers some hope in working to redress disparate mental health occurrences in Black college men. Other studies have separately examined the roles of informal help-seeking or support (Brooms, 2016, 2018, 2019) and depressive symptoms (Watkins, 2006; Watkins et al., 2007; Barry et al., 2018) in Black college men, yet this study sought to measure the relationship between these help-seeking and depressive symptoms and found that seeking help informally is significantly associated with fewer depressive symptoms. Future research should consider examining specific sources of informal help-seeking, as this study only accounts for the presence of any informal help-seeking within the past year. Notwithstanding this consideration, I am unaware of any other empirical study that has measured similar constructs among a sample of Black U.S. college men.

Hypothesis two was not supported, as perceived public stigma was not indirectly associated with suicide ideation via help-seeking. It is worthwhile to consider that a single binary item was used to measure past year help-seeking from informal sources. As such, this item captures the presence of informal help-seeking, and not the complexity of participant's interpersonal relationships. This may explain why no indirect effect was detected, and future measures of help-seeking should include more information describing unique features and characteristics of these informal relationships. The final hypothesis, however, was supported in that perceived public stigma was indirectly associated with suicide ideation via depressive symptoms. This means that Black college men who endorsed more public stigma may experience

more depressive symptoms, and in turn are more likely to experience suicide ideation. Longitudinal data points, however, are needed to confirm directionality of the proposed paths in this model. Nevertheless, the connection between these variables offer a new contribution to the literature by noting an indirect link exists for Black college men between endorsement of public stigma and past year suicide ideation through depressive symptoms. Furthermore, the implications of this work suggest that if Black men enrolled in college who are thinking of ending their life are experiencing more depressive symptoms and endorse stigmatized views of seeking psychological treatment, then both suicide prevention and depression treatment interventions must account for the influence of stigma on psychological wellbeing.

Several studies have already recognized stigma as a barrier to seeking professional mental health treatment (Avent et al., 2015; Berger et al., 2013; Golberstein et al., 2009; Molock et al., 2007; Murry et al., 2011; Rush et al., 2005), and results from this investigation build upon earlier research by showing that public stigma may prevent Black college men from seeking support from those within their informal networks. Consequently, stigma herein should be recognized as a toxic stressor that could potentially impede psychological well-being. Therefore, social workers and psychologists employed at campus counseling centers should be prepared to address the complex nature of stigma specifically in their direct work with students. Similarly, university administrators, faculty, and staff should also consider how the expectations and culture at their specific institution may intentionally or unintentionally reinforce negative beliefs about student success and norms around help-seeking. Perceived public stigma appears to be a macro level impediment that becomes more salient and reaches young people at one of the most critical times of their lives (e.g., emerging adulthood, time in college). Thus, future research will

benefit from exploring linkages between stigma, depression, and suicidality among Black men more closely.

Additional consideration should also be given when assessing how findings from this study either align or diverge from existing theoretical approaches. For example, Corrigan's work on public and self-stigma (Corrigan, 2000; Corrigan & Watson, 2002; Corrigan et al., 2005) makes no direct mention of race and gender within the context of stigma of mental illness. Similarly, Link and Phelan (2001) propose that "labeling, stereotyping, separation, status loss, and discrimination" make up the core tenets of stigma, and that stigma is a direct by-product of structural and systemic forces of power (p 363). Despite these amenable assertions, the authors do not situate their work in race or gender-based anthologies that might be more relevant and applicable to members of historically overlooked and systematically stigmatized communities. In view of this, Gary (2005) introduced *double stigma* (not to be confused with King's 1988 *multiple jeopardy*), to recognize and make way for understanding some of the unique features of mental illness stigma specifically among people of color, though reflections describing the influence of gender are absent. The Framework Integrating Normative Influence on Stigma (FINIS; Pescolido et al., 2008) may be revered as one of the most inclusive and comprehensive approaches, as their model specifically recognizes race or ethnicity alongside age, class, and socioeconomic status as important "social characteristics" that influence mental illness stigma at the individual level. Even still, the interplay – and not just the mention of— both race and gender is not accounted for in the FINIS model and has largely been neglected in stigma conceptualization and theory.

In contrast, several researchers have already empirically examined differences across race and gender when measuring stigma and help-seeking behaviors (Brown et al., 2010; Cheng et al., 2013; Conner et al., 2009; Fripp & Carlson, 2017; Masuda et al., 2009; Snowden, 1998; Woodward, 2011). However, what remains unclear are the theoretical underpinnings and conceptual frameworks that generate insights which help explain *why* and *how* stigma may differentially impact persons from underserved or marginalized groups. Thus, one of the major theoretical oversights in this area of research is the lack of attention given to positionality and identity. Current theoretical models must be revised, updated, and reconfigured to meaningfully consider how race, gender, and other social positionalities influence one's experiences when navigating the stigma and help-seeking process. In this we see that despite offering notable contributions that span interdisciplinary fields, existing theories do not collectively account for gendered *and* racialized expectations and values related to stigma of experiencing a mental illness or seeking psychological help. Thus, researchers, clinicians, and interventionists would be remiss to further overlook the potentially heightened stigma Black men, and persons representing other understudied groups, may experience when facing a mental health concern.

Limitations

There are a number of limitations to consider when interpreting results from this investigation. First, a single item was used to measure past-year informal help-seeking behaviors. This is not ideal, as the dichotomous nature of the single item does not capture the strength nor the quality of young Black men's social relationships. Next, this study focuses on the role of perceived public stigma and does not measure the effect of self-stigma of receiving mental health

treatment. Existing research denotes an important relationship exists between public and self-stigma (Vogel et al., 2007; Latalova et al., 2014), though a measure of self-stigma was not available in this dataset. Third, the current investigation analyzes cross-sectional survey responses; directionality and/or causality cannot be confirmed. Future studies should indeed test relationships among the aforementioned variables overtime.

Fourth, the items that comprise the perceived public stigma question do not specify who respondents are referring to or thinking about when answering each question. As it stands, the current items ask participants to describe how "most people" view seeking treatment for a mental health concern. One potential next step would be for researchers to revise the question stem so that it captures a more specific attribution of "most people" (e.g., family or friends). Gaining additional insight into Black college men's attributions will be an important aspect for moving this area of research forward. Lastly, this study considers the experiences of Black college men who were enrolled at Predominately White Institutions (PWIs). A critical point of future direction will be for researchers to examine whether Black college men's experiences with perceived public stigma, help-seeking, and mental health outcomes varies by contextual factors such as region or institution type (e.g., PWI versus HBCU).

Next Steps

Employing different methodological approaches will offer more information about Black college men's experiences of stigma and help seeking. For example, implementing a person-centered (Lanza & Rhoades, 2013) technique like latent class analysis could be beneficial in detecting underlying patterns of help-seeking trends among study participants. Similarly, directly

asking men through who they seek, offer, and receive help from when faced with mental health concerns could also prove fruitful in working to gain a more granular understanding of Black college men's experiences with mental health help seeking. One-on-one interviews and focus groups seem like particularly promising qualitative tools that should also be considered. In one study researchers compared results generated from in-depth interviews and focus groups among a sample of 350 Black American men and found that more sensitive information reflecting participants' history of sexual abuse was discussed in focus groups only and did not arise during the individual interviews (Guest, Namey, Taylor, Eley, & McKenna, 2017). Thus, further consideration should be given to considering which approach would be most beneficial within the context of suicide-related research. Another area worthy of future inquiry may include assessing the relationship between stigma and masculinity, as these matters have already been examined among mostly White samples (Boysen, 2017; Levant et al., 2013), but have not yet been extended to consider the experiences of Black men. Taken together, each of the aforementioned options could be pursued in effort to enhance future research tied to Black men's understanding of stigma, help-seeking, and mental health.

Conclusion

Findings yielded from this investigation reveal both direct and indirect relationships between stigma, help seeking, depressive symptoms, and suicide ideation among Black college men. The current study contributes to extant literature by establishing a link between perceived public stigma of seeking mental health treatment and adverse mental health outcomes. Some related research focuses primarily on stigma attitudes and help-seeking behaviors, though few

studies investigate the link between stigma and depression and/or suicidality. The indirect association from perceived public stigma to suicide ideation via depressive symptoms is particularly concerning, as it suggests that stigma may be more harmful than we think. Moreover, it appears that those who endorse more public stigma are the students who likely need additional support and mental health care. Thus, colleges and universities should be prepared to offer tailored services that take into account the unique contextual factors and social expectations surrounding stigma and help-seeking that could hamper Black college men's psychological well-being throughout their time on campus and beyond.

Table 7. Participant Demographics for Study 2

	M or (%)	SD or (N)	Range (if applicable)
Degree Program			
Associate Degree (2-year)	9.28%	111	
Undergraduate (4-year university)	71.99%	861	
Graduate or Professional Degree	14.72%	176	
Sexual Orientation			
Heterosexual	83.70%	1001	
Bisexual	2.26%	27	
Gay	6.52%	78	
Questioning/other	1.51%	18	
Ever Diagnosed with a Mental Illness			
Yes	12.71%	152	
No	87.30%	1044	
Perceived Public Stigma	3.37	1.14	1-6
Past Year Informal Help-seeking			
Yes	44.35%		
No	55.65%		
Depressive Symptoms	5.96	5.16	0-27
Past Year Suicide Ideation			
Yes	8.84%		
No	91.16%		

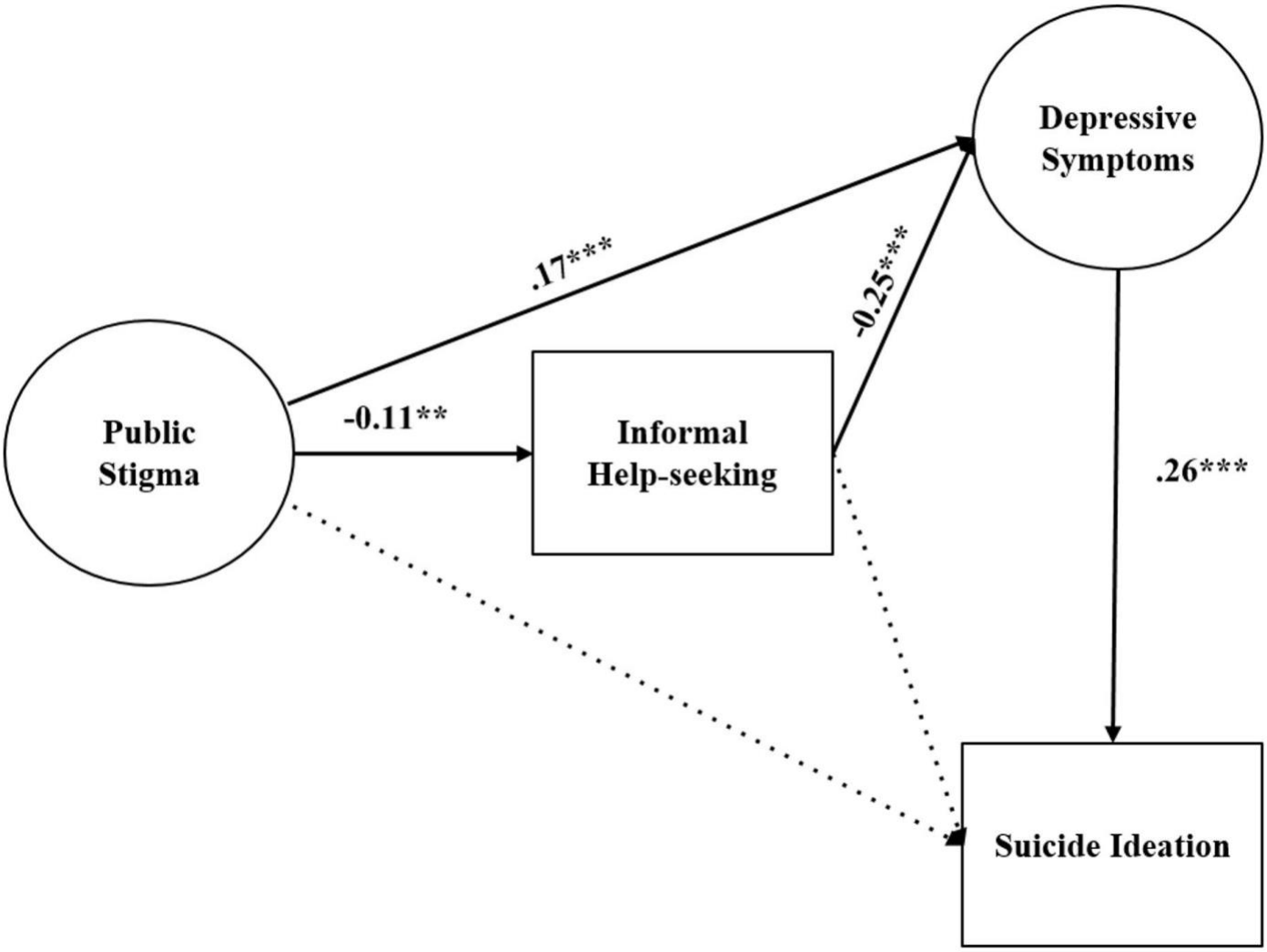
Note: totals may not add to 100% or 1196

Table 8. Measurement Model Results: Factor loadings for latent variables

	Standardized Estimate	SE
Perceived Public Stigma		
1. I hate it when people ask me to talk about my feelings	.86*	.11
2. I bring up my feelings when talking to others (RS)	.66*	.09
Depressive Symptoms		
1. Little interest or pleasure in doing things	.72*	.03
2. Feeling down, depressed, or hopeless	.86*	.02
3. Trouble falling asleep, staying asleep, or sleeping too much	.67*	.04
4. Poor appetite or overeating	.73*	.03
5. Feeling tired or having little energy	.71*	.03
6. Thinking that you would be better off dead or that you want to hurt yourself in some way	.78*	.03
7. Feeling bad about yourself, feeling that you are a failure, or feeling that you have let yourself or your family down	.71*	.03
8. Trouble concentrating on things such as reading the newspaper or watching television	.62*	.05

*represents statistically significant loadings at $p \leq .001$

Figure 9. Structural Model



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Chapter 4 Who Do Black College Men Look to For Social Support? A Qualitative Analysis

Recent data from the National Center for Education Statistics reports that only 34% of Black men who begin a bachelor's degree at a 4-year university actually go on to complete the degree within six years (U.S. Department of Education NCES, 2019). This rate of undergraduate degree completion is lower than every other race and gender group in the U.S. (Figure 10; U.S. Department of Education NCES, 2019), and signals a need for greater focus on the academic, environmental, and interpersonal factors that may contribute to student well-being and academic success. These estimates, however, are not new, as scholars have long raised concern over the low retention rates of Black men in post-secondary education (Harper, 2006; Palmer, Wood, Dancy, & Strayhorn, 2014). A growing body of literature has developed over the past 20 years that focuses specifically on the experiences of Black collegiate men (Harper, 2014; Harper & Newman, 2016).

Researchers have critically examined the roles of peers (Jackson & Hui, 2017; Strayhorn, 2008), faculty (Brooms & Davis, 2017), and on-campus student organizations (Brooms, 2018; Jackson, 2012) as key sources of support for Black male students. Findings from these queries indicate that each of the aforementioned sources positively contribute to students' sense of belonging and connection with others. However, despite these laudable contributions— it remains unclear if other sources of support also offer viable benefits that may help improve Black college men's mental health and academic achievements. Similarly, the circumstances and

events in which Black college men describe needing social support is not well understood. Thus, the current study aims to rectify these concerns by analyzing interview responses collected from 27 Black men enrolled at a Predominately White Institution (PWI) in the Midwest. The primary research questions assessed in this study focus first on Black college men's sources of social support, followed by their descriptions of the circumstances and events in which they report receiving or needing help from others. Suggestions for intervention and future research with Black collegiate men are provided.

Social Support Defined

When considering that social support is one of the most commonly studied constructs across the social science disciplines (Williams, Barclay, & Schmeid, 2004), definitions and conceptualizations of the term vary (Streeter & Franklin, 1992; Thoits, 1982). As such, the current study draws from scholars like Cohen and Syme (1985) who characterize social support as, "...the resources provided by other persons" (p.4). The authors argue that using this approach to defining social support allows for consideration of both the positive and negative aspects that occur during our interactions with other people (Cohen & Syme, 1985). Conversely, other theorists propose more structured and detailed definitions of social support, like Thoits (1982) who draws from Kaplan (1977) and asserts that social support should be conceptualized as, "the degree to which a person's basic social needs are gratified through interaction with others" (p. 147). Thoits (1982) outlines two overarching and overlapping domains of socioemotional and instrumental aid which represent both the interpersonal and material supports offered by others. Thoits (1982) suggested that an individual's social support system consists of anyone who offers either form of aid, irrespective of their biological or relational connection to the individual.

Related definitions and models highlight the importance of social support from childhood to the end of life (Antonucci, 1985; Kahn & Antonucci, 1980), and also recognize social support to be a key contributor to health and well-being across the lifespan (Cohen & Wills, 1985; Albrecht & Goldsmith, 2003). Notably, some of the applications of some social support theories have been examined among samples of Black adolescents (Rogers & Way, 2018; Way, 2011), adult Black men (Mattis et al., 2001; Watkins & Jefferson, 2013), and older Black adults (Chatters, Taylor, Woodward, & Nicklett, 2015; Nguyen, Chatters, Taylor, & Mouzon, 2016; Taylor, 1985). However, less is known about the specific individuals Black college men identify as pertinent sources of social support. Therefore, this investigation uses qualitative interviews to explore Black college men's descriptions of social support. While the current study was not designed to test any of the previous theories, existing definitions and conceptualizations of social support are presented here for conceptual clarity and understanding.

Existing research on social support among Black college men

Much of the existing research acknowledges peers to be among the most influential sources of social support for Black college men (Brooms & Davis, 2017; Druery & Brooms, 2019; Harper, 2007; Jackson, 2012; Jackson & Hui, 2017; Strayhorn, 2008). Whether it be through fraternity membership or joining an on-campus student organization, peers— and in particular other Black male peers— appear to be notable figures in the lives of Black male students. Indeed, "brotherhood"— or emotional connections made with Black male peers— is paramount to Black undergraduate men's well-being and success (Druery & Brooms, 2019). Druery and Brooms' findings align with ethnographic work that also centers the role of brotherhood as a key source of social support for Black college men (see Jackson, 2012).

Through prolonged field engagement, Jackson (2012) found that creating a sense of brotherhood was a vital force that allowed Black male members of a student organization to feel connected to one another. Moreover, establishing meaningful relationships and strong ties with other Black male students across campus served as the primary focus of this student organization (Jackson, 2012; Jackson & Hui, 2017). As such, groups like the one described by Jackson et al., (2012, 2017) create spaces for Black college men to bond and express vulnerability in ways that defy traditional race and gender norms (Druery & Brooms, 2019; Brooms & Davis, 2017).

Other studies describe Black Greek Letter Organizations as groups that have historically offered Black male students opportunities for support, connection, community, and accountability (Harper, 2007; Harper & Quaye, 2007). Though fraternities are largely considered beneficial spaces where Black college men go to receive support, some scholars have critiqued Black fraternities as spaces that either promote harmful and antiquated ideas surrounding manhood and masculinities or that hinder the deconstruction of such ideas (Dancy, 2011; Dancy & Hotchkins, 2015; McClure, 2006). Nevertheless, studies show that student group or fraternity membership helps students feel more connected to campus and increases their feelings of self-efficacy and esteem (Harper, 2007; Harper & Quaye, 2007; McClure, 2006). Further, being involved in a campus group can help ease the transition from high school to college (Brooms, 2018; Harper & Quaye, 2007; Strayhorn, 2008). Matters tied to the transition to college are particularly important to consider within the context of first-year Black collegiate men who may struggle to navigate the new demands and requirements of life in college (Harper & Newman, 2016). As such, a deeper examination of the Black college men's sources of social support is required.

In addition to receiving support from peers and student organizations, some scholars have also considered the role of family support in the lives of Black college men (Palmer, Davis, & Maramba, 2011; Simmons, 2019). In one example Palmer and colleagues (2011) interviewed Black males enrolled at a public HBCU and found that participants described relying on their mothers and on extended family members for emotional support and guidance. Similar patterns of receiving social support from families were detected among other samples that focused on students of color (Palmer, Maramba, & Holmes, 2011) and Black college students more broadly (Guiffrida & Douthit, 2010). Nevertheless, the number of investigations that assess the role of family support among PWI-enrolled Black men are scant (Palmer et al., 2011; Simmons, 2019), particularly when compared to the number of investigations that assess the roles of peer and student organization-affiliated forms of social support. Thus, the current study builds upon previous work by exploring specific sources of social support among Black college men, while also considering the circumstances and events in which Black college men describe needing help from the people within their social networks.

Current Study

While existing work has identified social support as a key component of both psychological well-being and academic success, we still do not know exactly which sources of social support are most salient to Black college men. Therefore, this investigation builds upon previous research by examining the specific sources of social support described by 18 to 30-year-old Black males enrolled at a PWI in the Midwest. The following research questions were used to guide the analyses:

RQ 1: From whom do Black college men receive social support?
RQ 2: For what circumstances or events do Black college men describe receiving or needing support?

Identifying who Black college men recognize as key sources of support will be helpful in creating spaces and resources that are more inclusive and sensitive to the unique needs of this population. These efforts could be helpful in improving services and clinical practice with young Black men that is both culturally-relevant and gender-specific (Watkins, 2012; Watkins, 2019; Watkins et al., 2017; Watkins, Walker, & Griffith, 2010). Further, recognizing both the sources of support and circumstances and events when Black college men need social support will offer additional insight into areas for intervention that have direct implications for young Black men's relationships with others before, during, and after college.

METHOD

Sample and Procedure

Data for this study were collected from 27 men who participated in the 2017 cohort of a larger intervention— the Young Black Men, Masculinities, and Mental Health (YBMen) Project (Watkins et al., 2017). The YBMen Project delivers psychosocial education material to participants within the confines of a private Facebook group. In doing so the intervention aims to foster opportunities for mental wellness and social support while also promoting less rigid ideas surrounding manhood and masculinities (Watkins et al., 2017). All participants in the 2017 cohort were enrolled as students at a large PWI in the Midwest. Recruitment occurred through working with the campus multicultural center, attending campus events geared towards Black college students, and sending emails through the university registrar. Snowballing techniques

were also used, as some participants would encourage their friends and classmates to consider enrolling in the study.

The following criteria were required to be met in order to be considered eligible for participation: (1) be 18 to 30-years-old; (2) identify as a Black/African American man; (3) be currently enrolled as either an undergraduate or graduate student at a participating institution; and (4) never have been diagnosed with a mental health disorder. The fourth criterion should be considered within context, as the YBMen Project does not offer online psychotherapy, nor does the intervention function as a clinical trial. Instead, the YBMen Project is designed to reach those whose symptoms have not yet reached clinical severity, yet could still benefit from being connected with others. Twelve interviews were conducted in-person and captured using an audio recorder, while the remaining 15 interviews were conducted using videoconferencing software. Interviews last on average 30 minutes and all participants received $15 as compensation for their willingness to participate in the study. Importantly, this study interrogates pre-test interview responses only and does not focus on any aspect of the intervention, though details describing the intervention are provided elsewhere (see Watkins et al., 2017).

Researcher stance and reflexivity

My ontological worldview and epistemological stance most closely align with the constructivist (or interpretive) paradigm, which asserts that "knowledge is constructed through lived experiences" (Lincoln, Lynham, & Guba, p.102, 2011). Interactions between researchers and participants are rich, knowledge-generating encounters where study findings are interpreted through participant perceptions of subjective realities (Charmaz, 2008; Guba & Lincoln, 1994;

Lincoln et al., 2011). My worldview shapes not only who I am, but also informs the way that I understand, design, and analyze both qualitative and quantitative research questions (Staller, 2013). Following the constructivist/interpretive tradition, practices like reflexivity and debriefing were implemented to ensure that my biases are addressed during both the study development and data analysis phases (Berger, 2015; Creswell & Miller, 2000).

I was also mindful of power dynamics when working with community partners and study participants (Creswell & Miller, 2000; Guba & Lincoln, 1994). As such, our research team intentionally sought feedback and recommendation from our campus partners for feedback on the questionnaire, along with guidance regarding recruitment strategies and techniques. Matters tied to power were addressed with participants by first sharing at the beginning of each interview that we as the research team view them as the experts of their own stories and experiences (Watkins et al., 2017). In doing so the interview process was framed as an opportunity for members of the research to learn from the participants (instead of the other way around). Further, we ended each interview by asking participants if there were any other topics or issues that we did not cover, but were still important to young Black men's experiences with mental health, masculinity, and social support. Directly asking participants what we missed in the interview invited them to give us feedback about areas that we should be sure to include in future iterations of the study. It also created opportunities for us to hear what topics they view as central to our understanding of their lived experiences. In that same vein, we also asked participants during the post-test interview to share which aspects of the study they found to be most or least helpful. This approach has been used since the first iteration of the intervention that occurred in 2014,

and participant feedback has been implemented in different areas of the YBMen Project since that time (see Watkins et al., 2017).

I situate myself in this work as a young adult, heterosexual Black woman working towards earning a doctoral degree in social work and psychology. At the time of data collection, I was intimately involved with this project; I served as the project manager for data collection at this site and conducted 10 of the 27 interviews analyzed for this study. I also earned my undergraduate degree at the same institution where these data were collected. While this occurrence afforded me a particular level of familiarity with the campus and university structures, I still recognize that my experiences as a young adult Black woman cannot and should not be conflated to be considered analogous to those of young Black men. My own privileges and positionality in coming from a middle-class, single-parent household with one parent going on to earn an advanced degree both aligns and diverges from some backgrounds represented among the men in this sample. I suspect that my age and seemingly young appearance may have potentially allowed participants to feel that I was approachable, though I cannot be sure of this. I was, however, careful to dress in casual clothing and to avoid sharing details about my current educational status during interactions with participants. As such, I would often refer to myself as a member of the research team instead of a PhD student, in an effort to avoid reifying hierarchy in the interviewer-interviewee relationship. There were also times when participants would refer to me as “miss” or “ma’am.” In those instances, I would thank participants for their intention to show respect towards me and would instead welcome them to simply call me by my first name. None of the other interviewers were involved in the data analysis for this study. However, it is worthwhile to mention that all interviewers were Black or African American men and women

who were between 26 and 30-years-old at the time of data collection. Five interviewers were doctoral students, while the two other interviewers were project staff members. We did not conduct gender-concordant interviews, as three of the interviewers were women and three were men. The interview guide is available in Appendix A.

Data Analysis

Twenty-seven interviews were analyzed using the Rigorous and Accelerated Data Reduction (RADaR) technique (Watkins, 2017). This analysis technique has been used in previous studies with Black college men (Goodwill, Anyiwo, Williams, Johnson, Mattis, & Watkins, 2019; Goodwill, Watkins, Johnson, & Allen, 2018; Watkins, Green, Goodson, Guidry, & Stanley, 2007; Watkins & Neighbors, 2007; Watkins et al., 2017), and calls for a team-based approach when analyzing qualitative data (Fernald & Duclos, 2005; Guest & MacQueen, 2008). As such, two undergraduate research assistants joined me in this work, and together we meet weekly throughout the 2019-20 academic year. Preliminary steps that must occur before analyzing the data include training the two undergraduate research assistants in qualitative analysis. Members of the analysis team also reviewed the audio and video-recorded interviews in efforts to "become one with the data" (Watkins, p.2., 2017).

Step 1 of the RADaR technique calls for formatting all transcripts in uniform fashion so that relevant information is organized and easy to interpret. This includes making sure that the interview date, time, length, and participant ID number are all readily available and accessible in the header of each transcript. All interviews were transcribed by an outside professional transcription company and checked by an internal member of the YBMen team for consistency.

In Step 2 data from the transcripts were moved to an "all-inclusive" table created using Microsoft Excel (see Figure 1). This all-inclusive table is considered as the Phase 1 data reduction table and includes relevant column titles that describe the participant ID number, data collection time point, text chunk, notes, and open codes (see Figure 1). It is also during Step 2 where the overarching research question is placed as a header at the top of the page.

During Step 3 any data that did not align with the overarching research questions were removed, thus producing the Phase 2 data reduction table. At this point an inductive coding process was employed to associate meaning and assign labels to text chunks (Braun & Clark, 2006; Charmaz, 2006, 2008). Here I drew from concepts outlined in applied thematic analysis (Guest, MacQueen, & Namey, 2012) to develop open codes, meaning that all codes were derived from text in the data and were not decided upon a priori (Strauss & Corbin, 1990). While generating open codes from the dataset, a codebook was also developed in order to help systematically guide the team-based coding process (Figure 2). We developed the codebook using guidelines proposed by Guest, Bunce, and Johnson (2006) who suggest that the codebook include the following details: code, definition, when the code should be applied, when the code should not be applied, and an example quotation from the text. From there a systematic coding scheme was used where inter-rater agreement of codes was determined by dividing the number of coding agreements by the number of agreements + disagreements (Miles & Huberman, 1994). The analysts practiced coding with a small subset of the interviews (n=5) and achieved 88% reliability before moving forward to ensure that concerns regarding rigor and consistency are upheld (Miles & Huberman, 1994). This iterative process of analyzing text chunks and assigning corresponding codes occurred throughout Step 4 until the table only included information that

directly answered the overarching research questions. In Step 5 a review of the final data reduction table was used to develop themes based on codes that were identified beginning in Step 3. Here open codes were grouped and organized into larger related categories, or themes (Guest et al., 2012). These themes were, in turn, used to explicate the sources of social support for Black college men in this sample. At that point exemplar quotations were selected and are herein represented in this report.

Following the constructivist paradigmatic traditions, reliability, credibility, transferability, and trustworthiness of data were considered using techniques like reflexivity and peer-debriefing procedures (Berger, 2013; Creswell & Miller, 2000; Guba & Lincoln, 1994; Lincoln et al., 2011). Moreover, in an attempt to circumvent issues of power amongst the coders, inter-rater agreement was used instead of the group consensus model, as I coded the data alongside two undergraduate Black women who worked as volunteer research assistants on this project. Both students were new to qualitative data analysis, and a large portion of our work together included me training them in qualitative analytic techniques. Thus, if the consensus approach to coding was applied, then the two undergraduate students may have felt pressured to adhere to whatever I, as the lead author, proposed as the appropriate code for a particular text chunk. Indeed, I recognize that it is impossible to completely remove all traces of power in my interactions with the undergraduate students that I supervise. Nonetheless, for the reasons stated here, using an informal measure of inter-rater reliability seemed most appropriate for the current investigation. In total 6 themes and 28 codes were extracted for the first research question, while another 7 themes and 25 were extracted for the second research question.

RESULTS

The first research question (RQ 1) in this study examined who Black college men look to for social support. Responses to this research question were organized into 6 themes; 1) on-campus faculty, staff, and mentors; 2) teachers and coaches from high school; 3) community and campus student organizations; 4) peers; 5) the women in their lives; and 6) family members. The second guiding research question (RQ 2) focuses on the circumstances and events during which Black college men describe receiving and needing support. These responses were organized into 7 themes: 1) material support; 2) academic achievement in high school and preparing for college; 3) navigating relationships with family and friends; 4) experiences of discrimination; 5) manhood, emotions, and identity development; 6) adjusting to college life; and 7) depression and other mental health concerns. Exemplar quotations that represent each theme are described below, as responses to the first research question are assessed in the next section.

Themes for RQ 1: From whom do Black college receive social support?

On-campus faculty, staff, and mentors

University faculty, staff, and campus mentors were recognized as sources of social support for the Black college men in this sample. This is evidenced by Nick who said, “I always had a strong support system with my family. But, you know, on campus I have friends and I've acquired mentors… and some professors actually.” Interestingly, whenever faculty were mentioned in other interviews, it was always alongside other sources of social support, as no participants spoke directly about support received from professors alone. For example, Micah

mentioned, “[I received social support from] just older black students, also just some black faculty too.”

Lucas shared,

> So, of course, my parents. They’re the number one people…but besides that, I would say…the other minority students here, as well as well as some of the professors and some of the extracurricular activities you can join here. They really reach out and, like, provide all types of aid that helps us better ourselves…

These responses from participants suggest that Black college men do look to faculty, staff, and on-campus mentors for social support, though participants did not share specific stories about receiving support from these on-campus sources, and instead listed them in conjunction with other resources.

Teachers and coaches from high school

Teachers undoubtedly go beyond offering curriculum development and instruction alone, and instead have the ability to shape student’s experiences both within and outside of the classroom. One participant, Zion, mentioned that, in many ways, his high school teachers became his friends. Zion states,

> When I first got into high school I needed some support…because I went to a big high school. It was like, huge [with] a lot of people. I've always been in small circles…so that was kind of an adjustment. But, for that I actually talked to my different teachers. I became friends with my teachers first before I made actual friends. And, that kind of helped because they were just like, "We see it all the time. We understand. You know, take your time. You don't have to take it all in at once. Just take it piece by piece." And I feel like that also helped me once I got here [to college] to an even bigger space.

Jaden continued in a similar vein when speaking about the support he received from a high school coach. He said,

> I've had a lot of social support. I'm a state champ in [specific sport removed]. I won my sophomore year. So, my coach, he was a White man, but he's always been around black people. He always told me, "Let me know if you ever need anything. I can always help you out."

Seeing college students draw from and reflect upon previous experiences they had during high school reiterates the importance of connectivity with teachers, coaches, and other school staff during emerging adulthood. Zion's teachers normalized the help-seeking seeking process for him, which appeared to ease the tension during transition to high school. It is also interesting that Jaden explicitly mentions that his coach is a White man, as some may assume that Black college men's sources of support are only other people of color. On the contrary, Jaden's experience in high school shows that Black males are receiving social support from a wide range of sources.

Community and campus student organizations

Another important source of social support for the Black college men in this study were community and campus student organizations. These groups foster opportunities for students to build relationships with others. Zion— an undergraduate student studying engineering— shares his experience as a member of the National Society for Black Engineers by stating,

> The main [group] I'm part of is NSBE, the National Society of Black Engineers. That sense of family that we have, it's just awesome, especially when you're in engineering classes, and you're the only Black person that you really see…and then you go outside of the class into this big space where there's a lot of Black people who are also studying engineering, and…it really helps. Plus, with NSBE it's not just [at this university]. It's literally a national organization…so when we go to conferences and stuff, seeing other people who look just like me, in the same field as me, understanding [the] struggle... it really helps.

Having a designated space that is specifically for Black engineering students appears to be a critical source of support for Zion, as he describes this group as having a "sense of family."

Along those same lines, Micah reflected upon his experience in a Black fraternity/Black Greek Letter Organization when saying,

> I can definitely say for me, most of my social support would be from talking with my mom, or talking to the fraternity. When I was talking to older [guys in the fraternity], it's kind of, they've kind of already been through college, been through the whole thing so they can just talk about their experience and they can help you along the way.

Student organizations were mentioned by both undergraduate and graduate students alike. When asked about his sources of social support on campus, Andre shared,

> I think for me, um, we have this organization here [for Black graduate students]. And from there, I was able to meet, like, a really good, sort of, like, strong, core group of friends… We go out together or we watch games together, things like that. So, I think, I found [support] mostly through that organization and just made connections with people who were similar to me. And that kind of just blossomed from there.

Sense of community, relationship building, and connection to others appear to be key benefits made available to students who become members of student groups. Further, the opportunity to meet other students from the same race group and academic major/professional trajectory seem particularly beneficial to Black college men.

Peers

The next theme is closely to student groups or campus organizations and focuses specifically on the role of peers for Black college men. Here Elijah shared that one of his childhood friends who is now his college roommate supported him when he was experiencing a bout of depression. Elijah mentions that his experience with depression got better because of the support he received from his friend. He explains,

> I would probably say it is because of my friends. My best friend… I've known since seventh grade. In middle school, I started realizing that I was getting bullied, and so I

> only really had one friend for real…and that was him. And due to the bullying and stuff, I just closed up. That's, where the sadness really came from…and then he was there to have my back…so, he, knows when I'm down or something. He also goes here [to the same college], and he knows when I'm down. He can hear it in my voice, or he can sense the demeanor.

The level of intimacy developed throughout years of friendship is evident, as Elijah notes that his friend simply "knows" when something is wrong. This act of "knowing" and receiving both tangible and emotional forms of social support is reflected in Derrick's response where he says,

> I'm trying to think of types of social support actually because I always go to my friends for anything that I need. Whether it's help on homework, just need a hug or something like that, I always go to my friends…

While some students reflected on the strong ties they have with close friends in their networks, other students discussed the potential consequences of not having friends. Justin spoke only about his experiences when explaining,

> So, in my freshman year of high school I felt like I didn't really have friends who cared about me, and I felt like I was alone in the world. And I kind of didn't care that much about myself or my life...so I kind of spiraled downward. Yeah, it was just all bad.

Justin's words here indicate that the absence of close friendships can be detrimental to Black college men's well-being and mental health. Furthermore, matters related to friendship and loneliness do not begin in college, as Elijah shared that he was bullied in middle school, but thankfully had a friend who has been a key source of social support throughout middle school and now into college. Participant responses for this theme affirm that friendship plays a crucial role in adolescence, emerging adulthood, and across the lifespan.

Women in their lives

Aside from looking to peers for support, men in this sample also spoke openly about the important role women friends, mentors, and mental health professionals played in their lives. Bryce mentioned,

> For me, I couldn't reach out to another male at first. I really could only connect with those in my circle who I felt were women who I could feel like I could trust and, um, let them know what I was dealing with. So obviously my mother, my sister, and then from there just kind of those close friends…. really more so my mentor, who I felt she was able to listen and they weren't going to pass judgment…on me. I couldn't speak to another guy like I could now and just be open with him…because I just kind of had the assumption that they're automatically going to look at me and say this about me. So, I just couldn't say anything to anyone, but I could only feel like the opposite gender would respect me enough to listen and hear what I had to say. And even after that fall semester, I only felt comfortable…speaking with a female or woman therapist versus, you know, going to another male. Like, at that point, it wasn't even about race. I just wanted to see a woman therapist because that's who I felt comfortable enough.

Bryce eventually had a change in perspective after attending college. He shared,

> I have guy friends that I talk to about this now, and they talk to me about their problems. Like, I think it's once you're willing to open up to somebody else and they're willing to see that you open up so they can open up to you, but I don't feel that way anymore. I can open up to whoever as long as there's a level of trust and confidentiality within that individual…

Bryce's initial reluctance to seek help from men overlaps with other related concepts of self-reliance seen with the masculinities and mental health literature (Goodwill, Johnson, & Watkins, in press). Nonetheless, his experience of receiving support specifically from women aligns with insights shared by Terrance who said,

> I think women of color have been a really big form of social support for me. So, you know, first and foremost my mom, but then you know, I have countless mentors who are…in large part women. But women of color have been usually my biggest form of social support [and] have usually been the folks who have guided me and advocated for

> me in several ways.., and have really put a lot of things into perspective that I just haven't been able to put into perspective myself.

While these reflections further complicate our understanding of help-seeking gender dynamics, Terrance and Bryce were not the only participants whose responses showed a deep appreciation for the women. Indeed, women and other female family members were highlighted several times across each of the interviews. Additional information is described in the next section.

Family members

Most participants shared that they received social support from members of their family. The specific sources of support within families, however, varied, as some participants spoke about members of their immediate family, while others considered the role of extended family members as well. For example, Devin commented,

> My parents have always been there for me… I feel like parents…even when we like it or [when] we don't…they're always going to be fighting for your best interests... We may not see it… but I feel that's how God made them… they just know what's best for you. I feel like your family, just in general, as in your brothers, your cousins, your sisters, your aunties, you feel me? They're always there for you…even though they can be crazy sometimes, blood always got your back.

The idea that family will always be there for you was mentioned by other participants like Ryan who, when asked to describe a time when he needed social support, responded by stating,

> The only help I've been receiving is through my mother who I live at home with… and just calling up my grandma and my dad, asking them when I was ever in a stump, and they would just tell me "It's gonna be okay." So, they would really support me.

Aside from considering the influence of families more broadly, several of the men in this study disclosed that their mothers served as vital sources of social support. One example comes from Kyle who described the important role of his mother when sharing, "I know if I was to lose my

mom at any point, that it would be a break in my heart because she's always been there. She's always been the one that's provided [and] done things for me." Grandmothers also appeared to play important roles in the lives of Black college men. Michael, for example, spoke openly about his grandmother's support of him.

> The social support I received growing up was from my grandmother…she talked to me when I was having a hard time… She gave me advice on how to deal with things… How to handle racism… How to deal with responsibilities, like as far as a man goes. She was widowed and she basically taught me what she seen my grandfather do…

These rich descriptions offered by Black college men highlight the benefit of family support broadly, while also centering the special relationships men appear to have with their mothers and grandmothers. The findings represented in this section show that Black college men's family members offer reassurance in times of distress and guidance during challenging circumstances, while also remaining steadfast in the encouragement they unabashedly provide.

Research Question 2

A natural progression in this line of inquiry would be to further consider the reasons why Black college men need social support. As such, the second research focuses on the events and circumstances mentioned by participants when asked to talk about a time that they received or needed social support. Seven themes were extracted from the data and are described hereafter.

Material support

Devin shared that his parents had previously offered to help him purchase a vehicle. For him this was a tangible sign of support, as evidenced by his response:

> When I was buying my first car, my parents like paid half. That's what I'm saying, I mean like money like, is a small thing…but like that's definitely support, you feel me? I feel like it would've took me longer to get [the car]…but like, that's support, you feel me?...You can do it by yourself, but it's just easier when you get support.

Aside from receiving material support from family members, some students also received monetary support from friends. Derrick reflected upon his experience when saying,

> I know I've had like hard times up here [in college], and I would tell my friends about it, [and] they would help me out. Like if I needed like money or something, to get laundry detergent or just different things like that, I would go to them…

Devin and Derrick's responses demonstrate that material support can be offered for both large (e.g., buying a car) and seemingly small matters. Nonetheless, the material generosity extended to Black college men from their parents and peers appears to be meaningful in their times of needing support. It is also important to note that Derrick felt comfortable enough to tell his friends when he was in need, and that he was open to receiving the support they were willing to provide. Derrick's appeal to his friends shows both vulnerability in acknowledging that he needed help and an assurance in knowing that his friends would support him when he made his needs known.

Academic challenges and needs

The second theme describes participants' academic needs for support throughout their time in high school. Here the men reflected upon the role of teachers and parents. Hakeem specifically mentioned the importance of teachers when sharing,

> I had this English teacher, and she helped me out on all my college applications. I had her for three years and she helped me out a ton lowkey. Like she gave me a lot of help outside class. I'm not very good at grammar, like writing papers and stuff… and she helped, she corrected all my college applications [and] essays.

When asked to describe a time when he needed social support, Nick also spoke of an experience that occurred before he came to college. Here he shared, "…in high school when my grades sunk a little low, and I just needed the extra push to do it [and] to get better." When asked what gave him the 'extra push' Nick reflected on his mom's actions: "My mother [was] actually being stern…but actually sometimes it has to be like that. So, it actually made me learn and learn from my mistakes." Nick mentioned that his mother told him he already had "two strikes against him since he was born." More specifically he noted, "She always said it through my whole life, that I'm Black and I'm a male, so [I] have to try extra hard just to succeed, and I can't like be basically playing around with my future." It seems that Nick's mom used the experience of his drop in academic grades to help him understand how he as Black man is positioned in this world, along with challenging him to consider the long-term consequences as a result of continued subpar performance in school.

Experiences of discrimination

The third theme highlights encounters of discrimination experienced by Black college men as creating contexts for their need for support. To answer this question, Terrance thought back to a time when he needed social support and explained how he went about seeking advice from different people within his network. Terrance shared,

> …situations where I maybe felt that someone committed a micro-aggression towards me, and I needed to talk about it, because I was angry and sad that someone would think so negatively of me even though they didn't see it in their comment— because it was intended as nice. I've consulted [with] people like my mom or, again, just like, friends and those mentors that I mentioned in the earlier questions… Like, I've consulted [with] those people to help me think through why it is that I feel the way I do, and how can I address it so that I'm not lingering on the issue that I'm experiencing at that moment.

Terrance shared that he needed support in processing the feelings that came as a result of experiencing this discriminatory event. As such, he turned to a host of people within his network in order to receive the support he needed, which ultimately allowed him to develop strategies that helped him move forward in not focusing on the event any longer.

Navigating relationships with friends and family

Men in this sample also described needing support for other painful circumstances and life events, particularly when navigating relationships with other people. While Black college men look to for support within their families, it is important to recognize that for some students, families can also be sources of conflict and great distress. Chandler voiced this sentiment:

> Through all the things in my life…it came a reaching point [last week] where it just blew out. I was talking to [a female friend], and she was with her [female] friend, and I burst out crying. I've never cried in front of a girl. Never cried. So, tears just going…I start apologizing…and the dude was like, "What's going on? What's going on?" So, I told him everything— like why I'm not calling my family, why my family does [me] dirty…when we was homeless, they didn't give a f--- about me. I'm first generation student, and they tried to talk down to me, like "You ain't shit…you think you're better than us." I try to be close to my family. They came up here and robbed me, and I'm telling all these stories…it felt good to release. You know what I mean? And even though [my friends] can't relate to the situation of what I'm saying, just having somebody that you can vent to, and let it all out… that was a good way to let that shit out.

In his response Chandler describes specific circumstances of experiencing harm and rejection from his family, as his attempts to be close were not reciprocated. Chandler's family belittled and demeaned him for his desire to pursue a college degree. Chandler's vulnerability is palpable and counters many of the perspectives on family support shared by participants in earlier sections

of this report. Nevertheless, it seems that the social support he received from his female friend gave him a space to vent and openly discuss some of the challenges he was facing.

Manhood, emotions, and identity development

Some participants recognized a need for support when learning how to express their emotions. Quinn discusses this point,

> I used to bottle my emotions up, but I guess they never really went anywhere when I did that. So, as I got older I realized it wasn't healthy for me personally. So, I've become a lot more expressive….like, if I need to cry, I will. If I need to laugh, I will. And so, I guess that's something that I've kind of deviated from what my father taught me or even my mother taught me in terms of being a strong black man.... It kind of got to a point where when I was in a stressful situation, I didn't really know who I could go to and cry to or who I could go to and express my emotions to...

Here Quinn describes needing support and guidance, as he did not know who he could go to in order to receive help with his needs for emotional expressiveness. Nonetheless, Quinn's willingness to express his emotions juxtaposed to what his parents taught him while growing up is a powerful reflection of the generational differences many Black college men are learning to navigate within their families today. Other participant responses in this theme came from Black college men who shared stories of needing social support when trying to decide what masculinity meant to them, and how those ideas either aligned or conflicted with their views on sexuality specifically for young Black men.

Adjusting to college life

The first year of college or graduate school can be a particularly vulnerable time where students are working to manage both new responsibilities and social relationships. For these

students the support systems that they previously relied upon may no longer be available. This idea is represented by Hakeem who voiced,

> I mean ya'll probably already know it but I just feel like a lot of Black boys, we just don't feel like nobody really f---- with us, unless it's us, you know… if you grew up with a certain group of people and that's the only people you knew that supported you….once you lose that support and you come out here [to college], it's just a drop off … [I] feel like everybody getting lost out here.

Micah, a graduate student, shared the following:

> I think mostly for me it was like in my freshman [year] in college. Especially my first semester, I wasn't really as in-tune to my classes as I should've been. So, I just talked to the older, older Black [students]. At, at the time I was in NSBE…and things like that, and I was talking to the older people their just like, "everybody gotta get through that first year, when you get through that first year you'll be like, coasting."

Quinn also disclosed that he struggled during his freshman year of college. More specifically, he reflected:

> I honestly can say that was me. I was in that same position when I was a freshman, and I didn't really know how to respond to [depression]. I didn't know who to talk to.... I didn't really call my parents or anything. And every time I had some emotional concern revolving my mental health or if I thought that I possibly wasn't in a good state of mental health, I really wasn't sure if I was able to call my parents and talk to them about it or call my dad, especially, and talk to him about it. Because... I knew it was necessary to talk to people, and I wanted to make the effort to do that, but something about it seemed a bit embarrassing, I guess...to talk to my parents about something like that.

Descriptions provided by Quinn, Micah, and Hakeem suggest that social support may be even more salient during times of transition for Black college men. As such, the first year of college in particular may be an opportune time to intervene and offer enhanced resources that afford students the opportunity to get acclimated to campus and college life.

Depression and other mental health concerns

The last theme represents Black college men's mental health concerns, as many of the participants openly discussed situations in which they experienced hardship and needed support from others. Here Bryce explained,

> I don't remember what set me off, but something had really triggered me, and I had fell back into that state of depression…and I didn't know how to deal with it…. but it wasn't until January of this year that I actually…was like, "Okay, this is a very serious issue, I need to go get help." And, at that time I had reached out to my really good friend and mentor and I said, you know, "What do you think I should do?" And she was like, you know, "Try a counseling center." And I did. I started out going just maybe once in January. But then after that, I was going on a biweekly or weekly basis.

Another participant, Jeremiah, shared his own experience with depression. He stated:

> I walked out of my room [during winter break]… I was in there for like almost a week. I would only leave to go to the restroom or to get a drink of water or something. And my mom said, "Are you okay?" Like she was like really trying to talk to me. And, she looked at me, I was like skin and bones, and I just didn't feel like myself— so I knew something wasn't right. She was talking to me and we were talking through it. I guess she had took some kind of classes because she knew…something was wrong.

At this point the interviewer probed further and asked the participant to describe the remainder of the conversation with his mother. Here Jeremiah reflected:

> She made me feel comfortable. She was asking me questions, genuinely listening... not just trying to respond and tell me how I should feel... She made me feel comfortable and she was understanding of everything that I was saying.

These set of responses reflect the reality that some men may reach out for help like Bryce did, while others may have loved ones who readily offer assistance in order to ensure that they are well. Further, we see that while some Black college men are clearly naming the mental health challenges they experience as depression, others might use language similar to Jeremiah where he states that "something wasn't right" and that he "didn't feel like himself." The difference in language is important to consider because even Black college men who specifically mention the

term *depression* may not know how to adequately deal with or respond to what they are experiencing. Therefore, having the opportunity like Jeremiah did to connect with people who create a comfortable environment and attentively listen seems particularly beneficial in working to support Black college men.

DISCUSSION

This study sought to critically examine Black college men's sources of support and reasons for receiving or needing social support from others. One-on-one interviews were conducted with 27 Black college men who were enrolled at a large, public PWI in the Midwest. Six themes were extracted when assessing men's sources of social support, while another 7 themes were extracted when working to understand the specific circumstances or events in which Black college men describe receiving or needing support. Findings generated from this investigation align with existing research by affirming the importance of the relationships Black college men foster with other Black male peers and members of Black-oriented student groups or organizations. Study results, however, offer new contributions to the literature by highlighting not only the diverse range of social support sources Black college men utilize within their daily lives, but also the range of emotions they experience when receiving or needing help from others. This rich description offered by participants reflects a deep sense of vulnerability and willingness to express emotions that has gone understudied in the literature and research surrounding Black men (see Jackson, 2012). Responses from Black college men in this study challenge much of the prevailing norms around help-seeking, emotionality, and masculinities.

Considerations for future research, intervention, and practice with Black college men are discussed.

Consistent with much of the existing literature (Brooms & Davis, 2017; Druery & Brooms, 2019; Harper, 2007; Jackson, 2012; Jackson & Hui, 2017; Strayhorn, 2008), Black men in this study reported that they received social support largely from their peers. Some participants described receiving support from other Black male peers, while other participants discussed the role of receiving support from their friends who are women. Other participants reflected on their friends generally and did not specify or describe the gender composition of the key people in their support networks. For men in this sample, support from peers manifested as receiving advice when navigating relationships with others, or having someone to talk to when feeling down or alone. Further aligning with findings from previous work on Black college men's supportive relationships (Jackson, 2012; Jackson & Hui, 2017), friends also offered tangible support like help with academic coursework or money for laundry. Within this same context of peer relationships, some Black college men spoke specifically about their roommates who provided support as well. Taken together, the supports made available to Black college men through their peers is indeed beneficial and should be regarded as a precious resource that not only enhances Black men's experiences on campus, but ultimately contributes to their well-being and success.

Similarly, on-campus student groups appear to play an important role in offering opportunities for social connectivity and relationship building with other students (Harper, 2007; Harper & Quaye, 2007). Here men described groups like the National Society for Black Engineers and Black fraternities as outlets that offered much needed guidance during their

transition to college and made them feel as if they belong on campus (Strayhorn, 2015, 2019). Aside from field-specific groups, Brooms (2016, 2018a, 2018b) asserts that campus Black Male Initiative programs are also critical spaces that promote connection and support for Black men in college (Zell, 2011). While participation in these groups has been linked to persistence and degree completion (Brooms, 2016), future studies would benefit from also considering how group membership influences Black college men's mental health overtime. Nevertheless, for undergraduate and graduate students alike, Black-oriented student groups and fraternities function as coveted spaces of solace and relief that affirm their dignity while also promoting inclusion, support, and genuine care for one another.

Other than looking to peers and student organizations, participants also reported that they looked to university faculty, staff, and campus mentors for social support. Interestingly, participants did not describe any specific examples that explained how faculty went about providing social support. Conversely, men in this study did provide explicit examples that detail how teachers and coaches from high school offered social support. It seems reasonable to presume that students typically spend more time and operate in closer proximity to staff at their local high school as compared to the limited amount of contact they may have college professors. An important point of context to consider is that all participants in this study were enrolled at a large, public PWI. When considering that class size enrollment tends to be larger at public universities, it seems possible that students' perceptions of closeness and support received from faculty would be different among Black college men enrolled at private institutions, liberal arts colleges, or HBCUs. As such, future studies should account for the institution type while also

considering how the relationships Black collegiate men foster with their professors on campus may differ from the relationships they developed with their teachers and coaches in high school.

Additionally, some men mentioned receiving or needing social support when navigating encounters of discrimination. One participant specifically explained how he needed help in making sense of a discriminatory experience, and sought suggestions on how he could move forward without lingering on the topic any longer. He shared that he felt both anger and sadness when realizing that someone committed a micro-aggression against him. The expressive language used by this young man aligns with other participant responses in the manhood, emotions, and identity development theme, as one student reflected upon the ways in which he was taught to express emotions while growing up does not align with his current views or beliefs regarding Black men's emotionality. It's important to note that men's range of emotions are displayed consistently across the themes and offer insight into Black college men's emotional processes. For example, one man in the study mentioned that his male best friend could tell when something was wrong just by hearing it in his voice. The longevity of their friendship dating back to middle school allowed for an emotional depth that manifested in his friend being able to sense whenever there was a problem. Another participant opened up to a female friend in describing the pain he experienced at the hands of his family members. The participant mentioned that he had never cried in front of a girl, yet considered it to be a "release" and appreciated having someone there to listen. These participants' willingness to be vulnerable and express emotional intimacy with their male and female friends complicates our understanding of Black men's feelings and relationships with others. While work from Jackson (2012) and Brooms (2019) describes the emotional bonds and support Black collegiate men receive from

one another, results generated from this query show that Black college men are also having important emotional encounters with the women in their social networks as well.

It is also worthwhile to consider the unpleasant and even harmful encounters individuals have with others in their social and familial networks. Scholars often refer to these circumstances as "negative interaction" (see Chatters, Taylor, Lincoln, Nguyen, & Joe, 2011; Chatters, L. M., Taylor, Woodward, & Nicklett, 2015; Levine, Taylor, Nguyen, Chatters, & Himle, 2015; Lincoln, Taylor, Chatters, & Joe, 2012; Nguyen, Chatters, Taylor, & Mouzon, 2016; Nguyen, Taylor, Chatters, Taylor, Lincoln, & Mitchell, 2017). Here researchers assert that it is equally important to recognize and measure both the benefits and potential drawbacks that arise as a result of disagreeable conflict with others (Chatters et al., 2011; Chatters et al., 2015; Taylor et al., 2005; Taylor et al., 2016). While positive interpersonal interactions are indeed associated with improved psychological well-being in Black Americans across the life course (Nguyen, Chatters, Taylor, & Mouzon, 2016), we must also recognize and pay particular attention to the short and long-term effects that stem from negative interactions with friends and family members (Chatter et al., 2015; Taylor et al., 2005). Lincoln and colleagues (2012) examined some of these potentially far-reaching effects in finding that Blacks adults who reported fewer negative interactions and received more emotional support from their families were less likely to engage in suicidal behaviors (Lincoln et al., 2012).

Similarly, recent investigations have captured differences between support from friends and family by measuring frequency and subjective closeness in relationships (Himle, Taylor, Nguyen, Williams, Lincoln, Taylor & Chatters, 2017; Nguyen et al., 2017). Outcomes from these studies show that Black adults who communicated with extended family more often reported

lower levels of suicide ideation, while others who had more negative interactions with family and were subjectively closer to their friends had higher rates of suicide ideation (Nguyen et al. 2017). Further, negative interaction with friends and family is linked to lower rates of happiness and self-esteem (Nguyen et al., 2016). Future investigations may consider modeling this approach of using separate measures of frequency and subjective closeness in friend and familial relationships in order to dissect the complexities surrounding perceived lack of social support for Black Americans broadly, and for young Black men specifically.

One of the most notable findings from the current investigation includes men's descriptions of looking specifically to the women in their lives for social support. Aside from recognizing the important role of women as their friends and mentors, several participants also focused specifically on the influence of their mothers when explaining the different circumstances and events when they needed support. Grandmothers were also mentioned as key figures in Black college men's social networks. Further, participants describe receiving social support from their mothers and grandmothers when facing academic challenges, when learning to navigate their feelings and emotions as Black men, and when experiencing depression. According to participants, the women in their lives listened to their problems and concerns without judgement, encouraged them to go to therapy, and allowed them to cry. These are powerful assertions that have direct implications for the ways in which clinicians, educators, and university administrators design interventions and programs geared towards Black college men.

One previous study examined the role of family support among Black college men enrolled at a public HBCU and found that participants also recognized their mothers and extended family members as important sources of social support (Palmer et al., 2011). Previous

studies have also assessed links between support provided by family and academic achievement in Black college students broadly and report similar findings (Guiffrida, 2005, 2006; Guiffrida & Douthit, 2010), though investigations that consider the unique experiences of Black college men are limited (see Palmer et al., 2011, Simmons, 2019). Interestingly, a similar pattern of looking to women for support was captured among middle-aged and older adult Black men who rely on their wives for making decisions regarding food preparation and healthy eating (Allen, Griffith, & Gaines, 2013). Along those same lines, Jefferson and colleagues (2016) conducted focus groups with Black women and asked them to describe their personal experiences with men who had depression. In doing so, the women shared that they believed the Black men in their lives had largely been "coddled" by the Black women who raised them (e.g., mothers, sisters). Findings generated from the current investigation offer a different perspective than that presented by Jefferson et al., (2016), as researchers in that study asked Black women to describe their perceptions and experiences with Black men who had depression, while this study directly asked Black men about their own experiences, views, and values surrounding social support and mental health. Nevertheless, the deep appreciation and respect Black college men in this study showed towards the women in their lives, and in particular their mothers, is something that has not been fully explored in research among emerging adult Black men. Further assessment of interpersonal relationships and connections with others during this particular developmental stage is warranted.

Reflexivity in light of study findings

Aside from acknowledging my position in relation to this work in the *Method* section, it is also worthwhile for me to consider how who I am influences the way that I understand,

analyze, and interpret study findings (Berger, 2015). I recognize that my identity as a Black woman studying emerging adult, college-enrolled Black may offer both "insider" and "outsider" perspectives in light of race group similarities but gender differences between myself and the participants (MacQueen, McLellan, Kay, & Milstein, 1998). Moreover, my status as a student also influences how I perceive participants' relationships to peers on-campus and family members back home. For these reasons and more, qualitative researchers should consider working within a team to code and analyze the interviews (Creswell & Poth, 2018).

Although I was closely involved in the data collection and data analysis processes, the two other members of the coding team were not. Their distance from the project, from the data, and from the participants themselves helped in challenging what information was extracted—and not emerged— from the data (e.g., Staller, 2013). Implementing triangulation procedures and member-checking is particularly important to consider (Creswell & Miller, 2000; Lincoln & Guba, 1994), as study participants may have diverging opinions about the information prepared for this report. At present the findings from this study have not yet been shared with the participants, though I do plan to consult with the principal investigator of this project (Dr. Daphne Watkins) to determine the possibilities of reconnecting with the men our research team interviewed nearly three years ago.

Next steps and future directions

Areas for future inquiry within this line of research are promising. First, it is worthwhile to continue exploring the role of bonding and connectivity among Black college men. Emotional intimacy in Black male relationships has previously been explored among adolescents (Way,

2011) and Black male college students (Jackson, 2012; Brooms, 2019; Clark & Brooms, 2018). Findings from these studies point to the importance of establishing strong, deeply rooted emotional ties with other Black men. Thus, future studies should examine Black college men's interpersonal relationships throughout their entire time in college, and not just during the first year. It will also be important to know how Black men maintain relationships with peers after college and throughout emerging adulthood, as the relationships Black men forge during their time at the university may protect against adverse mental health outcomes later in life. Next, Strayhorn's (2018) body of work examining sense of belonging should continue to be applied across various settings and contexts. For example, some Black college men may feel that they belong on campus, but may not feel like they belong in a particular field or major (e.g., STEM; Strayhorn, 2018). Similarly, Black college men may have a strong sense of belonging amongst their families, but may have weaker ties with other students on campus. In short, sense of belonging is a powerful psychological construct that is most useful when examined within a particular context (e.g., school, family, work). Thus, future research would benefit from assessing context-specific matters of belonging for Black collegiate men.

Additionally, further consideration should be given to the role of gender dynamics within the context of Black men and women's help-seeking behaviors and interpersonal relationships. While previous studies have already examined both same-gender and cross-race group relationships, few investigations have explored platonic, familial, or mentoring relationships between Black women and men. Moreover, it is unclear whether there are existing studies of cross-gender relationships among Black college students. This line of research is worthwhile to consider, as participants in this study explicitly identified women who were their friends, sisters,

mentors, mothers, and grandmothers as key sources of social support. However, it is necessary to discern whether Black women's experiences of social support mirror that of Black men. Do Black women look to Black men for social support in the same ways that Black men appear to receive support from Black women? If not, what implications would this potential imbalance have in both the giving and receipt of social support? These questions and more could be answered by researchers delving deeper into the cross-gender and transgenerational relationships present among Black men and women in the U.S.

Lastly, recognizing the mother-son relationship as a communal strength could be a helpful consideration for future research and intervention with Black families. Eminent scholars like McAdoo (1981) and Billingsley (1988, 1994) offer strength-based anthologies of the Black family in their attempts to reframe much of the deficit-based discussions on Black families that had previously plagued the social science literature. Thus, the focus on family strengths provided by Billingsley (1988, 1994), McAdoo (1981, 2007), and several others (Bowman & Howard, 1985; Rowley & Bowman, 2009) must be evoked when working to move research concerning Black boys and men forward. Their contributions have already laid the foundation for the necessary work that is to come by offering more nuanced and complicated perspectives on Black families that refute claims of inferiority when compared to White families. Moreover, community-based interventions like the Fathers and Sons Project (Principal Investigator, Dr. Cleopatra Caldwell) show promising results in adapting health behaviors among non-residential Black fathers and their children. Perhaps future interventions should also explicate the relationships between Black mothers and their sons as they transition from adolescence into

young or emerging adulthood, as this appears to be a critical time of interpersonal growth and identity development (Arnett, 2000).

Limitations

One of the limitations to consider when interpreting the findings from this investigation is that some interviews were conducted in person, while other interviews were conducted online using video conferencing software. Ideally, all interviews would have been completed in the same format, as some participants may have preferred one option versus the other. Thus, future studies should aim for consistency in terms of how interview data collected across each participant. Next, the first iteration of the codebook was developed using open codes that I generated, and from there the codebook was revised and edited based on the input and suggestions from the other two coders. While this practice is considered commonplace when conducting qualitative analysis (Creswell & Poth, 2018), it does mean that codes derived from one person ultimately serve as the foundation for the analyses. In an effort to directly address this concern, time was allocated during team meetings to change, update, or revise the naming and definition of codes. Again, the codebook is considered "living" and is by no means stagnant (Creswell & Poth, 2018). Nonetheless, future studies may consider working together to develop the first version of the coding manual. It is also worthwhile to consider that the contexts in which someone needs support may be different from when they receive support. However, the term "need" was used as a probe after the initial question that asked participants to describe the kinds of social support they received. As such, the concepts were kept as one research question in this study, though future investigations may consider teasing these two constructs apart. Lastly, this

study focuses on the experiences of Black emerging adult men attending a PWI in the Midwest. That being said, additional consideration should be given to the experiences of Black men enrolled at HBUCs or other Minority Serving Institutions (MSIs) in different regions across the U.S. Likewise, this sample consisted of 18 to 30-year-old Black male students, and sources of needs surrounding social support may be different for college-enrolled Black men who are older than 30.

Conclusion

Nearly 66% of the Black males who enroll at a 4-year university in the U.S. do not go on to complete the degree within 6 years (U.S. Department of Education, NCES, 2019). This abysmal rate of completion represents larger structural issues that require an immediate interdisciplinary focus on this specific population. Moreover, it is evident that more concerted efforts are needed to redress disparities and barriers to Black college men's academic success (Harper, 2006; Palmer et al., 2014). In this, it is important to note that Black college men are not "damaged" or in need of "fixing" (Dumas, 2016), but instead we must recognize that these young men already possess resources and strengths that have gone untapped and overlooked in research. One such strength is the social support Black college men receive from their peers, campus groups, and families. Having a clearer understanding of the support Black collegiate men rely upon gives researchers insight into factors that contribute to esteem, well-being, and academic persistence. Furthermore, the Black male students in this study voiced that they needed support from others when transitioning to college, when forming their ideas around manhood and

masculinity, and when experiencing signs and symptoms of depression, among other concerns. As such, university administrators along with campus social workers and counselors should consider developing programs, curricula, and resources that directly target these needs and more in working to ensure that the Black men on their campus achieve holistic success and well-being in all areas of their lives.

Table 9. Participant characteristics for Study 3

Pseudonym	Age	Education Level	First Generation Status	Family Annual Household Income
1. Nick	18	Undergrad	Yes	$50-74,999
2. Lucas	19	Undergrad	--	--
3. Zion	20	Undergrad	Yes	Less than $20,000
4. Jaden	18	Undergrad	--	--
5. Micah	23	Graduate	No	More than $100,000
6. Andre	26	Graduate	Yes	$50-74,999
7. Elijah	20	Undergrad	Yes	Less than $20,000
8. Derrick	19	Undergrad	Yes	$20-34,999
9. Justin	21	Undergrad	No	$20-34,999
10. Terrance	24	Graduate	Yes	Less than $20,000
11. Devin	--	Undergrad	--	--
12. Ryan	20	Undergrad	No	$50-74,999
13. Kyle	--	Undergrad	--	--
14. Michael	19	Undergrad	Yes	Less than $20,000
15. Quinn	20	Undergrad	No	More than $100,000
16. Hakeem	19	Undergrad	No	More than $100,000
17. Bryce	21	Undergrad	Yes	Less than $20,000
18. Jeremiah	18	Undergrad	No	More than $100,000
19. Ronald	19	Undergrad	No	Choose not to answer
20. Noah	18	Undergrad	No	$50-74,999
21. Donovan	18	Undergrad	Yes	$20-34,999

22. Darius	--	Undergrad	--	--
23. Chris	22	Undergrad	No	$50-74,999
24. Justin	23	Undergrad	Yes	$50-74,999
25. Jason	--	Undergrad	--	--
26. Paul	18	Undergrad	Yes	$75-99,999
27. Stephen	--	Undergrad	--	--

Table 10. Themes for guiding research questions

RQ1: From whom do Black college men receive social support?	RQ 2: For what circumstances or events do Black college men describe receiving or needing support?
Themes	*Themes*
● On-campus faculty, staff, and mentors	● Material support
● Teachers and coaches from high school	● Academic challenges and needs
● Campus and community student organizations	● Navigating relationships with family and friends
● Peers	● Experiences of discrimination
● Women in their lives	● Manhood, emotions, and identity development
● Family members	● Adjusting to college life
	● Depression and other mental health concerns

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Chapter 5 Conclusion

The overarching goal of this dissertation was to explicate links between various psychological factors and adverse mental health experiences among Black college students. Both quantitative and qualitative approaches were used to assess how concepts like coping, stigma, and social support impact the well-being of Black college students. Study 1 analyzes survey responses from Black college students broadly, while Studies 2 and 3 focus specifically on the experiences of Black college men. Study 1 explores the various coping strategies students utilize when experiencing stress and considers how these coping strategies inform students' experiences with depressive symptoms and suicide ideation. Study 2 builds upon this work by considering how broader spheres of influence shape Black college men's help-seeking behaviors, while also examining whether mental health stigma is related to Black college men's actual mental health outcomes (e.g., depressive symptoms and suicide ideation). Study 3 continues in a similar vein by assessing how sources of social support contribute to the well-being of Black college men, while at the same time reviewing the circumstances and events in which they describe receiving or needing support. Thus, this concluding chapter connects findings yielded across the three studies and offers recommendations for social workers, psychologists, education professionals and others who are concerned about the psychological well-being of Black collegians in the U.S.

Summary of Findings

Study 1 sought to determine the factor structures of the Brief COPE Inventory (Carver, 1997) and the Patient Health Questionnaire (Kroenke et al., 2002), and to determine which

specific coping strategies (as measured by the Brief COPE) moderated the relationship between depressive symptoms and suicide ideation within sample of Black college women and men. The psychometric properties of both measures needed to be assessed before examining the statistical relationships between the constructs, as these measures were not developed using samples that consist primarily of Black Americans. The factor structure for the PHQ-8 aligned with the original factor structure proposed by Kroenke et al., (2002). Interestingly, however, after performing EFA and CFA for the Brief COPE, the dimensionality of this measure differed from what was originally proposed by Carver (1997). Four items were found to have poor loadings among this sample of Black college students and were removed from the analyses. Moreover, some items loaded onto different latent factors than what was presented in the original validation of this scale (see Carver, 1997).

Logistic regression tests were conducted to explore the relation between specific coping strategies and suicidality. Both the *substance use* and *behavioral disengagement/self-blame* coping strategies were found to be directly associated with significantly greater odds of past-year suicide ideation. In order to address the question of moderation, interactions between depressive symptoms and each of the latent factors derived from the EFA and CFA were plotted using the *margins* command in Stata 16 (StataCorp, 2019; Long & Freese, 2014). Findings suggest that interactive effects exist between depressive symptoms and each of the eight coping strategies derived from the factor analyses of the Brief COPE Inventory: (1) denial, (2) substance use, (3) behavioral disengagement/self-blame, (4) social support, (5) active planning/acceptance, (6) reframing, (7) humor, and (8) religious coping (Figures 1-8). Lastly, predicted probabilities were generated to offer more interpretable estimates as compared to odds ratios (Figures 1-8). The results of these analyses indicate that it is worthwhile to consider both the promotion and

prevention of utilizing specific coping strategies when working to assuage the relationship between depressive symptoms and suicide ideation in Black college students.

Study 2 examined associations between perceived public stigma of receiving mental health treatment, help-seeking behaviors, depressive symptoms and suicide ideation. The model was tested among a sample of Black college men only. Structural equation modeling was applied, as it allows for simultaneous testing of direct and indirect relationships while also accounting for measurement error (Kline, 2016). Findings showed that the Black college men who endorsed more stigmatized beliefs about receiving mental health treatment experienced more depressive symptoms, and in turn were more likely to have considered suicide at some point within the past year. Moreover, Black college men who sought help from an informal source within their social networks experienced fewer depressive symptoms. These findings signal important connections between public stigma, depressive symptoms, and suicide ideation that should be more carefully considered among Black college men. For example, it will be important for researchers to critically assess the role and onset of perceived public stigma among Black college men, as college may be a particularly unique social context in which help-seeking stigma may permeate both the campus culture and the climate within various academic units across campus. Prior studies have explored mental help-seeking stigma among Black college students generally and note that Black collegians typically report more stigma when compared to students from other race groups (Masuda et al., 2009). Findings from a more recent investigation report that up to 55% of students in the sample cited “fear/stigma” as a barrier to seeking mental health help. Similar concerns are cited in work with community samples of Black men (Cadaret & Speight, 2018; Charles & Witherspoon, 2019; Ward & Besson, 2013). Investigations,

however, that focus specifically on Black college men are limited and reiterate the need for more research in this area.

That being said, we still do not know much regarding the origins and pervasiveness of perceived public stigma among Black men. Therefore, learning more about the age and space in which Black males begin to receive messages from family, friends, and society as it relates to mental health help-seeking expectations seems like a necessary starting point. Moreover, further consideration should also be given to exploring the potential influence of Black male popular culture figures. Music artists and athletes like Big Sean, Brandon Marshall, Kanye West, and Jay-Z have spoken openly about seeking mental health treatment. However, it remains unclear if these messages are translated into the lives of everyday young adult Black men. Additional work in this area is needed to rectify this concern.

Lastly, Study 3 examined specific sources of social support for Black college men. Qualitative interviews were conducted during the fall 2017 term with 27 Black men enrolled at a large public university in the Midwest. This analysis explored the sources from whom Black college men received social support, and identified when (i.e., under what circumstances) men described needing help from others. A three-person team analyzed the interviews using the RADaR Technique (Watkins, 2017). Concepts from applied thematic analysis were also used to examine patterns across participant responses (Guest et al., 2012). Findings from this study yielded 6 themes that describe men's sources of social support: (1) on-campus faculty, staff, and mentors, (2) teachers and coaches from high school, (3) community and campus student organizations, (4) peers, (5) the women in their lives, and (6) family members. Seven themes highlight the reasons Black collegiate men report receiving or needing social support from others: (1) material support, (2) academic challenges and needs, (3) navigating relationships with

family and friends, (4) experiences of discrimination, (5) manhood, emotions, and identity development (6) adjusting to college life, and (7) depression and other mental health concerns.

Findings generated from this report indicate that Black college men receive social support from several different individuals, communities, and groups. Black men's variety and access to different sources of social support has not received much attention in the literature. Thus, this investigation offers a new contribution to extant research by recognizing the people and organizations that offer social support to Black collegiate men. For example, some participants looked to campus faculty, staff, and mentors for social support, while others reflected upon the support they received from their teachers and coaches in high school. Participants also described receiving essential support from other Black male peers in ways that signal emotional intimacy, common trust, and deep connection. Intimate friendships between Black men have been represented in other studies as "brotherhood" (see Jackson, 2012). While men in this study did not use that specific language, the apparent depth and connection participants shared with other Black male peers is evident and challenges traditional ideas rooted in hegemonic masculinities that tell men they should be tough, strong, and devoid of emotions (Connell & Messerschmidt, 2005; Harris, Palmer, & Struve, 2011).

Black collegiate men also spoke powerfully about their families and the women in their lives. They offered detailed accounts that describe how women friends, mentors, teachers, mothers, and grandmothers consistently support them. It is important to note that men's responses were laced with tenderness and sensitivity. Moreover, men in the study discussed how they needed support when developing their ideas around manhood, and that sometimes their ideas of This restrictive form of emotionality has been cited in previous work with Black adult men (Hammond, 2012), and affirms the need for a greater focus on Black men's expressive

forms of engagement with others. Nevertheless, these findings challenge notions that masculine Black college men are unwilling to seek help or talk about their feelings (Harris et al., 2011; McGuire, Berhanu, Davis, & Harper, 2014), as men in this study demonstrated vulnerability in both looking to others for social support, along with being open to sharing these experiences with the interviewer. Future studies should explore this apparent disconnect between what Black college men believe masculinities are, while also considering how masculinities actually play out in their interpersonal relationships and everyday lives.

Further, participants reported receiving or needing social support when transitioning into their first year on campus. This time period is typically viewed as a particularly vulnerable time for new college students, and men in this sample shared that upperclassmen, alumni, and fraternity members helped to quell their concerns regarding the first-year experience. Some men voiced that they experienced depression and other mental health concerns not only during this first year, but also at different points throughout their time on campus. In those instances, men sought help from peers, female mentors, and their mothers. Some men also discussed going to seek professional psychological help after being encouraged to do so by their friends. One participant shared that early on in life he would only seek help for mental health concerns from women, which included him only being comfortable seeing a woman therapist. However, his views changed after he came to college and began to build more relationships with male peers. These results point to areas and opportunities for future interdisciplinary research, particularly within the context of critically assessing cross-gender and intergenerational relationships among Black women and men. For example, pulling from existing social work and psychology research on interpersonal and family relationships can be connected with education researchers who may consider how various sources of support are associated with academic outcomes and time to

degree completion. This is just one example of future work that will help to ascertain some of the specific challenges Black men face throughout their time on college campuses.

Contributions and Implications

The studies included in this dissertation offer several contributions that can be used to inform existing programs and work with Black college students. First, Study 1 works to elucidate the relationship between depressive symptoms and suicide ideation. Notably, the factor structure for the Brief COPE differed among Black students in this sample when compared to the original factor structure proposed by Carver (1997). This means that the Brief COPE Inventory could have easily been misapplied in this study if the factor structure had not carefully been examined as a preliminary analysis step. It was only after examining dimensionality of the Brief COPE that I moved forward in testing interactions and found that each of the specific coping strategies moderated the relationship between depressive symptoms and suicide ideation.

Indeed, the interaction tests are important, but the EFA and CFA findings in particular raise concern around current approaches towards even the most basic quantitative tests of group comparisons (e.g., t-test), as issues of measurement error must be refuted before attempting to make claims about group differences (Bowen & Masa, 2015). Stated more clearly, the differences in mean scores that we see when comparing two or more groups could be an artifact of measurement error and may not be reflective of true differences across the groups, as there could be sources of non-invariance in either the item loadings or in the intercepts/thresholds (Bowen & Masa, 2015). Therefore, researchers who conduct work with traditionally marginalized groups should practice caution when applying scales and constructs that have not previously been tested among the population or group of people with whom they plan to work. This is a particularly important point to consider, as erroneous results could lead researchers to

overstate the importance of their findings, which would ultimately do more harm than good in promoting mental wellness in underserved communities.

Next, the indirect link between perceived public stigma and suicide ideation via depressive symptoms points to the need for depression intervention treatment for Black college men. It was found that men who sought help for a mental or emotional concern reported fewer depressive symptoms. Moreover, Black college men who endorsed more stigmatized ideas about receiving mental health treatment experienced more depressive symptoms, and from there were more likely to have thought about suicide within the past 12 months. Simply put, the men who believed that most people hold negative views towards those who receive mental health treatment are the ones who needed the most help.

Stigma surrounding mental health is often discussed in popular media outlets, yet is rarely studied empirically among Black populations. Effectively responding to public stigma may help mitigate other mental health outcomes for Black college men. I am currently unaware of any of study that has modeled the relationships between perceived public stigma of receiving mental health treatment, help-seeking behaviors, depressive symptoms, and suicide ideation in a sample of Black Americans. Thus, study SEM should be replicated with other samples of community-residing Black men or men across different age and developmental stage groups to see if these relationships hold. Importantly, there were other indirect effects found in this model, and further exploring these pathways will offer additional insight in the mental health experiences of Black college men. For example, the indirect relationship from perceived public stigma to depressive symptoms via informal help-seeking was statistically significant, such that a one-unit increase in perceived public stigma was associated with a 2.7% increase in depressive symptoms by way of informal help-seeking. Similarly, having sought informal help within the

past 12 months was associated with a 6.5% reduction in the likelihood of suicide ideation via depressive symptoms. Although these paths were not identified a priori, there is still relevant exploratory information presented in these models that should be tested with other samples and considered for future research with Black men.

Study 3 offers a unique contribution to existing literature by recognizing both the people to whom Black college men look when in need of social support, along with the circumstances and events when Black college men receive or need social support from others. Knowing that Black college men describe needing help during their transition to college, when navigating their relationships with others, when figuring out how to express their emotions, and when experiencing signs and symptoms of mental health concerns offers keen insight into just some of the challenges encountered by Black college men. In all of these instances Black college men described turning to a variety of sources and oftentimes expressed great vulnerability in doing so. Seeing who and when Black college men receive or need support has direct implications for the social workers, psychologists, and education researchers. Moreover, these findings are pertinent to university staff and administrators who work directly with Black college men, as results from this investigation can be used to modify existing campus initiatives and programs geared towards Black college men. For example, campus groups and programs for Black men could host workshops and community conversations that focus on normalizing help-seeking behaviors while showcasing the different sources of support made available to Black men at that institution. Similarly, administrators and counselors should be cognizant of the sign, symptoms, and language Black college men use when describing their mental health experiences. As such, encouraging students to seek help when they "just don't feel like themselves" may be more effective in reaching Black college men versus instructing students to seek help when they feel

"depressed." Additionally, special attention should be given during Black men's first year on campus, as participants reported needing social support during this specific time.

Further, while much of the research on Black college men's experiences of social support has focused on their relationships with peers and campus organizations (Harper, 2006; Harper & Quaye, 2007; Brooms, 2018), this study indicates that Black college men are also receiving much needed support from other sources like teaches and coaches from high school, family members, and women friends, mentors, and loved ones. This assertion connects with findings from the first two studies, as results yielded from Study 1 offers evidence detailing which coping behaviors are most and least helpful to Black college students, and findings from Study 2 show that Black college men who seek help informally have better mental health outcomes and experience fewer depressive symptoms and a lower likelihood of suicide ideation. Men, however, who endorsed perceived public stigma of receiving mental health treatment had worse mental health outcomes. Furthermore, social support moderated the relationship between depressive symptoms and suicide ideation in Study 1. Help-seeking was linked to lower rates of depressive symptoms in Study 2, and again social support appeared to improve men's psychological well-being and academic success in Study 3. As such, social interactions and connections with others emerged as key components in each of the three studies assessed in this dissertation. Future work will benefit from identifying more explicit and granular aspects or dimensions of social support for Black men and women as they transition throughout their time in college and into adulthood.

Directions for Future Research

There are a number of opportunities to build upon the findings generated in this dissertation. One viable next step is to begin recognizing measurement as a matter that is deeply

tied to equity and inclusion. When considering that Black Americans are not always included in the validation of psychological measures, it seems presumptuous to assume that the factor structure derived from the initial investigations would fit similarly for Black populations. Thus, testing for measurement invariance whenever scales are being used with new or underserved populations will be a critical next step in working to more accurately assess differences both within and across groups. Creating scales specifically for Black populations is another alternative approach that should also be considered. Although two of the studies in this dissertation focused exclusively on the experiences of Black college men, this area of research would greatly benefit from examining potential differences in Black college men and women's mental health. For example, it remains unclear if prevalence rates for depressive symptoms are comparable among Black college men and women. However, before comparing mean depression scores across gender groups, it will be imperative for researchers to ensure that the same construct is being measured equally for both men and women. This level of specification is worthwhile to consider and helps to quell concerns regarding the lack of attention given to considering potential within-group differences. Testing for measurement invariance is just one way of doing so.

Interestingly, much of the work on suicide has used large, epidemiological datasets. Conversely, much of the work on social support in Black college men has included qualitative assessments of Black men's experiences on campus. Thus, future research on suicide and social support in Black college men would benefit from conducting mixed methods analyses of quantitative and qualitative data. It is important to note that this is *not* a mixed methods dissertation, as a true mixed method study would intentionally integrate findings generated from the qualitative and quantitative strands of data (Watkins & Gioia, 2015). As such, this dissertation should be categorized as a multi-method analysis instead of a mixed-methods study.

One potential idea for a future mixed methods study would include the use of an explanatory sequential design where (N=500) participants begin by completing a questionnaire that includes different dimensions of social support (e.g., support from family, friends, church members) and mental health outcomes like flourishing, depression, and past-year attempt among a sample of emerging adults with a history of previous suicide attempt. Next, a subsample (n=50) would be invited to complete an individual interview where they are asked to identify the people in their social networks who provided them with social support before and after their last suicide attempt. Lastly, the results from the quantitative and qualitative components will be integrated to assess whether statistical associations between separate dimensions of social support align with participants' descriptions of their sources of receiving social support. Indeed, there are other considerations for a mixed methods study of social support and suicidality, and this is just one example of a potential next step in this area of research.

Furthermore, using other qualitative approaches like daily diary studies could also be a generative and creative tool in collecting qualitative responses from Black college men. This will be particularly important to assess within the scope of suicide research, as there are few suicide-specific studies that utilize qualitative approaches, and even fewer that have used qualitative methods among samples of Black men. One viable example of this may involve asking participants to use a daily diary in order to track the number of times a day they considered ending their life. From there participants could also write a description listing what they believed precipitated the suicidal thought, along with noting how they responded to this event. Learning the antecedents to recurrent suicidal thinking will be helpful for both the participant and the research team in identifying cognitions that contribute to adverse mental health outcomes in Black men. Implementing other quantitative methods like latent class analysis and latent growth

curve modeling will also be beneficial in moving this area of research forward, as these tools would be helpful in detecting underlying patterns or clusters of coping, stigma, and social support. Identifying which participants respond to the aforementioned items in similar ways will aid in the development of more tailored resources based on trends detected in latent class members, as the experiences of members in group 1 may differ from the experiences and needs of members in groups 2 or 3. Additionally, LGCA would also afford researchers the opportunity to measure how Black males' mental health changes across the lifespan.

It will be important for researchers to consider adopting a reorientation to their view of research with college students. By this I mean that there oftentimes seems to be a perception or idea that research on college student well-being and mental health is less timely, pertinent, or rigorous than research conducted with community-dwelling residents. This notion may be particularly persistent in social work research where there is a strong emphasis on justice for the marginalized, oppressed and underserved (Sheats, 2017). While I do not negate that college students do indeed hold a great deal of privilege and have more access to mental health services when compared to their peers who are not currently enrolled in at a college or university, we also cannot ignore the fact that suicide is the 2nd leading cause of death among U.S. college students (Brody, 2018). This death rate is alarming, particularly when considering that students usually do have access to campus mental health resources that have no direct costs or co-payment requirements. In sum, gaining admission and attending college alone is not enough to protect students from hardship, stress, and poor mental health, as whatever mental health concerns they experienced in high school may be exacerbated once they transition to college. Moreover, the typical challenges associated with learning to navigate a new social locale (i.e. campus) may be

overwhelming for students who are simultaneously contending against noxious environmental stressors that cause students to question both their ability and their worth.

Further, results from this dissertation indicate that Black college students generally, and Black college men specifically need additional support and resources to improve their mental health and academic success, as only one third of Black males who enroll at a 4-year university go on to finish the degree within 6 years (NCES, 2019). That being said, more collaborations between scholars in social work, psychology, and education will be required in order to adequately improve both mental health and academic outcomes in Black college men. At present it seems that social work and psychology researchers are in communication with one another, while education and psychology researchers also appear to work together. However, the findings from this dissertation suggest that it would be beneficial if social work, psychology and education researchers worked in tandem to ensure the creation of more effective programs, resources, and campus supports that intentionally and unapologetically bolster the well-being and academic success of Black college students, women, and men.

One example might include developing a program for undergraduate Black men that aims to improve both their mental health and time to degree completion. Data on mental health could be collected at the beginning and end of each academic year, which would offer more insight into Black college men's mental health experiences throughout their time on campus. Similarly, GPA could be measured across each year to see if there are associations or trends related to changes in GPA and mental health outcomes. One interesting potential question to pursue would be to examine the bi-directional relationship between GPA and mental health measures of flourishing, anxiety, depression, and suicide across each year using cross-lagged models. Does GPA predict well-being, or is well-being a stronger predictor of GPA? In this example social

workers and psychologists would be needed to select psychometric measures, administer tests, and provide psychological or therapeutic services to Black college men. Education researchers, however, would be helpful in determining how Black college men's mental health and academic experiences are shaped by institution type, academic major, campus involvement, time to degree, etc. Learning more about these relations will lead researchers to the most appropriate point of intervention while prioritizing mental health alongside academic achievement.

Conclusion

Overall, findings from the three studies affirm the need for even more research on suicide and well-being among Black college students. Future investigations should be careful to include measures that have been validated among Black samples; otherwise, they should be prepared to test dimensionality for each measure before making inferences about differences across groups. Moreover, findings from each study identify which specific coping strategies are most and least beneficial, while also emphasizing the importance of help-seeking, social support, and interpersonal relationships with others. Focusing on retention alone has not been enough to improve graduation rates and time to degree completion for Black college men. Thus, accounting for factors tied to both interpersonal relationships and mental health may serve as fruitful next steps in research, intervention, and practice that social workers, psychologists, and education researchers should undertake that will ultimately shape and inform the experiences Black men have throughout their time on campus and beyond.

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Appendices

Appendix A. Brief COPE Inventory Items

Likert Scale Response Options

1 = I haven't been doing this at all
2 = I've been doing this a little bit
3 = I've been doing this a medium amount
4 = I've been doing this a lot

1. I've been turning to work or other activities to take my mind off things.
2. I've been concentrating my efforts on doing something about the situation I'm in.
3. I've been saying to myself "this isn't real.".
4. I've been using alcohol or other drugs to make myself feel better.
5. I've been getting emotional support from others.
6. I've been giving up trying to deal with it.
7. I've been taking action to try to make the situation better.
8. I've been refusing to believe that it has happened.
9. I've been saying things to let my unpleasant feelings escape.
10. I've been getting help and advice from other people.
11. I've been using alcohol or other drugs to help me get through it.
12. I've been trying to see it in a different light, to make it seem more positive.
13. I've been criticizing myself.
14. I've been trying to come up with a strategy about what to do.
15. I've been getting comfort and understanding from someone.
16. I've been giving up the attempt to cope.
17. I've been looking for something good in what is happening.
18. I've been making jokes about it.
19. I've been doing something to think about it less, such as going to movies, watching TV, reading, daydreaming, sleeping, or shopping.
20. I've been accepting the reality of the fact that it has happened.
21. I've been expressing my negative feelings.
22. I've been trying to find comfort in my religion or spiritual beliefs.
23. I've been trying to get advice or help from other people about what to do.
24. I've been learning to live with it.
25. I've been thinking hard about what steps to take.
26. I've been blaming myself for things that happened.
27. I've been praying or meditating.
28. I've been making fun of the situation.

Appendix B. Interview Protocol from the Young Black Men, Masculinities, and Mental Health (YBMen) Project

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ICEBREAKER: First, I'd like to have you tell me your name and how you became interested in this topic.

I. **MENTAL HEALTH**

Now I'd like to get your thoughts about mental health.

A. What do the terms "mental health" and "depression" mean to you?

PROBE: What are some things that come to mind when you hear "mental health?"
PROBES: Are you familiar with "depression?" If so, what causes depression? If not, what do you think depression might be?

B. Have you ever known a Black man who had depression?

PROBES: What about a Black man who had another mental health problem? Can you tell me about that?; How did you know?; How did he deal with it?; How did he get better (if he did)?

C. Do you think Black men's experiences with mental health (and depression) are different than that of men from other racial groups?

II. MASCULINITY/MANHOOD

Now, let's talk for a minute about masculinity, or manhood.

A. What is your definition of masculinity, or being a man?

PROBE: Is this definition different for Black men compared to men of other races?

B. What does being "masculine" mean to the Black men in your life?

PROBE: How do you think these men came up with their idea of what it means to be masculine?

C. Do you think Black men's experiences with masculinity, or manhood, are different than that of men from other racial groups?

D. How does a "masculine man" deal with his mental health (and/or depression)?

III. SOCIAL SUPPORT

Now, let's talk for a minute about social support.

A. What is your definition of social support?

B. Can you talk a little about the kinds of social support you have received?

PROBE: For what kinds of situations have you needed social support in the past?

V. LAST QUESTION

Is there anything else you think we need to know about Black men, masculinity, social support, and mental health? Any final comments about anything we have discussed?

----- End of Interview Protocol