

Spring 2022

# Examining the Utility of Hope Interventions to Mitigate the Effect of Discrimination on Distress in African Americans

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EXAMINING THE UTILITY OF HOPE INTERVENTIONS TO MITIGATE THE EFFECT OF  
DISCRIMINATION ON DISTRESS IN AFRICAN AMERICANS

by

SUNIA H. CHOUDHURY

(Under the Direction of Jeff Klibert)

ABSTRACT

Hope is a positive psychology resource that utilizes one's perceptions of strengths to create clear goals, produce multiple pathways to reach goals, overcome barriers, and generate the energy needed to pursue goals by increasing positive affect and satisfaction, while reducing negative problem orientations (Magyar-Moe, 2014). Hope interventions also significantly reduce psychological distress (Rustøen, Cooper, & Miaskowski, 2011). Discrimination is a significant barrier to quality of life for African Americans (Bilkins, Allen, Davey, & Davey, 2016). Discriminatory experiences increase levels of distress (Brown, et al., 2000). However, it is unknown if hope interventions can protect African Americans against distress caused by microaggressions. Thus, the current study studied the utility of different hope interventions in buffering the effects of microaggressions on distress (i.e., anxiety, anger, depression). One hundred and three African American undergraduate students participated in an experimental study. Participants were randomly assigned to one of two induction tasks (neutral or microaggression stress) and one of four interventions (basic hope, hope savoring, integrated hope, or control). Multiple measures of state-based anxiety, anger, and depression were administered three times during the experiment. First, the microaggression task was effective in inducing higher levels of stress and increased participants' scores of state-based anxiety, anger,

and depression. In addition, a 2 (induction) x 4 (intervention) x 3 (time) mixed ANOVA was used to determine the buffering effects of different hope interventions. Results revealed a non-significant 3-way interaction effect, suggesting that hope interventions do not moderate the causal relationship between microaggression stress and distress, especially for anxiety and anger. However, there was a significant induction\*intervention effect for depression scores at Time 3, which suggests that certain hope interventions are effective in reducing depression for participants who did not experience the microaggression stress induction task. Results from these analyses are complicated. They suggest that hope interventions are effective in working with African American college students under specific conditions and only with specific distress indices.

**INDEX WORDS:** Microaggressions, Positive psychology, Multicultural psychology, Hope interventions, Distress

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DISCRIMINATION ON DISTRESS IN AFRICAN AMERICANS

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Electronic Version Approved:

May 2022

## ACKNOWLEDGMENTS

I would like to thank my dissertation chair and advisor, Dr. Jeff Klibert. Jeff has supported, encouraged, and guided me throughout my doctoral journey. I am forever grateful for your tremendous impact on my growth as a clinician, a professional, and a researcher. Thank you to my dissertation committee, Dr. Dorthie Cross and Dr. Amanda Rickard, for their guidance and insights as I completed my dissertation. I am thankful to my husband, Ryan, for helping me through the struggles while also celebrating the successes of my academic career. Thank you for your unwavering encouragement. I would like to thank my in-laws, Magda, Joseph, and Jared, for their continued love and support. I am grateful to my parents, Jaidul and Jahanara, for always being there for me. Lastly, I would like to thank my siblings, Lamia and Sakib, for always believing in me.

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## CHAPTER 1

### INTRODUCTION

Racial discrimination is prevalent across the United States, and is especially salient in rural areas (Larson, Corrigan, & Cothrane, 2012). Ethnic minorities are more likely to possess less desirable jobs, incomes, and housing (Cokley, Hall-Clark, & Hicks, 2011). As a result of living in less desirable areas, minorities are more likely to attend inferior schools, receive poor education, and be exposed to more violence (Cokley et al., 2011). Moreover, ethnic minorities tend to reside in lower socio-economic areas and obtain less funding or resources for education (Van Dyke, Cheung, Franks, & Gazmararian, 2018). In particular, African-Americans seem to experience higher rates of discrimination and more barriers to quality of life when compared to other groups (Bilkins, Allen, Davey, & Davey, 2016). For instance, it is estimated 90% of African-Americans experience racial discrimination in their lives (Bilkins, et al., 2016). Racial discrimination can range from assaults and violence to insults and microaggressions. Microaggressions are most commonly defined as “subtle snubs, slights, and insults directed toward minorities...that implicitly communicate or at least engender hostility” (Sue, et al., 2007, pg. 273). In light of racial discrimination, only 1/3 of African-Americans receive social support and mental health services to alleviate strain from discrimination events. Moreover, social barriers to help-seeking are often associated with difficulties acquiring and maintaining health insurance and a lack of trust that professionals are competent to address discrimination in a culturally sensitive manner (Bilkins, et al., 2016).

In addition, African-Americans experience substantial difficulties associated with racial segregation (Lichter et al., 2007). For example, in comparison to Native American and Hispanic groups, African-Americans are 30-40% more likely to be segregated in rural, urban, or suburban

areas. In addition, African-American parents report frequent difficulties with racial bullying in school, which often leads to pulling their children out of the school system (Bauchner, 2007). Additionally, African Americans residing in lower socio-economic areas are less likely to have physical education (PE) teachers or adequate PE facilities (Van Dyke et al., 2018). These children are also less likely to have access to advanced high school courses (Taylor & Ruiz, 2017).

Racial discrimination is also disruptive to mental health, especially among individuals who identify as African American (Brown et al., 2000; Bilkins et al., 2016; Carter, Lau, Johnson, & Kirkinis, 2015). Specifically, racial discrimination is linked to lower levels of life, professional, and marital satisfaction (Brown et al., 2000; Bilkins et al., 2016). Similarly, elevated levels of discrimination are associated with higher levels of depressive symptoms and general indices of psychological distress, as well as lower levels of subjective well-being (Brown et al., 2000; Bilkins et al., 2016). The stress accrued from repeated experiences with racial discrimination leads to harmful coping mechanisms, including smoking, excessive drinking, and/or use of illicit drugs (Carter et al., 2015). Overall, these findings suggest racial discrimination places African Americans at a greater risk for negative health outcomes.

In order to address persistent issues associated with a history of discrimination, mental health practitioners must provide care in culturally affirming ways, taking into account the complexity and intersectionality of individual differences and cultural factors. The American diversity index is the probability of selecting two randomly chosen individuals who may differ from each other in race or ethnicity (American Psychological Association [APA], 2003). This index is currently at 65% and rising, suggesting that the population is becoming more diverse. Thus, it is important mental health practitioners consider cultural competence at the forefront of

their ethical duties, as they are increasingly likely to work alongside ethnic minority clients (APA, 2003). In order to provide culturally competent services, practitioners should recognize societal power, privilege, and oppression, as well as address institutional barriers and inequities (APA, 2017). Practitioners are also encouraged to take a strength-based approach and use culturally adaptive interventions to mitigate the effects of discrimination and promote well-being among African Americans (APA, 2017).

Positive psychology draws on individual strengths to provide an optimistic and fulfilling life for different groups of people (Owens, Magyar-Moe, & Lopez, 2015). Combining positive psychology and multicultural psychology provides a unique roadmap where practitioners can concurrently focus on empowering culturally salient strengths and address discrimination experiences among ethnic minorities (Pedrotti & Edwards, 2010). One type of positive psychological intervention that may help ethnic minorities navigate discrimination experiences in a protective manner are hope exercises. Hope interventions utilize one's perceptions of strengths to create clear goals, produce multiple pathways to reach goals, overcome barriers, and generate the energy needed to pursue goals by increasing positive affect and satisfaction, while reducing negative problem orientations (Magyar-Moe, 2014). Hope interventions also significantly reduce psychological distress (Rustøen, Cooper, & Miaskowski, 2011). Specifically, research indicates that hope interventions reduce depression and increase overall life satisfaction (Kwok, Gu, & Kit, 2016).

### *Purpose*

The current study examined the effects of microaggressions and different hope interventions on general distress outcome variables in a sample of African Americans. In addition, I examined whether the effects of different hope interventions mitigate the effects of

microaggressions on different distress outcomes (depression, anxiety, anger). The over-arching purpose of this study is to fill gaps within the positive psychology and multicultural psychology literature. My specific aims examined the contexts by which the field of applied psychology can employ hope interventions. Considering these specific goals, this study examined the following questions with a sample of African American students:

- a) Do self-reports of discrimination vary by important demographic categories (i.e., rural status) among African Americans?
- b) Do microaggressions increase reports of distress (anxiety, depression, anger)?
- c) Do hope interventions reduce reports of distress (anxiety, depression, anger)?
- d) Do hope interventions buffer the effects of microaggressions on distress (anxiety, depression, anger)?
- e) Do integrated hope interventions provide any additive benefits in reducing the effects of microaggressions on distress indices when compared to the other basic hope interventions (hope savoring, basic hope)?

### *Significance*

Although hope interventions are useful in reducing psychological distress, it is unknown whether these findings apply to African American samples. This study examines the utility of different hope interventions in this minority population. These types of investigations have the potential to highlight how hope interventions can be used to offset the effects of discrimination and help African-American clients reduce psychological distress. If expectations hold, my findings can alter the course of therapy for African-Americans experiencing the negative effects of discrimination. Specifically, my results may advocate for the use of hope interventions for African American clients who report a history of discrimination and discrimination-related

distress. In addition, these results can help practitioners provide culturally appropriate services, thus increasing their cultural competence.

### *Definition of Terms*

In the current study, the effects of microaggression induction tasks and hope interventions were explored in the context of distress. All participants were randomly assigned to either the social stress induction condition (i.e. microaggression induction) or neutral induction condition. Participants were then randomly assigned to one of four interventions: basic hope, hope savoring, integrated hope, and control conditions. It is expected that placement in different groups will affect variation in distress scores across the study.

1. *Microaggressions*: Microaggressions are defined as subtle slights or insults directed toward minorities that implicitly communicate hostility (Sue, et al., 2007). Participants were randomly assigned to either the microaggression induction or neutral induction conditions. The microaggression induction task consists of a 5-minute racially charged clip from *American History X (1998)*. The neutral induction is a 5-minute clip discussing the differences between word processing programs and desktop publishing programs. In the current study, the microaggression induction tasks served as an independent variable.
2. *Hope*: Hope is a positive psychology term defined as using one's agency to create pathways and overcome barriers in order to reach one's goals (Snyder, 2000). Participants were randomly assigned to one of four interventions. In the basic hope intervention, participants were asked to recall and write about a positive memory in which they felt hopeful and optimistic about the future. In the hope savoring condition, participants were asked to read "Still I Rise" by Maya Angelou for 10 minutes and reflect upon the feelings evoked by the passage. After 10 minutes, the researcher prompted the

participant to process certain lines in the passage. The integrated hope condition consisted of the tasks in the basic hope and hope savoring conditions. Participants in the control group were asked to read “How Mechanical Rubber Goods Are Made” by M.H. Tauss for 10 minutes. After 10 minutes, the researcher prompted the participants to focus on certain lines in the passage. In the current study, hope interventions served as the moderating variable.

3. *Distress*: Distress in the current study is defined as elevations in anxiety, anger, and depression. Anxiety is defined as the intensity of feelings of tension, apprehension, nervousness, and worry (Spielberger & Reihseiser, 2009). Anger is defined as angry feelings that may vary in intensity, from mild irritation to rage (Spielberger & Reihseiser, 2009). Depression is defined as intense feelings of sadness and gloom (Spielberger & Reihseiser, 2009). Distress in these contexts is measured by the State-Trait Personality Inventory. Distress indices served as the dependent variables in the current study.

## CHAPTER 2

### LITERATURE REVIEW

Chester Pierce coined the term “racial microaggressions” in a 1969 article as “brief, everyday exchanges that send denigrating messages to people of color because they belong to a racial minority group” (pg. 303). The term “microaggressions” has since been broadened to also include other historically stigmatized groups, such as gender and sexual minorities. The term is currently most commonly defined as “subtle snubs, slights, and insults directed toward minorities...that implicitly communicate or at least engender hostility” (Sue, et al., 2007, pg. 273).

There are three distinct subtypes of microaggressions: microassaults, microinsults and microinvalidations (Sue, et al., 2007). Microassaults are explicit verbal or nonverbal attacks meant to hurt with overt discriminatory actions. Microinsults are negative messages that convey insensitivity and demean a person’s identity. Microinvalidations exclude or negate the experiential reality of a minority especially in the form of dismissing his/her experience (e.g., being told they are misinterpreting cues and actions as being racist). These subtypes are further broken down into 9 categories: Alien in Own Land (e.g. assuming a person is foreign-born), Ascription of Intelligence (e.g. assuming intelligence based on race), Color-Blindness (e.g. dismissing race), Assumption of Criminal Status (e.g. presuming someone is dangerous based on their race), Denial of Individual Racism (e.g. denying existing racial biases), Myth of Meritocracy (e.g. asserting race does not play a role in successes), Pathologizing Cultural Values/Communication Styles (e.g. expecting conformity to the dominant culture), Second-Class Citizen (e.g. preferential treatment given to a White individual over a person of color), and

Environmental Microaggressions (e.g. larger systemic issues, such as poor representation of people of color in movies; Sue, et al., 2007).

There is a common misconception that microaggressions are less harmful than overt forms of discrimination and/or racism (Sue, et al., 2007). Because of the subtlety and persistent nature of these exchanges, the person targeted by microaggressions is often uncertain of how to respond or address the issue as they are unclear of the intention of the message (Mercer, et al., 2011). This confusion often leaves the offended individual in a dilemma. If they say nothing, they risk resentment and further microaggressions from the same person, whereas if they speak up, the other person may deny any prejudicial intent and accuse them of being paranoid (Lilienfeld, 2017). This dilemma and uncertainty makes microaggressions harmful to mental health, work productivity, and different psychotherapeutic outcomes (Mercer, et al., 2011).

The insidious and ubiquitous nature of microaggressions is well documented. Importantly, microaggressions create a hostile environment in the workplace, school, healthcare settings, and political institutions; the effects of microaggressions are cumulative and represent a lifelong burden of distress (Sue, et al., 2019). A 2016 survey found over 75% of African-Americans report daily discrimination, which is significantly higher than all other racial groups studied (APA, 2016). In regard to the African American community, the face of microaggressions is widespread and multifaceted often represented by neglect and abuse by police officers, unfair treatment from neighbors upon moving into a neighborhood, discouragement from teachers and other important school officials, and/or disparities in healthcare (Sue, et al., 2019). In response to microaggressions, African-Americans report a range of negative behavioral and emotional outcomes including lower levels of emotional well-being, increased negative emotions, low overall mental health, greater impediments to learning, biased

employee performance ratings, and diminished physical well-being (Sue, et al., 2019). Most notably, microaggressions are positively related to reports of clinical distress in the form of depression, anxiety, and anger-based symptoms (Sue, et al., 2019).

*Discrimination and Depression.* Depressive symptoms are a common consequence of different discrimination experiences among African-Americans. Exposure to discrimination is a strong positive correlation with developing depressive symptoms over time (Mouzon & McLean, 2016; Russell, Clavel, Cutrona, Abraham, & Burzette, 2018). The inherent message of racial inferiority in racism contributes to negative self-perceptions, which places African-Americans at an increased risk for depressive symptoms. Moreover, symptoms of depression disproportionately increase over time when African Americans report high levels of discrimination (Lambert, et al., 2009). Importantly, the relationship between discrimination and depression appears unchanged even after accounting for demographic differences, such as age, sex, income, or education (Nadimpalli, et al., 2015). Although higher income is generally regarded as a protective factor, higher income African-American men are still at great risk for depressive symptoms and discrimination (Assari, et al., 2018). Furthermore, individuals who report high levels of discrimination and depressive symptoms also report poor general health, which compounds health concerns (Schulz, et al., 2006).

*Discrimination and Anxiety.* In addition, African-Americans report higher levels of anxiety-based symptoms in response to discrimination events. Reports of discrimination among African-Americans are clearly linked to generalized anxiety disorder symptoms. Notably, the effects of discrimination and symptoms of generalized anxiety share similar traits, specifically cardiovascular arousal, chronic worry and tension (Soto, et al., 2010). This is further evidenced by the fact that African-Americans report higher rates of hypertension than European-Americans

(Pieterse, Todd, Neville, & Carter, 2011). This overlap in presentation is highlighted in the literature. For instance, perceived discrimination is highly correlated with excessive worry, the primary symptom in anxiety disorders (Rucker, West, & Roemer, 2010). Furthermore, intolerance of uncertainty, defined as negatively evaluating ambiguous situations, is also positively correlated with excessive worry and provides further evidence of the damaging nature of microaggressions (Rucker, et al., 2010). Anxiety disorders are more chronic in African-Americans than in European-Americans, particularly in low-income individuals (Hunter & Schmidt, 2010) and this trend appears particularly related to the disproportionate amount of discrimination African Americans encounter in different domains of life.

Post-traumatic stress disorder (PTSD) is the most commonly reported anxiety disorder among samples of African-Americans. In fact, African-Americans report disproportionately high levels of PTSD when compared against other racial groups (Asnaani, et al., 2010). One possible reason for these disparities is discrimination. Specifically, in response to discrimination, African-Americans report characteristic PTSD symptoms including hypervigilance to threat, flashbacks, nightmares, avoidance, suspicion, and heart palpitations (Sibrava, et al., 2019). African-Americans who report experiencing discrimination have higher rates of PTSD than other racial groups, regardless of socioeconomic status, age, gender, or level of education (Chou, Asnaani, & Hofmann, 2011).

*Discrimination and Anger.* The effects of discrimination can also manifest as externalizing behavior, often in the form of aggression or aggressiveness. In samples of African-American youth, racial discrimination is the strongest predictor of violent behaviors, even after controlling for other risk factors (Caldwell, et al., 2004). Importantly, discrimination experiences contribute to feeling shunned or blocked from rewarding opportunities among ethnic minorities,

resulting in anger toward the societal structure (Unger, 2015). This connection is supported in the literature. Due to the high levels of discrimination, African- Americans feel a sense of hopelessness and powerlessness, which ultimately may manifest as anger or aggression (Nyborg & Curry, 2003; Thomas & Gonzalez-Prendes, 2009). Furthermore, research suggests anger may be used to mediate the relationship between racism and internalizing symptoms, indicating that anger is used as a defense mechanism (Nyborg & Curry, 2003). Similar to anxiety, anger responses are connected to the physiological side effects disproportionately experienced by African Americans. Anger experienced as a result of racist stimuli produces higher blood pressure in African-Americans (Armstead, Lawler, Gorden, Cross, & Gibbons, 1989).

#### *Conditional Effects*

However, not all African-Americans who experience discrimination report distress. Despite the experience of discrimination, many African-Americans are able to prosper and thrive (Butler, et al., 2018; DiClemente, et al., 2018; Edwards & Wilkerson, 2018). Given this pattern, the effects of microaggressions on distress indices appear to be a function of a third variable. Thus, it is important for researchers to identify factors that protect, mitigate, or moderate the effects of discrimination (e.g., microaggressions) on different distress indices within samples of African Americans. Identifying such factors may provide unique and culturally affirming in-roads to help African Americans effectively cope with discrimination.

#### *Hope as a Protective Factor*

One factor that may protect African Americans against the effects of discrimination is hope. Hope is a positive psychology attribute that utilizes one's perceptions of strengths to create clear goals, produce multiple pathways to reach goals, overcome barriers, and generate the energy needed to pursue goals by increasing positive affect, while reducing negative problem

orientations (Magyar-Moe, 2014). When implementing hope interventions in therapy, clinicians generally help clients focus on goals, possibilities, and past successes that reduce focus on problems or failures (Magyar-Moe, 2014). Hope is comprised of two cognitive processes: agentic thinking and pathways thinking (Chang & Banks, 2007). Agentic thinking is one's determination about reaching goals and pathways thinking involves thinking about the means of obtaining those goals (Chang & Banks, 2007). When faced with barriers, individuals use pathways thinking to generate alternate routes to reach goals and agentic thinking provides the motivation to use the alternate pathways to reach the identified goals (Snyder, 2000). Hope theory posits that the activation and maintenance of hope is a cognitively-driven process, which results in the accumulation of different positive emotions to empower one to achieve and thrive (Snyder, 2000). Hope interventions are clinically useful in different contexts for individuals who report a wide range of ethnic identities (Chang & Banks, 2007). Most specifically, hope interventions are important in terms of increasing individuals' self-perceptions of being capable of accomplishing goals (Snyder, 2000).

Although the function of hope appears to be similar across different ethnic groups, African-Americans report greater pathways thinking than other racial groups (Chang & Banks, 2007). Among African Americans, positive problem orientation is the strongest predictor of both agentic and pathways thinking (Chang & Banks, 2007). Thus, hope interventions appear well suited to generate positive outcomes in different samples of African Americans. In fact, research indicates that hope interventions are useful in reducing negative problem orientations and strengthening positive problem orientations (Chang & Banks, 2007). Moreover, hope interventions appear to help African Americans increase identity development efforts. Specifically, research finds that hope in African-Americans is positively correlated with

identification to one's own group and religious or spiritual orientations (Lopez, et al., 2000). Overall, among different positive psychological resources, hope appears most salient to how African Americans thrive and prosper (Snyder, 2000).

*Discrimination and Hope.* Racial discrimination, in different forms, is disruptive to mental health, especially among African American individuals (Brown et al., 2000; Bilkins et al., 2016; Carter, Lau, Johnson, & Kirkinis, 2015). Racial minorities face acculturative stress, language barriers, prejudice, and poverty, which block their pursuit of personal and culturally meaningful goals (Lopez, et al., 2000). These findings suggest racial discrimination detracts from an individual's psychological resources, i.e., hope. Discrimination is associated with feelings of resignation and hopelessness (Banks, et al., 2008) and leads to lower levels of subjective well-being (Datu & Mateo, 2017). Experiences of discrimination also directly lead to decreased levels of hope for racial minority populations (Banks, et al., 2008). Specifically, experiences of discrimination can act as barriers to reaching goals and directly diminish efforts to create and maintain hope (Lopez, et al., 2000). In response, this loss of hope can cause individuals to become apathetic and abandon pursuit of goals (Lopez, et al., 2000). Overall, the research clearly paints a bleak picture regarding the effects of discrimination on hope; the more discrimination African Americans encounter, the less likely they are able to marshal hope-based resources needed to thrive.

*Hope and Distress.* Hope is closely connected to the experience of distress. The research on this topic clearly supports this link. Increases in hope are negatively correlated with depressive symptoms (Banks, et al., 2008; Huprich & Frisch, 2004). Hope is also correlated with lower levels of overall psychological distress, higher quality of life, and higher levels of reported optimism (Huprich & Frisch, 2004). Moreover, hope is an active agent in reducing depressive

symptoms, eating concerns, anxious symptoms, hostility, and academic distress (McDermott, et al., 2015). Alternatively, losing hope can cause an individual to despair easily, perceive problems as compounding, and doubt his or her ability to problem-solve (Rodriguez-Hanley & Snyder, 2000). Hopelessness in the face of distress can present as apathy, causing individuals to appear indifferent, unmotivated, and joyless (Rodriguez-Hanley & Snyder, 2000). In addition, the loss of hope is linked to increased distress, particularly in medical settings (Rustøen et al., 2011). Overall, the presence of hope appears to be a fundamental resource in reducing the experience and expression of different distress-based symptoms.

*Hope as a Protective Factor.* A number of findings suggest hope is a prominent protective factor for distress-based outcomes (e.g., depression, anxiety, anger). High hope is considered a resilience factor in the face of psychological distress (Horton & Wallander, 2001). Most notably, higher levels of hope are needed for an individual to effectively utilize coping strategies in the face of distress (Carretta, Ridner, & Dietrich, 2014). In response to different types of stressors, hope is necessary to recover from distress in therapy. For instance, hope is a valuable resource for individuals recovering from a sexual assault (Carretta, et al., 2014). Moreover, hope is also considered to be a protective factor against suicide, particularly in African-American women (Carretta, et al., 2014). From a theoretical perspective, hope is consistently identified as a strong protective factor. For instance, guides to treatment often recommend providers find creative ways of generating hope when working with clients who experience trauma, especially in the form of domestic violence and violence leading to an emergency room visit (Chang, et al., 2017; Ho & Lo, 2011). In a similar vein, hope possesses the potential to protect those in substance use recovery programs against relapse (Bradshaw, et al., 2017).

Hope is considered key in buffering effects of stress on outcomes (Snyder, 2000). According to Snyder (2002), “stress occurs when a particular situation threatens the attainment of some goal” (pg. 252). Since hope helps individuals to create pathways to reach goals, it appears the psychological resource of hope is imperative for growth when an individual is faced with stress. The literature supports this connection. Adults who have endured multiple childhood stressors, such as trauma, tend to report lower levels of hope when compared to individuals who did not encounter as many childhood stressors (Munoz, et al., 2018). Hope is a moderating factor in the relationship between stress and internalizing symptoms in children (Hagen, Myers, & Mackintosh, 2005). In college students, hope is implicated as a key factor when coping with stress (Bernardo, Yeung, Resurreccion, Resurreccion, & Khan, 2018). Hope is also important in promoting positive affect in emergency responders who are faced with stress (Steffen & Smith, 2013). Taken together, these findings offer hope as a potential protective factor in the relationship between stress and distress.

Yet, there are no known studies that have experimentally examined whether hope interventions can effectively mitigate the effects of microaggressions on different indices of distress. This is an important direction for research as experimental studies provide useful indications of an intervention’s effectiveness to elicit positive benefits that can be replicated in different service modalities. Therefore, based on the current literature, it is expected that hope interventions will have a positive impact on distress by buffering the effects of microaggressions.

*Differentiated Hope Interventions.* Hope theory posits individuals seek therapy when they encounter barriers to their goals that they cannot overcome (Weis & Speridakos, 2011). Thus, the clinician’s role is to increase hope by helping the client set clear goals for treatment and increasing agentic and pathways thinking (Weis & Speridakos, 2011). However, the methods by

which clinicians can generate hope are numerous. Importantly, there are four major processes used in hope therapy: hope finding, hope bonding, hope enhancing, and hope reminding (Magyar-Moe, 2015). Hope finding is asking the client to tell their stories and identifying hopeful elements within his or her narrative (Lopez, Floyd, Ulven, & Snyder, 2000). Hope bonding utilizes the therapeutic relationship to engage clients in their own treatment planning and setting goals (Magyar-Moe, 2015). Hope enhancing increases hopeful thinking by providing structure for goal development and pathways thinking (Magyar-Moe, 2015). Hope reminding consists of teaching clients to self-monitor hopeful thinking and use hope enhancing techniques to independently sustain high hope (Magyar-Moe, 2015).

In the current study, it is important to determine if specific hope interventions are more effective in reducing distress and moderating the impact of microaggressions on distress. Typical hope interventions often utilize hope finding techniques (Lopez, et al., 2000). Specifically, hope finding is conducted through storytelling as a means to instill hope (Lopez, et al., 2000). Within these exercises, clinicians help people identify how hope naturally develops through their narratives (Lopez, et al., 2000). In this way, individuals can better understand how prior behaviors and attitudes led to their current situations and how they can reach their goals in the future (Lopez, et al., 2000). Newer forms of hope interventions rely on hope enhancement strategies. Hope enhancing strategies increase hope by focusing on positive self-talk and positive behaviors rather than negative thoughts and behaviors (Magyar-Moe, 2015). These strategies often lean heavily on savoring processes. Savoring is a positive psychology resource that refers to how individuals actively generate, maintain, and extend positive experiences and emotions (Bryant, 2003). Savoring can be initiated through memory recall, present focused/mindfulness processing, and forecasting/anticipation thinking (Bryant & Veroff, 2007). Finally, there is

emerging literature that suggests positive psychological interventions are more effective when they integrate two supporting elements associated with flourishing (Ivtzan, et al., 2016; Lomas, Hefferson, & Ivtzan, 2015; Wood & Tarrier, 2010). Therefore, it is possible that hope interventions that integrate finding and enhancement strategies may be more effective in reducing distress and moderating the effects of microaggressions. Currently, there is no known study to examine the differential effects of hope interventions on positive and negative outcomes. Thus, it is hard to make any firm predictions regarding if one hope intervention will provide more benefits than another. However, this question is worth pursuing because answers may provide more direct guidelines about how clinicians can frame hope interventions with clients. Overall, examining the differential effects of hope interventions is an exploratory facet of the current study.

#### *Current Study*

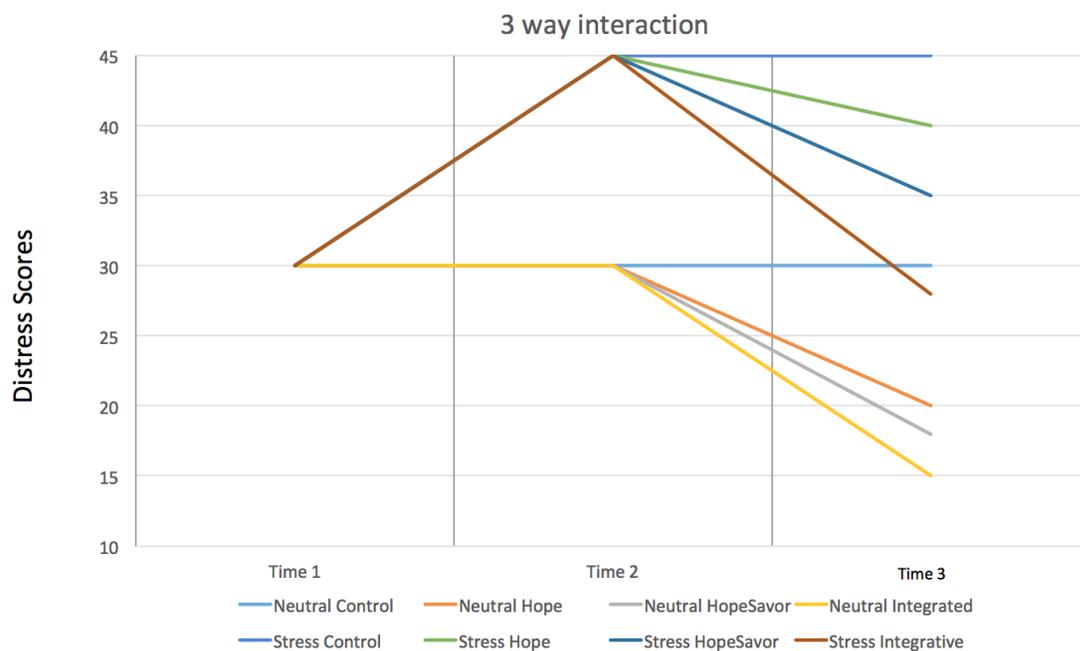
An evaluation of the literature makes it clear that hope interventions are useful in reducing psychological distress, especially for African Americans (Banks, et al., 2008; Carretta, et al., 2014; Huprich & Frisch, 2004). However, there are gaps within this knowledge base. It is unknown whether hope intervention can impact reports of distress and buffer the effects of microaggressions on distress among African American samples. The current study examined the utility of different hope interventions in this minority population. This study investigated how hope interventions can be used to offset the effects of discrimination and help African Americans reduce psychological distress, specifically outcomes of depression, anxiety, and anger.

*Hypotheses.* Primarily, this study examined the effects of microaggressions and different hope interventions on general distress outcome variables in a sample of African Americans. Based on the literature, I hypothesized, at a main effects level, that microaggressions will

increase reports of distress and hope interventions will decrease reports of distress. Furthermore, I hypothesized hope interventions will moderate the relationship between discrimination and distress outcomes. At an exploratory level, I investigated the following questions. First, I determined if reported experiences of microaggressions vary by demographic categories (rurality and gender). Second, I determined whether the main and interactive effects differ as a function of hope intervention type. These questions are exploratory as the literature offers little in the way of making specific predictions. Figure 1 depicts an example of the expected 3-way interaction effect.

FIGURE 1

*Figure 1: An Example of the Expected 3-Way Interaction Effect*



## CHAPTER 3

### METHODOLOGY

#### *Participants*

African American students were recruited at a large southeastern university using SONA and fliers. Participants received either 1.5 research credits or a \$10 gift card for participating. Participants were randomly assigned into one of two induction conditions and one of four intervention conditions and assessed for distress across three time periods (2 x 4 x 3) for this study. To ensure adequate power, I tabulated 30 participants would need to be assigned to each cell. Thus, we aimed to collect data from 240 participants. However, COVID-19 quarantine procedures shut down recruitment for several months. In addition, in order to protect the integrity of the data, we removed 5 participants due to validity concerns. Validity concerns included participants who did not follow directions or completed questionnaires too quickly. The final sample consisted of 103 African American adults with an average age of 19.87 years ( $SD = 3.17$ ). Demographic information is provided on Table 1.

**TABLE 1***Table 1. Socio-Demographic Characteristics of the Sample*

Demographic Variable	<i>n</i> (%)
Gender	
Male or Man	25 (24.3%)
Female or Woman	75 (72.8%)
Transgender	2 (1.9%)
Other	1 (1%)
College Rank	
Freshman	44 (42.7%)
Sophomore	28 (27.2%)
Junior	16 (15.5%)
Senior	15 (14.6%)
Rural Status	
Rural	32 (31.1%)
Urban	70 (68%)
Population of Hometown	
Less than 10,000	11 (10.7%)
10,000-50,000	28 (27.2%)
50,000-100,000	22 (21.4%)
100,000-300,000	22 (21.4%)
300,000-600,000	10 (9.7%)
600,000-900,000	3 (2.9%)
More than 900,000	7 (6.8%)

### *Research Design*

A 2 x 4 x 3 mixed experimental design was implemented for this study. The outcome variable being targeted is distress. Participants were randomly assigned to one of two induction conditions: social stress induction condition or neutral condition. The experimental procedures involve a manipulation check to ensure the stress induction condition generates the expected elevation in stress. This manipulation check consists of measuring stress before and after the

induction conditions by administering the Stressometer. Participants were then randomly assigned to one of four intervention groups: basic hope, hope savoring, integrated hope, and control groups. The participants were asked to complete the State Trait Personality Inventory – State (STPI-S) three times (baseline, post induction, post intervention) to measure change in distress scores. In total, induction condition (stress vs. neutral), intervention condition (hope vs. hope savoring vs. integrated hope vs. control), and time (time 1 vs. time 2 vs. time 3) were the independent variables. Distress scores served as the dependent variables.

### *Procedures*

Participants in the study were recruited via the SONA system or fliers distributed in classrooms. When the students signed up for this study, they were provided with a date, time, and the room number for the location of the lab. When the students entered the lab, they were asked to place their cell-phone and other belongings in a secure location for the duration of the study. They were then presented with an informed consent form. The consent form explained the possible risks and benefits, confidentiality, resources available, and discontinuation policies associated with participation of this study. The students were asked to read the informed consent form and sign it to indicate their willingness to volunteer in the study. They were also prompted to go to the bathroom if needed before beginning the tasks associated with the study.

Once the participants are free of distraction and seated comfortably, they were asked to complete the STPI-S (Spielberger, 1995) as a baseline measure of distressed mood, a one-item measure of current stress (the Stressometer), the IMABI (Mercer, Zeigler-Hill, Wallace, & Hayes, 2011) as a measure of previous discrimination experiences, and the Five Factor Model Rating Form (Widiger, 2004) as a filler measure.

After the baseline measures were complete, participants were randomly assigned to one of two induction conditions: a social stress induction condition and a neutral stress condition. In the social stress induction condition, participants were shown a five-minute video clip depicting a social stressor commonly experienced by African Americans. The neutral condition showed a five-minute video clip depicting a bland video montage. Video clips are effective in eliciting certain emotional reactions, including stress reactions (Schaefer, Nils, Sanchez, & Philippot, 2010). After the video clip, participants in both groups were asked to complete the STPI-S and a one-item stress measure for a second time. Participants were then randomly assigned to one of four intervention groups. There are three hope intervention groups and one control group. The three hope intervention groups consist of the basic hope condition (Appendix 1), hope savoring group (Appendix 2), and the integrated hope condition (Appendix 3). The control condition (Appendix 4) served as a neutral and emotionally bland exercise. Next, participants were asked to complete a post-intervention distressed mood measure – the STPI-S. Participants then completed a Stream of Activity (Appendix 5; Wilson & DuFrene, 2009) exercise to minimize any distress resulting from the study and given a debriefing form with free to low cost resources they can access, if needed.

### *Experimental Conditions*

*Social Stress Induction Condition.* The social stress induction condition consists of a 5-minute clip from the movie *American History X* (1998). This clip depicts a dinner table conversation in which family members discuss crime in African-American communities. Two individuals in the clip are in favor of police brutality toward African-Americans and specifically cite the Rodney King case, while using several racial epithets. This video was chosen for its polarizing subject matter and is hypothesized to elicit distress in research participants.

*Neutral Induction Condition.* The neutral induction condition consists of a 5-minute clip discussing the differences between word processing programs and desktop publishing programs. This is a clip taken from a 1989 instructional video on how to use Microsoft Word. This clip was chosen for its neutral subject matter and it is unlikely to elicit an emotional response.

*Basic Hope Intervention.* In the basic hope condition (see Appendix 1), participants were asked to recall and write about a positive memory in which they felt hopeful and optimistic about the future. This condition is consistent with more traditional and direct efforts to elicit a positive emotional response. Participants had 15 minutes to write about this memory.

*Hope Savoring Intervention.* In the hope savoring condition (see Appendix 2), participants were asked to read “Still I Rise” by Maya Angelou for 10 minutes and reflecting and celebrating the feeling evoked by the passage. After 10 minutes, the researcher prompted the participant to process certain lines in the passage. There are three total prompts.

*Integrated Hope Intervention.* The hope integrated condition (see Appendix 3) consists of both the basic hope and hope savoring interventions. Participants wrote about a positive memory for 7 minutes. They were then asked to read “Still I Rise” by Maya Angelou for 6 minutes and then prompted three times to process certain lines in the passage by the researcher.

*Control Intervention.* Participants in the control group (see Appendix 4) were asked to read “How Mechanical Rubber Goods Are Made” by M.H. Tauss for 10 minutes. After 10 minutes, the researcher prompted the participants to focus on certain lines in the passage. There are three total prompts.

### *Measures*

*Demographic Form.* Participants were asked to respond to questions regarding their age, sex, race, marital status, class standing, and rural status. To determine rural status, participants

were asked three questions, two dichotomous and one continuous, regarding the town they grew up in, the town in which they currently live, and the population count of their hometown.

*State-Trait Personality Inventory (STPI)*. The STPI (Spielberger, 1995) is an 80-item self-report measure designed to assess current (state) and dispositional (trait) estimates of distress. The scale is broken down into eight overarching domains: state/trait anger, state/trait anxiety, state/trait depression, and state/trait curiosity. Only the state components of the anger, anxiety, and depression domains were included in the current study. The state anger, anxiety, and depression subscales are comprised of 10-items each. Each item on these scales is measured on a 4-point numerical rating system (from 1 = *Not at all* to 4 = *Very Much So*) with total scores ranging from 10-40 per each state subscale. The STPI-S depression scores demonstrate good internal consistency ( $\alpha = .85$ ). The state depression subscale demonstrates excellent convergent validity, as it highly correlates with other measures of trait and state depression, trait and state dysthymia, and trait and state euthymia (Krohne, Schmukle, Spaderna, & Spielberger, 2002). In this study, the STPI-S depression demonstrated good internal consistency ( $\alpha = .74-.85$ ). The STPI-S anxiety score demonstrates excellent internal consistency ( $\alpha = .90$ ). This subscale also demonstrates excellent convergent validity with other measures of state anxiety (Spielberger & Reihseiser, 2009). In this study, the STPI-S anxiety demonstrated good internal consistency ( $\alpha = .83-.88$ ). The STPI-S anger possesses excellent internal consistency ( $\alpha = .90$ ) and excellent convergent validity with other measures of state anger and moderately with subscales of anger in neuroticism measures (Spielberger & Reihseiser, 2009). In this study, the STPI-S anger demonstrated excellent internal consistency ( $\alpha = .87-.94$ ).

*Stressometer*. The Stressometer is a single-item self-report measure that asks participants to report their level of stress in the current moment. The item is rated on a slider scale ranging

from 0 (*No Stress*) to 100 (*Most Stress*). This measure demonstrates good construct validity, as well as good discriminant validity (Keegan et al., 2015).

*Inventory of Microaggressions Against Black Individuals (IMABI)*. The IMABI (Mercer, et al., 2011) is a 14-item self-report designed to measure microaggressions faced by African-Americans. It specifically measures microinsults and microinvalidations. Each item is measured on a 5-point numerical rating scale in which respondents are asked to rate the extent to which they experienced each event during the past year (from 0= This has never happened to me to 4= This event happened and I was extremely upset). Scores range from 0-56, with higher scores indicating higher levels of distress experienced due to discrimination. This measure demonstrates excellent internal consistency ( $\alpha = .94$ ) and concurrent validity with similar microaggression measures (Mercer, et al., 2011). In this study, the IMABI demonstrated good internal consistency ( $\alpha = .87$ ).

#### *Statistical Analysis*

A MANOVA was initially conducted to determine if there are differences in distress and rurality between the groups. A 2x2 mixed ANOVA was conducted as a manipulation check to determine the effects of the induction. Multiple 2 (stress condition) x 4 (hope intervention) x 3 (time) mixed ANOVAs was used to analyze the collected data. Following an omnibus ANOVA, post-hoc comparisons were conducted to further analyze the data. These analyses determined if the stress conditions and hope interventions have an effect on self-report measures of anxiety, depression, and anger. These analyses also determined whether condition interacts with interventions to account for greater change variation among indices of distress.

## CHAPTER 4

## RESULTS

*Preliminary Findings*

A multivariate analysis of variance (MANOVA) was performed to assess mean differences among self-reported accounts of anxiety, anger, and depression. Mean differences were compared based on rural status, grouping variables derived from participant identification with either rural upbringing or non-rural upbringing. Results revealed a non-significant multivariate effect,  $\lambda = .99$ ,  $F(3, 98) = .37$ ,  $p = ns$ ,  $\eta^2 = .01$ ). Follow-up ANOVAs were analyzed to determine rural differences for each of the study's outcome variables, anxiety, anger, and depression, at baseline. Non-significant main effects were revealed for anxiety,  $F(1,102) = .20$ ,  $p = ns$ ,  $\eta^2 = .01$ , anger,  $F(1, 102) = 1.06$ ,  $p = ns$ ,  $\eta^2 = .01$ , and depression,  $F(1, 102) = .36$ ,  $p = ns$ ,  $\eta^2 = .01$ ). These results indicate that individuals with rural upbringings report comparable baseline levels of anxiety, anger, and depression compared with individuals reporting non-rural upbringings. Means, standard deviations, and minimum and maximum scores for each variable are located in Table 2.

TABLE 2

*Table 2: Means, Standard Deviations, and Minimum and Maximum Scores for Anxiety, Anger, and Depression*

Variables (N)	Mean (SD)	Min-Max Scores
<b>Rural Participants</b>		
Anxiety (n = 32)	16.47 (5.37)	10-28
Anger (n = 32)	12.06 (3.98)	10-26
Depression (n = 32)	15.94 (4.64)	10-28
<b>Non-Rural Participants</b>		
Anxiety (n = 70)	16.01 (4.40)	10-30
Anger (n = 70)	11.34 (2.89)	10-26
Depression (n = 70)	15.43 (3.68)	10-25

#### *Manipulation Check*

As a manipulation check for the social stress induction task, a series of 2 x 2 (Time x Induction Condition) mixed ANOVAs was used to evaluate differences in stress score. Means and standard deviations are reported in Table 3.

TABLE 3

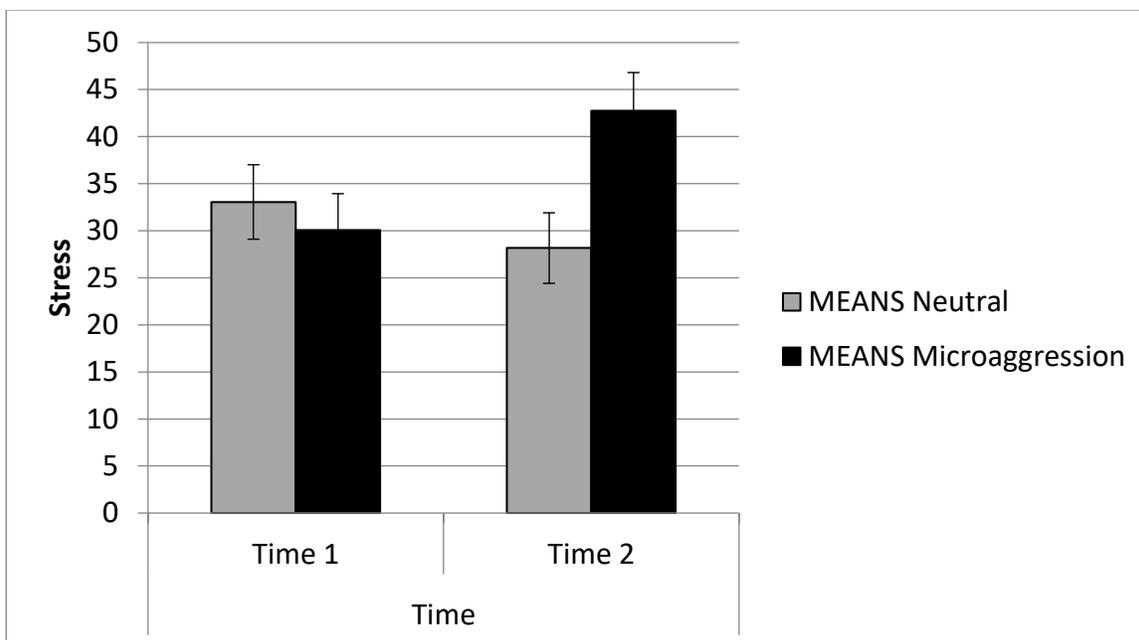
*Table 3: The Means and Standard Deviations of Stress by Time and Induction Task.*

Time	Induction Task	Mean	Standard Deviation	N
Time 1 Self-Report Stress	Neutral	31.80	28.22	50
	Social Stress	29.58	27.51	48
	Total	30.71	27.75	98
Time 2 Self-Report Stress	Neutral	28.16	26.51	50
	Social Stress	42.27	28.68	48
	Total	35.07	28.35	98

I hypothesized that stress would increase significantly from time 1 to time 2 for those in the social stress induction condition only. There was a significant main effect for Time  $F(1, 96) = 5.492, p < .05, \eta_p^2 = .05$ , indicating that self-reported stress scores significantly change from time 1 to time 2. In addition, there was a non-significant main effect for induction condition,  $F(1, 96) = 1.28, p = ns, \eta_p^2 = .01$ . Finally, results revealed a significant (Time x Induction Condition) interaction effect,  $F(1, 96) = 17.89, p < .01, \eta_p^2 = .16$ . To deconstruct the interaction effect, a set of post-hoc independent ANOVAs were analyzed. Specifically, I analyzed differences in stress scores between groups at each time point. Results revealed a non-significant difference in self-reported stress at time 1,  $F(1, 100) = .292, p = ns, \eta_p^2 = .16$ , between participants in the neutral induction ( $M = 33.06, SD = 28.52$ ) and social stress induction ( $M = 30.06, SD = 27.43$ ). This suggests that individuals in both conditions reported comparable levels of stress at baseline. However, post-hoc analyses at Time 2 indicated a significant difference in self-reported stress,  $F(1, 99) = 6.93, p < .01, \eta_p^2 = .07$ , between participants in the neutral ( $M = 28.16, SD = 26.51$ ) and social stress induction ( $M = 42.73, SD = 28.37$ ) conditions. This finding is in line with expectations and suggests the social stress task effectively increased levels of stress for those who participated within it. Figure 2 depicts the deconstructed interaction effect.

FIGURE 2

Figure 2: The Effects of Stress Induction Task on Stress across Time with Means and Standard Errors



### Primary Findings

A series of 2 Induction (Stress, Neutral) x 4 Intervention (Basic Hope, Hope Savoring, Integrated Hope, Control) x 3 Time (Time 1, Time 2, Time 3) Mixed Subjects ANOVAs were analyzed. Specifically, three ANOVAs were run to determine differences in self-reports of anxiety, anger, and depression. These analyses will report mean comparison scores at the main effects level (Induction, Intervention, Time) and at the interaction level (Induction\*Intervention, Induction\*Time, Intervention\*Time, Induction\*Intervention\*Time).

*Anxiety.* To evaluate whether differences were reported in rating of anxiety, I ran a 2 x 4 x 3 Mixed ANOVA. Table 4 depicts the means and standard deviation scores for individuals in different induction and intervention groups across time. In terms of main effects, results revealed a significant effect for induction,  $F(1, 95) = 5.81, p < .05, \eta_p^2 = .06$ , and time,  $F(2, 190) = 20.56$ ,

$p < .01$ ,  $\eta_p^2 = .18$ , but not for intervention,  $F(3, 95) = .03$ ,  $p = ns$ ,  $\eta_p^2 = .01$ . These findings suggest participants' anxiety scores changed over time and reported anxiety differences between participants who completed the induction and neutral tasks were detected at some points across the study.

TABLE 4

Table 4: The Means and Standard Deviations of Anxiety Ratings Across Time

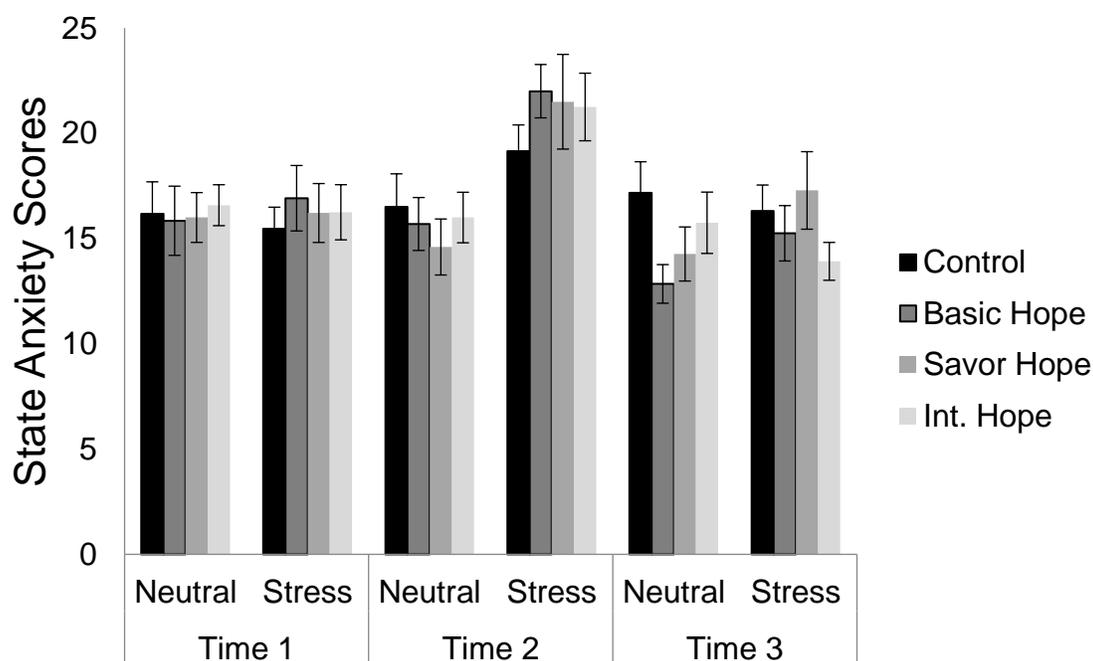
<i>Induction Groups</i>	<i>Intervention Groups</i>				<i>Total</i> ( <i>M, SD</i> ) ( <i>n = 103</i> )
	<i>Control</i> ( <i>M, SD</i> ) ( <i>n = 25</i> )	<i>Basic Hope</i> ( <i>M, SD</i> ) ( <i>n = 25</i> )	<i>Savor Hope</i> ( <i>M, SD</i> ) ( <i>n = 29</i> )	<i>Integrated Hope</i> ( <i>M, SD</i> ) ( <i>n = 24</i> )	
<i>Time 1: Anxiety</i>					
<i>Neutral Group (n = 52)</i>	16.17(5.29)	15.85(5.93)	16.00(4.58)	16.58(3.37)	16.13(4.75)
<i>Stress Group (n = 51)</i>	15.46(3.71)	16.92(5.38)	16.21(5.24)	16.25(4.54)	16.20(4.65)
<i>Time 2: Anxiety</i>					
<i>Neutral Group (n = 52)</i>	16.50(5.45)	15.69(4.53)	14.60(5.15)	16.00(4.16)	15.63(4.77)
<i>Stress Group (n = 51)</i>	19.15(4.49)	22.00(4.39)	21.50(8.42)	21.25(5.56)	20.96(5.96)
<i>Time 3: Anxiety</i>					
<i>Neutral Group (n = 52)</i>	17.17(5.13)	12.85(3.31)	14.27(4.98)	15.75(5.05)	14.92(4.81)
<i>Stress Group (n = 51)</i>	16.30(4.46)	15.25(4.55)	17.29(6.89)	13.92(3.11)	15.76(5.04)

In terms of 2-way interaction effects, results revealed a non-significant induction\*intervention effect,  $F(3, 95) = .86$ ,  $p = ns$ ,  $\eta_p^2 = .02$ . Similarly, results revealed a non-significant time\*intervention effect,  $F(6, 190) = 1.69$ ,  $p = ns$ ,  $\eta_p^2 = .05$ . However, results did uncover a significant time\*induction effect,  $F(2, 190) = 17.54$ ,  $p < .01$ ,  $\eta_p^2 = .16$ . To deconstruct the interaction effect, a set of post-hoc independent ANOVAs were analyzed. At Time 1, there was a non-significant main effect for induction task,  $F(1, 101) = .01$ ,  $p = ns$ ,  $\eta_p^2 = .01$ , indicating that individuals who completed the neutral task ( $M = 16.13$ ,  $SD = 4.75$ ) reported comparable baseline anxiety scores to individuals who completed the stress induction task ( $M = 16.20$ ,  $SD = 4.65$ ). However, at Time 2, there was a significant effect for induction,  $F(1, 101) = 25.11$ ,  $p < .01$ ,  $\eta_p^2 = .20$ , whereby individuals in the stress induction group ( $M = 20.96$ ,  $SD = 5.96$ ) reported

greater anxiety scores compared to those in the neutral group ( $M = 15.63$ ,  $SD = 4.77$ ). Finally, at Time 3, there was a non-significant main effect for induction task,  $F(1, 101) = .75$ ,  $p = ns$ ,  $\eta_p^2 = .01$ , indicating that individuals who completed the neutral task ( $M = 14.92$ ,  $SD = 4.81$ ) reported comparable anxiety scores to individuals who completed the stress induction task ( $M = 15.75$ ,  $SD = 5.04$ ). In total, these findings indicate that the stress induction task was effective in inducing greater levels of anxiety in participants. However, these effects were nullified after participants completed different interventions. Figure 3 depicts the deconstructed interaction effect.

FIGURE 3

*Figure 3: The Interaction Effects of Stress Induction, Hope Intervention, and Time on State Anxiety with Means and Standard Errors*



Regarding the 3-way interaction, there was not a significant induction\*intervention\*time effect,  $F(6, 190) = .74$ ,  $p = ns$ ,  $\eta_p^2 = .02$ . This finding suggests that hope interventions do not moderate the causal relationship between microaggressions and the experience of state anxiety for African American participants.

*Anger.* To evaluate whether differences were reported in rating of anger, I ran a 2 x 4 x 3 Mixed ANOVA. Table 5 depicts the means and standard deviation scores for individuals in different induction and intervention groups across time. In terms of main effects, results revealed a significant effect for induction,  $F(1, 95) = 10.95, p < .01, \eta_p^2 = .10$ , and time,  $F(2, 190) = 21.53, p < .01, \eta_p^2 = .19$ , but not for intervention,  $F(3, 95) = 1.16, p = ns, \eta_p^2 = .05$ . These findings suggest participants' anger scores changed over time and reported anger differences between participants who completed the induction and neutral tasks were detected at some points across the study.

TABLE 5

*Table 5: The Means and Standard Deviations of Anger Ratings Across Time*

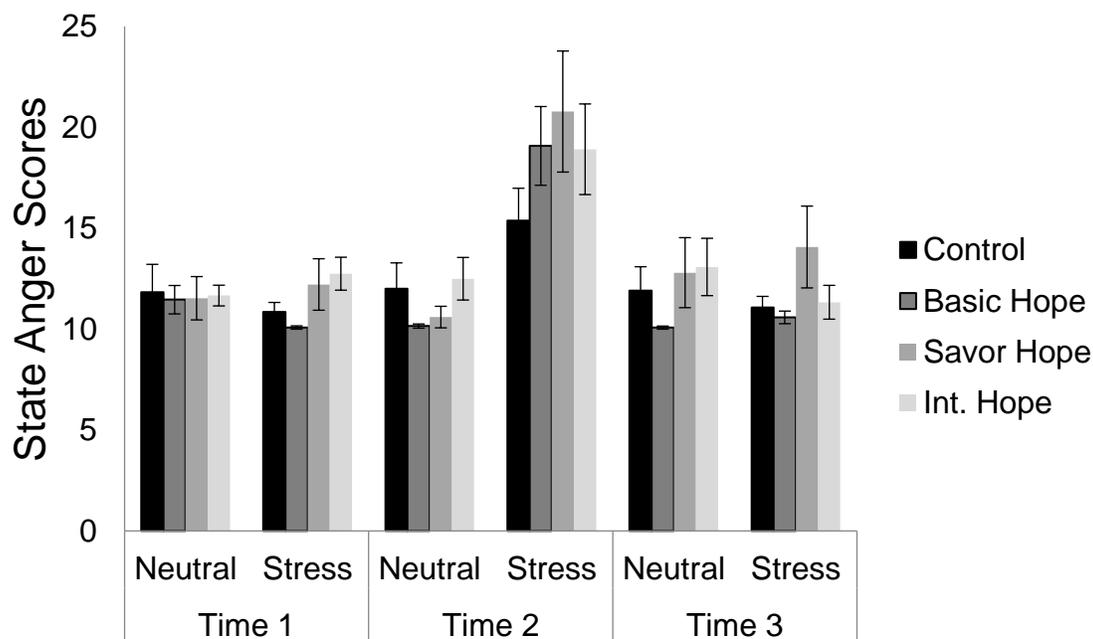
	<i>Induction Groups</i>		<i>Intervention Groups</i>		
	<i>Control</i> ( <i>M, SD</i> ) ( <i>n</i> = 25)	<i>Basic Hope</i> ( <i>M, SD</i> ) ( <i>n</i> = 25)	<i>Savor Hope</i> ( <i>M, SD</i> ) ( <i>n</i> = 29)	<i>Integrated Hope</i> ( <i>M, SD</i> ) ( <i>n</i> = 24)	<i>Total</i> ( <i>M, SD</i> ) ( <i>n</i> = 103)
<i>Time 1: Anger</i>					
<i>Neutral Group (n = 52)</i>	11.83(4.78)	11.46(2.54)	11.53(4.16)	11.67(1.78)	11.62(3.45)
<i>Stress Group (n = 51)</i>	10.85(1.72)	10.08(0.29)	12.21(4.78)	12.75(2.83)	11.49(3.09)
<i>Time 2: Anger</i>					
<i>Neutral Group (n = 52)</i>	12.00(4.45)	10.15(0.38)	10.60(2.06)	12.50(3.66)	11.25(3.05)
<i>Stress Group (n = 51)</i>	15.38(5.77)	19.08(6.76)	20.79(11.23)	18.92(7.77)	18.57(8.26)
<i>Time 3: Anger</i>					
<i>Neutral Group (n = 52)</i>	11.92(4.08)	10.08(0.28)	12.80(6.72)	13.08(4.93)	11.98(4.76)
<i>Stress Group (n = 51)</i>	11.08(1.98)	10.58(1.08)	14.07(7.59)	11.33(2.90)	11.84(4.47)

In terms of 2-way interaction effects, results revealed a non-significant induction\*intervention effect,  $F(3, 95) = 1.18, p = ns, \eta_p^2 = .04$ . Similarly, results revealed a non-significant time\*intervention effect,  $F(6, 190) = .60, p = ns, \eta_p^2 = .02$ . However, results did uncover a significant time\*induction effect,  $F(2, 190) = 28.26, p < .01, \eta_p^2 = .23$ . To deconstruct the interaction effect, a set of post-hoc independent ANOVAs were analyzed. At Time 1, there

was a non-significant main effect for induction task,  $F(1, 101) = .04, p = ns, \eta_p^2 = .01$ , indicating that individuals who completed the neutral task ( $M = 11.62, SD = 3.45$ ) reported comparable baseline anger scores to individuals who completed the stress induction task ( $M = 11.49, SD = 3.09$ ). However, at Time 2, there was a significant effect for induction,  $F(1, 101) = 35.86, p < .01, \eta_p^2 = .26$ , whereby individuals in the stress induction group ( $M = 18.57, SD = 8.26$ ) reported greater anger scores compared to those in the neutral group ( $M = 11.25, SD = 3.05$ ). Finally, at Time 3, there was a non-significant main effect for induction task,  $F(1, 101) = .02, p = ns, \eta_p^2 = .01$ , indicating that individuals who completed the neutral task ( $M = 11.98, SD = 4.76$ ) reported comparable anger scores to individuals who completed the stress induction task ( $M = 11.84, SD = 4.47$ ). In total, these findings indicate that the stress induction task was effective in inducing greater levels of anger in participants. However, these effects were nullified after participants completed different interventions. Figure 4 depicts the deconstructed interaction effect.

FIGURE 4

Figure 4: The Interaction Effects of Stress Induction, Hope Intervention, and Time on State Anger with Means and Standard Errors



Regarding the 3-way interaction, there was not a significant induction\*intervention\*time effect,  $F(6, 190) = 1.11, p = ns, \eta_p^2 = .03$ . This finding suggests that hope interventions do not moderate the causal relationship between microaggressions and the experience of state anger for African American participants.

*Depression.* To evaluate whether differences were reported in rating of depression, I ran a  $2 \times 4 \times 3$  Mixed ANOVA. Table 6 depicts the means and standard deviation scores for individuals in different induction and intervention groups across time. In terms of main effects, results revealed a significant effect for time,  $F(2, 190) = 13.87, p < .01, \eta_p^2 = .13$ , but not for induction,  $F(1, 95) = .49, p = ns, \eta_p^2 = .01$ , or intervention,  $F(3, 95) = 2.53, p = ns, \eta_p^2 = .07$ . These findings suggest participants' depression scores changed over time.

TABLE 6

Table 6: The Means and Standard Deviations of Depression Ratings Across Time

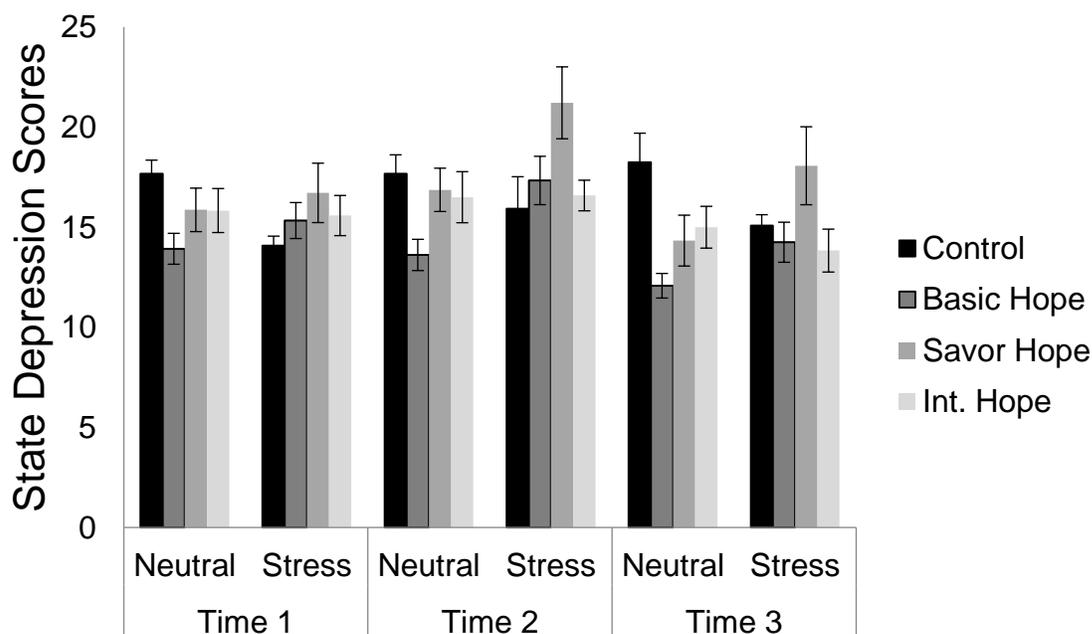
Induction Groups	Intervention Groups				
	Control ( <i>M, SD</i> ) ( <i>n</i> = 25)	Basic Hope ( <i>M, SD</i> ) ( <i>n</i> = 25)	Savor Hope ( <i>M, SD</i> ) ( <i>n</i> = 29)	Integrated Hope ( <i>M, SD</i> ) ( <i>n</i> = 24)	Total ( <i>M, SD</i> ) ( <i>n</i> = 103)
<i>Time 1: Depression</i>					
Neutral Group ( <i>n</i> = 52)	17.67(4.94)	13.92(2.78)	15.87(4.20)	15.83(3.81)	15.79(4.10)
Stress Group ( <i>n</i> = 51)	14.08(2.47)	15.33(3.11)	16.71(5.55)	15.58(3.48)	15.45(3.90)
<i>Time 2: Depression</i>					
Neutral Group ( <i>n</i> = 52)	17.67(4.68)	13.62(2.82)	16.87(4.19)	16.50(4.42)	16.15(4.24)
Stress Group ( <i>n</i> = 51)	15.92(3.43)	17.33(4.19)	21.21(6.72)	16.58(2.64)	17.86(4.95)
<i>Time 3: Depression</i>					
Neutral Group ( <i>n</i> = 52)	18.25(5.74)	12.08(2.22)	14.33(4.92)	15.00(3.62)	14.83(4.74)
Stress Group ( <i>n</i> = 51)	15.08(5.22)	14.25(3.47)	18.07(7.29)	13.83(3.71)	15.41(5.38)

In terms of 2-way interaction effects, results revealed a significant time\*induction effect,  $F(2, 190) = 3.84, p < .05, \eta_p^2 = .04$ , a significant time\*intervention effect,  $F(6, 190) = 2.21, p < .05, \eta_p^2 = .07$ , and a significant induction\*intervention effect,  $F(3, 95) = 3.21, p < .05, \eta_p^2 = .09$ . To deconstruct the time\*induction effect, a set of post-hoc independent ANOVAs were analyzed. At Time 1, there was a non-significant main effect for induction task,  $F(1, 101) = .18, p = ns, \eta_p^2 = .01$ , indicating that individuals who completed the neutral task ( $M = 15.79, SD = 4.10$ ) reported comparable baseline depression scores to individuals who completed the stress induction task ( $M = 15.45, SD = 3.90$ ). However, at Time 2, there was a significant effect for induction,  $F(1, 101) = 3.54, p < .05, \eta_p^2 = .03$ , whereby individuals in the stress induction group ( $M = 17.86, SD = 4.95$ ) reported greater depression scores compared to those in the neutral group ( $M = 16.15, SD = 4.24$ ). Finally, at Time 3, there was a non-significant main effect for induction task,  $F(1, 101) = .34, p = ns, \eta_p^2 = .01$ , indicating that individuals who completed the neutral task ( $M = 14.83, SD = 4.74$ ) reported comparable depression scores to individuals who completed the stress induction task ( $M = 15.41, SD = 5.38$ ). In total, these findings indicate that the stress induction task was effective in

inducing greater levels of depression in participants. However, these effects were nullified after participants completed different interventions. Figure 5 depicts the deconstructed interaction effect.

FIGURE 5

*Figure 5: The Interaction Effects of Stress Induction, Hope Intervention, and Time on State Depression with Means and Standard Errors*



To deconstruct the time\*intervention effect, a set of post-hoc independent ANOVAs were analyzed. At Time 1, there was a non-significant main effect for intervention task,  $F(3, 99) = .82$ ,  $p = ns$ ,  $\eta_p^2 = .02$ , indicating that individuals who received the control ( $M = 15.80$ ,  $SD = 4.19$ ), basic hope ( $M = 14.60$ ,  $SD = 2.97$ ), hope savoring ( $M = 16.27$ ,  $SD = 4.83$ ), and integrated hope ( $M = 15.71$ ,  $SD = 3.57$ ), interventions all reported comparable baseline depression scores. However, at Time 2, there was a significant effect for intervention,  $F(3, 99) = 2.96$ ,  $p < .05$ ,  $\eta_p^2 = .08$ , whereby individuals in the hope savoring intervention group ( $M = 18.97$ ,  $SD = 5.88$ ) reported greater depression scores compared to those in the basic hope ( $M = 15.40$ ,  $SD = 3.95$ ) group.

Finally, at Time 3, there was a significant main effect for intervention task,  $F(3, 99) = 2.67, p < .05, \eta_p^2 = .08$ , indicating that individuals who received the control ( $M = 16.60, SD = 5.60$ ) and hope savoring ( $M = 16.14, SD = 6.36$ ) interventions reported higher depression scores to individuals who received the basic hope ( $M = 13.12, SD = 3.03$ ) intervention. These findings indicate that participation in a basic hope intervention may be more beneficial in reducing depression. Figure 6 depicts the deconstructed interaction effect.

To deconstruct the induction\*intervention effect, a set of post-hoc Factorial ANOVAs were analyzed. At Time 1, there was a non-significant induction\*intervention effect,  $F(3, 95) = 2.04, p = ns, \eta_p^2 = .06$ . However, at Time 2, there was a significant induction\*intervention effect,  $F(3, 95) = 2.93, p < .05, \eta_p^2 = .09$ . However, because participants were randomly assigned to interventions after Time 2, there is no need for further deconstruction of this effect. Finally, at Time 3, there was a significant induction\*intervention effect,  $F(3, 95) = 2.79, p < .05, \eta_p^2 = .08$ . To deconstruct this significant interaction effect further, I analyzed two simple ANOVAs to determine if there were intervention differences on depression for individuals who completed the neutral induction task and stress induction task separately. Results for the neutral induction participants revealed a significant main effect for intervention,  $F(3, 48) = 4.30, p < .01, \eta_p^2 = .21$ . Specifically, the basic hope ( $M = 12.08, SD = 2.22$ ) and hope savoring ( $M = 14.33, SD = 4.92$ ) conditions reported lower depression ratings than the control condition ( $M = 18.25, SD = 5.74$ ). However, results for the stress induction participants revealed a non-significant main effect for intervention,  $F(3, 47) = 1.76, p = ns, \eta_p^2 = .10$ ; there were no significant differences among interventions groups for this select group of people at Time 3

Regarding the 3-way interaction, there was not a significant induction\*intervention\*time effect,  $F(6, 190) = .71, p = ns, \eta_p^2 = .02$ . This finding suggests that hope interventions do not

moderate the causal relationship between microaggressions and the experience of state depression for African American participants.

## CHAPTER 5

### DISCUSSION

#### *Review of Purpose*

The purpose of this study was to examine the casual effects of microaggressions and different hope interventions on self-reported distress outcome variables (depression, anxiety, anger) in a sample of African Americans. In addition, I examined whether the effects of different hope interventions could mitigate the effects of microaggressions on different distress outcomes. Considering these specific goals, this study examined the following questions with a sample of African American students: (1) do self-reports of discrimination vary by important demographic categories (i.e., rural status) among African Americans? (2) do microaggressions increase reports of distress (anxiety, depression, anger)? (3) do hope interventions reduce reports of distress (anxiety, depression, anger)? (4) do hope interventions buffer the effects of microaggressions on distress (anxiety, depression, anger)? (5) do integrated hope interventions provide any additive benefits in reducing the effects of microaggressions on distress indices when compared to the other basic hope interventions (hope savoring, basic hope)?

#### *Rural Differences*

A MANOVA was run to determine differences between rural and non-rural participants on reports of baseline distress outcomes. This analysis revealed non-significant effects for all three distress outcomes; suggesting rural and non-rural African American participants report comparable state levels of anxiety, anger, and depression. These findings are somewhat inconsistent with the current literature; African Americans in rural areas exhibit higher levels of distress compared to African Americans in urban areas (Larson, et al., 2012). This inconsistency may be due to the use of a college student sample, which represents a unique subset of the

African American community. It is possible that resources available through college (i.e., educational, social, housing opportunities) may offset any geographic differences on self-reports of anxiety, anger, and depression. It is important to evaluate whether rural differences vary as a function of setting. In addition, there have been a number of discriminatory events in the area over the past two years. These instances were publicized via news outlets and social media. They may have increased state levels of distress for all participants, regardless of rural status.

Future researchers are strongly encouraged to evaluate whether environmental setting (university, community) moderates the relationship between rural status and distress-based outcomes, especially among African American populations. These null-findings may also stem from using state-based distress measures instead of trait-based distress measures. The use of state-based measures may not be indicative of trait-based trends, which are largely noted in the prevailing literature. For instance, studies that report rural differences on distress outcomes commonly used more trait-based measures to draw such conclusions. While state and trait-based estimates of distress are highly related, state-based measures are greatly affected by situation and circumstance. For instance, if participants entered the lab in a happier mood, this may negate or offset the ability to detect significant geographic differences in distress. In future studies, it is important to evaluate what components of state-based processes may nullify geographic and regional differences among African American reports of anxiety, anger, and depression.

#### *Stress Induction Task*

I ran a series of 2 Time (Time 1, Time 2) x 2 Induction (Stress Induction, Neutral Induction) mixed ANOVAs to examine differences in stress scores to ensure my microaggression task produced the intended effect. Specifically, I ran this analysis to ensure those receiving the stress induction reported higher levels of stress at Time 2 compared to those

who received the neutral induction. There were no significant differences in baseline stress between the two induction groups, which suggests that any reported differences on stress at Time 2 would be due to the offered induction task. As expected, results from the analyses revealed individuals in the stress induction group reported significantly higher levels of stress at Time 2 when compared to those in the neutral induction group. This finding indicates the induction manipulation produced the expected effects. This finding is consistent with the literature, suggesting that use of a video clip to induce stress consistent with a microaggression is a viable and effective strategy (Schaefer, et al., 2010).

Results from separate analyses also indicated individuals in the stress induction group reported significantly higher levels of distress (anxiety, anger, and depression) at Time 2 when compared to those in the neutral induction group. This finding is, again, consistent with the literature in that microaggression experiences should elicit heightened levels of anxiety, anger, and depression, especially among African Americans (Mouzon & McLean, 2016; Rucker, et al., 2010, Unger, 2015) and is consistent with the notion that microaggression stress can cause state-based increases in anxiety, anger, and depression. In total, these findings provide evidence for the use of my specific induction task in future experimental studies. However, it will also be important for future studies to evaluate how long my microaggression induction task elicits heightened levels of distress. Answering such a question may provide insights into when and how this induction task should be employed. In addition, microaggression induction tasks using videos may not always be possible. As such, future studies may benefit from studying other ways to elicit discrimination related-stress and distress, including use of confederates to provide an invalidating encounter or having participants read a passage containing discriminatory language.

### *Hope and Depression*

I ran a series of 3 Time (Time 1, Time 2, Time 3) x 2 Induction (Neutral Induction, Stress Induction) x 4 Intervention (Control, Basic Hope, Hope Savoring, Integrated Hope) mixed ANOVAs to examine how induction and intervention conditions affected depression scores over time. Surprisingly, the analyses indicated a non-significant 3-way interaction between induction and intervention over the course of the study. These findings were inconsistent with expectations based on the current literature. Specifically, this finding is dissonant from studies that demonstrate hope interventions decrease depression in a protective capacity (Russell, et al., 2018; McDermott, et al., 2015). This discrepancy may be due to low power. Due to the COVID-19 pandemic, I was unable to recruit as many participants as initially planned. It is possible the expected results would manifest with a larger data set. In terms of future directions, researchers should wait a few years to adjust for the COVID-19 pandemic before attempting to re-evaluate whether hope interventions can causally moderate the relationship between microaggressions and distress variables. Additionally, the timing and length of the interventions may need to be evaluated further. Specifically, the interventions may not have been long enough to counteract the stress resulting from the induction task. The time to complete the hope interventions was approximately 20 minutes. As such, the induction task may have generated a significant amount of distress and the subsequent hope intervention may not have fully negated the debilitating effects of the microaggression task on state depression scores. In future studies, researchers may want to consider lengthening hope interventions to better assess the potential for moderating effects.

Interestingly, analyses revealed a significant 2 x 2 interaction between induction and intervention. To deconstruct the effects further, I ran a 2 Induction (Neutral Induction, Stress

Induction) x 4 Intervention (Control, Basic Hope, Hope Savoring, Integrated Hope) factorial ANOVAs at each time point. At Time 3, analyses uncovered a significant induction and intervention interaction effect. Interestingly, there were no significant intervention differences on depression scores for participants who completed the microaggression induction task. However, there was a significant intervention difference on depression scores for individuals assigned to the neutral induction task. Specifically, participants in the basic hope intervention reported lower depression scores when compared to participants in the hope savoring or control interventions. These findings suggest hope interventions are helpful for African Americans when utilized outside of stressful encounters with microaggressions. In particular, the basic hope intervention was most effective in minimizing state depression scores. The basic hope intervention is consistent with more direct and problem solving efforts to elicit a positive emotional response versus the integrated and savoring hope interventions, which rely on hope enhancement strategies by extending positive experiences or emotions. Therefore, it seems like taking a more direct problem solving approach to hope may be the most beneficial in helping African Americans reduce state feelings of depression. Direct hope interventions may be more suitable to reduce state depression because depression is associated with poor behavioral activation, making it difficult to extend positive emotions as required in hope enhancement strategies. In the future, it would be beneficial for studies to evaluate how the unique properties of traditional hope interventions minimize depression scores. Specifically, it will be important to pinpoint common factor mechanisms that better explain how hope approaches can be effectively used in reducing state-based depression concerns among African Americans.

*Hope, Anxiety, and Anger*

I ran a series of 3 Time (Time 1, Time 2, Time 3) x 2 Induction (Neutral Induction, Stress Induction) x 4 Intervention (Control, Basic Hope, Hope Savoring, Integrated Hope) mixed ANOVAs to examine how induction and intervention conditions affected state-based anxiety and anger scores over time. Analyses revealed few statistically significant results. Specifically, my findings suggest that hope interventions do not interact with experiences of microaggressions to account for differences in reported anxiety and anger scores. Overall, these findings are largely inconsistent with the prevailing literature, which suggest anxiety and anger rise as a result of microaggressions and fall with hope interventions (Soto, et al., 2010; Caldwell, et al., 2004; McDermott, et al., 2015; Chang, et al., 2017).

When evaluating these findings in comparison to the significant effects for depression, it is possible that hope interventions may differentially effect changes in certain types of state-based distress outcomes. Specifically, it appears hope interventions are better suited to address state-based depression versus state-based anxiety or anger. This may be because depression entails a sense of hopelessness and hope interventions provide a more tangible means of reducing hopelessness. In fact, hopelessness is not seen as strongly influential factors in the development of clinical anxiety or anger-based problems. As such, it will be important for researchers to determine how other positively psychological interventions may specifically and effectively address anxiety and anger-based concerns in African American populations. For example, using reappraisal interventions may help address the catastrophizing tendencies of anxiety, while using positive emotion regulation interventions may counteract the negative effects underlying anger.

### *Control Condition*

It is also possible the control condition may have had an inadvertent therapeutic effect, which detracted from my ability to detect significant findings. Participants in the control condition were asked to focus on a passage for ten minutes and then prompted to focus on specific lines within the passage. The format of this condition mirrored the hope savoring condition but utilized an emotionally bland passage to ensure fairness. However, this focus and how participants were asked to direct it may be similar to a mindfulness task. Mindfulness tasks demonstrate the ability to reduce stress (Grossman, Niemann, Schmidt, & Walach, 2004). The data (Figures 3, 4, and 5) indicate that individuals who participated in the control group reported significant decreases in state anxiety, anger, and depression scores, especially from Time 2 to Time 3. In addition, because the participants were asked to focus on a mundane passage for ten minutes, they may have become bored. As such, it may have subdued the participants' distress and allowed for more calming emotions. These patterns of change are consistent with what I might expect from one of my interventions conditions. As such, the choice of this control condition seems inappropriate given the needs of the study. In the future, it may be important for researchers to re-evaluate the study's questions and design using a true-control, where participants are asked to do nothing.

### *Clinical Implications*

From a clinical perspective, this study was one of the first to attempt to use hope interventions to buffer the effects of microaggressions on different distress indices in a sample of African American students. While the findings indicate hope interventions cannot successfully moderate the distress resulting from microaggressions, basic hope interventions may be effective for African Americans who are currently experiencing state-depressive symptoms outside of the

experience of a microaggression. Furthermore, my findings provide some clarity to the scope and limitations by which hope intervention should be employed with African Americans. First, hope intervention using more direct and problem solving methods of induction should be favored over interventions that require extending positive emotions or experiences in reducing state-depressive symptoms. Second, hope interventions may be most effective to address depression rather than anxiety or anger. Overall, it would be fruitful for clinicians to explore basic hope or other hope finding interventions with African Americans experiencing depression.

### *Limitations*

*COVID-19 Pandemic.* The impact of the COVID-19 pandemic directly resulted in reduced power. Specifically, the pandemic negatively affected my ability to recruit and administer the study to the optimal number of participants needed to detect small, moderate, and large effect. Instead of collecting data from 240 individuals, I was only able to collect data from 103 participants. This reduction in sample size decreased the power needed to detect moderate and small effects. Moving forward, it will be important to re-evaluate the questions posed in this study by sampling from a larger pool of African American college students. In addition, the pandemic required alterations of the study timeline and protocol. For instance, recruitment was halted for seven months during the pandemic. When data collection resumed, it was necessary to change procedures (e.g. masks, social distancing, emailed consent forms) for the safety of the participants and the researcher. It is unknown how such changes affected the potential to detect significant findings. For instance, it is unknown whether participant data collected before the pandemic was fundamentally different from data collected during the pandemic because of the noted changes. In the future, it will be important to re-evaluate whether data collected during the pandemic is more sensitive to issues that may have negatively affected the implementation of the

stress tasks and hope interventions. Finally, due to pandemic-related anxiety, there may have been reluctance to participate fully in the study by the participants. For instance, it is unknown whether participants experience some pandemic-related anxieties that contributed to higher levels of distractibility during the study procedures. This in turn may have made it more difficult to reduce distress by using the hope interventions. Overall, circumstances surrounding the pandemic may have interfered with the ability to detect significant results and to fully explore the effectiveness of hope interventions.

*Social Climate.* During the recruitment and data collection phase of this study, there were significant social factors that likely affected participants' mood, anxiety, and trust. Specifically, the deaths of George Floyd and Breonna Taylor sparked Black Lives Matter marches across the world and precipitated social change regarding systemic racism and police brutality. The media fully covered these events and the resulting verbal, physical, and emotional conflicts. African American participants in this study were undoubtedly impacted by these events. Due to the saliency of the subject matter, the microaggression induction may have resulted in increased intensity in stress. The hope interventions may not have been able to fully negate the intense emotions experienced by the participants. Overall, it is unknown how the recent social climate affected different elements of the study. However, there is a higher likelihood that current events made it more difficult to employ positive psychological interventions aimed at increasing hope.

*Methodological.* Due to the available methods of recruitment, the sample is comprised of college students. Thus, the findings may only be generalizable to African American college students and not to communities of African Americans. It is important for future researchers to evaluate these hypotheses with different samples of African Americans. In addition, during the course of the study, the incentives were altered to increase recruitment efforts. When the study

began, participants earned 1.5 credits on SONA. After data collection resumed during the COVID-19 pandemic, participants earned a \$10 gift card. It is unknown if this change had an impact on participants' interest and investment in participating in the study.

Data for this study was collected utilizing self-report questionnaires. Self-report questionnaires are prone to demand characteristics and social desirability concerns. To validate the conclusions drawn from this study, it would be beneficial for future studies to use observational or behavioral measures of distress. Lastly, it is possible the identity status of the researcher may have impacted participants. While the researcher is a racial minority, she is not African American. In the future, it is important to complete data collection with African American researchers to evaluate whether identity status impacted the results of the study.

#### *Overall Conclusions*

This study examined the utility of different hope interventions in buffering the effects of microaggressions on distress. The microaggression induction was effective in inducing higher levels of stress and increased participants' scores of state-based anxiety, anger, and depression. Rural and non-rural participants reported comparable baseline levels of distress. Results revealed that hope interventions do not moderate the causal relationship between microaggression stress and distress, especially for anxiety and anger. However, certain hope interventions are effective in reducing depression for participants who did not experience the microaggression stress induction task. Considering the limitations in these results, it is important for future researchers to wait a few years to adjust to the COVID-19 pandemic before recruiting a larger sample size to re-evaluate the effect of hope interventions on the relationship between microaggressions and distress.

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## APPENDIX 1

*Basic Hope Intervention, Condition #1: Written Story*

**Instructions:** Now I am going to give you a scenario to imagine yourself in. During the imagination task, please take your time and be aware of the feelings that this activity evokes. Really try to celebrate the feelings that arise in you.

**Prompt A:** Take a few minutes and recall a day where you felt excited and hopeful. Choose one day in your life where you felt hopeful, motivated, and optimistic about the future. Take a few minutes to choose and mentally review your best day. Let me know when you have chosen one by nodding your head.

**Prompt B:** Now that you have your chosen day, I would like for you to engage in a writing task. Specifically, I would like for you to write the story of your chosen day and why you felt so hopeful. I would like for you to talk about the details of your day. Remember a good story should have a beginning, middle and an end. Also, good stories outline how important emotions were experienced and how these emotions created a sense of hopefulness. Make sure you hit on all the major components so I can fully appreciate why this was such a hopeful day. Please write approximately 200 words. Please let me know when you are done and please do not close out the document when you are done.

*Stop the participant after 15 minutes.*

## APPENDIX 2

*Hope Savoring Intervention, Condition #2: Passage*

**Prompt A:** Please read the following passage (*present passage to participant*). When reading the passage, slowly read every word and line deliberately and carefully. Let your mind pause, linger, and wonder over the meaningfulness of the passage (*be slow and deliberate in how you recite the previous sentence*). Read the words and lines over and over again to really let the feelings sink in. Again, take your time, be aware of the feelings that the words evoke, and celebrate the experience of those feelings. Please take the next few moments to complete this exercise. I will let you know when to stop.

*Allow participants to read and reflect on the passage for 10 minutes.*

*(After 10 minutes, ask the participant to process certain elements of the passage, prompting them every two minutes that follows with the prompts found below).*

*(First Prompt) - I want you to focus on one phrase of the passage found in paragraph 1 for a few moments. Silently reflect on ways this relates to you: "You may tread me in the very dirt. But still, like dust, I'll rise."*

*(Wait 2 minutes)- Now, I want you to focus on another phrase of the passage found in paragraph 3 for a few moments. Reflect on ways that this relates to you: "Just like hopes springing high, Still I'll rise."*

*(Wait another 2 minutes)- Finally, I want you to focus on one final phrase of the passage found in paragraph 6 for a few moments. Reflect on ways that this relates to you: "You may kill me with your hatefulness, But still, like air, I'll rise."*

Passage:

You may write me down in history  
 With your bitter, twisted lies,  
 You may trod me in the very dirt  
 But still, like dust, I'll rise.

Does my sassiness upset you?  
 Why are you beset with gloom?  
 'Cause I walk like I've got oil wells  
 Pumping in my living room.

Just like moons and like suns,  
 With the certainty of tides,  
 Just like hopes springing high,  
 Still I'll rise.

Did you want to see me broken?  
 Bowed head and lowered eyes?  
 Shoulders falling down like teardrops,  
 Weakened by my soulful cries?

Does my haughtiness offend you?  
 Don't you take it awful hard?  
 'Cause I laugh like I've got gold mines  
 Diggin' in my own backyard.

You may shoot me with your words,  
 You may cut me with your eyes,  
 You may kill me with your hatefulness,  
 But still, like air, I'll rise.

Does my sexiness upset you?  
 Does it come as a surprise  
 That I dance like I've got diamonds  
 At the meeting of my thighs?

Out of the huts of history's shame, I rise  
 Up from a past that's rooted in pain, I rise  
 I'm a black ocean, leaping and wide,  
 Welling and swelling I bear in the tide.

Leaving behind nights of terror and fear, I rise  
 Into a daybreak that's wondrously clear, I rise  
 Bringing the gifts that my ancestors gave,  
 I am the dream and the hope of the slave.  
 I rise  
 I rise  
 I rise.

— Maya Angelou, *Still I Rise*

## APPENDIX 3

*Integrated Hope Intervention, Condition #3: Story and Passage*

**Instructions:** Now I am going to give you a scenario to imagine yourself in. After the scenario I would like for you to read a carefully selected passage. During each task, please take your time, and be aware of the feelings that the activities evoke. Really try to celebrate the feelings that arise in you.

**Prompt A:** Take a few minutes and recall a day where you felt excited and hopeful. Choose one day in your life where you felt hopeful, motivated, and optimistic about the future. Take a few minutes to choose and mentally review your best day. Let me know when you have chosen one by nodding your head.

**Prompt B:** Now that you have your chosen day, I would like for you to engage in a writing task. Specifically, I would like for you to write the story of your chosen day and why you felt so hopeful. I would like for you to talk about the details of your day. Remember a good story should have a beginning, middle and an end. Also, good stories outline how important emotions were experienced and how these emotions created a sense of hopefulness. Make sure you hit on all the major components so I can fully appreciate why this was such a hopeful day. Please write approximately 200 words. Please let me know when you are done and please do not close out the document when you are done.

*Stop the participant after 7 minutes.*

**Prompt C:** With the story of your best day in mind, please read the following passage (*present passage to participant*). When reading the passage, slowly read every word and line deliberately and carefully. Let your mind pause, linger, and wonder over the meaningfulness of the passage (*be slow and deliberate in how you recite the previous sentence*). Read the words and lines over and over again to really let the feelings sink in. Again, take your time, be aware of the feelings that the words evoke, and celebrate the experience of those feelings. Please take the next few moments to complete this exercise. I will let you know when to stop.

*(Wait for approximately 6 minutes for the participant to process the imagery, prompting them every minute that follows with the prompts found below).*

*(After 6 minutes) - I want you to focus on one phrase of the passage found in paragraph 1 for a few moments. Silently reflect on ways this relates to you: "You may trod me in the very dirt. But still, like dust, I'll rise."*

*(After 7 minutes)- I want you to focus on another phrase of the passage found in paragraph 3 for a few moments. Reflect on ways that this relates to you: "Just like hopes springing high, Still I'll rise."*

*(After 8 minutes)- I want you to focus on one final phrase of the passage found in paragraph 6 for a few moments. Reflect on ways that this relates to you: "You may kill me with your hatefulness, But still, like air, I'll rise."*

Passage:

You may write me down in history  
 With your bitter, twisted lies,  
 You may trod me in the very dirt  
 But still, like dust, I'll rise.

Does my sassiness upset you?  
 Why are you beset with gloom?  
 'Cause I walk like I've got oil wells  
 Pumping in my living room.

Just like moons and like suns,  
 With the certainty of tides,  
 Just like hopes springing high,  
 Still I'll rise.

Did you want to see me broken?  
 Bowed head and lowered eyes?  
 Shoulders falling down like teardrops,  
 Weakened by my soulful cries?

Does my haughtiness offend you?  
 Don't you take it awful hard?  
 'Cause I laugh like I've got gold mines  
 Diggin' in my own backyard.

You may shoot me with your words,  
 You may cut me with your eyes,  
 You may kill me with your hatefulness,  
 But still, like air, I'll rise.

Does my sexiness upset you?  
 Does it come as a surprise  
 That I dance like I've got diamonds  
 At the meeting of my thighs?

Out of the huts of history's shame, I rise  
 Up from a past that's rooted in pain, I rise  
 I'm a black ocean, leaping and wide,  
 Welling and swelling I bear in the tide.

Leaving behind nights of terror and fear, I rise  
 Into a daybreak that's wondrously clear, I rise  
 Bringing the gifts that my ancestors gave,  
 I am the dream and the hope of the slave.  
 I rise  
 I rise  
 I rise.

— Maya Angelou, *Still I Rise*

## APPENDIX 4

*Control Condition #1: Passage*

**Prompt A:** Please read the following passage (*present passage to participant*). When reading the passage, slowly read every word and line deliberately and carefully. Let your mind pause, linger, and wonder over the meaningfulness of the passage (*be slow and deliberate in how you recite the previous sentence*). Read the words and lines over and over again to really let them sink in. Again, take your time, be aware of the feelings that the words evoke, and process the experience of those feelings. Please take the next few moments to complete this exercise. I will let you know when to stop.

*Allow participant to read and reflect on the passage for 10 minutes.*

*(After 10 minutes, ask the participant to process certain elements of the passage, prompting them every two minutes that follows with the prompts found below).*

*(First Prompt) - I want you to focus on one phrase of the passage found in paragraph 1 for a few moments. Silently think about what “the majority of buyers and users of such goods have never stepped inside of a rubber mill” would look like.*

*(Wait 2 minutes)- I want you to focus on another phrase of the passage found in paragraph 3 for a few moments. Silently think about what: “comes to the hose maker in strips, cut on the bias, which are wound around the outside of the tube and adhere tightly to it” would look like.*

*(Wait another 2 minutes)- I want you to focus on one final phrase of the passage found in paragraph 6 for a few moments. Silently think about what: “The hose is then slipped off the pole by forcing air from a compressor between the rubber and the hose pole” would look like.*

Passage:

While the manufacture of rubber goods is in no sense a secret industry, the majority of buyers and users of such goods have never stepped inside of a rubber mill, and many have very crude ideas as to how the goods are made up.

In ordinary garden hose, for instance, the process is as follows: The inner tubing is made of a strip of rubber fifty feet in length, which is laid on a long zinc-covered table and its edges drawn together over a hose pole.

The cover, which is of what is called "friction," that is cloth with rubber forced through its meshes, comes to the hose maker in strips, cut on the bias, which are wound around the outside of the tube and adhere tightly to it.

The hose pole is then put in something like a fifty foot lathe, and while the pole revolves slowly, it is tightly wrapped with strips of cloth, in order that it may not get out of shape while undergoing the process of vulcanizing.

When a number of these hose poles have been covered in this way they are laid in a pan set on trucks and are then run into a long boiler, shut in, and live steam is turned on.

When the goods are cured steam is blown off, the vulcanizer opened and the cloths are removed. The hose is then slipped off the pole by forcing air from a compressor between the rubber and the hose pole. This, of course, is what is known as hose that has a seam in it.

- M.H. Tauss, *How Mechanical Rubber Goods Are Made*

## APPENDIX 5

*Debriefing Exercise*

Instructions: I am going to ask you to complete one last exercise. It should take only five minutes to complete.

Prompt: Just take a second to settle comfortably into your chair and let your eyes shut. Just continue to follow the sound of my voice, and if you find your mind drifting, simply notice it, and then come back to the sound of my voice. Now what I'd like you to do is let your mind trace the steps it took you to get here today.

Picture that process... getting up this morning... the routine of getting ready. Try to notice it like you're watching a movie of yourself. Maybe you had plenty of time to do the things you had to do today, maybe you were in a hurry. See if you can remember your thoughts and concerns as you were preparing to get here today... All the things during the day that you need to do.

Now, sort of push forward in time as you move closer to getting here. See if you can remember what your body felt like when you got here... recall the places you passed, people you saw... just let them all tick through your mind one by one as you imagine passing them by.

And now, picture yourself arriving here... at this lab. Gently watch the interactions you had with others as you participated in the study. Just notice each one. And then finally notice settling into where you find yourself, right now. And what I'd like you to do now is see if you can imagine that all of the strands of activity that brought you here today are like some kind of colorful fibers connected to you.

Just imagine that these strands of activity that brought you to this moment gently begin to drop away with each inflow and outflow of your breath. Just breathe... and let yourself continue to notice those colorful strands dropping off slowly, until it's just you sitting here right now.

Let yourself become aware of your body and your breath. And drawing your attention to your breath, take three very gentle, full breaths... Trying to notice each small detail of breathing... And when you are ready, slowly return your awareness to the room, and open your eyes.