A longitudinal study of racial discrimination and risk for death ideation

in African American youth

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Abstract

Though multiple studies have found that African Americans commonly experience racial discrimination, available studies have yet to examine how perceived racism might be related to suicide vulnerability in African American youth. The purpose of this study was to examine a framework for how perceived racial discrimination contributes to symptoms of depression and anxiety as well as subsequent suicide ideation and morbid ideation. Data were obtained from 722 African American youth at mean age 10.56 years (SD=0.64); a second wave of data was obtained two years later. Results revealed both a direct effect and mediated effects of perceived racism on later suicide and morbid ideation. For boys and girls the effect of perceived racism was mediated by symptoms of depression. However, the association was mediated by anxiety for girls, but not for boys in the current sample. Implications for future research and intervention are discussed.

Keywords: African-American, racial discrimination, suicide, depression, anxiety

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Death ideation has been conceptualized as part of the suicide spectrum (Deykin & Buka, 1994; Lewinsohn, Rohde, & Seeley, 1996; Neeleman, de Graaf, & Vollebergh, 2004) whereby milder expressions of suicide precede self-harm behavior (Neeleman et al., 2004; Williams & Pollock, 2000). Deykin and Buka (1994) found that suicide ideation, together with death ideation, was predictive of later suicide attempts among adolescents. Among Black adults, suicide deaths were more likely associated with death ideation and suicide ideation than accidental deaths for both Black adults (Castle et al.). Psychometric analyses have similarly revealed that death-related items tend to load with suicide-related items. We posit that strategic efforts to better understand suicide vulnerability among African American youth may be improved by investigating upstream determinants of milder death ideation.

Though the suicide rate for African American children doubled between 1993 and 2012 while the rate for similar age European American children decreased (Bridge et al., 2015), correlates of African American youth suicide are not well known. Overall, suicide is the 5th leading cause of death for African American youth age 10-14 years and escalates to the 3rd leading cause of death for African Americans age 15-24 years of age (Heron, 2007)., Several studies (e.g. Castle et al., 2004; Joe & Kaplan, 2001) and conceptual reports (e.g., Willis, Coombs, Cockerman, 2002) have suggested that social and contextual factors associated with discrimination exposure increase risk for suicide among vulnerable African American youth and adults. Given the well-documented association between racial discrimination and negative psychological and social outcomes, this hypothesis is plausible. However, this dimension of suicide pathogenesis is yet to be tested in a pre-adolescent sample. The present study was

designed to test the overarching hypothesis that racial discrimination is associated with increased death ideation in young African Americans. In the text that follows, we (1) briefly summarize the available suicide literature for young African Americans; (2) consider the literature on the effects of racial discrimination on mental health outcomes; (3) examine a hypothesized link for racism to suicidality, and finally (4) test a model for the relationship between racial discrimination and death ideation, including potential difference for African American boys and girls. The study's primary contributions to the literature are three-fold: (1) We consider African Americans' unique contextual vulnerability by examining the impact of racial discrimination above and beyond more general stressful life events; (2) We examine the role of anxiety symptoms to add insight to an alternative risk factor that may be as relevant as depressive symptomatology to death ideation and (3) we provide evidence for differential effects of racism for boys and girls.

African American Youth Suicide

Overall, the literature on African American suicide, including youth suicide, is relatively sparse. Empirical investigations of suicide rarely include adequate samples of African Americans —as youth or as adults—to disaggregate ethnic group differences. As such, suicide risk factors may appear to be consistent across ethnic groups. However, several epidemiological studies have noted that African Americans who die by suicide are significantly younger and do not consistently demonstrate often-cited indicators of suicide risk such as previous suicide attempts, major depression, or substance abuse to the extent that other suicide decedents do (Abe, Mertz, Powell, & Hanzlick, 2004; Garlow et al., 2003; Willis, Coombs, Drentea & Cockerman, 2003). One study revealed that African American boys represented the majority of suicide deaths for persons less than 19 years of age (Garlow, Purselle, & Heninger, 2005). The relatively low rate of suicide deaths among African American girls (National Center for Health Statistics, 2012)

likely obscures the magnitude of suicidal behaviors. More epidemiological investigations that disaggregate death rates and emergency department admissions by race/ethnicity and also by sex are needed to assess differential patterns of suicide death.

Available empirical studies have attempted to shed some light on psychological factors associated with suicidal behavior including gender differences in those factors for African American boys and girls. Juon and Ensminger (1997) conducted a prospective study of African Americans who were followed from first grade to age 32 years. They found that depression and lifetime cocaine use were associated with suicidal behaviors in both men and women. Other findings suggested gender differences such that family structure and childhood psychopathology were associated with suicidal behavior in men, but women who experienced high assault behavior were more likely to engage in suicidal behavior. Bettes and Walker (1986) found that depression was associated with suicidal behavior in young females but not in young males. According to Trautman and colleagues (1991), depression (major and minor) and conduct disorder were associated with suicide attempts in African American and Hispanic adolescent girls. O'Donnell, O'Donnell, Wardlaw, and Stueve (2004) also found that symptoms of depression along with unmet basic needs were associated with suicidal ideation in a sample of urban, economically disadvantaged African American youth. Though these studies add some insight to the youth suicide vulnerability literature, more work is needed. Studies to date have not provided insight to the role of key contextual variables (e.g., racism) while other studies have reported inconsistent findings regarding seemingly robust (i.e., mood disorder and/or symptomatology) risk factors.

Several studies have noted that depressive symptomatology, the strongest clinical precipitant to suicide ideation (Harris & Barraclough, 1997), does not reliably predict actual

suicide outcomes for African Americans across the lifespan (Abe, et al., 2004; Joe, Baer, Breeden, Neighbors, & Jackson, 2006; Kung, Pearson, & Wei, 2005; Willis et al., 2003). The absence of Major Depressive Disorder (MDD) and depressive symptomatology as factors in fatal and non-fatal suicide attempts may be accounted for by the role of anxiety-related symptomatology. There is evidence that African Americans' risk for suicide increases substantially given the presence of an anxiety disorder (i.e., Panic Disorder, PTSD, OCD) and that anxiety is the single strongest risk factor after controlling for gender and other sociodemographic factors (Joe et al., 2006). For marginalized persons, feelings of helplessness may lead to hypervigilance, worry, and anxiety (cf. Barlow, 1988) and coincides with Hill, Castellanos, and Pettit's (2011) assertion that anxiety is an important marker of suicide risk that deserves more rigorous attention in the scientific literature.

Sex differences, whereby boys are more likely to experience fatal suicide attempts relative to girls who engage in more non-fatal attempt behavior, are relatively consistent across ethnic groups (Maris, Berman, & Silverman, 2000; Institute of Medicine, 2002). Though reliable estimates of non-fatal suicide attempts are rarely available, recent studies have revealed that African American girls and young women are more likely than boys and young men to attempt suicide (Baca-Garcia, et al., 2010; Joe et al., 2009) lending to the paradoxical ratio of relatively high rate of attempts for girls compared to the relatively high rate of deaths for boys in the U.S. and internationally. Findings from nationally representative data seem to reveal that, for both youth and adults, anxiety disorders are more likely than or perhaps as likely as depression-related problems to be associated with suicide-related behavior. Hunter and Schmidt (2010) suggested that anxiety psychopathology in African American adults may be associated with awareness of racism and cultural mistrust. Given the lack of coherent literature, we posit that anxiety

pathology and other novel approaches to conceptualizing African American youth suicide are necessary.

Suicide surveillance and assessment for African American youth may be undermined by available suicide nomenclature that does not include milder forms of potential suicide expression. Silverman et al. (2007) revised the O'Carroll et al. taxonomy, but the revision was absent any attention to age/developmental/cultural differences in suicide expression. Nevertheless, there is reason to believe that African Americans may communicate differently about suicide (if at all) and that persons who may be suicidal are reluctant to disclose this experience (Morrison & Downey, 2000). Guttierrez and Osman (2008) noted that youth, in general, may be more reluctant than adults to report acute suicidality given stigmatization and perceptions about hospitalization. Regarding suicide assessment, they suggested that focus groups might be used to assess the appropriateness of available assessment strategies. Given the absence of culturally sensitive indices of suicide ideation and behavior, broader assessments of suicide vulnerability that include death ideation may be appropriate for use with African American youth. As an example, Lewinsohn's (1996) 4-item suicide screener queries both suicide and death ideation (i.e., "I had thoughts about death") and is predictive of later suicide attempts in youth and adolescents.

Psychological Effects of Racial Discrimination

Kendler (2010) noted that while psychiatric problems directly impact suicide vulnerability, early adverse events have direct and indirect consequences. Racial discrimination is a common and particularly pernicious experience in the lives of many African Americans, including preadolescent African Americans (Clark et al., 1999; Gibbons et al., 2004; Seaton et al., 2008). Williams, Yu, Jackson, and Anderson (1997) concluded that, compared to more

general social stressors, race-related stress contributes incrementally to poor health. More than 90% of African American pre-adolescents report having experienced racial discrimination (Gibbons et al., 2004). Overall, adolescents' experiences of racism and psychological sequelae have been well-documented (Nyborg & Curry, 2003; Seaton, Caldwell, Sellers, et al., 2008). The experience of inequity and interpersonal rejection can lead to a host of negative outcomes.

Researchers have noted that both race-related stress and experiences of racism have profound implications for the psychological health of African American youth and adults. Clark, Anderson, Clark, and Williams (1999) cited anxiety, helplessness-hopelessness, and anger among a myriad of responses that incite maladaptive coping (e.g., anger suppression, hostility, substance use, etc.). Chronic perceptions of hopelessness are frequently linked to depression and suicide (Beck, Steer, Beck, & Newman, 1993). Williams and Williams-Morris' (2000) review of mental health and discrimination emphasized that discrimination can affect individuals via negative internalized self-evaluations. In longitudinal analyses, perceptions of racial discrimination were associated with depressive symptoms similarly in adolescent boys and girls (Brody et al., 2006) and have been mediated by depression and also anger (Simons et al., 2003). Greene, Way, and Pahl (2006) noted that Black adolescents in an urban setting reported experiencing increasingly more discrimination over time with subsequent increases in depressive symptoms and decreases in self-esteem. In other studies, perceptions of discrimination affect academic motivation and social adjustment in addition to impacting mental health outcomes (Wong, Eccles, & Sameroff, 2003). Experiences of racism can be problematic in childhood and pre-adolescence, critical stages of psychological development. Among African American adults, a recent study found that perceived racism was related to thoughts of suicide, but that this this association was moderated by religiosity (Walker, Salami, Carter, & Flowers, 2014). Pre-

adolescent youth experience significant life change and transition but may not be equipped, cognitively, to cope with emotional strain and/or adversity.

Theoretical Support for Racial Discrimination as an Antecedent to Death Ideation

The idea that marginalization, alienation, and/or interpersonal rejection leads to suicide ideation and attempts is, theoretically and empirically, well-grounded. According to Durkheim's conceptualization of "egoistic suicide," which occurs among those who experience low social integration, a compelling body of literature has emerged to support the profound effect of marginalization, ostracism, and social alienation that can lead to suicide planning and death. Joiner's (2005) interpersonal-psychological theory of suicide asserts that one's willingness to die (which evolves from absence of connection to a valued social group and sense of burdensomeness to others) is a necessary condition for suicide death. The desire to die emerges from experiences of diminished or thwarted belongingness whereby the at-risk individual is not an integral part of a valued group. This thesis is supported in clinical, military, and non-clinical studies (Conner, Britton, Sworts, & Joiner, 2006; Joiner, Hollar, & Van Orden, 2006; Van Orden et al., 2008a; Van Orden et al., 2008b). Notably, the common elements of these theories are consistent with Richman and Leary's (2009) conceptualization of discrimination as a serious form of interpersonal rejection to which exposure can lead to a multitude of deleterious outcomes. Together, these theoretical models provide a useful heuristic for better understanding how contextual factors, particularly for African American youth, contribute to suicide risk in that discrimination might be linked to death ideation as a consequence of depression and anxiety symptomatology. For those who aim to be embraced by mainstream culture, but are instead rebutted, the result may be to consider one's relative value in society and subsequently to consider death.

Current study

Though several studies have noted that African Americans are more likely to experience social marginalization, a factor in diminished psychological health, investigators have yet to examine how racial discrimination might be related to thoughts of suicide and death in African American youth. The purpose of this study is to test a framework for how racial discrimination is associated with death ideation via depression. As we posit that there are inherent limitations in assessing suicide for youth and perhaps more so for African Americans, we used death ideation as a potential index of mild suicidality. Data from the Family and Community Health Study (FACHS), a multi-wave, multi-site, non-clinical study of risks and resources that affect African American youth development were used. Only the study variables associated with explicit hypotheses were included in the analyses. The hypotheses for the current study were (1) there is an association between Time 1 (T1) racial discrimination and Time 2 (T2) death ideation that is (2) mediated by symptoms of depression such that increased perceptions of racial discrimination is associated with increased depression symptomatology and death ideation; and (3) the relationship between racial discrimination and death ideation differs for girls and boys. Given the relative absence of research in this area, we did not specify a priori gender differences regarding racial discrimination, psychological mediators, and death ideation. We did, however, examine the potential role of anxiety symptomatology in the model given empirical evidence of anxiety as a strong predictor of suicide ideation and attempts. Overall, such an approach contributes to a theoretically supported etiological model of suicide vulnerability in African American pre-adolescents.

Method

Participant Recruitment

Participants were recruited from rural, suburban, and metropolitan communities in one southern and one midwestern state to participate in the FACHS. Community members were appointed as liaisons between the university researchers and local neighborhood residents. The liaisons generated rosters of children who met study criteria via parents, teachers, pastors, youth groups, community organizations, and personal knowledge.

Sample Characteristics

Data for the current study were obtained from 722 African American boys and girls who completed all materials at both T1 and T2. Target youth were age 10 (52%), 11 (45%), or 12 (3%) years at W1 (1997); T2 data were collected two years later. Mean age at T1 for boys was 10.55 (SD=.63) years and 10.57 (SD=.64) years for girls. At T2, boys' and girls' mean ages were also similar whereby the mean age was 12.65 (SD=.74) years for boys and 12.61 years (SD=.71) for girls. The total sample was comprised of 54% (*n*=389) girls. Youth received $70 for their participation across two days in FACHS.

Measures

Schedule of Racist Events (SRE). The SRE (Landrine & Klonoff, 1996) is a self-report measure of the frequency and appraisal of race-based discrimination events. The 18-item measure was designed for adult respondents. However, the SRE was modified to 13 items for appropriate use with the late childhood and adolescent FACHS population. Revisions involved including more common, lay language and also using community-based discrimination items in lieu of workplace-oriented discrimination items. The preliminary revised scale was presented via focus groups to African American primary caregivers and youth who were of the same age as the

study population. All focus group participants were in agreement that the revised scale addressed discriminatory events that children and adolescents potentially encounter. Analysis of psychometric properties revealed convergent validity with measures of perceived discrimination, anger, depression, and conduct problems in cross-sectional (Simons et al., 2002) and longitudinal assessments (Gibbons et al., 2004). These associations remained robust when family income, financial stress, negative life events, and parental education were controlled.

Consistent with the SRE, the modified SRE assessed the frequency of race-related discrimination events during the past year in which the respondent perceived specific discriminatory intentions. These events included racially-based slurs and insults, physical threats, and false accusations from individuals such as store employees or law enforcement officials. Respondents rated each item on a 4-point Likert scale that ranged from 1 (never) to 4 (several times). Higher scores are indicative of more racism events. Sample items included, ''someone said something insulting to you because you are African American,'' ''a store owner or sales person working at a business treated you in a disrespectful way because you are African American,'' and ''you encountered Whites who didn't expect you to do well because you are African American.'' Coefficient alpha for the scale exceeded .85 at each wave of data collection.

Stressful Life Events. A 47-item, modified version of Swearingen and Cohen's (1985) original Junior High Life Events Survey (JHLES) was used to assess general stressful life events. Conger and Elder (1994) initially adapted the instrument for the six-year longitudinal Iowa Youth and Families Project. Given the importance of peer relations at this stage of development, Conger and Elder's adapted measure included items about close friends. They also omitted items that assessed positive life events as more undesirable (and not desirable) events are likely to be related to psychological problems. Study participants were instructed to respond "yes" (1) or

"no" (0) to questions that assessed whether specific events (e.g., death/illness, parental divorce, break up with girlfriend/boyfriend) occurred. Example questions include "In the last 12 months, did you get in trouble at school?" and "In the last 12 months, did you have a close friend move away?" Total scores ranged from 0-47 whereby higher scores reflected more stressful events. Reliability and validity for the modified stressful life events measure have been well-supported (see Ge, et al., 1994; Kim, et al., 2003). The instrument was also found to be reliable in the current sample; alpha exceeded .80 at each wave of data collection.

Diagnostic Interview Schedule for Children-Version 4 (DISC-IV). The DISC-IV (Shaffer, Fisher, Lucas, Dulcan, & Schwab-Stone, 2000) is a structured psychiatric diagnostic interview designed for lay interviewers to administer to children age 6-18 years. The DISC-IV generates both symptom counts and clinical diagnoses for anxiety, mood, substance abuse, behavioral and other clinical disorders. Only symptom counts were used in the current analyses as only 5% of the youth met criteria for clinical diagnosis at W1; at W2, 7% met criteria. Also, symptoms of both depression and anxiety were of particular interest given strong empirical support for both mood and anxiety problems associated with suicidal ideation and attempts. Reliability estimates for the DISC-IV are favorable (Shaffer et al., 2000).

Death ideation. To assess death ideation, participants responded to two questions: "In the last year - that is, since [month/day] of last year - was there a time when you thought seriously about killing yourself?" and "In the last year—that is, since [month /day] of the last year, was there a time when you often thought about death or about people who had died or about being dead yourself?" (cf. Lewinsohn, 1996). For the current study, all responses were coded as "2" for "yes" to both questions, "1" for "yes" to either question or "0" for "no" to both questions. Due to the low frequency of participants who endorsed "yes" for both questions, the "1" and "2"

response groups were combined and analyses were conducted with a dichotomized outcome variable (i.e., "yes" to suicide or death ideation or "no" to both suicide and death ideation).

Procedure

In FACHS, eight focus groups in across the two states were coordinated to critically evaluate the study's self-report measures before data collection was initiated. Each of the four groups per state consisted of 10 African American adults who resided in neighborhoods that were comparable to those in the target neighborhoods. Given the focus groups' critiques, the protocol was modified and pilot-tested in 8 families per state. The field researchers were all African American students and community members who received one month of training in the administration of the self-report measures. All materials were administered as an "interview" in which the researcher read the questions to the participant in a private room in the participants' home or some other private setting. Each participant was provided a consent/assent statement for endorsement and informed that participation in the study could cease at any time. None of the participants requested a referral for psychological services or demonstrated imminent risk for danger. The present study was granted full institutional review board approval.

Results

Preliminary analyses

Missing data (12%) were determined to be missing at random (MAR) and handled using listwise deletion. A small proportion of participants (n=17; 2.4%) acknowledged suicide ideation while 35% (n=249) of participants reported having thoughts about death. Zero-order correlations for all study variables are presented in Table 1. As the table shows, a significant positive association exists for time one (T1) racial discrimination and later, death ideation at time 2 (T2), $r(722) = .21, p < .05$, as well as T2 depressive symptoms, $r(722) = .17, p < .05$ and T2 anxiety

symptoms, $r(722) = .18$, $p < .05$. As such, racial discrimination was directly related to higher levels of depression, anxiety, and death ideation measured two years later. Consistent with available research, symptoms of anxiety and depression were significantly correlated both at T1 [$r(722) = .25$, $p < .05$] and at T2 [$r(722) = .29$, $p < .05$].

Overall, logistic regression analyses revealed that odds for reporting death ideation at T2 were significantly increased given T1 discrimination (OR = 1.039, 95% CI .012-.064) and T2 anxiety symptoms (OR = 1.331, 95% CI .217-.355) for the combined sample of boys and girls. Thus, for a one-unit increase in racial discrimination, one would expect to see approximately 4% increase in the odds of death ideation. One would expect a 33% increase in the odds of death ideation given a one unit increase in anxiety symptoms. This interpretation of the OR is more discerning than popular interpretations of "probabilities" given that it takes into consideration that there are multiple predictors that are all held constant when interpreting one predictor. Odds of reporting death ideation did not increase significantly given T1 stressful life events (OR = 1.003, 95% CI -.042-.037) or T2 depression (OR = 1.294, 95% CI -.006-.521) in the total sample of boys and girls.

Racial discrimination and death ideation mediated by depressive symptomatology

The theoretical rationale for this study was based on the premise that racial discrimination leads to death ideation and not that death ideation influences subsequent experiences of racial discrimination. To ensure that the direction of causality was in keeping with theory, we conducted a cross-lagged analysis using the two waves of data. Structural equation modeling (SEM) via the Mplus statistical program (Muthén & Muthén, 2006) was conducted so that the cross-lags (i.e., T1 racial discrimination to T2 death ideation and T1 death ideation to T2 racial discrimination) were examined. The findings revealed that the T1 racial discrimination to

T2 death ideation association was statistically significant [$r(722) = .21$, p < .05] while the T1 death ideation to T2 racial discrimination association was not (see Figure 1). These results support the premise of the study that racial discrimination contributes to death ideation and not the reverse.

To test the hypothesis that T2 depressive symptoms mediated the relationship between T1 racial discrimination and T2 death ideation while controlling for all other study variables (i.e., stressful life events, T1 anxiety symptoms, T1 depression symptoms, T1 death ideation, and age) for the total sample of youth, we conducted a mediated path analysis with the dichotomous outcome (T2 death ideation). We used the Mplus statistical program and maximum likelihood estimation of model parameters. Given the significant association for depression and anxiety symptomatology and the potentially unique association between anxiety symptomatology and death ideation, we also controlled for T1 and T2 anxiety symptoms as well as T1 depression symptoms. The hypothesized model was supported such that racial discrimination at T1 was related to depressive symptoms ($\beta = 0.01$, $p<.05$) and to death ideation ($\beta = 0.04$, $p<.01$) at T2.

Bootstrapping techniques, recommended by Shrout and Bolger (2002), were used to test the significance of the indirect effects predicting death ideation. In doing so, we found that the total indirect effect of racial discrimination at T1 on death ideation at T2 and accounting for all predictors was significant (*Total Indirect Effect*=0.012, *p*<.022). The 95% confidence interval (0.002 - 0.023) was based on 1,000 bootstrapped samples and did not include zero, suggesting that the total indirect effect was significant. However, the specific indirect path from racial discrimination to death ideation via depressive symptoms was not significant (*Specific Indirect Effect*=.003, *p*=.12; 95% CI, -0.001 - 0.007) for the total sample of youth.

Tests for moderating effects of gender

To test for moderating effects of gender in the model, we employed latent class analysis with known classes based on participants' gender. This analysis revealed different models of death ideation for African American girls and boys. For boys, both T1 racial discrimination (unstandardized B=.057, p< .003) and T2 anxiety symptoms (unstandardized B=.301, p < .001) directly affected T2 death ideation in the constrained model. The total effect of T1 racism on T2 death ideation, accounting for all predictors, was significant (*Total Effect*=0.061, 95% CI, 0.020, 0.102). The total indirect effect, however, was not significant (*Total Indirect Effect*=0.004, 95% CI, -0.010 - 0.018) for boys.

For girls, T2 anxiety symptoms (unstandardized B=.275, *p*<.001) and prior death ideation (unstandardized B=.520, *p*<.038) directly affected T2 death ideation. Both the total effect of T1 racism on T2 death ideation (*Total Effect*=0.039, 95% CI, 0.000, 0.078) and the total indirect effect were significant (*Total Indirect Effect*=0.018, 95% CI, 0.003, 0.033) for girls. Of note, depression symptoms at T2 did not directly affect death ideation for either girls or boys in the current sample. T-tests were conducted to determine whether the mediation effect differed, statistically, for girls and boys. As indicated in Table 2, the regression of anxiety at T2 on racism at T1 was stronger for girls than for boys, whereas the direct effect of racism at T1 was modestly stronger for boys than for girls (*p* <.059). No significant difference in mediating effects was observed for depressive symptoms (see Figure 2).

Discussion

The purpose of this study was to examine the association for racial discrimination to self-reported death ideation among African American boys and girls. Consistent with theories which posit that alienation and interpersonal rejection can fuel suicide vulnerability, we found evidence

of direct and indirect effects of racial discrimination on death ideation assessed two years after the first wave of data collection. Results from path meditational analyses revealed, however, that the relationship between racial discrimination and death ideation was not mediated by depressive symptoms as expected. Instead, anxiety symptomatology was predictive of death ideation after controlling for stressful life events and symptoms of depression and anxiety at the first wave of data collection. To our knowledge, this is the first study to empirically test the possible role of racial discrimination on death ideation for African American youth. It is notable also that the effects of racial discrimination was examined above and beyond that of more general stressful life events, thus accounting for the theoretically important but previously unexplored effects of social alienation that African American youth may experience.

Given that racial discrimination was uniquely associated with death ideation among youth in the current sample, we have provided evidence that broad assessments of stressful life events may not capture the dimensions of stress that render African American youth vulnerable to death ideation. This distinctive effect of racial discrimination is notable in that other studies of discrimination effects on emotional and somatic health have not routinely teased apart discrimination effects relative to more general stressful life events (for reviews, see Brondolo, Rieppi, Kelly, & Gerin, 2003; Clark et al., 1999) though some have (cf. Gibbons et al., 2010). Experiences of racism may be perceived as isomorphic with general life stress and not separately scrutinized. Given the need for better models of African American suicide, future studies should examine how racial discrimination independently contributes to suicide risk.

Overall, the finding that racial discrimination is related to later death ideation is consistent with available theoretical models. Though racism experiences have been known to induce symptoms of depression, the current findings reveal that experiences of racism may also

be linked to thoughts of death and to later symptoms of generalized anxiety. This previously unexplored vulnerability occurs at a time of significant developmental transition and may be associated with the relatively high rate of suicide deaths that emerges in young adulthood (compared to European Americans for whom suicide death rates peak at much elder stages of life). The unexplained peak at younger age periods might be accounted for, at least in part, by the experience of societal ostracism particularly for youth who value membership in mainstream society. Anxiety-related symptoms may be exacerbated by feelings of being systematically blocked from important opportunities based on one's membership in a racial minority group (Ronen & Baldwin, 2010).The perception of exclusion and isolation could justifiably increase in young adulthood while establishing independence and self-sufficiency in a society that is perceived as rejecting.

Contrary to prediction, depression symptomatology was not a robust predictor of death ideation for either boys or for girls. For girls, the effects of racial discrimination were mediated by symptoms of generalized anxiety which were further mediated by symptoms of depression. The finding that anxiety symptoms differentially mediated the effect of racial discrimination is notable for several reasons. Other available studies have not consistently identified depression or depressive symptomatology as a risk factor in African American suicide. Alternative internalizing problems such as excessive worry, fear, and restlessness associated with anxiety may warrant specific analysis in suicide risk models and particularly for girls. Future studies should examine anxiety symptomatology (and related disorders) as a proximal factor in African American youth and young adult suicide deaths. Given the seemingly divergent suicide death patterns whereby African Americans die at younger ages relative to other suicide decedents, it is plausible that understudied and untreated anxiety symptomatology (e.g., restlessness, irritability,

etc.) contributes to suicide vulnerability.

Though we have found some evidence for the impact of racial discrimination on death ideation, there is much within group variability to be considered. That is, not everyone who experiences discrimination considers death. In fact, relatively few do so despite the prevalence of discriminatory acts. This overall resilience is likely due to the presence of important mitigating factors. Walker et al. (2014) found that extrinsic religiosity buffered the effects of perceived racial racism in an adult sample. In another study, the depressive symptoms-suicide ideation link did not exist for young African American adults who reported having strong ethnic group identity (Walker et al., 2008). Suicide resilience has also been associated with cultural worldview (Walker et al., 2010) suggesting that cultural strain can lead to suicide in the absence of strong protective factors. Stevenson and colleagues (Coard, et al., 2004; Davis & Stevenson, 2006) and others (Nicholas et al., 2008; Simons et al., 2006) have suggested that, for African American youth, positive racial socialization and related parenting practices offset the potential effects of chronic racial assaults. Future studies should examine whether the presence of a strong racial or ethnic identity and life-promoting cultural values balance the challenges of social marginalization. *Implications for Prevention and Intervention*

The potential impact of racial discrimination on psychological and emotional outcomes for African American youth reaffirms the potential need for (1) life skills and multicultural curricula (Banks, 1994) that socialize students across ethnic groups for a diverse society as well as (2) empirical research that examines the potential inoculating effect of positive racial socialization for African American youth. Hughes et al., (2006) concluded that racial socialization is associated with adaptive coping, increased self-esteem, and overall resilience. Life skills curricula that indirectly impact suicide vulnerability might also buttress emotional

well-being. LaFromboise and her colleagues (1995) found that American Indian youth who participated in a culturally-compatible life skills training reported decreased hopelessness and suicide probability relative to youth who did not receive the training. There is evidence that curriculum-based suicide prevention, including those that offer peer support, has been successful toward eliminating suicide vulnerability (cf. Eggert et al., 1995; Wyman et al., 2010). Such peer support likely offsets negative environmental and interpersonal stressors. Nevertheless, African American suicide prevention that begins with comprehensive screening (Brown & Grumet, 2009) and follows up with school-based programming may prove fundamental to reducing suicide ideation, planning and deaths in African American youth.

Advances in suicide assessment would also improve prevention efforts. Since African American youth and adults report unique race-related stressors, the chronicity and severity of these events as well as depression and anxiety symptomatology should be assessed. Alegría and colleagues (2012) recently found that non-Latino Black youth are significantly less likely to be identified and their parents are less likely to be encouraged to seek treatment for them for internalizing disorders relative to non-Latino and Latino White youth who have similar severity of symptoms. The investigators suggested that more work is needed to understand differential expectations of internalizing problems. Clinicians' and gatekeepers knowledge that symptoms occur in a racialized context whereby depressed mood, anxiety, and/or suicidality manifest differently is imperative to referring underserved youth and designing efficacious therapy interventions.

Limitations and Future Directions

Though this study advances our understanding of the potential role of contextual factors in African American youth suicide, there are some study limitations that should be considered. The large, longitudinal, community dataset is a strength of the study. However, our findings should be interpreted with caution that the results may be limited to non-clinical samples. Second, we did not assess suicide attempt behavior. Assessments of suicide attempts are important since those who attempt suicide are more likely to engage in future, lethal attempts.

As another potential limitation of the study, the findings may seem to be indicative of death ideation rather than any suicide ideation. Assessment of actual suicide ideation in research and clinical settings requires careful and delicate clinical interviewing and perhaps even moreso for African American youth. We posit that research efforts and current assessment approaches may be hampered by a "one-size fits all" approach—an approach that others have critiqued in the context of depression treatment (Pyne et al., 2006) including adolescent depression treatment (Lewinsohn & Clarke, 2004) and suicide risk assessment (Rogers & Soyka, 2004). Rogers and Soyka argued that the, one-size, crisis intervention approach to suicide risk management can (1) minimize context, furthering marginalization and shame and (2) contribute to suicide as a stigmatized topic given the failure to understand the vulnerable person's narrative). For a pre-adolescent child who experiences racial discrimination, elevated depression and/or anxiety symptoms, and thoughts of death, comprehensive assessment that successfully elicits milder thoughts of suicide is warranted. The alternative is to potentially foster withholding of thoughts that eventually escalate to suicide ideation and/or self harm behavior.

Though there seems to be some evidence for successful school-based suicide risk assessment (Brown & Grumet, 2009), more research is needed to examine disclosure of acute

and chronic suicide ideation for African American youth and adolescents. Stoep et al (2009) argue that thoughts of death may be normative for some children but concerning for others. Our objective is not to undo the seeming resolve of definitions for suicide-related behavior. However, documented concerns about ethnic minority emerging adults as "hidden ideators" (Morrison & Downey, 2000), evidence of race group differences in risk patterns, and the relative inattention to this area of research is notable. We assert that assessment of death ideation may prove beneficial for African American youth who continue to view suicide as 'discordant' to Black culture even when they know someone who has attempted suicide (Molock et al., 2007). Available research may too narrow particularly for youth who are unsure of intent and whose thoughts on death are ambiguous but could represent upstream risk for serious suicide attempt behavior. Since suicide behavior does not occur in a vacuum, clinicians should competently embrace comprehensive (rather than limited) efforts to assess risk potential risk and activate appropriate intervention. Future research might support clinical efforts by examining the degree to which self-reported death ideation is predictive of later suicide ideation and/or suicide attempts for African American youth who are exposed to discriminatory experiences (above and beyond more generalized life stress).

We have provided important evidence that racial discrimination may play a unique role in the etiology of death ideation, including suicide death ideation, particularly for African American boys. To date, no known study has examined this risk factor in potentially vulnerable, pre-adolescent African American youth. Other compelling studies have examined the effects of discrimination on psychological, physical, and educational outcomes, but have the disadvantage of not having teased apart the unique effects of racial discrimination above and beyond other stressful life events. The contributions of the current study are important in the context of

increasing empirical evidence in the role of social and interpersonal factors in suicide for

underserved groups.

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Table 1.

Summary of Intercorrelations for Time 1 (T1) and Time 2 (T2) Study Variables (N=722).

	1	2	3	4	5	6	7	8	9
1. Stressful life events (T1)	—								
2. Racism (T1)	0.39	—							
3. Depression (T1)	0.21	0.16	—						
4. Depression (T2)	0.17	0.17	0.17	—					
5. Anxiety (T1)	0.34	0.29	0.25	0.06	—				
6. Anxiety (T2)	0.23	0.18	0.12	0.29	0.23	—			
7. Death[a] (T1)	0.21	0.14	0.19	0.16	0.41	0.13	—		
8. Death[a] (T2)	0.16	0.21	0.05	0.30	0.09	0.44	0.19	—	
9. Age (T1)	0.90	0.12	0.01	0.07	0.11	0.05	0.18	-0.01	—

Note. Given the sample size of 722, any correlation larger than 0.073 in absolute value is statistically significant at $p < .05$ (two-tailed tests).

[a]Death=Death ideation

Table 2.

*Moderating effects of gender in predicting death ideation (n= 333 boys and 389 girls)*

	Unstandardized β		df	t-ratio
	Boys	**Girls**		
Depressive Symptoms as Mediator				
β_1: Racism T1 ➔ Depression T2				
Unconstrained model$_1$	.013†	.01	770	0.33
β_2: Depression T2 ➔Death T2				
Unconstrained model$_2$	.266	.239	770	0.12
β_3: Racism T1➔ Death T2				
Unconstrained model$_3$	.057**	.021	770	1.89†
Anxiety Symptoms as Mediator				
β_1: Racism T1 ➔ Anxiety T2				
Unconstrained model$_1$	.001	.051	770	-2.43*
β_2: Anxiety T2 ➔ Death T2				
Unconstrained model$_2$	.301**	.275**	770	.51
β_3: Racism T1 ➔ Death T2				
Unconstrained model$_3$	.057**	.021	770	1.89†

Note. Racism= perceived racism; Death=death ideation
**$p\leq$.01; *$p\leq$.05, †$p<$.10 (two-tailed tests)

Figure 1. Cross-lag analysis for perceived racism and death ideation at Time 1 (T1) and Time 2 (T2) for a just-identified model.

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000c02ea07640e040000002e0118001c000000fb021000070000000000bc020000000010202225

.11**
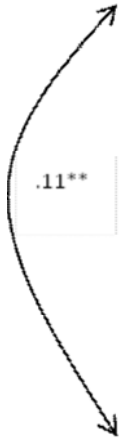
3797374656d0075684c4e0c4c9c1e000ee3b9758001be7590ec5e07589c1e00040000002d010000
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000030000000000

Figure 2. Path mediation model for the effect of perceived racism and depression symptoms on death ideation for girls (n=389) and boys (n=333) controlling for all Time 1 (T1) covariates. All estimates are based on standardized model results and include effects of both age and stressful life events. All T1 variables freely correlate.

Panel A: Girls

Panel B: Boys