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Suicidal Thoughts and Behavior among Black College Students: Examining the Impact of Distress Tolerance and Social Support on Suicidality

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SUCIDAL THOUGHTS AND BEHAVIOR AMONG BLACK COLLEGE STUDENTS:
EXAMINING THE IMPACT OF DISTRESS TOLERANCE AND SOCIAL SUPPORT ON
SUICIDALITY

A Thesis Presented to
The Faculty of the Department of Psychology
Western Kentucky University
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In Partial Fulfillment
Of the Requirements for the Degree
Master of Arts

By
Anisha L. Thomas

August 2015

SUICIDAL THOUGHTS AND BEHAVIOR AMONG BLACK COLLEGE STUDENTS:
EXAMINING THE IMPACT OF DISTRESS TOLERANCE AND SOCIAL SUPPORT ON
SUICIDALITY

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The purpose of this investigation was to examine the role of distress tolerance in suicidality among Black college students. It was hypothesized that (1) individuals with low levels of distress tolerance would report higher levels of suicide ideation; (2) individuals with high levels of distress tolerance would report greater suicide attempts; (3) social support would moderate the relationship between distress tolerance and suicide ideation; (4) social support would moderate the relationship between distress tolerance and suicide attempts; and that (5) family and peer support would act as distinct buffers against suicidality. These hypotheses were tested by surveying 47 undergraduate university students (female = 49%; mean age = 22.45). Participants completed packets with self-report measures that included: the Self-Harm Behavior Questionnaire, the Distress Tolerance Scale, the Child and Adolescent Social Support, and demographics. Results suggested that individuals with low levels of distress tolerance showed greater history of self-harm behavior when compared to individuals with high levels of distress tolerance. Results indicated that social support moderated the relationship between distress tolerance level and history of self-harm behaviors. Results also indicated that family support acted as significant protective factor against suicidality.

Keywords: suicide, Blacks, distress tolerance, social support

Introduction

Suicide is a major public health concern. Most recent reports from the National Center of Health Statistics (Heron, 2013) indicate that suicide is the third leading cause of death among individuals ages 10-24 and the fifth leading cause of death among individuals ages 25-44. While suicide rates among Blacks remain lower than rates of their White counterparts, this gap has decreased significantly since the 1980s. The closing gap in rates results primarily from the increased rate of suicide in Black adolescent males and young adults (Brown & Grumet, 2009; Day-Vines, 2006). In 1980, the White adolescent suicide rate surpassed the suicide rates of Black adolescents by 157% (CDC, 1998). By 1995, this difference in rate decreased to 42% (Portner, 1998). Between 1980 and 1995, suicide rates among Black males ages 15-19 increased 146% while the increase for White males was 22% (CDC, 1998). Currently, suicide is the fourth leading cause of death among Blacks ages 10-14, the third leading cause of death among Blacks ages 15-24, and the fifth leading cause of death among Blacks ages 25-34 (Heron, 2013). Most recent data indicate that suicide is the 16th leading cause of death for Blacks and accounts for 0.7% of the total number of deaths for Blacks annually (Heron, 2013).

Suicidal ideation and suicide attempts among African Americans are important to investigate. Suicidal ideation is a common pathway to suicidal behavior that functions as an indicator of risk (Joe, Baser, Breeden, Neighbors, & Jackson, 2006). Data consistently show that those individuals who attempt suicide are at increased risk of suicide completion (Conner, Langlely, Tomaszewski, & Conwell, 2003; Kuo & Gallo, 2005). The 12-month prevalence rate for suicidal ideation (12.8%) in African American women is high in comparison to men and women of other ethnic groups (Joe et. al, 2006). In

2009, African American adolescents reported higher suicide attempts rates than Caucasians (CDC, 2010). African American males attempt suicide at a greater rate than both White males and White females (CDC, 2004). Joe and colleagues (2006) found that the risk for attempted suicide is highest in African Americans ages 15 to 24. While research indicates that African American women are less likely to die by suicide, they are more likely than males to attempt suicide (Griffin-Fennel & Williams, 2006). Therefore, the examination of suicide-related outcomes such as suicidal ideation and suicide attempts can not only help in understanding modifiable risk factors, it can also help to inform intervention and prevention strategies appropriate for Black young adults (Castle, Conner, Kaukeinen, & Tu, 2011).

Despite it being a significant but preventable problem, suicide, like many other public health concerns, is understudied in African American populations (Walker, Lester, & Joe, 2006). Harris and Molock (2000) argue the few studies that include African Americans are typically assessed alongside and in comparison to white-middle class subjects using the same assumptions, values, and methodologies. Without taking the different cultural and societal realities that exist between African Americans and Whites into account, conclusions based on these studies may not be appropriate (Harris & Molock, 2000). Similarly, Walker, Wingate, Obasi, and Joiner (2008) suggest that African American youth transitioning from high school to college may be faced with unique contextual experiences (e.g. perceived discrimination) that are predictive of suicide risk levels. However, Buchannan, Flowers, Salami, and Walker (2011), noted that there is a dearth of research examining factors related to suicide among African American college

students. This is especially disconcerting given that suicide is currently the second leading cause of death among college students (Drapeau & McIntosh, 2014).

While college can be an exciting time and enriching experience, for some students, especially those moving away from home, elements of the college experience itself have the potential to become risk factors, including changes in role expectations, academic pressures, career indecision, and financial demands and lead to increased feelings of isolation from family members and friends (Harris & Molock, 2000; Hirsch & Ellis, 1996; Larose & Boivin, 1998; Richardson, Bergen, Martin, Roeger, & Allison, 2005). College women in particular are more likely to experience higher levels of depression and hopelessness than males, putting them at increased risk for experiencing suicide ideation and/or engaging in suicidal behavior (Essau, Lewisohn, Seeley, and Sasagawa, 2010; Langhinrichsen-Rohling, O'Brien, Klibert, Arata, & Bowers, 2006). Regardless of gender, college presents itself with a unique and often novel set of challenges that can impact psychological well-being. Because African American college students do not disclose suicidality as readily as their White counterparts (Morrison & Downey, 2000), it is especially imperative to examine potential risk and protective factors of suicide ideation and suicide attempts among this population.

Social Support

Social support, defined by the CDC (2008) as a component of connectedness, or the extent to which a person or group is socially close, interrelated, or shares resources with other individuals or groups, has been indicated as a protective factor against suicidal behavior (Merchant, Kramer, Joe, Venkataramam & King, 2009) among groups of people from varying ethnic backgrounds (Wingate et. al, 2005).

Despite having a history of being faced with significant stressors such as economic hardship, limited-access to care, and race-related challenges, Gibbs (1997) hypothesized that social support along with strong religious affiliation, kinship networks, and community support help reduce suicide risk for African Americans. Nisbett (1996) for example, found that having relationships spanning generations, neighbors, and friends help with financial stressors and provide emotional support for African American women. The protective nature of social support against suicidal behavior has been shown among low income African Americans, abused African American women, African American college students and across gender (Kaslow et al., 2005, Kaslow et al., 2002; Nisbett, 1996).

Research on stress and coping indicate that strong family ties and supportive networks function in multiple ways to buffer against suicidal ideation and attempts. Based on their review of the literature, Lincoln, Taylor, Chatters, and Joe (2012) summarized that family support networks serve as resources and coping mechanisms to deal with stress, help to reduce the amount of stress actually experienced by helping to reframe the perception of stressors, and provide emotional support that is important in facilitating a positive self-concept that lends itself to dealing with life challenges. Among African Americans, family support is seen as a culturally salient variable given that connectedness to family is historically important in coping with a society that is antagonistic (Billingsley, 1992). Family connectedness is also in line with communal values promoted in the African American culture, in that communalism emphasizes the extended self, the fundamental interdependence of people, and the importance of social bonds (Harris and Molock, 2000).

Indeed aspects of familial support have been implicated as risk and protective factors for suicidal ideation and attempts. For example, negative interaction with family members was associated with greater likelihood of suicide ideation while perceived emotional support from family served as a protective factor for suicide attempts and suicide ideation among African Americans (Lincoln et. al, 2012). In their study of African American college students, Harris & Molock (2000) found that higher levels of family cohesion and family support were associated with lower levels of suicide ideation and depression. Additionally, studies have shown that closeness to parents reduced suicide ideation among high school students, independent of depressive symptoms (Kandel, Raveis, & Davies, 1991).

Similarly, peer support has been implicated as a protective factor in mental health outcomes, including suicidal behavior (Matlin, Molock, & Tebes, 2011). Peer support appears to be especially salient in adolescence, a developmental period in which individuals typically spend an increased amount of time with peers rather than family members (Cole & Cole, 1996). Studies indicate that adolescents who perceive their friends as supportive report fewer school-related and psychological problems, increased confidence in their social acceptance by peers, and less loneliness (Cole & Cole, 1996; Lagana, 2004). High levels of social support from friends have also been shown to buffer against suicidality among highly depressed high school adolescents (Reifman & Windle, 1995). Conversely, suicidal adolescents have been found to be more socially isolated than non-suicidal adolescents (Berman & Schwartz, 1990; Hawkin, Fagg, & Simkin, 1996) and to perceive themselves as more rejected by peers (Prinstein, Boergers, Spirito, & Grapentine., 2000). Similarly, in a longitudinal study of suicide attempt and nonsuicidal

self-injury among depressed adolescents as young adults, results indicated that low perceived peer support and alcohol use predicted suicide attempts in both a 1-year follow up and in the period between a 1- and 8-year follow-up (Tuisku et. al, 2014).

A limited number of studies have comparatively investigated peer support and family support as distinct protective factors against suicidal ideation. Those that have, report conflicting results: Lewinsohn, Rohde, and Seeley (1993) found that perceived support from parents to be a stronger buffer against suicidal ideation than perceived peer support among adolescents. However, other studies have indicated that increased peer support is a stronger protective factor for suicidal ideation than parental support (see Kandel et al. 1991). Additionally, some studies suggest peer support to be a stronger buffer against suicide ideation in the presence of specific risk factors. As an example, Brausch and Decker (2014) found the relationship between disordered eating and suicidal ideation to be significantly moderated by peer support but also found depression and suicide ideation to be more strongly moderated by family support and self-esteem. Furthermore, even fewer studies have investigated the relationship of peer support and suicidality among ethnic minority adolescents (Matlin et. al, 2011). In their study of African American college students, Kimbrough, Molock, and Walton (1996) found both family and peer support to buffer against suicidal ideation. In contrast to these findings, O'Donnell, O'Donnell, Wardlaw, and Stueves (2004) found that peer support was not protective against suicidality among urban African Americans and Latino adolescents. While discrepant, these results could also indicate that access to and utilization of peer support is more meaningful to individuals in a college setting. Taken together, these

findings suggest further exploration of peer support as a distinct moderator of risk that is influenced by both context and culture.

Emotion Regulation

Difficulties with emotion regulation have been implicated as an important risk factor for suicidality. Ciarrochi, Deane, and Anderson (2002) showed a negative association between self-reported ability to manage self-relevant emotions and suicidal ideation among college students. Traditionally, emotion regulation has been viewed as a discrete, unitary construct thereby obscuring the specific mechanisms by which emotion regulation may impact suicidality (Rajappa, Gallagher, & Miranda, 2012). Recently, Gratz and Roemer (2004) have presented a more detailed model of emotion dysregulation. Their multi-dimensional conceptualization of emotion regulation indicate six separate distinct dimensions in which emotion regulation difficulties can arise including (1) lack of awareness of emotion state, (2) lack of clarity of emotion state, (3) nonacceptance of emotion state, (4) limited access to emotion regulation strategies perceived to be effective, (5) difficulty controlling impulses that occur as a result of experiencing negative emotions, and (6) difficulties in persisting in goal-directed behaviors when experiencing negative emotions.

Theories suggest that individuals engage in lethal self-harm as a means to escape negative emotions and avoid unwanted distress. As an example, Baumeister's (1990) escape theory of suicide posits that awareness of one's inadequacies leads to increased negative affect and as such, individuals develop a desire to escape this awareness. The individual attempts to decrease this awareness and limit emotion thereby leading to disinhibition and irrationality. This state of diminished awareness and nonacceptance of

emotion makes drastic measures such as suicide an acceptable way in which to escape from the self and the world. Additionally, borderline personality disorder along with several other psychiatric diagnoses including post-traumatic stress disorder is characterized by difficulties with regulating emotions and elevated rates of suicide. To further illustrate this point, Linenhan (1993) suggested that individuals with borderline personality disorder (BPD) invalidate or do not accept their negative emotions and may attempt suicide to escape such emotions when they perceive this as their only means of coping. Consistent with these predictions, in a study examining emotion dysregulation and vulnerability to suicide ideation and attempts, results indicated that multiple suicide attempters differed from individuals with a history of no suicide ideation/no past attempts on two emotion dysregulation dimensions-non acceptance of emotional responses and perceived limited access to emotion regulation strategies, with the latter being the most significant predictor of current suicidal ideation (Rajappa et al., 2012).

Joiner's (2005) interpersonal-psychological theory of suicide posits that individuals who die by suicide have both the desire and ability to do so. IPTS states that the desire for death stems from perceived burdensomeness and thwarted belongingness, in which individuals see themselves as being a burden to others and experience feelings of social alienation. However, the theory asserts that such individuals will not act on the desire for death unless they have acquired the capability to do so. It maintains that the few individuals who engage in lethal-suicidal behavior have repeatedly experienced painful or life-threatening events to the extent that they no longer fear pain, injury, and death thereby overcoming their instinctual drive for self-preservation. Such an assertion

also suggests that individuals experience a disruption in or detachment from emotion in order to attempt suicide.

Given that emotion dysregulation has been implicated in a number of psychiatric disorders with high suicide rates, it would be important to examine its relationship to suicidality. However, research investigating the role of emotion regulation in IPTS has been sparse with the primary focus of emotion regulation and suicidality being suicidal ideation rather than behavior (Anestis, Bagge, Tull, & Joiner, 2011a).

Distress Tolerance

Anestis and colleagues (2011a) proposed examining specific subcomponents of emotion dysregulation such as distress tolerance and/or negative urgency, as a means to clarify the relationship between emotion dysregulation and suicide attempts versus suicide ideation. Distress tolerance, the ability to experience, accept, and persist in the context of negative psychological states (Simons & Gaher, 2005), has been linked to several negative outcomes including substance use, cigarette smoking, and non-suicidal self-injury (e.g. Anestis, Kleiman, Lavender, Tull, & Gratz, 2014; Dahne et al., 2014; Dennhardt & Murphy, 2011). Distress tolerance also overlaps with several facets of Gratz and Roemer's (2004) aforementioned model of emotion dysregulation, including nonacceptance of emotion states, an unwillingness to experience emotion distress as a part of goal pursuit, and an inability to persist in goal-directed behavior when upset (see Anestis et. al, 2011a; Gratz, Bornovalova, Delaney-Brumsey, Nick, & Lejuez, 2007).

Studies investigating the role of distress tolerance in the IPTS yielded results that suggest a somewhat complicated relationship. Research has shown that low levels of distress tolerance are associated with higher levels of perceived burdensomeness and

thwarted belongingness (Anestis et. al, 2011a; Anestis, Selby, Fink, & Joiner, 2011b). However, higher levels of distress tolerance have been shown to be predictive of the acquired capability for suicide. For example, high levels of behaviorally-indexed distress tolerance were predictive of higher acquired capability in an undergraduate sample (Anestis & Joiner, 2012). Similarly, high levels of distress tolerance were associated with higher acquired capability for suicide while low levels of distress tolerance were associated with a greater desire for suicide but lower levels of acquired capability for suicide (Simons & Gaher, 2005). These results suggest (1) that individuals who have difficulty withstanding negative emotions may find it especially difficult to engage in suicidal behavior (Anestis, Knorr, Tulle, Lavender, & Gratz, 2013) and (2) that the individual experience of and response to negative emotions might be more predictive of suicidal ideation than suicide attempts (Capron, Norr, Macatee, & Schmidt, 2013).

Very few studies have investigated the impact of race and distress tolerance on problematic behavior. One such study showed that White adolescents with low distress tolerance exhibit more externalizing psychopathology (i.e. oppositional defiant and conduct problems) than their Black counterparts (Daughters et al., 2009). Another study found that depression, distress tolerance, and delay discounting were predictive of alcohol-related problems for African American college students but only depression was a significant predictor of alcohol problems for White college students. Similarly, Dahne and colleagues (2014) found that African Americans with low levels of distress tolerance were more likely to be cigarette smokers than Whites. While these studies indicate that the role of distress tolerance varies by race/culture, no study to date has investigated its impact on suicidal ideation and/or suicide attempts specifically among Blacks.

Rationale and Hypotheses

Suicide risk among African American youth and young adults remains poorly understood (Walker et al., 2008). Most studies of suicidal thoughts and behaviors among Black adolescents and young adults focus on traditional risk factors comparing Blacks to Whites or other racial/ethnic groups (Castle et al., 2011; Harris & Molock, 2000). However, risk factors that have been identified for White youth do not hold up for Black youth and young adults (see, Garlow, Purselle, & Heninger, 2007). While the Interpersonal Psychological Theory of Suicide (ITPS; Joiner, 2005) has garnered attention in suicide literature, there is limited research examining the role of emotion dysregulation in ITPS, and a dearth of literature investigating the theory's applicability to Blacks.

Research suggests a different relationship between distress tolerance and suicidal ideation versus suicide attempt in that low levels of distress tolerance better predict suicide ideation while high levels of distress tolerance are more predictive of suicide attempts. Furthermore, ITPS asserts that a thwarted sense of belongingness coupled with perceived burdensomeness leads to an increased desire for death. Given that social support has been shown to buffer against suicide ideation and behavior among ethnic minorities and young adults, it would be beneficial to examine its impact on the relationship between distress tolerance and suicide ideation and suicide attempts in an African American college student sample. Therefore it is predicted that (1) individuals with low levels of distress tolerance will report higher levels of suicide ideation, (2) individuals with higher levels of distress tolerance will report more suicide attempts, (3) social support will moderate the relationships between low distress tolerance and suicide

ideation, (4) social support will moderate the relationship between high distress tolerance and suicide attempts when social support is high.

The final hypothesis is exploratory in nature. Despite the significance of social relationships to the psychological well-being in college students, few studies have examined the independent effects of specific types or functions of social support (Hirsh & Barton, 2011). Furthermore, while some studies indicate that both peer and family support are especially important in adolescence, much of the research on African Americans and social support have measured social support as a unitary construct. Those studies that examined various forms of social support (i.e. family support, community support, and religious support) suggest that family support is an overall better predictor of psychological well-being. Based on the review of the literature, to date, few studies have examined peer support as a distinct moderator of risk for suicide ideation and suicide attempts using an African American college student sample. Therefore, the individual impact of family support and peer support will be examined separately on suicidality, defined for the purposes of this study as the self-reported frequency of suicide ideation and suicide attempts.

Method

Participants

Data was collected from 357 participants and 47 (13.2%) self-identified as Black or African American. This sample included 24 males and 23 females. The mean age was 22.45 ($SD=15.08$). The sample included 29 (61.7%) Freshman, 9 (19.1%) Sophomores, 3 (6.4%) Juniors, and 6 (12.8%) Seniors, based on self-report. Data from the SHBQ indicated that of the 47 participants, 9 (19.1%) reported a history of suicide ideation and

2 (4.3%) reported a history of suicide attempts. Both of the participants who endorsed a history of suicide attempts reported a history of 2 attempts. Additionally, 5 (10.6%) participants reported a history of suicide threats and 6 (12.8%) reported a history of self-injurious behavior. Of the six participants who endorsed a history of self-injurious behavior, 2 reported a history of cutting and 2 reported a history of scratching/biting. One participant reported a history of hair pulling/cutting and 1 participant reported a history of carving. Within the sample of Black college students, 1 participant was excluded due to missing data. The analyses were left with a total of 46 participants.

Procedure

Participants were recruited from introductory psychology classes through Western Kentucky University's Study Board website and received credit towards the completion of the class requirements. . Participants met in groups of no larger than 20 within an on-campus classroom to complete the study. Participants proceeded in signing an informed consent document, and were given a packet of questionnaires that included measures to assess self-harm-related factors, distress tolerance, and social support. Researchers remained in the room during assessment sessions to answer questions. Participants completed the questionnaires within one hour. Researchers then debriefed participants individually. Critical items for suicide risk were assessed at debriefing. Individuals with passive suicidal ideation were given the number to the Western Kentucky University Counseling and Testing Center and advised to schedule an appointment. Seriously-at-risk individuals were taken immediately by the examiner to the Western Kentucky University Counseling and Testing Center. Different levels of at risk were assessed through physical cues with the more at risk seen as shaking, crying, and cognitive cues with high risk

individuals seen as expressing an inability to agree to a safety plan. Participants' information were identified by code numbers only, and kept in a locked cabinet in a locked room. Forms that connected the participants name and number were kept under a different locked cabinet in a locked room. At study conclusion, there were 10 individuals from the total sample of 357 who were referred to contact the Western Kentucky University Counseling and Testing Center. There were no individuals who needed immediate referral.

Measures

History of Suicidality. The Self-Harm Behavior Questionnaire (SHBQ; Gutierrez et al., 2001) is a brief self-report measure used to assess the frequency and severity of respondents' nonlethal self-injurious behaviors (Appendix A). The questionnaire includes both free response and forced-choice items and is divided into four distinct sections. The first section asks about non-suicidal self-injury ("Have you ever hurt yourself on purpose?"), the second section asks about suicide attempts ("Have you ever attempted suicide?"), the third section asks about suicide threats ("Have you ever threatened to commit suicide?"), and the fourth section asks about suicidal ideation ("Have you ever talked or thought about wanting to die? Have you ever talked or thought about committing suicide?"). Each section includes follow-up questions regarding intent, lethality, lifetime incidence, and outcome. Responses for items are summed to produce a total score for each of the four separate sections (Part A: non-suicidal self-injury, Part B: suicide attempts, Part C: suicide threats, and Part D: suicide ideation). Scores from each section can be combined to yield an overall score that represents the overall frequency

and severity of respondents' self-harm behaviors. For the purposes of this study, a total score from all sections of the SHBQ were used.

The SHBQ is commonly used to assess young adult self-harm behaviors, and has been found to be a reliable indicator of current and past suicidality (Gutierrez et al., 2001). Analyses evaluating inter-rater reliability for the scoring of the questionnaire suggest that the percentage of agreement is between 95% and 100% (Gutierrez et al., 2001). Additionally, the SHBQ was has been found to be a reliable measure of suicidality across racial/ethnic groups. A study using African American, Hispanic, and Caucasian high school students yielded an internal consistency ranging from .90 to .97 among the subscales and an internal consistency of .93 for the total score (Muehlenkamp, Cowles, & Gutierrez, 2010). The measure is significantly correlated with other validated and commonly used assessments of suicide-related behaviors: the Suicidal Behaviors Questionnaire-Revised (SBQ-R; Osman et al., 2001), the Adult Suicidal Ideation Questionnaire (ASIQ; Reynolds, 1991), and the Suicide Probability Scale (SPS; Cull & Gill, 1988). In the current sample, the reliability coefficient for the SHBQ was .913.

Difficulty with Emotion. The Distress Tolerance Scale (DTS; Simons & Gaher, 2005) is a 15- item self-report measure designed to assess the extent to which individuals can withstand negative emotions before deeming them intolerable. Respondents are asked to think of a time when they felt distressed or upset and to indicate how strongly they agree with subsequent statements using and 5-point Likert scale ranging from (1) *strongly agree* to (5) *strongly disagree*. Sample items include "Feeling distressed or upset is unbearable to me," "I can tolerate being distressed or upset as well as most people," and "I am ashamed of myself when I feel distressed." Ratings from each statement are

summed together yielding a total score of distress tolerance. Total scores can range from 0 to 75, with higher scores indicating greater levels of distress tolerance. Lower scores indicate increased difficulty in tolerating negative emotions. The scale is negatively correlated with measures of affect distress (the General Temperament Survey; Clark & Watson, 1990) ($r=-.59$; Simons & Gaher, 2005), and affect lability (Affective Lability Scale; Harvey, Greenberg, & Serper, 1989) ($r=-.51$; Simons & Gaher, 2005). The measure is positively correlated with scales related to positive affectivity (the General Temperament Survey; Clark & Watson, 1990) ($r=.26$; Simons & Gaher, 2005). In the current sample, the reliability coefficient for the DTS was .896.

Social Support. Child and Adolescent Social Support Scale-College Version (CASSS-C, Malecki, Demaray, & Elliott, 2000) is 60-item self-report measure of perceived social support from four sources: family, close friends, peers, and other adults. Each source comprises a subscale containing varying number of items. The family subscale contains 14 items, the close friends subscale contains 18 items, the peers subscale contains 15 items, and the other adult subscale contains 13 items. Participants report the frequency and importance of each item. Frequency ratings use a 6-point Likert scale that ranges from (1) *Never* to (6) *Always*. Importance rating use a 3-point Likert scale of (1) *Not Important* to (3) *Very Important*. For example, students would rate the item "My family shows or tells me that they are proud of me" on both how often it occurs and how important it is to them. Subscales scores are tabulated by summing the frequency ratings for each item within the subscale. A total score can be calculated by adding the frequency ratings for all 60 items. For the purposes of this study, a total score of social support was used to test hypotheses 1 through 4. In order to test the fifth and

final hypothesis, frequency scores from the peer subscale were used as an indicator of peer support and frequency scores from the family subscale were used to indicate family support. The frequency ratings are used for research, the importance ratings are usually used for clinical settings (Appendix C). For the present study, the reliability coefficients for the CASSS-C total score, family support subscale score, and the peer support subscale score were .978, .957, and .973, respectively.

Demographics. Demographics were assessed in a questionnaire with open-ended questions asking the participants' age, gender, ethnicity, parental marital status, religious affiliation, year in school, height, and weight (Appendix D). For the purposes of this study, only participants who identified themselves as "Black or African American" on the ethnicity section were included in the analyses.

Results

Data were analyzed using two linear regression models and one hierarchical regression model. The first hypothesis was that level of distress tolerance would be inversely related to suicide ideation. The second hypothesis was that level of distress tolerance would be positively related to frequency of suicide attempts. Given the limited variance in responding on the SI and SA subscales of the SHBQ as described in the Participant section of this document, hypotheses 1 and 2 were combined and one linear regression model was used. Distress tolerance was entered as the independent variable and the SHBQ total score was entered as the outcome variable. The overall model was significant, $F(1, 44) = 12.08; p = .001$, indicating a significant negative relationship between distress tolerance level and overall self-harm history. Distress tolerance level accounted for 21.5% of the variance of the SHBQ total score (see Appendix E: Table 1).

The third and fourth hypotheses were that social support would moderate the relationship between distress tolerance and suicide ideation and suicide attempts, respectively. These hypotheses were also combined given the limited variance in responses on the SI and SA scales of the SHBQ. This was tested using a hierarchical regression model in which total scores for distress tolerance and social support were entered as the independent variables and the SHBQ total score was entered as the outcome variable. In Block 2, the interaction between Distress Tolerance and Social Support was entered. Overall, Model 1 was significant, $F(2,43) = 14.75, p < .001$, implying significant relationships between both distress tolerance and social support and total score of the SHBQ. These relationships accounted for 40.7% of the variance of the SHBQ total score. Model 2 was also significant, $F(1, 42) = 11.51, p = .002$; the interaction of distress tolerance and social support was significantly related to the SHBQ total score, indicating that social support was acting as a moderator. This relationship accounted for an additional 12.8 % of the variance of the SHBQ total score. The overall hierarchical regression model accounted for a total of 53.4% of the variance of the SHBQ total score (See Appendix E: Table 2). Figure 1 shows that social support acted as a moderator. The negative relationship between distress tolerance and suicidality weakens when social support is high and distress tolerance level is low in that suicidality remains low. When both social support and distress tolerance levels are high, suicidality again remains low. Conversely, low levels of social support strengthens the negative relationship between distress tolerance and suicidality in that when social support was low and distress tolerance level was low, greater levels of suicidality are reported.

Similarly, when social support is low and distress tolerance level was high, greater levels of suicidality are also reported (see Appendix E: Figure 1).

The final hypothesis was that family support and peer support would be distinctly related to suicidality. This was tested with a regression model in which family support and peer support were entered as independent variables and total score of the SHBQ was entered as the outcome variable. The overall model was significant, $F(2, 43) = 12.66, p < .001$, indicating a significant relationship between family and peer support on self-harm history. This relationship accounted for 37.1% of the variance of the SHBQ total score. The model indicated a significant relationship between family support and suicidality, $t = -3.804, p = .000, \beta = -.499$, but no significant relationship between peer support and suicidality, $t = -1.569, p = .124, \beta = -.206$ (see Appendix E: Table 3).

Discussion

The goals of the current study were to examine the relationship between distress tolerance and suicide ideation, the relationship between distress tolerance and suicide attempts, to investigate the moderating effects of social support on these relationships, and to explore the individual predictive value of family support and peer support on suicidality among Black college students. This study examined if those individuals with low levels of distress tolerance would report higher frequencies of suicide ideation. The second hypothesis predicted that individuals with high levels of distress tolerance would report more frequent suicide attempts. These hypotheses were to be tested using two separate regression analyses with data collected from the measures of distress tolerance and self-harm history. However, these hypotheses were not tested nor supported given the limited reporting of suicide ideation and suicide attempts among participants on the

SHBQ. This limitation in responding could be due to the small sample size used for this study. Additionally, given the historically taboo nature of suicide, particularly in the Black community, such individuals may not be as forthcoming when using self-report measures of suicidal thoughts and/or behaviors. Instead, one regression was used in which total score of the SHBQ, which assesses history of suicide ideation, threats, attempts, and self-injurious behavior, was used as the outcome variable rather than suicide ideation or suicide attempts alone.

Results indicated a significant negative association between levels of distress tolerance and self-harm in that low levels of distress tolerance were associated with increased frequency and severity of self-harm behaviors. Given that threats are not an act of engaging in self-harm behaviors, it would be expected that individuals with low levels of distress are more likely to threaten suicide rather than attempt suicide. It is important to note that much of the literature on distress tolerance and suicidality examines its relationship to acquired capability for suicide and suicide ideation rather than suicide attempts. While it can be postulated that an increased acquired capability for suicide leads to greater suicide attempts, there is limited research that specifically examines suicide attempts in the distress tolerance literature. Although the current hypotheses sought to investigate this relationship, it would be useful to investigate distress tolerance in conjunction with suicidal thoughts and behaviors and acquired capability among this population in future studies.

The third and fourth hypotheses were that social support would moderate the relationship between distress tolerance and suicide ideation and suicide attempts, respectively. These hypotheses were also combined due to limited variance in history of

self-harm behavior. Social support was examined as a moderator in the relationship between distress tolerance and total self-harm history using the PROCESS Procedure for SPSS (Release 2.13; Hayes, 2013). Results from this analysis found a significant interaction between distress tolerance and social support (see Figure 1) with the overall model explaining 53.45% of the variance, $F(3,42) = 20.46, p < .001$. These results indicate that social support moderated the relationship between depression and self-harm history ($\beta = .005, p < .001$); the conditional mean effects of social support as a moderator of the relationship between distress tolerance and self-harm history were found to be significant at one standard deviation below the mean ($t = -4.77, p < .001$), at the mean level ($t = -3.02, p = .004$), but not at one standard deviation above the mean ($t = -0.22, p = .83$). As shown in Figure 1, when social support was high, self-harm history levels were low regardless of distress tolerance skills. When social support was low, self-harm history was highest when distress tolerance skills were also low, and still elevated when distress tolerance skills were high, compared to those with higher levels of social support.

Given that social support has been consistently shown to buffer against suicide ideation, suicide attempts, and foster increased psychological well-being particularly in, but not limited to, African Americans, these results are expected. Such a relationship suggests that even when individuals, alone, report a limited ability to tolerate distress, having support from others helps these individuals to better cope with distressing events and decreases the use of self-harm as an alternative form of coping. This could be for reasons previously discussed; that social support helps individuals deal with negative events by offering ways to deal with stress, providing emotional and/or financial support, and contributing to a sense of belongingness (Harris & Molock, 2000; Hirsch & Barton,

2001; Kaslow et. al, 2005). Conversely, results indicated that low levels of distress tolerances coupled with low levels of social support were associated with increased self-harm history. These results are consistent with previous studies indicating that low levels of social support are consistently associated with increased suicidal thoughts and behaviors among African Americans college students as well as African Americans from varying demographic backgrounds (Kaslow et. al, 2002; Lincoln, et. al, 2012).

Low levels of social support have been linked to increased feelings of isolation and withdrawal (see Berman & Schwartz, 1990; Hawkin, Fagg, & Simkin, 1996), which according to Joiner (2005), is a key factor in developing a desire to die. It is likely that individuals with low levels of social support who find it difficult to persist and accept distressing emotional states may have increased feelings of loneliness and hopelessness. These feelings may lead to the perception of having not only limited forms of coping but also limited reasons for living, making suicide a more viable option for these individuals. Future studies may seek to examine the individual impact of social support on various forms of self-harm (i.e. suicide ideation, suicide threats, suicide attempts, non-suicidal self-injury) with a larger sample of Black college students. Additionally, given that literature suggests a significant relationship between distress tolerance and acquired capability for suicide (Anestis et. al, 2011a; Anestis et. al 2011b), in that higher levels of distress tolerance are associated with higher acquired capability for suicide, it would also be beneficial to investigate the impact of social support on this relationship among this population.

The fifth hypothesis was to explore the individual impact of family support and peer support on suicidality. It was expected that family support and peer support would

act as independent buffers against suicidality. This hypothesis was partially supported in that family support was a significant predictor of self-harm behaviors, in that a higher level of family support was related to lower levels of suicidality. Peer support, however, was not a significant predictor of self-harm behaviors. Given the historical importance of family and kinship networks in the Black community (Billingsley, 1992), it makes sense that family support would be more protective against suicidality. However, because college students are typically leaving home and gaining more independence, these results could also imply that family support becomes more important as it helps maintain a sense of connectedness and continuity during this transitional period. While peer support was not a significant protective factor against suicidality in this study, prior studies have indicated mixed results (see Matlin et. al, 2011; O'Donnell et. al, 2004). Given that youth typically spend more time with their peers than with family (Cole & Cole, 1996), more research is needed to understand the significance of peer support among college students. Future research should include a comparative sample of other racial/ethnic groups in order to determine if such results are based on racial/ethnic background and/or educational status of the participants.

Study Limitations

There are limitations to this study that bear mentioning. While the current study was able to examine the relationship between distress tolerance levels and overall frequency of self-harm, the sample sized used for this study limited more meaningful exploration of distress tolerance and its distinct relationship to suicide ideation and suicide attempts among Black college students. Such a small sample size could minimize the impact of several relationships examined in this study. Future research should employ

a larger sample size in order to better examine the relationship between distress tolerance and suicide ideation and suicide attempts and to examine the impact of social support on these relationships. Furthermore, while this study sought to investigate distress tolerance, suicidality, and social support among Black college students, the lack of a comparative sample of individuals of other racial/ethnic backgrounds and educational levels limits the generalizability of this study. The lack of a comparison sample also precludes the researchers from making neither race/ethnicity nor education-specific inferences based on the results. As mentioned previously, future research should seek to employ comparative samples of individuals from other race and educational levels so that such conclusions can be established. It is also important to note that participants were students from a predominantly white institution; future research may seek to identify potential differences in suicidal behavior and perceived social support between Black college students at predominantly white institutions and Black college students at predominantly Black institutions. Furthermore, much of the research on social support relies on self-report measures that assess perceived availability and importance of support. Nonetheless, it would be useful to employ qualitative measures of social support in order to further explore the ways in which varying forms of support help to facilitate psychological and emotional well-being.

Concluding Remarks

The current study was able to find differences in suicidality, identified by frequency and severity of self-harm behavior, in regards to distress tolerance, overall perceived social support, and various types of social support among Black college students. The results show that suicidality seems to be negatively impacted by an

individual's ability to tolerate distress, which highlights the importance of assessing distress tolerance level as a strong correlate of self-harm behavior. The results also showed the importance of assessing perceived social support for those individuals with low levels of distress tolerance, especially among Blacks in a university setting. Previous research suggested that the Black youth at institutions of higher learning may experience race-related issues such as racism and discrimination (Walker et. al, 2008), which likely impact levels of distress and perceived social support. It would be important to assess the experience of race-related stressors such as perceived discrimination and acculturative stress when working with Black college students who have low levels distress, social support, and/or a history of self-harm. It would also be wise for the therapist to incorporate positive coping skills so as to replace self-harm behaviors and improve psychological well-being. It is likely that such strategies will also have a positive impact on retention rates of Blacks college students by enabling them to appropriately identify and cope with both race-related and college-related stressors. For individuals in a college setting, regardless of race/ethnicity, both social support and distress tolerance level may become especially important to as students typically experience changes in the amount of responsibility, freedom, and expectations set for themselves and by others. Future research should be done to examine how distress tolerance levels are impacted by life changes, such as transitioning from high school to college. Finally, these results highlight why researchers and clinicians should address both access to and amount of varying forms of support for individuals who are at risk for suicidal thoughts and behaviors. It is especially important to assess the amount of perceived familial support

and family dynamics among Black college students. Such information can be used to inform both prevention and intervention strategies.

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Appendix A: The Self-Harm Behavior Questionnaire

Current age: _____

SHBQ

A lot of people do things which are dangerous and might get them hurt. There are many reasons why people take these risks. Often people take risks without thinking about the fact that they might get hurt. Sometimes, however, people hurt themselves on purpose. We are interested in learning more about the ways in which you may have intentionally or unintentionally hurt yourself. We are also interested in trying to understand why people your age may do some of these dangerous things. It is important for you to understand that if you tell us about things you've done which may have been unsafe or make it possible that you may not be able to keep yourself safe, we will encourage you to discuss this with a counselor or other confidant in order to keep you safe in the future. Please circle YES or NO in response to each question and answer the follow-up questions. For questions where you are asked who you told something to do not give specific names. We only want to know if it was someone like a parent, teacher, doctor, etc.

Things you may have actually done to yourself on purpose.

1. Have you ever hurt yourself on purpose? (e.g., scratched yourself with finger nails or sharp object) **YES** **NO**

If no, go on to question #2.

If yes, what did you do?

a. Approximately how many times did you do this?

b. Approximately when did you first do this to yourself? (*write your age*) _____

c. When was the last time you did this to yourself? (*write your age*) _____

d. Have you ever told any one that you had done these things? **YES** **NO**

If yes, who did you tell?

e. Have you ever needed to see a doctor after doing these things? **YES** **NO**

Times you hurt yourself badly on purpose or tried to kill yourself.

2. Have you ever attempted suicide? **YES** **NO**

If no, go on to question #4.

If yes, how?

(Note: If you took pills, what kind? _____ how many? _____
over how long a period of time did you take them? _____)

a. How many times have you attempted suicide? _____

b. When was the most recent attempt? (*write your age*) _____

c. Did you tell anyone about the attempt? **YES**

NO

Who? _____

d. Did you require medical attention after the attempt? **YES** **NO**

If yes, were you hospitalized over night or longer? **YES** **NO**

How long were you hospitalized? _____

e. Did you talk to a counselor or some other person like that after your attempt?

YES **NO** Who? _____

3. If you attempted suicide, please answer the following:

a. what other things were going on in your life around the time that you tried to kill yourself?

b. Did you actually want to die? **YES** **NO**

c. Were you hoping for a specific reaction to your attempt? **YES** **NO**

If yes, what was the reaction you were looking for? _____

d. Did you get the reaction you wanted? **YES** **NO**

e. Who knew about your attempt? _____

Times you threatened to hurt yourself badly or try to kill yourself.

4. Have you ever threatened to commit suicide? **YES** **NO**

If no, go on to question # 5.

If yes, what did you threaten to do?

a. Approximately how many times did you do this? _____

b. Approximately when did you first do this? (*write your age*) _____

c. When was the last time you did this? (*write your age*) _____

d. Who did you make the threats to? (e.g., mom, dad) _____

e. What other things were going on in your life during the time that you were threatening to kill yourself? _____

f. Did you actually want to die? **YES** **NO**
g. Were you hoping for a specific reaction to your threat? **YES** **NO**
If yes, what was the reaction you were looking for? _____

h. Did you get the reaction you wanted? **YES** **NO**
If you didn't, what type of reaction was there to your threat? _____

5. Have you ever talked or thought about:

 Wanting to die? **YES** **NO**
 Committing suicide? **YES** **NO**

a. What did you talk about doing?

b. With whom did you discuss this?

c. What made you feel like doing that?

d. Did you have a specific plan for how you would try to kill yourself? **YES** **NO**
If yes, what plan did you have?

e. In looking back, how do you imagine people would react to your attempt?

f. Did you think about how people would react if you did succeed in killing yourself?
 YES **NO** If yes, how did you think they would react?

g. Did you ever take steps to prepare for this plan?
If yes, what did you do to prepare?

YES

NO

APPENDIX B: The Distress Tolerance Scale

Directions: Think of times that you feel distressed or upset. Select the item from the menu that best describes your beliefs about feeling distressed or upset.

1. Strongly agree
2. Mildly agree
3. Agree and disagree equally
4. Mildly disagree
5. Strongly disagree

- ___ 1. Feeling distressed or upset is unbearable to me.
- ___ 2. When I feel distressed or upset, all I can think about is how bad I feel.
- ___ 3. I can't handle feeling distressed or upset.
- ___ 4. My feelings of distress are so intense that they completely take over.
- ___ 5. There's nothing worse than feeling distressed or upset.
- ___ 6. I can tolerate being distressed or upset as well as most people.
- ___ 7. My feelings of distress or being upset are not acceptable.
- ___ 8. I'll do anything to avoid feeling distressed or upset.
- ___ 9. Other people seem to be able to tolerate feeling distressed or upset better than I can.
- ___ 10. Being distressed or upset is always a major ordeal for me.
- ___ 11. I am ashamed of myself when I feel distressed or upset.
- ___ 12. My feelings of distress or being upset scare me.
- ___ 13. I'll do anything to stop feeling distressed or upset.
- ___ 14. When I feel distressed or upset, I must do something about it immediately.
- ___ 15. When I feel distressed or upset, I cannot help but concentrate on how bad the distress actually feels.

**Child AND ADOLESCENT SOCIAL SUPPORT SCALE:
COLLEGE VERSION – CASSS-C**

Christine Kerres Malecki, Michelle Kilpatrick Demaray, and Stephen N. Elliott

ID: _____ DATE: _____

MALE or FEMALE (circle one)

RACE (circle one)

- 1 – African American
- 2 – Asian American
- 3 – White (Non-Hispanic)
- 4 – Hispanic American
- 5 – Native American
- 6 – Other

On the next two pages, you will be asked to respond to sentences about some form of support or help that you might get from either your family, other adults, close friends, or peers. Read each sentence carefully and respond to them honestly. There are no right or wrong answers.

For each sentence you are asked to provide two responses. First, rate how often you receive the support described and then rate how important the support is to you. Below is an example. Please read it carefully before starting your own ratings.

HOW OFTEN?

HOW IMPORTANT?

1. My family understands me.

NEVER	ALMOST NEVER	SOME OF THE TIME	MOST OF THE TIME	Almost Always	Always	NOT IMPORTANT	IMPORTANT	VERY IMPORTANT
1	2	3	4	5	6	1	2	3

In this example, the respondent describes that 'my family understands me' as something that happens 'some of the time' and that is 'important' to them.

Please ask for help if you have a question or don't understand something. Do not skip any sentences. Please turn to the next page and answer the questions. Thank you!

College CASSS

My Family...	How Often?						How Important?		
	Never	Some of the Time	Most of the Time	Almost	1	2	3	Important	Important
1)...is sensitive to my needs.	1	2	3	4	5	6	1	2	3
2)...understands me.	1	2	3	4	5	6	1	2	3
3)...listens to me when I need to talk.	1	2	3	4	5	6	1	2	3
4)...gives me information about things I don't	1	2	3	4	5	6	1	2	3
5)...gives me good advice.	1	2	3	4	5	6	1	2	3
6)...takes time to teach me new things.	1	2	3	4	5	6	1	2	3
7)...lets me know when I do something well.	1	2	3	4	5	6	1	2	3
8)...gives me constructive criticism when I	1	2	3	4	5	6	1	2	3
9)...shows or tells me that they are proud of	1	2	3	4	5	6	1	2	3
10)...loans or gives me things that I need.	1	2	3	4	5	6	1	2	3
11)...takes time to help me make decisions.	1	2	3	4	5	6	1	2	3
12)...provides me with financial support.	1	2	3	4	5	6	1	2	3
13)...lets me know I am important to them.	1	2	3	4	5	6	1	2	3
14)...supports the decisions I make.	1	2	3	4	5	6	1	2	3

Other adults in my life... (professors, teacher assistants, academic advisors, residential advisors, employers, coaches, priests/ministers, etc.)	How Often?						How Important?		
	Never	Almost Never	Some of the Time	Most of the Time	Almost Always	Always	Not Important	Important	Very Important
15)...let me know that I am important to them.	1	2	3	4	5	6	1	2	3
16)...treat me fairly.	1	2	3	4	5	6	1	2	3
17)...make it okay to ask questions.	1	2	3	4	5	6	1	2	3
18)...help me with things I am having difficulty	1	2	3	4	5	6	1	2	3
19)...help me solve problems by giving me	1	2	3	4	5	6	1	2	3

20)...let me know when I do something well.	1 2 3 4 5 6	1 2 3
21)...give me constructive criticism when I	1 2 3 4 5 6	1 2 3
22)...listen to my ideas and opinions.	1 2 3 4 5 6	1 2 3
23)...spend extra time with me when I need it.	1 2 3 4 5 6	1 2 3
24)...are sensitive to my needs.	1 2 3 4 5 6	1 2 3
25)...listen to me when I have concerns.	1 2 3 4 5 6	1 2 3
26)...give me information about things I don't	1 2 3 4 5 6	1 2 3
27)...give me good advice.	1 2 3 4 5 6	1 2 3
My Close Friends... (including significant others)	How Often?	How Important?
	Never Almost Never Some of the Time Most of the Time Almost Always Always	Not Important Important Very Important
28)...understand my feelings.	1 2 3 4 5 6	1 2 3
29)...help me feel better when I am feeling	1 2 3 4 5 6	1 2 3
30)...listen to me when I need to talk.	1 2 3 4 5 6	1 2 3
31)...give me good advice.	1 2 3 4 5 6	1 2 3
32)...take time to explain things to me that I	1 2 3 4 5 6	1 2 3
33)...nicely tell me the truth about how I do on	1 2 3 4 5 6	1 2 3
34)...give me constructive criticism when I	1 2 3 4 5 6	1 2 3
35)...take time to help me make decisions.	1 2 3 4 5 6	1 2 3
36)...defend me or stick up for me when	1 2 3 4 5 6	1 2 3
37)...share their things with me.	1 2 3 4 5 6	1 2 3
38)...loan me things that I need or want	1 2 3 4 5 6	1 2 3
39)...take time to help me do things that I	1 2 3 4 5 6	1 2 3
40)...keep private things about me	1 2 3 4 5 6	1 2 3
41)...are sensitive to my needs.	1 2 3 4 5 6	1 2 3
42)...distract me from my worries or stressors.	1 2 3 4 5 6	1 2 3
43)...show or tell me that they are proud of	1 2 3 4 5 6	1 2 3
44)...help me solve problems by giving me	1 2 3 4 5 6	1 2 3

<h2 style="text-align: center;">My Peers...</h2> <p style="text-align: center;">(classmates, roommates, housemates, co-employees, team members, club members, fraternity/sorority brothers or sisters)</p>	How Often?						How Important?		
	Never	Almost Never	Some of the Time	Most of the Time	Almost Always	Always	Not Important	Important	Very Important
46)...treat me well.	1	2	3	4	5	6	1	2	3
47)...listen to my ideas and opinions.	1	2	3	4	5	6	1	2	3
48)...give me advice when I need it.	1	2	3	4	5	6	1	2	3
49)...help me when I need it.	1	2	3	4	5	6	1	2	3
50)...give me constructive criticism when	1	2	3	4	5	6	1	2	3
51)...include me in activities.	1	2	3	4	5	6	1	2	3
52)...notice when I have worked hard.	1	2	3	4	5	6	1	2	3
53)...share my interests.	1	2	3	4	5	6	1	2	3
54)...share their things with me.	1	2	3	4	5	6	1	2	3
55)...teach me how to do things I don't	1	2	3	4	5	6	1	2	3
56)...tell me I did a good job when I do	1	2	3	4	5	6	1	2	3
57)...catch me up on things I have	1	2	3	4	5	6	1	2	3
58)...are sensitive to my needs.	1	2	3	4	5	6	1	2	3
59)...listen to me when I need to talk.	1	2	3	4	5	6	1	2	3
60)...take time to help me with things I	1	2	3	4	5	6	1	2	3

APPENDIX D: Demographics

Information

Age: _____

Gender: _____

Year in School: 1) Freshman 2) Sophomore 3) Junior 4) Senior 5) Grad

Ethnicity: 1) White/Caucasian 2) Black/African-American 3) Hispanic/Latino(a)
4) Native American 5) Multi-ethnic 6) Asian 7) Other:

Height: _____ ft _____ in

Weight:

Religious Affiliation: _____

Parent's Material Status: 1) married 2) separated 3) divorced 4) never married
5) other: _____

If parents are divorced, how old were you when they got divorced?

Appendix E:

Table 1

Regression results for DTS as a predictor of SHBQ total score

Model	β	t	p	R^2
1. DT total	-.464	-3.476	.001	.215

Note: DT total score was a composite score of all questions from the Distress Tolerance scale. SHBQ total score was a composite score of all questions from the Self Harm Behaviors Questionnaire.

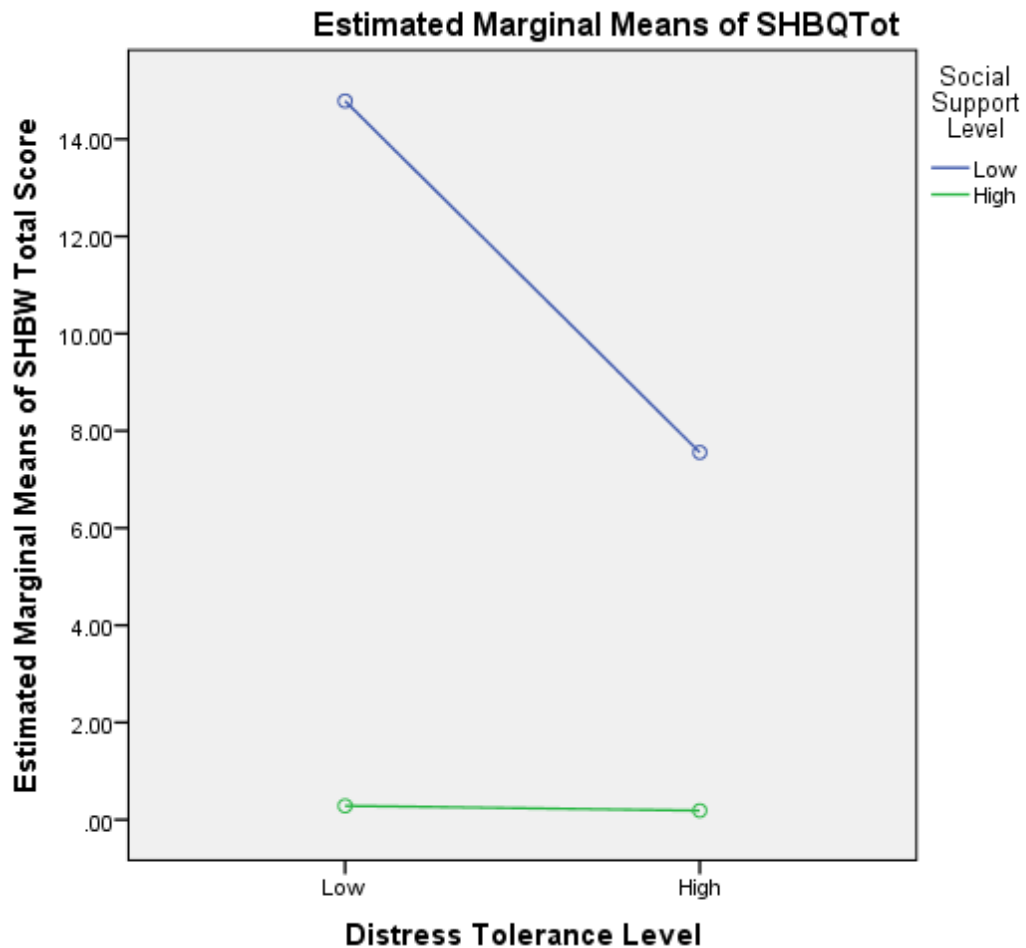
Table 2

The interaction of Social Support total score and Distress Tolerance as predictors of SHBQ total score

Model	β	t	p	r^2
1. (Constant)	-	.39	0	
DTSC	.3	66	0	.407
CASSC	0	-	.0	
	2	2.4	2	
	-	09	0	
	.4	-	.0	
	6	.37	0	
	7	25	1	
2. (Constant)			.001	
	-	3.5	.024	
DTSC	.264	43	.021	
CASSC	-	-	.002	.5
CASSSC	.296	2.3		3
x DTS	.404	36		4
		-		
		2.4		
		02		
		3.3		
		93		

Note: Social Support (CASSSC) total score was a mean centered score of all frequency items on the Children and Adolescent Social Support Scale-College Version. Distress Tolerance (DTSC) total score was a mean centered score of all items on the Distress Tolerance Scale.
Figure 1

Social Support as a moderator on the relationship between Distress Tolerance and SHBQ total scores



Note: When social support is high (green), scores on SHBQ remain lower in the presence of both low and high distress tolerance levels. When social support is low (blue), scores on the SHBQ remain higher in the presence of both low and high distress tolerance levels, indicating that distress tolerance level is predictive of suicidality only when social support is low.

Table 3

Regression results for FS and PS as predictors of SHBQ total score

Model	β	t	p	r^2
Family Support	-.499	-3.804	.000	
Peer Support	-.206	-1.569	.124	.371

Note: Family Support total score was a composite score of all frequency questions from the family support subscale of the Children and Adolescent Social Support Scale-College Version. Peer Support total score was a composite of all frequency questions from the peer support subscale of the Children and Adolescent Social Support-Scale College version. SHBQ total score was a composite score of all questions from the Self Harm Behaviors Questionnaire.