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Broderick Sawyer

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EMOTION REGULATION AND THE EXPERIENCE OF RACIAL MICROAGGRESSIONS

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B.S., Eastern Connecticut State University, 2012
M. A., University of Louisville, 2016

A Dissertation
Submitted to the Faculty of the
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Department of Psychological and Brain Sciences
University of Louisville
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February 4, 2019

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DEDICATION

Dedicated to oppressed populations everywhere. May we one day achieve liberation.
ACKNOWLEDGEMENTS

To my mother, who taught me to put others before myself, I thank you for your daily lessons on grace and giving. May I continue to be a vehicle of transformation for suffering beings. To my father, who taught me about resilience, I thank you for showing me what Grit really means in the face of oppression. May I continue to use my pain as seeds for love, strength, tirelessness, and awakening.

A deep bow of gratitude to all my teachers. If it wasn’t for their collective wisdom and love, I wouldn’t be where I am today. Along with my parents, these teachers include my sisters, supervisors, coaches, mentors, friends, and peers.
ABSTRACT

EMOTION REGULATION AND THE EXPERIENCE OF RACIAL MICROAGGRESSIONS

Broderick Sawyer

February 4, 2019

Racial microaggressions are defined as subtle racial insults or slights that racial minorities may encounter daily, communicating negative messages to victims. Perceiving discrimination has been associated with negative outcomes in racial minorities such as symptoms of depression, anxiety, trauma, and low self-esteem. Previous research has suggested emotion regulation and psychological symptoms as playing significant roles in the experience of discrimination. Research has yet to identify specific emotion regulation tactics that might offset the harm of racial microaggressions. Mindfulness and self-compassion have been found to buffer the negative emotional impact of chronic stressors that are similar to racial microaggressions. The current study sought to investigate the emotional impact of racial microaggressions in a sample of 91 racial minority participants. Results indicated that experiential avoidance, negative affect, anger rumination, mindfulness, self-compassion, and emotion regulation were each found to partially explain relationships between microaggressions and psychological symptoms (social anxiety, trauma, depression), and provided preliminary evidence for emotion
regulation tools as reducing emotional distress in response to microaggressions.

Limitations and future implications are discussed.
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CHAPTER I
INTRODUCTION

Summary

Perceiving discrimination has been linked to negative outcomes in racial minorities such as symptoms of depression and anxiety, and low self-esteem (Pascoe & Richman, 2009; Chou, Asnaani, & Hofmann, 2012; Soto, Dawson-Andoh, & BeLue, 2011). Racial minorities may perceive discrimination based on the type of discrimination experienced. Overt discrimination may include openly racist comments toward minority victims, or even physical assault (Sue, Capodilupo, Bucceri, et al., 2007). Overt forms of discrimination have lessened in recent years, possibly due to advances in civil rights efforts. Perhaps because of the bonds needed to promote social harmony, overtly discriminating against, say, a colleague or classmate may be less socially acceptable as it once was. Nevertheless, racial minorities still endure covert forms of discrimination, which I will refer to as “racial microaggressions.” Racial microaggressions are defined as subtle racial insults or slights that racial minorities may encounter daily, communicating negative messages to victims (Sue et al., 2007). Given the subtlety of racial microaggressions, victims may sometimes not be sure whether they were indeed perpetrated against. Perpetrators of racial microaggressions may be friends as well as strangers, and often unaware that they are even committing them (Sue et al., 2007). In comparison to overt discrimination (e.g., racial slurs), microaggressions may occur more frequently and are harder to interpret given their covert nature. Correctly interpreting the microaggression becomes important if victims are somehow relying on a potential
aggressor (e.g., hoping that a boss treats them fairly in the workplace), or when contemplating whether the victim should confront the perpetrator to remediate the harm of the discriminatory act. As a result, it can be theorized that racial minorities expend significant cognitive energy to seek certainty of safety within interpersonal interactions, attempting to detect whether they were indeed a victim of racial microaggressions.

Therefore, it is no wonder that racial microaggressions and discrimination have been linked to social anxiety, anger, and hypervigilance (Levine, Himle, Abelson, et al., 2014; Carter & Forsyth, 2010). Detecting race-related interpersonal threat when experiencing overt discrimination is simpler, not requiring as much cognitive energy to decipher whether or not one is interpersonally safe. Herein lies the unique impact of racial microaggressions, the difficulty in assessing one simple question: Am I safe right now? There are no clear signs when it comes to microaggressions, further, with ambiguous interpersonal cues, if one has experienced discrimination in the past they may be anticipating interpersonal threat or harm, potentially causing cognitive distortions, and subsequent distressing affect, when being triggered by interactions with potential perpetrators of discrimination. Overt discrimination allows for clear threat detection, which provides racial minorities the opportunity to remove themselves from the presence of the aggressor. Conversely, when racial microaggressions are committed, the subtly of the act may not provide enough information for victims to clearly determine whether or not they are in the presence of a threat. Adding in the possibility that ambiguous social cues may be provoking harmful memories and feelings of fear, there is also the potential of racial minorities perceiving more microaggressions than are actually present. This is not to deny the presence of or pain resulting from racial microaggressions and chalking it
up as mere “distortion”, rather, it highlights the insidious nature of racial discrimination, both overt and covert. That is, racial minorities may be so fearful of discrimination, that they need to protect against such cognitive/emotional pain by preemptively expecting mistreatment as a way to protect themselves.

Although extant literature has not explored coping tactics utilized by racial minorities for racial microaggressions specifically, there is research outlining coping strategies for racism broadly. This research has established that racial minorities are most likely to utilize group-based, emotionally avoidant, or confrontational coping strategies to offset the negative mental health outcomes as a result of racial discrimination (Brondolo, ver Halen, Pencille, et al., 2009). However, these coping strategies have limited empirical support regarding their effectiveness in reducing distress, and do not address an increased need for racial minorities to regulate emotions due to the threat of encountering racial microaggressions frequently.

Mindfulness and self-compassion may serve as effective emotion regulation strategies in reducing distress caused by racial microaggressions. Trait mindfulness has been shown to moderate the relationship between past year experiences of discrimination and anxious arousal (Graham, West, and Roemer, 2013) in an African American sample, providing evidence that trait mindfulness may buffer the deleterious effects of racist experiences. Mindfulness and self-compassion have been shown to improve emotion regulation, and used to treat difficulties similar to those brought on by encountering racial microaggressions such as anxiety, depressive symptoms, rumination, and chronic stressors (Maheux & Price, 2016; Sirois, Molnar & Hirsch, 2015; Peters, Smart,
Using mindfulness and self-compassion may provide the opportunity for racial minorities to become observers of their negative thought patterns and subsequent emotional responses rather than identifying themselves with thoughts and emotions, not judge or overanalyze these thoughts or reactions, then reengage their emotions positively by extending compassion toward themselves. Research has yet to explore whether or not mindfulness and self-compassion buffer the unique harmful psychological impact that racial microaggressions cause. After summarizing the literature exploring racial microaggressions and the traditionally utilized coping tactics for racial discrimination in racial minorities, the current study investigates the buffering roles of mindfulness and self-compassion in the relationship between racial microaggressions and negative emotional reactions.

Racial Microaggressions: A Modern Form of Discrimination

Operationalizing Discrimination

Current research has made many attempts at operationalizing discrimination, and while due diligence is necessary regarding such a critical research endeavor, it is noteworthy to acknowledge the severe limitations to operationalizing such a highly contextual, personally meaningful experience. This is not to say that research has somehow defined discrimination incorrectly or inaccurately, rather, the mechanisms behind the dynamics of experiencing overt or covert discrimination are clouded by personality, coping styles, emotional intelligence, willingness to experience emotion,
avoidant versus non-avoidant interaction styles, and level of understanding the history and generational nature of discrimination. These factors are few, broad, and severely incomplete. A contextualized view, rather than a definitional one, is a more useful scholarly view at this stage of discrimination research. Any hesitancy towards this view should consider the simple notion that the etiology of discriminatory distress is not known, both in experience in racial minorities, and reasons perpetrators perpetrate. Nonetheless, throughout this manuscript attempts will be made to operationalize such complex dynamics for the purposes of uncovering the nuts and bolts of microaggressive stress and potential avenues of healing.

Currently, discrimination can be defined as “beliefs, attitudes, institutional arrangements, and acts that tend to denigrate individuals or groups because of phenotypic characteristics or group affiliation” (Soto et al., 2011, p.258). Discrimination is typically experienced by racial/ethnic minorities in the United States, with 18-25 year olds being at the highest risk of experiencing discrimination (Chou et al., 2012; Miranda, Polanco-Roman, Tsypes & Valderrama, 2013). Perceiving discrimination has been shown to negatively impact an individual’s sense of self, surroundings, affect, and sense of control in the environment (Gee, Spencer, Chen, Yip, & Takeuchi, 2007; Harrell, 2000). Previous research has also suggested that those experiencing discrimination have elevated depressive and anxious symptoms, and higher prevalence rates of substance use (Borrell et al., 2007; Gaylord-Harden & Cunningham, 2009). Helms, Nicolas, and Green (2010) suggested that racial discrimination may occur suddenly and chronically, with perpetrators intentionally or unintentionally committing these acts, and victims can experience discriminatory acts as either specific or vague. There are important
distinctions to be made in the types of discriminatory acts that can be committed toward racial minorities. There is much subjectivity involved for victims when encountering racial discrimination, which again, makes the operationalization of the experience difficult.

Clearly, there is a difference between perpetrators intentionally or unintentionally committing discrimination, which is likely related to how victims experience the act. Perpetrators who are intentionally committing acts of discrimination, with these acts overtly targeting a victim, are participating in overt discrimination. Perpetrators who are committing acts of discrimination, but are not overtly expressing intentional aggression or hostility towards an identified victim, are participating in covert discrimination. It may be that overt discrimination is no longer socially appropriate due to recent advances in civil rights in the United States. If this is the case, it might be that covert discrimination may occur intentionally, yet be presented as vague or unintentional by perpetrators. If we consider unconscious bias, mistreatment may be reflective of deeply held beliefs of racial minorities that “attach” themselves to interactions with racial minority groups. Covert instances of discrimination have been defined in the literature as racial microaggressions.

The first appearance of racial microaggressions in the literature dates back to Pierce (1974), proposing that racial microaggressions, subtle and cumulative mini-assaults, were the substance of racism. Additionally, he noted that one racial microaggression alone is not harmful, but it is the accumulation of microaggressions over time which have the potential for emotional damage. He went on to theorize that many victims of racism do believe that at some point throughout their lives they feel they are in
danger because of their racial identities (Pierce, 1995), and because of this danger, much conscious activity in victims is geared to generating and applying coping techniques to negative emotional responses. However, Pierce warned that coping techniques do not resolve distress, they only deny or postpone distressing internal experiences.

More recently, Sue et al. (2007) attempted to classify different types of racial microaggressions. The insidious nature of microaggressions is best characterized by microinsults and microinvalidations proposed in Sue and colleagues’ work. Microinsults are forms of communication that convey insensitivity toward a racial minority’s identity. These forms of microaggressions are less obvious to the perpetrator, and may include statements such as a White employer commenting to a prospective African American employee “I think the most qualified person should get the job, despite their ethnicity.” This type of comment may be interpreted and intended as caring about fairness in hiring, but it may communicate to the victim that African Americans are generally not qualified. Microinvalidations include the invalidation of emotions or thoughts salient to racial minorities. An example of this may include a White person stating to a racial minority friend “Racism does not really exist. Nobody pays attention to skin color anymore.” This type of microaggressive statement could be interpreted as non-harmful, and intended at acknowledging how race relations have improved. However, it could also be interpreted as a perpetrator invalidating the racial minority friend’s distressing experiences with discrimination in the present day.

This creates a paradox for victims experiencing racial microaggressions. The act can be perceived as vague, which does not provide enough overt information to victims so they can determine if the act was indeed intended as harmful. The act might be
unintentional or intentional, creating a situation where victims must judge a person as someone who is acting unconsciously, versus someone who is intentionally aggressing towards them. This puts pressure on victims to decipher the intent of the perpetrator each time a subtle comment about race takes place. Deciding whether an act was indeed a microaggression is a combination of whether the recipient actually perceived the behavior or comment as psychologically harmful, and if so, discerning the intent of the perpetrator and whether it was intended aggression. An added component is that the intentions of the perpetrator may have nothing to do with the experienced distress for the victim. Even if the victim determines that the comment was not intended as harmful, their experience as an ethnic minority may still be invalidated.

It appears that the impact of racial microaggressions lies in their ambiguous, frequently covert nature, because they may typically be committed with good intentions. In comparison to overt forms of discrimination, racial microaggressions may leave victims feeling uncertain whether or not the encounter was due to their racial/ethnic background, and leave the perpetrator either unaware of damage they may have caused or defensive when confronted about the subtle discriminatory act (Sue et al., 2007). When racial minorities experience overt racial discrimination they are more likely to be able to say with certainty that the offense was malicious and due to their race (e.g., racial slurs), and label a person or situation as threatening and protect themselves accordingly (i.e., remove oneself from the situation, not trust the perpetrator in the future). Not being able to detect threat with certainty makes detecting and responding to racial microaggressions difficult, but in addition, these microaggressive statements may come from respected others, including friends, bosses, coworkers, or even family members (Sue et al., 2007).
Considering the difficulty in detecting and responding to racial microaggressions, as well as the frequency with which they occur, they may be more difficult to cope with. This ambiguity of threat appraisal may prompt victims to expend significant cognitive energy attempting to accurately appraise the microaggression and decide whether to, and how to, respond effectively.

**Racial Microaggressions: A Unique Stressor**

Perceived discrimination has been linked to negative outcomes in racial minorities such as anxious and depressive symptoms, and low self-esteem (Pascoe & Richman, 2009; Chou et al., 2012; Soto et al., 2011). Additionally, Carter and Forsyth (2010) investigated emotional reactions to discrimination and found that discrimination may cause anger, guilt/shame, hypervigilance, and avoidance/numbing symptoms. Further, 44% of subjects reported continued distress from their discriminatory experiences for 2 months to 1 year after the event had occurred. Broadly, perceiving racial discrimination (overt or covert) may cause significant distress in the lives of racial/ethnic minorities. However, distress resulting from racial microaggressions may differ from that resulting from overt types of discrimination.

Racial microaggressions occur frequently, and may make it difficult to detect threat, potentially causing anxiety in social situations. Victims may become hypervigilant (Carter & Forsyth, 2010) when encountering ambiguous social cues by typical perpetrators of racial microaggressions (i.e., non-Hispanic Whites), especially if the victim has experienced racism in the past from that particular demographic. This hypervigilance may cause social paranoia out of necessary interpersonal safety behavior, and therefore, victims may be more likely to interpret ambiguous social cues as
microaggressive acts and experience distress as a result. That is to say, experiences of microaggressions might increase the likelihood that victims interpret ambiguous cues as covert discrimination. This theorized generalization of safety behaviors is in line with trauma responses (Foa, Huppert, & Cahill, 2006), and trauma-based models of racial discrimination.

Along these lines, Carter (2007) explained that if racist events are experienced as uncontrollable, sudden and negative, they may lead to trauma symptoms, such as paranoia and hypervigilance, as a result of the event. Carter theorized that severe, racism-related events may directly cause post-traumatic stress disorder, but the accumulation of smaller, more frequent racial microaggressions may build up over time and cause a traumatic reaction when a more stressful life event occurs. In addition to the accumulation of smaller events causing traumatic reactions over time, later research has identified less severe anxious reactions in community samples of African Americans specifically, suggesting that frequent exposure to racial microaggressions can lead to persistent social and general anxiety symptoms.

In a nationally representative epidemiological sample of 6,082 African Americans, Caribbean blacks, and non-Hispanic Whites, the National Survey of American Life (NSAL dataset), Levine et al. (2014) investigated the relationship between social anxiety disorder (SAD) and discrimination. They found that not major experiences of discrimination, but more chronic and less overt experiences of discrimination were related to SAD in African Americans. In another study analyzing the NSAL dataset, Soto et al. (2011) investigated the relationship between generalized anxiety disorder (GAD) and frequency of race and non-race based discrimination in a large nationally
representative sample (N= 3,570). Results illustrated that for African American subjects, more frequent experiences of race-based discrimination was associated with a higher likelihood of endorsing lifetime GAD.

For both of these NSAL studies, results may be more generalizable given a large dataset, but only assessing clinical GAD and SAD diagnoses instead of specific social or general anxiety symptoms limits findings to clinical samples. By measuring symptoms as opposed to diagnoses, results may better capture sub-clinical levels of distress caused by racial discrimination. However, these findings do suggest that racial microaggressions have the potential to cause social and general anxiety symptoms with frequent exposure. Following Carter (2007), we might classify the trauma as “interpersonal”, being that microaggressions are by definition experienced in interpersonal contexts. In this way, anxiety brought on by these interactions may be primarily interpersonal as well, potentially causing significant impairment in social functioning. It may be hypothesized that difficulties in interpersonal functioning may impair a number of life domains (e.g., important relationships, work environments, overall well-being), and one may develop general worries.

Emotion regulation difficulties have also been associated with increased anxiety as a result of racial discrimination, as evidenced by Graham et al. (2015). In their study, Graham and colleagues gathered self-report data from 140 Black Americans on general anxiety symptoms, experiences of racism, and difficulties in emotion regulation. They found that those having more impairment regulating emotions experienced more general anxiety symptoms as a result of exposure to racial discrimination. Further, racial minorities over time may internalize messages of racism (Comas-Diaz & Jacobsen,
2001), which can cause emotional injury, in turn damaging one’s sense of self. Distress may also include behavioral exhaustion, impairment of coping mechanisms, general psychological distress, and racial mistrust (i.e., not trusting non-Hispanic Whites). In sum, racial microaggressions are associated with anxiety and other forms of distress but are not yet completely understood. We are just beginning to uncover how microaggressions are perceived and interpreted by racial minorities. Given their frequency, it will be important to understand how individuals cope with microaggressions to mitigate negative psychological outcomes.

**Traditional Coping Approaches**

Brondolo et al. (2009) discussed commonly utilized forms of coping with racial discrimination: social support seeking, anger suppression/expression, and racial identity development. In their review and meta-analyses, they discuss benefits and drawbacks that racial minorities may encounter when employing such coping strategies. It is essential to note that coping mechanisms may vary widely from individual to individual, and that the following types outlined by Brondolo and colleagues are the most common trends in the discrimination coping literature.

Brondolo and colleagues found that social support is a method commonly used by racial minorities to cope with discrimination. They describe social support as allowing victims of discrimination to share their experience, fostering a sense of connectedness and safety. Other in-group members can help by suggesting methods for dealing with racial discrimination. Collective contexts may also aide in ethnic social connectedness, promoting a strong racial identity (Harrell 2000; Mellor 2004). Social activities may also distract people from distress caused by discrimination. Although racial minorities may
be likely to seek out social support following encounters with racial discrimination, there are only three studies assessing whether social support actually buffers negative outcomes due to encounters with discrimination. Unfortunately, these three studies failed to find support for social support as a statistically significant buffer against the distress caused by racial discrimination (Fischer & Shaw 1999; Noh & Kaspar 2003; Thompson Sanders 2006).

Brondolo et al. postulated that the null findings regarding social support may illustrate how distressing discussions about race-related mistreatment can be for both the victims and support networks. The authors suggested that discussions about racism with other racial minorities may not only lead to group rumination, but also stressful recollections of their own experiences of racial discrimination (e.g., vicarious exposure). Expression to minority social support networks may increase general feelings of well-being and connectedness to racial groups, but could also trigger emotions and co-rumination related to group member experiences. This could cause retraumatization via vicarious exposure, thus inducing distress in more individuals than the original target of the discriminatory act.

In comparison to discussions with social support networks from in-group members, members of out-groups in a racial minority’s social support network may fear being seen as insensitive or cruel when discussing racial discrimination (Richeson & Shelton, 2007). Effective communication with members of an outgroup (i.e., an African American seeking support from a non-Hispanic White person after exposure to racial discrimination), may be difficult due to anxiety on the part of the outgroup member, as well as the victim. If an African American receives responses that deny or minimize their
experience with racial discrimination, social support may actually increase distress (Badr & Taylor, 2006). Regardless of the type of support received, one essential factor to consider is the stigma against emotional expression in racial minority communities (Masuda, Anderson & Edmons, 2012). Stigma can strongly discourage adaptive emotional processing following exposure to discrimination, and maybe even contribute to distress, via experiential avoidance. Experiential avoidance has been consistently and strongly associated with increased symptom severity across social anxiety, depressive, and traumatic disorders (Bordieri, Tull, McDermott, & Gratz, 2014; Kashdan, Goodman, Machell et al., 2014; Spinhoven, Drost, de Rooij et al., 2016).

Feelings of belonging to one’s racial group have also been mentioned as a potential buffer for psychological distress related to racial discrimination. Although main effect analyses by Brondolo and colleagues did demonstrate that feelings of belonging and pride associated with one’s racial group promoted a general sense of well-being, this did not buffer against the negative impact of discrimination. In particular, racial identity was the weakest buffer against emotional distress related to discrimination in the case of everyday race-related mistreatment (e.g., racial microaggressions), in comparison to overt, more extreme forms of discrimination. Considering the role of internalized racism, chronic and frequent exposure to negative messages about one’s racial group may lead to internalization of these messages, potentially reducing the positive effects of a strong racial identity in regard to experiences of racial discrimination.

Brondolo et al. (2009) postulated that their null findings may be due to the fact that a strong racial identity may increase the likelihood of attributing ambiguous social cues to racial discrimination. It seems they are suggesting that a strong identity may make
group members prideful of their group status and the history of discrimination of their group, but also hyperaware of this group status and history of generational mistreatment. So in this way a strong racial identity may have protective factors after exposure to discrimination, eliciting a feeling of common humanity, but also cause individuals to perceive elevated levels of racial microaggressions, akin to the theorized dynamics of receiving ruminative social support. Thus the positive effect of a strong positive racial identity found by Brondolo et al. (2009) may not generalize in the case of racial microaggressions due to an increased perceived level of exposure to discriminatory cues. Further, Carter, Pieterse, and Smith (2008) found that those with a strong racial identity endorsed more anger in response to instances of racial discrimination, which might explain the mixed findings by Brondolo and colleagues; we might also hypothesize increased emotional awareness as a product of a strong racial identity, thus making anger more consciously accessible and expressible.

Research has found that exposure to racial discrimination is associated with significant feelings of anger (Brondolo, Brady, Thompson, et al., 2008; Broudy, Brondolo, Coakley, et al., 2007; Landrine & Klonoff 1996), but expression to perpetrators may not be a realistic coping strategy. Specifically, research suggests that racial minorities often consider trying to “do something” about racial discrimination (Krieger and Sidney, 1996; Plummer and Slane, 1996; Thompson Sanders, 2006); however results of diary studies suggest that although those experiencing anger due to racial discrimination are likely to consider anger expression, they are not likely to engage in this behavior (Hyers, 2007).
Brondolo and colleagues suggested two goals of anger expression, with the first being changing the race-related conflict, such as confronting the perpetrator to change their behavior (Swim, Hyers, Cohen, et al., 2003). The second goal is coping with the negative emotional impact of racial discrimination. Brondolo and colleagues concluded that anger expression may buffer depressive symptoms in the face of racial discrimination (potentially reducing feelings of helplessness), but other studies suggest sustained physiological activation after discrimination exposure.

Although anger expression may seem useful based on its ultimate goals, racial minorities may not actually engage in expression. Brondolo and colleagues suggested that anger expression has the potential to cause anxiety about social consequences (i.e., abandonment, retaliation). Results from a later research study conducted by Pittman (2011), suggests that losing one’s temper after discrimination exposure is associated with higher levels of distress and poor psychological well-being. Expression may provide an emotional release, but may also have negative emotional consequences; again, we might hypothesize here that increased emotional awareness might itself cause increased distress.

Considering the ambiguity of racial microaggressions, expression becomes even less likely due to not being able to detect the true intentions of the perpetrator. Microaggressions coming from friends or peers make confrontation even less likely, and potentially more socially costly if one incorrectly detects a racial microaggression.

Given the societal costs of anger expression, anger suppression may be a more realistic coping strategy in the case of racial microaggressions. In their meta-analysis, Brondolo and colleagues reported mixed findings regarding the efficacy of anger suppression. Hyers (2007) reported that when individuals in a diary study suppressed
their anger after racial discrimination, they felt that avoiding interpersonal confrontation was beneficial. However, anger suppression may lead to rumination if the situation is not resolved, depressive symptoms, and sustained physiological activation following exposure to the anger-evoking stimulus (Brosschot, Gerin, & Thayer, 2006); thus, available research continuously echoes support for Carter’s (2007) traumatic injury theory of discrimination due to associated trauma symptom clusters (Foa, Huppert, & Cahill, 2006).

Brandolo and colleagues (2009) discussed the importance of cognitive flexibility in being able to recognize when a particular coping tool may be effective, and that without this flexibility coping tactics may not be useful. However, cognitive flexibility may not matter if the problem cannot be clearly identified. Therefore, the ineffectiveness of coping tools may not lie in the actual tool, but in the contextual nature of racial discrimination. Victims of racial microaggressions are presented with ambiguous threat cues that do not provide them enough information about whether or not they need to use a coping tactic, leading to rumination concerning the elicitation of negative emotions. Further, those with a strong racial identity may perceive more discrimination, leading to more distress and anger, which may cause more painful expression among social support networks, rumination, or socially costly confrontation that the perpetrator may become defensive about. In this way, the perception of the stressor may not be as important as identifying a coping tactic which addresses negative emotions, regardless of the stimuli which has elicited that emotion. That is, the “accurate” perception of racial microaggressions may be clouded due to a potential trauma schema related to necessary interpersonal safety from discrimination, while perceived negative emotional experiences
are not clouded. If we are relying on determining the stressor as true/false, we fixate on the stressor itself, causing more rumination, and more fixation on potential threat. This challenging dynamic suggests the need to address negative internal experiences, rather than seeking external sources of relief that cannot be controlled (i.e., controlling the behavior of perpetrators); attempts at controlling perpetrators inevitably leaves victims feeling hopeless, as a control response might continuously fail. The uncontrollability of perpetrators might reflect systemic demographics (i.e., majority of US representatives being non-Hispanic White) that may not allow enough empathy for those outside of their racial/ethnic groups, thus decreasing motivation to mandate and promote behavior changes in the general public. Further, for racial minorities, seeking external relief might reflect and promote increased experiential avoidance, increasing distress. Improving emotional processing tools might allow racial minorities more perceptions of control, and decreased emotional distress through resolving emotion internally rather than deploying coping techniques that depend on external, uncontrollable circumstances/others.

Through an analysis of coping techniques investigated by current research, racial minorities encountering racial discrimination require a flexible, adaptive emotion regulation strategy to deal with the many negative emotions caused by encounters with all types of racial discrimination. The contextual nature of discrimination, especially the subtlety and ambiguity of racial microaggressions, can produce much confusion about whether or not an aggression has indeed occurred. Coping strategies must be identified that do not require a consensus that racial discrimination has indeed occurred, but instead allow racial minorities to self-regulate uncomfortable, complex, internal experiences. Often discriminatory acts are not a reflection of negative attributes of the victim, rather,
they are a reflection of macro, large-scale harmful societal ideologies being “acted out” on a micro, interpersonal level. This requires that victims of discrimination acquire coping strategies that depersonalize these negative societal ideologies and protect an adaptive sense of self, understanding that the harmful actions and messages of perpetrators do not have to be internalized or emotionally avoided.

**Emotionally Coping with Racial Microaggressions**

As available literature indicates, there are several coping strategies racial minorities may employ to cope with racial discrimination, but these strategies do not encourage an active engagement in negative emotional states. In comparison to non-racially stressful events, racial minorities may respond to racially stressful events differently. This was illustrated by Hoggard, Byrd, and Sellers (2012) when they investigated coping strategies in a sample of 35 African American college students ($M$ age= 19) for racially versus nonracially stressful events. They measured stressful events by having subjects keep a diary for 20 days and recorded their positive or negative appraisals of stressful situations using self-report measures. No differences were found in subjects’ appraisals in nonracially and racially stressful events, however coping patterns did differ. Specifically, subjects used more ruminative, confrontive, and avoidance coping in racially stressful situations, in comparison to more planful problem solving which was used frequently with nonracially stressful events. The chronic and uncontrollable nature of racial microaggressions may similarly make planful problem solving less realistic, as chronic stressors may not have a solution readily available. Given the unpredictability and ambiguity of racial microaggressions, planful problem solving or using confrontation tactics may not be effective, likely leading to rumination
about social interactions or avoidance of potential perpetrators after exposure to racial microaggressions; both rumination and avoidance may lead to anxiety.

Strategies for coping with racial microaggressions specifically have not yet been explored, but previous research has established that Black Americans who are less able to regulate emotion, are more likely to have more anxious outcomes in response to overt forms of discrimination (Graham et al., 2015). Given the aforementioned different psychological consequences of overt versus covert forms of discrimination, distinguishing types of emotion regulation needed to buffer psychological responses resulting from each becomes important. Difficulties specific to racial microaggressions, a more modern and complex form of racial discrimination, may not be properly addressed by coping tactics currently utilized by racial minorities.

**Rumination and Racial Microaggressions**

Rumination, avoidance, and suppression may be the most problematic emotion regulation tactics in the case of racial microaggressions. Avoidance or suppression of emotional states describes the inhibition of emotional expression, and this typically leads to poor relationships and increased negative emotions (Gross & John, 2003). Avoidance reduces the objective behavioral manifestations of emotion such as crying or particular facial expressions, but does not reduce the internal, subjective experience of emotion, in some cases increasing subjective emotional responses (Campbell-Sills, Barlow, Brown, & Hofmann, 2006). Avoidance also prevents exposure to fear-based stimuli (Iverson, Follette, Pistorello, & Fruzzetti, 2012), allowing individuals to evade negative emotional
states. Although helpful in removing exposure to stressors, chronic avoidance strengthens the relationship between negative emotional states and the feared stimulus.

Rumination, defined as focused attention on negative emotional states (Nolen-Hoeksema & Morrow, 1991), has been shown to have negative consequences including less control over intrusive thoughts (Watkins, 2004) and elevated levels of negative emotion (Segerstrom, Tsao, Alden, & Craske, 2000). Rumination is associated with biological sources of negative emotion, such as increased activation in the amygdala after exposure to negative words and pictures (Ray et al., 2005; Siegle, Steinhauer, Thase, Stenger, & Carter, 2002), and elevated levels of the stress hormone cortisol (Roger & Jamieson, 1988). Rumination may also trigger depressive episodes (Nolen-Hoeksema, 2000), and make depressive symptoms more long lasting (Nolen-Hoeksema, Morrow, & Fredrickson, 1993).

In the case of racial microaggressions, rumination and avoidance may co-occur or be experienced as the same phenomenon. Specifically, after perceiving ambiguous cues fear-based emotion may ensue, with rumination being employed to detect the source and meaning of the negative emotion and “solve” the emotional experience via thinking about the emotion, rather than actual experience of the emotion itself. In this way, rumination on the source of the negative emotional state may be the avoidance itself. Not knowing whether or not one should trust that a fear-based emotion is based in reality, is paradoxical. That is, ambiguous cues stemming from inter-race interactions can be interpreted by a threat-appraisal system as threat itself, stimulating negative emotional responses, and leaving victims experiencing intense fear-based affect and not sure whether or not their emotions are indeed proportionate to the situation. Further, when it
comes to the distressing emotions that are linked to the experience of discrimination, avoidance is a valid response. Considering the generational fear that accompanies racial dynamics for racial minorities (e.g., slavery for African Americans, internment camps for Asian Americans, longstanding oppression of Latinx individuals), it is logical to assume rumination to scan for threat, and avoiding pain resulting from discrimination, as incredibly adaptive; yet, the addition of emotional processing skills might further increase resilience and expand the racial minority coping repertoire.

**Emotion Regulation and Coping with Racial Microaggressions**

Taken with the aforementioned, preliminary research has also hinted at the need to develop strong emotion regulation skills to cope with discrimination. Graham, Calloway, and Roemer (2015) found that emotion regulation difficulties moderated the association between anxious arousal and both past week and past year frequency of racial discrimination. Therefore, discussion and application of emotion regulation models become necessary.

**Gross Model of Emotion Regulation**

Gross (1999) describes emotion regulation as processes by which people manipulate what emotions they have, when they occur, and how they express and experience them. There are several variables central to the process model of emotion regulation proposed by Gross (1999), including situation selection, situation modification, attentional deployment, cognitive change, and response modulation (See Figure 1). I will first define each, then explain how they are relevant to racial minorities experiencing microaggressions.
Situation selection and modification are two emotion regulation processes that allow individuals to manipulate exposure to particular situations based on emotions elicited. **Situation selection** is completed by avoiding or approaching certain situations or people based on positive or negative emotional impact. If an individual cannot select a situation, an individual can modify the emotional impact of the situation through **situation modification**, during which one can modify the situation to change its emotional significance. Those experiencing racial microaggressions would need to first predict the occurrence of racial microaggressions based on the situation type to avoid it, or somehow modify the situation by preventing another person from committing a microaggressive act. Given the lack of clarity regarding what antecedents will occur before experiencing microaggressions, and the inability to modify the situation by controlling the behavior of potential perpetrators, other emotion regulation tactics might be more applicable.

Gross (1999) describes attentional deployment and cognitive change as two processes allowing individuals to regulate emotions without changing or avoiding a distressing situation. Individuals can choose where they want to direct their attention in a given situation to regulate their emotions, referred to as **attentional deployment**. An example of attentional deployment might include distracting oneself from emotionally relevant stimuli in the situation, or not paying attention to a distressing situation altogether. **Cognitive change** refers to emotion regulation occurring when an individual changes the emotional significance attached to a situation, after attending to emotionally relevant stimuli. This is achieved by changing how one thinks about the situation overall (e.g., positive reappraisal), or how someone thinks about their ability to successfully cope...
with the demands of the situation. Following these processes, individuals then use **response modulation** to manipulate behavioral responses after situations elicit particular emotions. Examples of this may include hiding angry emotions at an offensive comment, or taking a deep breath before verbally responding to a distressing situation.

Figure 1. Process model of emotion regulation from Gross and Barrett (2011).

Racial minorities may not be able to actively choose or modify their situational exposure to racial microaggressions, so attentional deployment, cognitive change, and response modulation are more realistic tactics. Attentional deployment and cognitive change are closely related, and may alter emotional responses evoked by microaggressions. For example, an individual may be having a conversation with a coworker and this coworker commits a microaggression. Attentional deployment may involve focusing on other factors of the situation, such as the ambiguity of the behavior, and the likelihood that it may have not been maliciously intended.

After choosing to attending to particular details of the situation, cognitively changing one’s appraisal of the situation can improve negative emotions. In the aforementioned situation, this may involve attributing the microaggression to the fact that
the town the perpetrator grew up in did not include many racial minorities, so they may not know what is offensive versus not. Attentional deployment and cognitive change can alter an individual’s ability to modulate their natural emotional response in this situation, and when these two processes are successful, modulating one’s behavioral response (i.e., anger) becomes easier.

Emotion regulation may require more or fewer resources depending on one’s social status (i.e., race, gender, socioeconomic status, etc.). If individuals are systematically and institutionally disadvantaged, they may require stronger emotion regulation tactics, as in the case of racial minorities encountering frequent racial microaggressions; further, they might also utilize emotional avoidance more often. A modified version of Gross and Barrett’s model of emotion regulation, proposed by Von Scheve (2012), incorporates social and institutional forces illustrated through “emotion norms” and “emotion work.”

Von Scheve (2012) proposed a model illustrating that emotion regulation is tied to emotion norms (aka: you are or are not allowed to be upset about that), in that the nature of emotional expression is highly influenced by certain institutional or social contexts having universally accepted “rules” (Figure 2). Sue and colleagues (2007) suggested that perpetrators of racial microaggressions may become defensive if accused. This illustrates an emotion norm that it is inappropriate for minorities to confront individuals committing microaggressions.
Figure 2. Process model of emotion regulation from Von Scheve (2012). Antecedent-focused emotion regulation is dependent on an individual’s ability to alter a situation based on institutional settings and available resources.

**Emotion work** in Von Scheve’s model involves the actual resources available for deep-acting emotion regulation tactics, such as attentional deployment, cognitive change, and response modulation. Von Scheve suggested that socially and institutionally disadvantaged individuals may not be able to avoid or modify situations eliciting negative emotions based on a lack of resources to control one’s environment. Further, as mentioned above, racial minorities cannot predict the occurrence of or modify situations containing racial microaggressions, so they must use deeper acting emotion regulation tactics such as attentional deployment and cognitive change after negative emotions are elicited. For example, an individual may be already in a situation that they cannot modify or avoid, so they use cognitive change to positively view a microaggression, which in
turn may dampen surface level behavioral responses. Utilizing deeper acting emotion regulation tactics can lead to positive appraisals of situations, positively influencing one’s emotional and behavioral responses.

Not surprisingly, pre-existing emotional states can also influence regulatory responses, and pre-emptive emotion regulation strategies may be more relevant to racial minorities experiencing microaggressions, rather than regulation strategies that occur after exposure to a stressor. Some emotion regulation models suggest that pre-emptive emotion regulation responses can occur before the emotional state is even triggered by a harmful stimulus (e.g., microaggressive comment), supported by cultural or cognitive expectations (Gross & Barrett, 2011). In the case of racial minorities and racial discrimination, cultural or cognitive “expectations” refers to the likelihood that racial minorities are indeed likely to encounter discrimination in the United States, promoting the use of pre-emptive emotion regulation responses to prepare for the likely negative emotional impact. Provided the subtle and constant nature of racial microaggressions, this may cause warranted interpersonal hypervigilance in many social situations.

Like other humans encountering harmful emotions, racial minorities have natural strategies to regulate repeated negative emotional experiences, despite not being able to avoid or modify the experience of microaggressions. However, utilizing deeper emotion regulation tactics for frequently encountered stressors, and pre-emptive emotional coping prior to stress exposure, may put strain on one’s ability to regulate uncontrollable stressors. Attempts at pre-emptive emotional coping may cause racial minorities to perceive emotional threats prior to actual exposure, thereby increasing their perceived exposure to discriminatory experiences. This could lead racial minorities to appraise
potential microaggressions as harmful without spending time investigating intent or target.

Situation selection and modification are important processes for adaptive emotion regulation, as illustrated by Gross and Barrett’s emotion regulation model. If two useful components of necessary emotion regulation tactics for a given group of people are removed (i.e., racial minorities not having the resources to avoid or modify the experience of microaggressions), it requires them to solely rely on deeper emotion work (attentional deployment or cognitive change) after the elicitation of negative emotions. While situation selection and modification can be readily utilized by racial minorities in the case of known overt discrimination perpetrators, avoidance or modification of a situation becomes much more complicated in the case of constant, subtle microaggressions that can be perpetrated by friends or trusted others.

Attentional deployment and cognitive change may certainly be successful in reducing emotional distress, but research has suggested that constant use of emotion work can be harmful. Conflict between experienced emotions and socially expected emotions (emotion norms) can cause emotional dissonance (Hochschild, 1983; Thoits, 1990; Jansz & Timmers, 2002). This dissonance is eased by emotion work, but using deep emotion work over long periods of time due to the same stressor may cause an alienation from one’s true emotional states (Hochschild, 1983). Dissonance from one’s emotions may explain ruminative responses aiming to “sort out” whether or not victims of microaggressions should or should not perceive threat. Further, suppressing objective markers of emotion, such as facial expressions or body language, may further increase emotional dissonance, and not provide any punishment to perpetrators of discriminatory
behavior that is necessary to create behavioral change. Given the research cited, it appears that suppressive and expressive responses may put pressure on oppressed individuals in that they do not have space to truly feel negative emotion, leading them to ‘alienate’ or avoid emotionally relevant stimuli in racially harmful situations.

Hammond (2012) found that racial minorities are more likely to use ruminative responses when experiencing discrimination, which lends support to Von Scheve’s model in the context of microaggressions. Rumination elicited by exposure to microaggressions is essentially cognitive effort employed by racial minorities to think through the situational factors, consequences, and causes of negative emotions brought on by microaggressions, with the goal of reducing negative affect, anger, and overall distress. In many cases, racial minorities may ultimately conclude that a perpetrator did not intend their comment in a harmful way, but even though negative emotions are evaded, there is a significant expenditure of cognitive energy through the use of deeper emotion regulation tactics. In this way, emotional avoidance may be brought on by the exhaustive use of emotion work and prolonged hyperarousal.

Taken with Brondolo et al.’s (2009) review of findings suggesting that coping strategies used by racial minorities when encountering discrimination are not sufficiently effective in reducing emotional distress, it may be that the identification of an active emotion regulation strategy is needed to decrease the burden of constant, strenuous emotion work. This may assist racial minorities in expanding their cognitive resources to effectively cope with microaggressions, and not become avoidant of emotional responses after ruminating about negative emotions elicited through ambiguous interactions.
Currently, the literature is lacking the clear identification of an active emotion regulation strategy effective in combating the deleterious effects of microaggressions.

Figure 3.

A process model of exposure to microaggressions. First included in the model are the moderating effects of emotion regulation ability and mindfulness and self-compassion following exposure to racial microaggressions and accompanying affective and anger responses. Next, the indirect effects of emotional reactions (i.e., rumination, anger rumination, etc.) and resulting psychological symptoms are included.

**Mindfulness Promoting Awareness and Curiosity**

Bishop, Lau, Shapiro, et al. (2004) suggested the most important facets of mindfulness are the regulation of attention toward present moment thoughts, emotions, and physical sensations, then approaching these experiences with acceptance, openness, and curiosity. Mindfulness has been associated with cognitive flexibility (Moore & Malinowski, 2009), which Brondolo and colleagues (2009) argued is necessary when coping with racial discrimination. Recent research has established that mindfulness may
buffer against anxious responses due to racial discrimination in a cross-sectional sample of 57 African American undergraduate and graduate students at an urban commuter university. Graham et al. (2013) found that subjects with higher trait-mindfulness endorsed less anxious arousal due to discrimination.

The development of mindful awareness in racial minorities may reduce stress responses to microaggressions by cultivating a sense of acceptance of one’s present moment experiences, including negative emotions. Furthermore, the cultivation of mindfulness skills allows an unbiased observation of moment-by-moment experiences, aiding in a deeper understanding of what is actually occurring during distressing situations. When experiencing microaggressions, the unbiased observation may reduce the likelihood of racial minorities detecting threatening social cues. Dynamically speaking of mindfulness in this context, when a racial minority perceives ambiguous behavior, they may begin to search for information confirming or disconfirming whether or not a microaggression has occurred, for the purposes of resolving uncomfortable emotions related to uncertainty of interpersonal threat. With awareness only fixed on ambiguous behavior of others, internal fear responses go on “automatic”, and leave victims seeking external “proof” that they do or do not need to acknowledge the negative emotion as founded in reality. With the aforementioned complexity in validating the moment to moment existence of microaggressions (unconscious behavior of perpetrators, unconscious projections from victims), mindfulness allows engagement with internal experiences that calms one at the source of the negative emotion- one’s own internal experiences. External stimuli, while distressing, cannot be changed in this situation;
however, internal processes can be engaged and soothed, which first requires clear awareness of such experiences.

Once developed, this receptive state achieved by mindfulness skills help individuals to then engage in the soothing capabilities of self-compassion, in that they do not repress or avoid painful emotions, but actively engage them with kindness and compassion (Neff, 2003).

**Self-Compassion**

Engaging in self-compassion may enhance potential benefits gained through mindfulness in racial minorities. Neff (2003) outlines self-compassion as having three components, with the third being mindfulness. Self-compassion’s three basic components are 1) extending understanding and kindness to oneself instead of judgment and criticism, 2) viewing one’s own experiences as a part of the greater human experience instead of separating and isolating, and 3) having a balanced awareness of painful feelings and thoughts and not over-identifying with them (mindfulness). Although mindfulness and self-compassion have differences, for individuals to become more self-compassionate, they first need to adopt a mindful, open, and emotionally, engaging perspective. Having a compassionate view of oneself involves a balanced mental perspective, which is known as mindfulness (Goldstein & Kornfield, 1987; Gunaratana, 1993; Hanh, 1976; Kabat-Zinn, 1994; Langer, 1989). While mindfulness is geared toward present moment experiences and non-judgement of one’s own subjective experiences, self-compassion is specific to the extension of compassion toward one’s own experiences and feelings after having observed them non-judgmentally (Neff, 2003).
Compassion means to be moved by suffering of others outside the self, and to help ease that suffering. It also fosters kindness, patience, acknowledgement that humans are imperfect, and non-judgmental understanding of others (Neff, 2003). Self-compassion means to extend feelings of kindness and caring towards oneself; be moved by one’s own suffering, recognize one’s negative experience as a part of the greater human experience, and hold a non-judgmental attitude toward one’s own failures or inadequacies (Neff, 2003).

Self-compassion involves mindfulness- engagement in metacognitive activity helping to recognize related experiences of others and the self. This reduces feelings of over-identification, and increases feelings of connectedness to others who suffer in similar ways. Recognizing related experiences of others can provide a greater perspective of one’s own personal suffering, so that negative emotional states are seen with clarity (Neff, 2003). Once viewing feelings and thoughts as they occur without pushing them away or attempting to change them, the intensity of negative emotions may be effectively dampened, allowing individuals to adaptively engage negative emotional states with kind curiosity.

Thus, mindfulness and self-compassion promote emotional engagement and resolution, rather than experiential avoidance increasing severity of negative affect and difficult attempts at controlling external circumstances surrounding the perpetuation of discriminatory behaviors via systemic/institutional forces.
**Application to Emotion Regulation for Racial Microaggressions**

When microaggressions become chronic, initial emotional reactions may rise in intensity and produce rumination, anger, over-identification, and emotional avoidance or suppression. Over-identification involves immersion in one’s subjective negative emotional reactions, causing difficulties in developing a more objective perspective and distance from the situation (Bennett-Goleman, 2001). Over-identification may lead to a sense of disconnection from others, potentially causing individuals to forget that others are sharing similar experiences. For racial minorities experiencing negative emotional reactions to racial microaggressions, over-identification may occur due to the frequency at which microaggressions are experienced. Constantly feeling negative emotions due to unpredictable and uncontrollable experiences, and needing to frequently combat those feelings through emotion work make it difficult to take an objective view of one’s suffering. That is, if I suffer enough, I begin to identify my core “self” with my suffering; I may begin to blame myself for inviting suffering. With mindfulness and self-compassion applied, racial minorities may come to understand that, regardless of actual or perceived mistreatment, they are able to tolerate strong emotional responses to the world, and they, along with all other racial minorities, are deserving of as much kindness as needed in moments of suffering.

The extension of compassion to oneself may occur in similar ways that one would extend compassion toward others (Salzburg, 1995), in that mindful awareness allows non-judgmental observation of one’s own circumstances and the circumstances of others. After experiencing a microaggression a racial minority adopting a mindful perspective may observe that a perpetrator may not fully understand the minority
experience of microaggressions, potentially due to a lack of knowledge about or contact with minority groups. The victim might feel negative emotions anyway, but present moment awareness enables them to notice these feelings and extend compassion toward those feelings. In this instance, they become less reactive to the situation, thus less emotionally distressed. This may allow victims to have less intense emotional reactions, making a positive cognitive change easier to complete while under distress. Further, and critically, becoming de-identified with thoughts and emotions allows an observer of suffering to extend compassion to an upset “reactor” which I am observing within myself. If I am identified with my reactions, there is not space between the hurt “me” and the mindful “me” who is watching all of these reactions occurring.

Through mindfulness and self-compassion racial minorities experiencing microaggressions can effectively 1) become more mindful and aware of negative emotional states as they arise, 2) adopt an openness and non-judgmental view of one’s negative emotional reactions and the harmful actions of others, 3) extend understanding and kindness toward negative emotional reactions of the self and the circumstances of others, and 5) view their experiences as a part of the greater racial minority experience, instead of separating and isolating.

**Mindfulness, Self-Compassion, and Racial Microaggressions**

*Exposure to Stress and Rumination*

In figure 3, rumination, anger, and negative affect elicited by exposure to racial microaggressions directly leads to symptoms of social anxiety, worry, depression, and trauma. Experiencing distressing symptoms may lead racial minorities to avoid emotional
reactions. Therefore, decreasing rumination, avoidance of emotion, and anger reactions may all help to prevent the cascade of psychological symptoms rooted in distress related to ambiguous microaggressions.

Mindfulness and self-compassion may lead to decreased rates of rumination following negative events. Mindfulness has been shown to reduce anger expression and intensity by reducing rumination among college students (Peters et al., 2015). Results illustrated that anger rumination accounted for a large portion of the relationship between aggression and mindfulness, the largest effect size being the non-judgement of inner experiences component of mindfulness. In other words, those who were able to have a non-judgmental and present-centered awareness showed less rumination about events eliciting negative emotional states. This particular study looked at aggression, but this provides preliminary evidence that decreasing rumination may serve to decrease the intensity of negative emotions and the propensity to act on them. Although cross-sectional, Peters and colleagues (2015) have demonstrated how mindfulness may indirectly reduce negative emotional responses by reducing rumination.

In another study Odou and Brinker (2014) explored the relationship between rumination and self-compassion in a sample of 186 Australian undergraduates. Subjects underwent a negative mood induction and were then told to write about a negative event in either an emotionally expressive or self-compassionate way. Results demonstrated that writing about a negative event in a self-compassionate way improved mood significantly more than the emotionally expressive condition. The authors hypothesized that the emotionally expressive condition allowed for more rumination, potentially inhibiting mood improvements that would have otherwise been made after writing.
In a sample more applicable to the discriminatory experiences of racial minorities, Liao, Kashubeck-West, Weng, & Deitz (2015) examined self-compassion, expectations of rejection, and anger rumination as mediators in the relationship between perceived discrimination and distress in a nationally representative sample of 265 sexual minorities. Self-compassion, expectations of rejection, and anger rumination mediated the relationship between perceived discrimination and distress. Experiences of perceived discrimination were related to more expectations of rejection, which was then associated with less self-compassion and more anger rumination. Similar to expectations of rejection in relation to sexual minorities, racial minorities may experience social rejection if they do not moderate their emotional responses to microaggressions when interacting with perpetrators.

**Psychological Symptoms, Mindfulness, and Self-Compassion**

Mindfulness has been shown to significantly reduce clinical symptoms of social anxiety and worry in non-Hispanic White samples. Hoge et al. (2014) examined decentering and mindfulness as two mechanisms of action related to GAD symptom reduction in a sample of 38 clinically diagnosed adults with GAD ($M_{age} = 37.6$). Results illustrated that decentering, that is, disengagement from negative internal experiences, fully mediated the relationship between MBSR and reductions in anxiety. Exposure to microaggressions may promote over-identification/self-blame, so decentering from experiences may significantly improve mental health outcomes such as worry. When enduring chronic and uncontrollable stressors, individuals may attempt to regain control by attributing negative emotion to their own behavior, as opposed to uncontrollable circumstances, such as chronic illness or social forces (Thompson, Sobolew-Shubin,
given that distress may continue despite behavioral changes of the victim, one may view changes in their distress as personal failures or shortcomings, leading to over-identification with negative emotions. For racial minorities, being able to decenter from experiencing microaggressions may provide a powerful tool in allowing them to not over-identify with their negative internal experiences.

In a sample of adults with clinically diagnosed social phobia, Schmertz, Masuda, and Anderson (2012) found that socially anxious symptoms were negatively related to mindfulness, with this relationship partially mediated by participants’ appraisal of the cost and likelihood of negative social interactions. Similar to findings by Hoge and colleagues, these results suggest that mindfulness may improve an individual’s ability to not only decenter to observe their negative emotional experiences, but also increase the likelihood of positive appraisals in social situations.

One study researching social anxiety, Koszycki et al. (2016), utilized mindfulness based stress reduction (MBSR) with the added component of explicit training in self-compassion, geared at instilling a kinder and accepting stance toward oneself in a sample of 39 adults clinically diagnosed with SAD. Results illustrated that in comparison to the waitlist condition subjects in the MBSR-self-compassion condition had more robust reductions in depression and social anxiety symptom severity, and increases in social adjustment and self-compassion. Further, these improvements were maintained at a 3-month follow up. Concerning more severe anxiety provoking stimuli, MBSR may also be beneficial. In a sample of 116 veterans with PTSD and co-occurring depressive symptoms, Felleman, Stewart, Simpson et al. (2016) found significant reductions in both...
PTSD and depressive symptoms at post-treatment and a 4-month follow up. With the potential for microaggressions to become chronic and produce psychological symptoms, it is imperative that interventions targeted at reducing distress target that chronicity.

**Mindfulness, Self-Compassion and Chronic Stressors**

Mindfulness and self-compassion may effectively reduce rates of rumination and psychological symptoms, but chronically experiencing racial microaggressions may make it difficult to cope effectively.

Sirois et al. (2015) assessed a model linking self-compassion to lower levels of stress through coping efficacy and style in a sample of primarily chronic illness patients (N=319; 92% White). The authors utilized a path analysis and found indirect effects for adaptive coping styles (positive reframing, active coping, & acceptance). Conversely, they found negative associations between self-compassion and maladaptive coping styles (self-blame, behavioral disengagement, avoidance), indicating that self-compassion may be related to a greater use of adaptive coping strategies and decreases in maladaptive coping. In addition to this, when controlling for indirect relationships, self-compassion was still related to lower levels of stress regardless of coping style. Results indicate that self-compassion may not only reduce the likelihood of engaging in forms of maladaptive coping (i.e., avoidance, rumination, anger), but also increase the likelihood of engaging in adaptive forms of coping.

As the severity of an individual’s distress increases in response to chronic stress, self-compassion may be more effective than other forms of emotion regulation. Diedrich, Grant, Hofmann et al. (2014) experimentally compared the effectiveness of self-
compassion to reappraisal, acceptance, or waiting conditions in a clinically depressed sample. They induced a depressed mood in 48 clinically depressed subjects (M age= 36, SD = 12; race not reported), and after the induction, had them use either self-compassion or acceptance to regulate negative emotion, or reappraise the situation. There were no significant differences in reductions in depressed mood between conditions, but self-reported depression at baseline moderated comparative effectiveness of cognitive reappraisal and self-compassion, demonstrating that self-compassion was more effective than reappraisal when depressed mood was elevated at baseline. This study identifies self-compassion as an adaptive coping mechanism with effects potentially most potent when symptoms are severe, with more robust effects than reappraisal. A limitation of this study was its lack of a diverse sample, as the sample was comprised of primarily German subjects. Reappraising or cognitively changing negative emotions stemming from racial microaggressions may be useful, but when such events occur with frequency and chronicity it may be difficult to manage negative emotions over time, leading to avoidance.

**Current Study**

The current study explores the relationships among racial microaggression exposure, emotion regulation, mindfulness/self-compassion, and emotional distress in racial minorities. As illustrated by Figure 3, chronic exposure to racial microaggressions and experiences of traumatic, socially anxious, generally anxious, and depressive symptoms co-occur. Further illustrated in Figure 3, racial microaggressions and psychological symptoms co-occur due to the indirect and moderating effects of negative
affect, anger, self-blame, rumination, anger rumination, experiential avoidance, and mindfulness/self-compassion.

Assessing this relationship in non-clinical and clinical populations is essential in understanding how they may be utilized among racial minority community populations that encounter racial microaggressions frequently, as well as in clinical populations suffering from clinical diagnoses due to chronic exposure to racial microaggressions through randomized controlled trials. This study takes a first step in examining a proposed model using cross-sectional data. Cross-sectional validation of the model may help to describe emotional reactions to racial microaggressions, so that future experimental and intervention studies have a theoretical anchor.

Hypotheses

1. The relationship between exposure to racial microaggressions and symptoms of social anxiety, worry, depression, and trauma is indirect, through the relationship between racial microaggressions and rumination, anger rumination, self-blame, and avoidance.

2. Negative affect and anger will moderate the relationship between exposure to racial microaggressions and rumination, anger rumination, self-blame, and avoidance.

3. One’s ability to regulate emotions will moderate the relationship between racial microaggressions and rumination, anger rumination, self-blame, and avoidance.

4. Mindfulness and self-compassion will moderate the relationship between exposure to racial microaggressions and rumination, anger rumination, self-blame, and avoidance.
CHAPTER II
METHODS

Study Design

Sample Characteristics

A target sample size of 100 subjects was determined according to Cohen, Cohen, West and Aiken (2003), with the authors suggesting a minimum of 15 subjects per predictor variable in multiple regression. The current sample is comprised of 91 undergraduate and community dwelling adults between the ages of 18 and 40 years of age ($M=23.6$), identifying as racial/ethnic minorities. The age range was expanded from original study aims of assessing a population aged 18-30, due to under-sampling; that is, without expanding the age range, fulfilling the sample size adequate for multiple regression (Cohen et al., 2003) would not have been achieved. The sample’s racial/ethnic makeup included “Asian American” (25.3%), “Black or African American” (24.2%), “Mixed; parents are from several different groups” (23.1%), “Hispanic or Latinx” (15.4%), “Other” (7.7%), “Middle Eastern/East Indian/Pakistani” (3.3%), “Native American/American Indian/Eskimo” (1.1%).

Respondents were recruited utilizing social media websites, an online university research database, and encouraging study participation in undergraduate courses. The study was advertised as an effort to understand emotional reactions to discrimination, and uncover new coping strategies to better protect racial minorities from the deleterious effects of racial discrimination. Incentives for participation include a raffle drawing at the end of data collection for a $150 gift card.
Measures

Discrimination

The Racial Microaggressions Scale (RMAS; Torres-Harding, Andrade, & Romero Diaz, 2012) The RMAS is a 32-item measure used to assess the frequency of microaggressions in people of color. Items are in a Likert scale format, with items ranging from 0 “Never” to 3 “Often/frequently.” Examples of questions include “Other people treat me like a criminal because of my race” and “Others assume that people of my background would succeed in life if they simply worked harder.” In a racially diverse sample of undergraduate students and community dwelling adults, Torres-Harding et al. (2012) found the RMAS to have strong convergent validity, and internal consistency and reliability. The current sample displayed strong reliability ($\alpha = .94$). Covert discrimination data yielded from RMAS served as a predictor variable for negative psychological outcomes.

Psychological Symptoms

Social Interaction Anxiety Scale (SIAS; Mattick & Clarke, 1998) is a 20-item scale assessing fear of general social interaction. Items are in a Likert scale format, with items ranging from 0 “Not at all” to 4 “Extremely.” In the measure, items may include statements such as “I get nervous if I have to speak with someone in authority (teacher, boss, etc.)” and “I find it difficult to mix comfortably with the people I work with.” In an undergraduate sample, the SIAS possesses high internal consistency and reliability, and convergent validity (Osman, Gutierrez, Barrios, et al., 1998). The current sample displayed strong reliability ($\alpha = .91$). In the current study, data yielded from the SIAS
was used as an outcome variable in the relationship between microaggressions and psychological outcomes.

The Penn State Worry Questionnaire (PSWQ; Meyer, Miller, Metzger, & Borkovec, 1990) is a 16-item self-report questionnaire assessing the tendency and ability to control worry about significant events. Items are in a Likert scale format, with items ranging from 1 “Not at all” (typical of me) to 5 “Very typical.” In the measure, items may include questions such as “Many situations make me worry” and “I know I shouldn’t worry about things, but I just cannot help it.” The PSWQ has been shown to demonstrate high internal consistency among clinical and non-clinical young adult samples (Brown, Antony, & Barlow, 1992), as well as African American young adults (Carter, Sbrocco, Miller, et al., 2005). The current sample displayed strong reliability ($\alpha = .89$). In the current study, data yielded from the PSWQ was used as an outcome variable in the relationship between racial microaggressions and psychological outcomes.

The civilian PTSD checklist for DSM-IV (PCL-C; Weathers, Litz, Herman, et al., 1993) is a 17-item self-report scale for assessing PTSD symptoms. Items are in a Likert scale format, with respondents asked how much they have been bothered by a problem in the past month, with items ranging from 1 “Not at all” to 5 “Extremely.” In the measure, items may include statements such as “Repeated, disturbing dreams of a stressful experience from the past?” and “Feeling very upset when something reminded you of a stressful experience from the past?” In an undergraduate sample Conybeare, Behar, Solomon, et al. (2012) found that the PCL-C demonstrates strong internal consistency, test-retest reliability, and convergent and discriminant validity. The current sample displayed strong reliability ($\alpha = .94$). In the current study, data yielded from the PCL-C
was used as an outcome variable in the relationship between racial microaggressions and psychological outcomes.

The Beck Depression Inventory II (BDI-II; Beck, Steer, & Brown, 1996) is the most widely used self-report scale for measuring depression. The BDI-II includes 21 items in a Likert scale format, with items ranging from 0 to 3. In the measure, items may include statements such as “I feel sad much of the time” or “I can’t get pleasure from the things I used to enjoy.” The scale demonstrates good internal consistency, and a confirmatory model fit with the original factor structure proposed by Beck et al. (1996) in undergraduate students. In a sample of community based racial minorities, the BDI-II was found to have excellent reliability and content validity, and a confirmatory factor analysis supports a good fit (Grothe, Dutton, Jones, et al., 2005). The current sample displayed strong reliability ($\alpha = .95$). In the current study, data yielded from the BDI-II was used as an outcome variable in the relationship between microaggressions and psychological outcomes.

**Emotional Reactions**

Cognitive Emotion Regulation Questionnaire (CERQ; Garnefski, Kraaij, & Spinhoven, 2001) is a 36-item questionnaire assessing for items each for nine different cognitive coping strategies outlined by subscales, including: Self-blame, other blame, rumination, catastrophizing, positive refocusing, acceptance, refocus on planning, positive reappraisal, and putting into perspective. Respondents are asked to consider how they cope with negative or unpleasant events, and indicate what they are thinking when they experience these events. The items are in a true/false format. Examples of items
include “I think that I have to accept that this has happened” and “I often think about how I feel about what I have experienced.” Adequate reliability has been reported in non-clinical adult and adolescents, and clinical samples (Garnefski et al., 2001; Garnefski, Van Den Kommer, Kraaij, et al., 2002) reported adequate reliability and test-retest reliability. The CERQ was used to test self-blame and rumination as mediators in the relationship between racial microaggressions and psychological outcomes. In the current sample, both rumination (α = .69) and self-blame (α = .80) displayed adequate reliability.

The Clinical Anger Scale (CAS; Snell, Gum, Shuck, et al., 1995) is a 21 item measure assessing different types of anger and associated feelings and behaviors. Items are in a Likert scale format, with items ranging from low severity “A” (e.g., I do not feel angry) to high severity “D” (e.g., I am so angry and hostile all the time that I can’t stand it). In an undergraduate sample the CAS demonstrated adequate internal consistency and test-retest reliability, as well as convergent validity (Snell et al., 1995). The current sample displayed strong reliability (α = .92). The CAS was used to test anger as an emotional response to racial microaggressions.

The anger rumination scale (ARS; Sukhodolsky, Golub, & Cromwell, 2001) is a 19 item measure assessing an individual’s tendency to think about anger-provoking events from the past. Items are in a Likert scale format, with items ranging from 1 “almost never” to 4 “almost always.” In the measure, items include questions such as “I keep thinking about events that angered me for a long time” and “I re-enact the anger episode in my mind after it has happened.” The authors of the measure found the ARS to have excellent reliability and adequate test-retest reliability. The current sample displayed...
strong reliability ($\alpha = .93$). The ARS was utilized to assess cognitive/emotional responses to racial microaggressions.

The Positive and Negative Affect Schedule (PANAS; Watson & Clark, 1988) is comprised of 10 positive affects (interested, excited, strong, enthusiastic, proud, alert, inspired, determined, attentive, and active) and 10 negative affects (distressed, upset, guilty, scared, hostile, irritable, ashamed, nervous, jittery, and afraid). Items are rated in a Likert scale format from 1 “very slightly or not at all” to 5 “extremely.” Respondents are asked to “Indicate the extent you have felt this way over the past week”, with sample responses including “Guilty” “Attentive” or “Jittery.” Initial validation studies conducted throughout the development of the PANAS concluded that the scales possess adequate test-retest reliability over a 2 month period, with the scale being internally consistent. The current sample displayed adequate reliability ($\alpha = .69$). The PANAS was utilized to assess affective responses to racial microaggressions.

The Brief Experiential Avoidance Questionnaire (BEAQ; Gámez, Chmielewski, Kotov, et al., 2014) is a 15-item questionnaire assessing experiential avoidance. Items are in a Likert scale format, with items ranging from 1 “strongly disagree” to 6 “strongly agree.” In the measure, items include statements such as “The key to a good life is never feeling any pain” and “I feel disconnected from my emotions.” In the development and initial validation study, Gámez et al. (2014) found that the BEAQ demonstrated strong convergent validity, internal consistency, and discriminant validity in undergraduates, psychiatric outpatients, and community adults. The current sample displayed strong reliability ($\alpha = .85$). The BEAQ was used to test the indirect effects of experiential avoidance in the relationship between racial microaggressions and psychological
outcomes. Next, the BEAQ was used as an outcome variable in testing emotion regulation, mindfulness, and self-compassion as moderating factors in relation to racial microaggressions.

**Moderating factors**

The Self-Compassion Scale (SCS; Neff, 2003) is a 26 item measure used to measure self-compassion. The scale yields 6 subscales, including self-judgement and kindness, over-identification, mindfulness, isolation, and common humanity. Items are in a Likert scale format, with items ranging from 1 “almost never” to 5 “almost always.” In the measure, items include questions such as “I’m disapproving and judgmental about my own flaws and inadequacies” and “When I fail at something important to me I become consumed by feelings of inadequacy.” In the original validation study, Neff (2003) found that the SCS demonstrated adequate reliability, discriminant validity, and was positively correlated with other measures of positive psychological functioning in an undergraduate sample. The current sample displayed strong reliability ($\alpha = .92$). Data yielded from the SCS was analyzed as a moderator variable in the relationship between exposure to racial microaggressions and cognitive/emotional responses.

The Five Factor Mindfulness Questionnaire- (FFMQ; Baer, Smith, Hopkins, et al., 2006) is a 39-item measure assessing several facets of mindfulness including observing sensations, non-reactivity to inner experiences, acting with awareness, describing, and non-judgment of experiences. Items are in a Likert scale format, with items ranging from 1 “never or very rarely true” to 5 “very often or always true.” In the measure, items include statements such as “I don’t pay attention to what I’m doing because I’m daydreaming, worrying, or otherwise distracted” and “I notice how food and
drinks affect my thoughts, bodily sensations, and emotions.” Internal consistency has been found to be strong in both meditating and non-meditating groups (de Bruin, Topper, Muskens, et al., 2012). The current sample displayed strong reliability ($\alpha = .89$). In the current analysis, the FFMQ was assessed as a moderator variable in the relationship between exposure to racial microaggressions and cognitive/emotional responses.

The Difficulties in Emotion Regulation Scale Short Form (DERS-SF; Kaufman, Xia, Fosco, et al., 2016) is an 18 item measure assessing six types of emotion regulation difficulties, including difficulties engaging in goal directed behavior, non-acceptance of emotional responses, impulse control, limited access to effective regulation strategies, and lack of emotional clarity and awareness. Items are in a Likert scale format, with items ranging from 1 “almost never” to 5 “almost always.” In the measure, items include statements such as “When I’m upset, I become out of control” and “I have difficulty making sense out of my feelings.” The DERS-SF was adapted from the original 36-item difficulties in emotion regulation scale (DERS), authored by Gratz and Roemer (2004). In an undergraduate sample the DERS-SF demonstrates strong convergent validity with the original DERS, and strong internal consistency. Graham et al. (2015) established that the DERS demonstrates good internal consistency in all Black undergraduate samples. The current sample displayed strong reliability ($\alpha = .93$). The DERS-SF was tested as a moderator in the relationship between racial microaggressions and emotional reactions.
CHAPTER III

RESULTS

Reliability statistics are found in Table 1, with all study variables displaying alphas above .69. Table 2 shows the means and standard deviations of study variables for the different ethnic groups. To assess significant differences in test variables between racial groups, analyses of variance were conducted to compare groups across experiences of discrimination, psychological symptoms, and moderating variables. The results of a one-way ANOVA showed significant differences among racial groups in frequency of experiencing racial microaggressions ($F(6,84) = 3.72, p = .003$); in post-hoc analyses, African Americans reported elevated experiences of racial microaggressions in comparison to other racial groups with the exception of Hispanic/Latinx respondents, and Hispanic/Latinx respondents reported significantly higher racial microaggressions than those of mixed race. Two Multivariate Analyses of Variance (MANOVA) analyses looked at racial differences for moderating variables and psychological symptoms, respectively. These analyses revealed no significant differences by racial group. Exploratory analyses co-varied age with hypothesized independent variables, and concluded that, although there were age differences in experiences of microaggressions and other independent variables, these differences did not alter findings with respect to study hypotheses. Therefore, analyses including age as a covariate are not reported in the subsequent tests of the study hypotheses.
Table 1

Subscale Variable Statistics

<table>
<thead>
<tr>
<th>Scale</th>
<th>α</th>
<th>Mean</th>
<th>SD</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Racial Microaggressions</td>
<td>.94</td>
<td>71.0</td>
<td>20.4</td>
<td>15-112</td>
</tr>
<tr>
<td>PANAS (negative)</td>
<td>.68</td>
<td>23.3</td>
<td>8</td>
<td>10-50</td>
</tr>
<tr>
<td>Clinical Anger</td>
<td>.92</td>
<td>10.0</td>
<td>8.7</td>
<td>0-35</td>
</tr>
<tr>
<td>Mindfulness</td>
<td>.89</td>
<td>125</td>
<td>19.7</td>
<td>76-179</td>
</tr>
<tr>
<td>Self-Compassion</td>
<td>.92</td>
<td>77.9</td>
<td>18.7</td>
<td>37-125</td>
</tr>
<tr>
<td>Difficulties in Emotion Regulation</td>
<td>.93</td>
<td>46.5</td>
<td>16.4</td>
<td>21-87</td>
</tr>
<tr>
<td>Rumination</td>
<td>.69</td>
<td>5.4</td>
<td>1.34</td>
<td>4-8</td>
</tr>
<tr>
<td>Self-Blame</td>
<td>.80</td>
<td>5.7</td>
<td>1.54</td>
<td>4-8</td>
</tr>
<tr>
<td>Experiential Avoidance</td>
<td>.85</td>
<td>49.6</td>
<td>12.5</td>
<td>22-85</td>
</tr>
<tr>
<td>Anger Rumination</td>
<td>.93</td>
<td>39.7</td>
<td>12.5</td>
<td>19-76</td>
</tr>
<tr>
<td>Social Anxiety</td>
<td>.91</td>
<td>29.8</td>
<td>15.7</td>
<td>4-76</td>
</tr>
<tr>
<td>Worry</td>
<td>.89</td>
<td>53.4</td>
<td>12.3</td>
<td>27-79</td>
</tr>
<tr>
<td>Depression</td>
<td>.95</td>
<td>13.0</td>
<td>14.5</td>
<td>0-60</td>
</tr>
<tr>
<td>Trauma</td>
<td>.94</td>
<td>40.6</td>
<td>15.4</td>
<td>17-85</td>
</tr>
</tbody>
</table>
Table 2

<table>
<thead>
<tr>
<th>Study Variable</th>
<th>African American (N=22) Mean (SD)</th>
<th>Asian American (N=23) Mean (SD)</th>
<th>Hispanic or Latinx (N=14) Mean (SD)</th>
<th>Mixed (N=21) Mean (SD)</th>
<th>Other (N=7) Mean (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Microaggressions</td>
<td>84.2 (15.5)</td>
<td>69.9 (23.6)</td>
<td>74.4 (17.4)</td>
<td>59.2 (14.2)</td>
<td>69.4 (19.7)</td>
</tr>
<tr>
<td>Anger</td>
<td>10.3 (10.1)</td>
<td>7.13 (7.24)</td>
<td>11.2 (8.91)</td>
<td>10.1 (7.65)</td>
<td>14.0 (11.3)</td>
</tr>
<tr>
<td>Anger rumination</td>
<td>38.3 (16.4)</td>
<td>40.9 (9.60)</td>
<td>41.0 (12.6)</td>
<td>38.7 (11.4)</td>
<td>38.7 (6.40)</td>
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<tr>
<td>Negative affect</td>
<td>24.5 (9.8)</td>
<td>22.5 (7.61)</td>
<td>23.4 (7.18)</td>
<td>23.0 (7.73)</td>
<td>22.6 (7.70)</td>
</tr>
<tr>
<td>Self-compassion</td>
<td>80.4 (19.1)</td>
<td>83.7 (18.5)</td>
<td>78.1 (20.6)</td>
<td>71.4 (15.0)</td>
<td>75.0 (20.4)</td>
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<tr>
<td>Mindfulness</td>
<td>122 (17.3)</td>
<td>132 (20.8)</td>
<td>126 (20.2)</td>
<td>125 (22.2)</td>
<td>121 (9.80)</td>
</tr>
<tr>
<td>Experiential avoidance</td>
<td>50.1 (15.9)</td>
<td>51.4 (8.35)</td>
<td>54.1 (14.7)</td>
<td>44.6 (11.2)</td>
<td>45.4 (8.30)</td>
</tr>
<tr>
<td>Social anxiety</td>
<td>30 (16)</td>
<td>27.1 (16.2)</td>
<td>28.9 (17.5)</td>
<td>31.1 (14.6)</td>
<td>39.0 (12.9)</td>
</tr>
<tr>
<td>Trauma</td>
<td>44.1 (18.6)</td>
<td>39.1 (16.5)</td>
<td>39.6 (16.6)</td>
<td>38.4 (11.6)</td>
<td>42.6 (10.5)</td>
</tr>
<tr>
<td>Depression</td>
<td>17.3 (18.0)</td>
<td>9.90 (15.7)</td>
<td>11.1 (12.0)</td>
<td>10.5 (8.50)</td>
<td>21.7 (18.8)</td>
</tr>
<tr>
<td>Worry</td>
<td>51.4 (10.4)</td>
<td>51.3 (12.7)</td>
<td>56.8 (16.0)</td>
<td>55.3 (12.2)</td>
<td>54.1 (7.06)</td>
</tr>
<tr>
<td>Emotion Regulation</td>
<td>46.8 (17.1)</td>
<td>45.7 (18.9)</td>
<td>48.1 (17.0)</td>
<td>44.6 (13.9)</td>
<td>50.1 (13.0)</td>
</tr>
<tr>
<td>Self-Blame</td>
<td>6 (1.60)</td>
<td>5.82 (1.60)</td>
<td>5.71 (1.54)</td>
<td>5.80 (1.50)</td>
<td>4.86 (1.50)</td>
</tr>
<tr>
<td>Rumination</td>
<td>5.60 (1.50)</td>
<td>5.17 (1.15)</td>
<td>5.30 (1.20)</td>
<td>5.52 (1.60)</td>
<td>5.30 (1.50)</td>
</tr>
</tbody>
</table>

**Hypothesis 1**

Hypothesis 1 stated that the relationship between exposure to racial microaggressions and symptoms of social anxiety, worry, depression, and trauma is indirect, through the relationship between racial microaggressions and rumination, anger rumination, self-blame, and avoidance. Sobel’s test was used to assess the significance of indirect effects. First, bivariate Pearson correlations were examined to establish Baron and Kenney (1995) mediation assumptions (Table 3). Microaggressions were significantly correlated with social anxiety, depression, and trauma, but not with worry, so we did not pursue analyses of indirect effects with worry as the dependent variable.
Anger rumination, and avoidance were correlated with microaggressions, but self-blame, and rumination were not, so we did not investigate mediation effects of self-blame or rumination. Therefore, six regression models were completed to assess the indirect effects of avoidance and anger rumination on the relationship between racial microaggressions and social anxiety, trauma, and depression, respectively.
Table 3.
Pearson correlation matrix for test variables

<table>
<thead>
<tr>
<th>Variables</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Racial Microaggression</td>
<td>----</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Self-Blame</td>
<td>.078</td>
<td>----</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Rumination</td>
<td>-.071</td>
<td>.304**</td>
<td>----</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>4. Anger rumination</td>
<td>.206*</td>
<td>-.109</td>
<td>-.374**</td>
<td>----</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Experiential Avoidance</td>
<td>.344**</td>
<td>-.105</td>
<td>-.146</td>
<td>.334**</td>
<td>----</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Social Anxiety</td>
<td>.387**</td>
<td>-.186</td>
<td>-.179</td>
<td>.236*</td>
<td>.616**</td>
<td>----</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Trauma</td>
<td>.443**</td>
<td>-.171</td>
<td>-.223*</td>
<td>.503**</td>
<td>.552**</td>
<td>.631**</td>
<td>----</td>
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<td></td>
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<tr>
<td>8. Depression</td>
<td>.416**</td>
<td>-.293**</td>
<td>-.237*</td>
<td>.326**</td>
<td>.394**</td>
<td>.596**</td>
<td>.655**</td>
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<td></td>
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<tr>
<td>9. Worry</td>
<td>.162</td>
<td>-.211*</td>
<td>-.236*</td>
<td>.466**</td>
<td>.462**</td>
<td>.526**</td>
<td>.575**</td>
<td>.405**</td>
<td>----</td>
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<tr>
<td>10. Negative Affect</td>
<td>.346**</td>
<td>-.161</td>
<td>-.140</td>
<td>.464**</td>
<td>.474**</td>
<td>.558**</td>
<td>.756**</td>
<td>.648**</td>
<td>.458**</td>
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<td>11. Anger</td>
<td>.128</td>
<td>-.184</td>
<td>-.357**</td>
<td>.492**</td>
<td>.186</td>
<td>.255*</td>
<td>.464**</td>
<td>.494**</td>
<td>.328**</td>
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<tr>
<td>12. Emotion Regulation</td>
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<td>-.264*</td>
<td>-.196</td>
<td>.478**</td>
<td>.591**</td>
<td>.687**</td>
<td>.809**</td>
<td>.619**</td>
<td>.696**</td>
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<td>13. Self-Compassion</td>
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<td>.388**</td>
<td>.314**</td>
<td>-.435**</td>
<td>-.393**</td>
<td>-.451**</td>
<td>-.583**</td>
<td>-.492**</td>
<td>-.608**</td>
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<td>14. Mindfulness</td>
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<td>.198</td>
<td>-.179</td>
<td>-.452**</td>
<td>-.438**</td>
<td>-.407**</td>
<td>-.350**</td>
<td>-.344**</td>
</tr>
<tr>
<td>( M )</td>
<td>71</td>
<td>5.7</td>
<td>5.4</td>
<td>39.7</td>
<td>49.6</td>
<td>29.8</td>
<td>40.1</td>
<td>13.0</td>
<td>53.4</td>
</tr>
<tr>
<td>( SD )</td>
<td>20.4</td>
<td>1.5</td>
<td>1.3</td>
<td>12.5</td>
<td>12.5</td>
<td>15.7</td>
<td>15.4</td>
<td>14.5</td>
<td>12.3</td>
</tr>
</tbody>
</table>

\*p < .01  \**p < .001
The first regression model assessed the impact of experiential avoidance on the relationship between racial microaggressions and social anxiety (Table 4). In step 1, racial microaggressions was entered, accounting for a significant amount of variance in social anxiety scores; $R^2 = .15$, $F (1, 89)= 15.66$, $p = .000152$. When experiential avoidance was entered in the second step, there was a significant $R^2$ change ($R^2 = .41$, $p < .0001$), and, as the coefficients in Table 3 show, the beta for racial microaggressions became nonsignificant, meeting the Baron and Kenny criterion for indirect effect. To test the significance of the indirect effect, a Sobel’s test was conducted, revealing a statistically significant indirect effect ($S= 2.15$; SE=.05; $p = 0.03$).

$\star p<.01 \quad ** p<.001$
Table 4.

Results of hierarchical linear regression analyses testing the indirect effects of experiential avoidance on the relationship between racial microaggressions and social anxiety (N=90).

<table>
<thead>
<tr>
<th>Step</th>
<th>Variable</th>
<th>B (SE of B)</th>
<th>Beta</th>
<th>t</th>
<th>(R^2) Change for step</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Microaggressions</td>
<td>.30 (.08)</td>
<td>.39</td>
<td>3.96**</td>
<td>.15**</td>
</tr>
<tr>
<td>2</td>
<td>Microaggressions</td>
<td>.15 (.07)</td>
<td>.20</td>
<td>2.28</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Experiential</td>
<td>.69 (.11)</td>
<td>.55</td>
<td>6.31</td>
<td>.41**</td>
</tr>
</tbody>
</table>

*p<.01  ** p<.001

The second regression model assessed the impact of anger rumination on the relationship between racial microaggressions and social anxiety (Table 5). In step 1, racial microaggressions was entered, accounting for a significant amount of variance in social anxiety scores; \(R^2 = .13, F(1, 88) = 13.5, p=.000413\). When anger rumination was entered in the second step, there was an insignificant \(R^2\) change (\(R^2 = .16, p =.09\)). To test the significance of the indirect effect, a Sobel’s test was conducted, revealing a nonsignificant indirect effect (S= 1.50; SE=.04; p = .14).
Table 5.

Results of hierarchical linear regression analyses testing the indirect effects of anger rumination on the relationship between racial microaggressions and social anxiety (N=89).

<table>
<thead>
<tr>
<th>Step</th>
<th>Variable</th>
<th>B (SE of B)</th>
<th>Beta</th>
<th>t</th>
<th>R² Change for step</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Microaggressions</td>
<td>.28 (.08)</td>
<td>.36</td>
<td>3.67**</td>
<td>.13**</td>
</tr>
<tr>
<td></td>
<td>Anger rumination</td>
<td>.21 (.13)</td>
<td>.17</td>
<td>1.70</td>
<td>.16</td>
</tr>
</tbody>
</table>

*p<.01  ** p<.001

The third regression model assessed the impact of experiential avoidance on the relationship between racial microaggressions and trauma (Table 6). In step 1, racial microaggressions was entered, accounting for a significant amount of variance in trauma scores; $R^2 = .20$, $F(1, 89)= 21.7$, $p=.000011$. When experiential avoidance was entered in the second step, there was a significant $R^2$ change ($R^2 = .38$, $p < .0001$), however, the beta for racial microaggressions remained significant. To test the significance of the indirect effect, a Sobel’s test was conducted, revealing a significant indirect effect ($S= 2.70$; SE=.04; $p = .005$).
Table 6

Results of hierarchical linear regression analyses testing the indirect effects of experiential avoidance on the relationship between racial microaggressions and trauma (N=91).

<table>
<thead>
<tr>
<th>Step</th>
<th>Variable</th>
<th>B (SE of B)</th>
<th>Beta</th>
<th>t</th>
<th>R² Change for step</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Microaggressions</td>
<td>.34 (.07)</td>
<td>.44</td>
<td>4.67**</td>
<td>.20**</td>
</tr>
<tr>
<td>2</td>
<td>Microaggressions</td>
<td>.22 (.07)</td>
<td>.29</td>
<td>3.20**</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Experiential</td>
<td>.56 (.11)</td>
<td>.45</td>
<td>5.06**</td>
<td>.38**</td>
</tr>
<tr>
<td></td>
<td>Avoidance</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*p<.01  ** p<.001

The fourth regression model assessed the impact of anger rumination on the relationship between racial microaggressions and trauma (Table 7). In step 1, racial microaggressions was entered, accounting for a significant amount of variance in trauma scores; $R^2 = .18$, $F (1, 88)= 19.3$, $p=.000031$. When anger rumination was entered in the second step, there was a significant R² change ($R^2 = .36$, $p < .0001$), however, the beta for racial microaggressions remained significant. To test the significance of the indirect effect, a Sobel’s test was conducted, revealing a significant indirect effect ($S= 3.02$; SE=.04; $p = .002$).
The fifth regression model assessed the impact of experiential avoidance on the relationship between racial microaggressions and depression (Table 8). In step 1, racial microaggressions was entered, accounting for a significant amount of variance in depression scores; $R^2 = .17$, $F (1, 89) = 18.60, p = .000042$. When experiential avoidance was entered in the second step, there was a significant $R^2$ change ($R^2 = .24, p = .005$), however, the beta for racial microaggressions remained significant. To test the significance of the indirect effect, a Sobel’s test was conducted, revealing a significant indirect effect ($S = 2.15; SE = .03; p = .03$).

Table 8

Results of hierarchical linear regression analyses testing the indirect effects of experiential avoidance on the relationship between racial microaggressions and depression (N=91).

<table>
<thead>
<tr>
<th>Step</th>
<th>Variable</th>
<th>B (SE of B)</th>
<th>Beta</th>
<th>T</th>
<th>$R^2$ Change for step</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Microaggressions</td>
<td>.30 (.07)</td>
<td>.42</td>
<td>4.31**</td>
<td>.17**</td>
</tr>
<tr>
<td>2</td>
<td>Microaggressions</td>
<td>.23 (.07)</td>
<td>.32</td>
<td>3.22*</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Experiential Avoidance</td>
<td>.33 (.12)</td>
<td>.29</td>
<td>2.89*</td>
<td>.24*</td>
</tr>
</tbody>
</table>
The sixth regression model assessed the impact of anger rumination on the relationship between racial microaggressions and depression (Table 9). In step 1, racial microaggressions was entered, accounting for a significant amount of variance in depression scores; $R^2 = .18$, $F (1, 88)= 19.20$, $p = .000033$. When anger rumination was entered in the second step, there was a significant $R^2$ change ($R^2 = .24$, $p = .011$), however, the beta for racial microaggressions remained significant. To test the significance of the indirect effect, a Sobel’s test was conducted, revealing a significant indirect effect ($S = 2.15; SE = .04; p = .04$).

Table 9

*Results of hierarchical linear regression analyses testing the indirect effects of anger rumination on the relationship between racial microaggressions and depression (N=90).*

<table>
<thead>
<tr>
<th>Step</th>
<th>Variable</th>
<th>B (SE of B)</th>
<th>Beta</th>
<th>$t$</th>
<th>$R^2$ Change for step</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Microaggressions</td>
<td>.31 (.07)</td>
<td>.42</td>
<td>4.40**</td>
<td>.18**</td>
</tr>
<tr>
<td>2</td>
<td>Microaggressions</td>
<td>.27 (.07)</td>
<td>.37</td>
<td>3.90**</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Anger rumination</td>
<td>.29 (.11)</td>
<td>.25</td>
<td>2.60*</td>
<td>.24*</td>
</tr>
</tbody>
</table>

*p < .01  ** p < .001

In summary, results partially supported Hypothesis 1. The relationship between racial microaggressions and social anxiety, depression, and trauma, respectively, was significantly diminished by experiential avoidance; anger rumination significantly diminished the relationship between racial microaggressions and trauma and depression, but not social anxiety.
Hypothesis 2

Hypothesis 2 stated that negative affect and anger would moderate the relationship between exposure to racial microaggressions and rumination, anger rumination, self-blame, and experiential avoidance. This hypothesis was tested with regression models that first introduced the main effects of racial microaggressions and negative affect or anger, then the interaction effect in the form of a product between the two main effect variables following the centering of interaction variables.

In the first regression model (see Table 10), negative affect was examined as a moderator in the relationship between racial microaggressions and anger rumination. Racial microaggressions and negative affect were entered in the first step of the moderation analysis. The interaction term (racial microaggressions x negative affect) was entered in the second step, and moderation was not significant ($R^2$ change= .003, $F (1, 86) = 8.18, p= .56$).

Table 10

<table>
<thead>
<tr>
<th>Step</th>
<th>Variable</th>
<th>B (SE of B)</th>
<th>Beta</th>
<th>T</th>
<th>$R^2$ Change for step</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Microaggressions</td>
<td>.04 (.06)</td>
<td>.06</td>
<td>.632</td>
<td>.22**</td>
</tr>
<tr>
<td></td>
<td>Negative Affect</td>
<td>.70 (.16)</td>
<td>.44**</td>
<td>4.43</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Microaggressions</td>
<td>-.06 (.17)</td>
<td>-.09</td>
<td>-.32</td>
<td>.00</td>
</tr>
<tr>
<td></td>
<td>Negative Affect</td>
<td>.41 (.52)</td>
<td>.26</td>
<td>.78</td>
<td></td>
</tr>
<tr>
<td></td>
<td>RM x NA</td>
<td>.00 (.01)</td>
<td>.28</td>
<td>.59</td>
<td></td>
</tr>
</tbody>
</table>

*p<.01   **p<.001
The second regression examined negative affect as a moderator in the relationship between racial microaggressions and experiential avoidance (see Table 11). Racial microaggressions and anger were entered in the first step of the moderation analysis. The interaction term (racial microaggressions x negative affect) was entered in the second step, and moderation was not significant ($R^2$ change = .03, $F(1, 87)= 11.62, p=.09$).

**Table 11**

*Results of hierarchical linear regression analyses testing moderation effects of negative affect on the relationship between racial microaggressions and experiential avoidance (N=91)*

<table>
<thead>
<tr>
<th>Step</th>
<th>Variable</th>
<th>B (SE of B)</th>
<th>Beta</th>
<th>t</th>
<th>$R^2$ Change for step</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Microaggressions</td>
<td>.13 (.06)</td>
<td>.21*</td>
<td>2.10</td>
<td>.26**</td>
</tr>
<tr>
<td></td>
<td>Negative Affect</td>
<td>.63 (.15)</td>
<td>.40**</td>
<td>4.12</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Microaggressions</td>
<td>-.13 (.16)</td>
<td>-.21</td>
<td>-.81</td>
<td>.03</td>
</tr>
<tr>
<td></td>
<td>Negative Affect</td>
<td>-.15 (.47)</td>
<td>-.09</td>
<td>-.31</td>
<td></td>
</tr>
<tr>
<td></td>
<td>RM x NA</td>
<td>.01 (.01)</td>
<td>.76</td>
<td>1.74</td>
<td></td>
</tr>
</tbody>
</table>

*p < .01  ** p < .001

The third regression model examined negative affect as a moderator in the relationship between racial microaggressions and self-blame (see Table 12). Racial microaggressions and negative affect were entered in the first step of the moderation analysis. The interaction term (racial microaggressions x negative affect) was entered in the second step, and moderation was not significant ($R^2= .02, F (1,87)= 2.11, p=.16$).
Table 12

Results of hierarchical linear regression analyses testing moderation effects of negative affect on the relationship between racial microaggressions and self-blame (N=91)

<table>
<thead>
<tr>
<th>Step</th>
<th>Variable</th>
<th>B (SE of B)</th>
<th>Beta</th>
<th>t</th>
<th>R² Change for step</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Microaggressions</td>
<td>.01 (.01)</td>
<td>.15</td>
<td>1.37</td>
<td>.05</td>
</tr>
<tr>
<td></td>
<td>Negative Affect</td>
<td>-.04 (.02)</td>
<td>-.21</td>
<td>-1.93</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Microaggressions</td>
<td>.04 (.02)</td>
<td>.53</td>
<td>1.83</td>
<td>.02</td>
</tr>
<tr>
<td></td>
<td>Negative Affect</td>
<td>.05 (.07)</td>
<td>.25</td>
<td>.72</td>
<td></td>
</tr>
<tr>
<td></td>
<td>RM x NA</td>
<td>-.00 (.00)</td>
<td>-.71</td>
<td>-1.41</td>
<td></td>
</tr>
</tbody>
</table>

*p<.01  **p<.001

The fourth regression examined negative affect as a moderator in the relationship between racial microaggressions and rumination (see Table 13). Racial microaggressions and negative affect were entered in the first step of the moderation analysis. The interaction term (racial microaggressions x negative affect) was entered in the second step, and moderation was not significant ($R^2 = .00, F (1,87) = .610, p = .85$).

63
Table 13

*Results of hierarchical linear regression analyses testing moderation effects of negative affect on the relationship between racial microaggressions and rumination (N=91)*

<table>
<thead>
<tr>
<th>Step</th>
<th>Variable</th>
<th>B (SE of B)</th>
<th>Beta</th>
<th>t</th>
<th>$R^2$ Change for step</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Microaggressions</td>
<td>-.00 (.01)</td>
<td>-.03</td>
<td>-.22</td>
<td>.02</td>
</tr>
<tr>
<td></td>
<td>Negative Affect</td>
<td>-.02 (.02)</td>
<td>-.13</td>
<td>-1.17</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Microaggressions</td>
<td>-.01 (.02)</td>
<td>-.08</td>
<td>-.27</td>
<td>.00</td>
</tr>
<tr>
<td></td>
<td>Negative Affect</td>
<td>-.03 (.06)</td>
<td>-.20</td>
<td>-.56</td>
<td></td>
</tr>
<tr>
<td></td>
<td>RM x NA</td>
<td>.00 (.00)</td>
<td>.10</td>
<td>.20</td>
<td></td>
</tr>
</tbody>
</table>

*p<.01  **p<.001

In summary, negative affect did not moderate the relationship between racial microaggressions and anger rumination, experiential avoidance, self-blame, or rumination, respectively, contrary to Hypothesis 2.

The second set of regression models investigated anger as a moderator, first investigating the role of anger in the relationship between racial microaggressions and anger rumination (see Table 14). Racial microaggressions and anger were entered in the first step of the moderation analysis. The interaction term (racial microaggressions x anger) was entered in the second step, and moderation was not significant ($R^2$ change = .00, $F$ (1,86)= .10.0, $p$=.99).
Table 14

*Results of hierarchical linear regression analyses testing moderation effects of anger on the relationship between racial microaggressions and anger rumination (N=90)*

<table>
<thead>
<tr>
<th>Step</th>
<th>Variable</th>
<th>B (SE of B)</th>
<th>Beta</th>
<th>t</th>
<th>R² Change for step</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Microaggressions</td>
<td>.08 (.06)</td>
<td>.13</td>
<td>1.40</td>
<td>.26**</td>
</tr>
<tr>
<td></td>
<td>Anger</td>
<td>.68 (.14)</td>
<td>.47**</td>
<td>5.04</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Microaggressions</td>
<td>.08 (.09)</td>
<td>.13</td>
<td>.89</td>
<td>.00</td>
</tr>
<tr>
<td></td>
<td>Anger</td>
<td>.67 (.47)</td>
<td>.46</td>
<td>1.44</td>
<td></td>
</tr>
<tr>
<td></td>
<td>RM x Anger</td>
<td>.00 (.01)</td>
<td>.01</td>
<td>.02</td>
<td></td>
</tr>
</tbody>
</table>

*p<.01  **p<.001

The next regression model examined anger as a moderator in the relationship between racial microaggressions and experiential avoidance (see Table 15). Racial microaggressions and anger were entered in the first step of the moderation analysis. The interaction term (racial microaggressions x anger) was entered in the second step, and moderation was not significant ($R^2 = .15, F (1,87)= 5.09, p=.31$).
Table 15
Results of hierarchical linear regression analyses testing moderation effects of anger on the relationship between racial microaggressions and experiential avoidance (N=91)

<table>
<thead>
<tr>
<th>Step</th>
<th>Variable</th>
<th>B (SE of B)</th>
<th>Beta</th>
<th>t</th>
<th>R² Change for step</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Microaggressions</td>
<td>.20 (.06)</td>
<td>.33*</td>
<td>3.27</td>
<td>.14</td>
</tr>
<tr>
<td></td>
<td>Anger</td>
<td>.21 (.14)</td>
<td>.15</td>
<td>1.45</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Microaggressions</td>
<td>.12 (.10)</td>
<td>.20</td>
<td>1.30</td>
<td>.15</td>
</tr>
<tr>
<td></td>
<td>Anger</td>
<td>-.26 (.48)</td>
<td>-.18</td>
<td>-.55</td>
<td></td>
</tr>
<tr>
<td></td>
<td>RM x Anger</td>
<td>.01 (.01)</td>
<td>.38</td>
<td>1.03</td>
<td></td>
</tr>
</tbody>
</table>

*p < .01  ** p < .001

The next regression model examined anger as a moderator in the relationship between racial microaggressions and self-blame (see Table 16). Racial microaggressions and anger were entered in the first step of the moderation analysis. The interaction term (racial microaggressions x anger) was entered in the second step, and moderation was not significant ($R^2 = .01, F (1,87) = .140, p = .693$).
Table 16

Results of hierarchical linear regression analyses testing moderation effects of anger on the relationship between racial microaggressions and self-blame (N=91)

<table>
<thead>
<tr>
<th>Step</th>
<th>Variable</th>
<th>B (SE of B)</th>
<th>Beta</th>
<th>t</th>
<th>R² Change for step</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Microaggressions</td>
<td>.01 (.01)</td>
<td>.10</td>
<td>.98</td>
<td>.04</td>
</tr>
<tr>
<td></td>
<td>Anger</td>
<td>-.03 (.02)</td>
<td>-.20</td>
<td>-1.88</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Microaggressions</td>
<td>.01 (.01)</td>
<td>.15</td>
<td>.93</td>
<td>.01</td>
</tr>
<tr>
<td></td>
<td>Anger</td>
<td>-.01 (.06)</td>
<td>-.06</td>
<td>-.18</td>
<td></td>
</tr>
<tr>
<td></td>
<td>RM x Anger</td>
<td>.00 (.00)</td>
<td>-.15</td>
<td>-.40</td>
<td></td>
</tr>
</tbody>
</table>

*p<.01  ** p<.001

The next regression examined anger as a moderator in the relationship between racial microaggressions and rumination (see Table 17). Racial microaggressions and anger were entered in the first step of the moderation analysis. The interaction term (racial microaggressions x anger) was entered in the second step, and moderation was not significant (R²=.10, F (1,87)= .4.31, p=.69).
Table 17

Results of hierarchical linear regression analyses testing moderation effects of anger on the relationship between racial microaggressions and rumination (N=91)

<table>
<thead>
<tr>
<th>Step</th>
<th>Variable</th>
<th>B (SE of B)</th>
<th>Beta</th>
<th>t</th>
<th>R² Change for step</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Microaggressions</td>
<td>-.00 (.01)</td>
<td>-.03</td>
<td>-2.54</td>
<td>.13*</td>
</tr>
<tr>
<td></td>
<td>Anger</td>
<td>-.06 (.02)</td>
<td>-.35</td>
<td>-3.52*</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Microaggressions</td>
<td>-.00 (.01)</td>
<td>-.07</td>
<td>-4.67</td>
<td>.10</td>
</tr>
<tr>
<td></td>
<td>Anger</td>
<td>-.08 (.05)</td>
<td>-.48</td>
<td>-1.42</td>
<td></td>
</tr>
<tr>
<td></td>
<td>RM x Anger</td>
<td>.00 (.00)</td>
<td>.15</td>
<td>.400</td>
<td></td>
</tr>
</tbody>
</table>

*p<.01  **p<.001

In summary, anger did not moderate the relationship between racial microaggressions and anger rumination, experiential avoidance, self-blame, or rumination, respectively; Hypothesis 2 was not supported.

**Hypothesis 3**

Hypothesis 3 stated that emotion regulation difficulties will moderate the relationship between racial microaggressions and rumination, anger rumination, self-blame, and avoidance. As mentioned above, self-blame and rumination were not correlated with racial microaggressions, and therefore were not included in analyses in hypothesis 3.

Emotion regulation difficulties were examined as a moderator in the relationship between racial microaggressions and anger rumination (see Table 18). Racial microaggressions and emotion regulation were entered in the first step of the moderation analysis. The interaction term (racial microaggressions x emotion regulation) was entered
in the second step, and moderation was not significant ($R^2$ change= .001, $F$ (1,86)= 8.92, $p$=.688).

Table 18

Results of hierarchical linear regression analyses testing moderation effects of emotion regulation difficulties on the relationship between racial microaggressions and anger rumination (N=90)

<table>
<thead>
<tr>
<th>Step</th>
<th>Variable</th>
<th>B (SE of B)</th>
<th>Beta</th>
<th>t</th>
<th>$R^2$ Change for step</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Microaggressions</td>
<td>.06 (.06)</td>
<td>.09</td>
<td>.922</td>
<td>.24</td>
</tr>
<tr>
<td></td>
<td>Emotion Regulation</td>
<td>.35 (.07)</td>
<td>.46**</td>
<td>4.70</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Microaggressions</td>
<td>.13 (.19)</td>
<td>.21</td>
<td>.674</td>
<td>.00</td>
</tr>
<tr>
<td></td>
<td>Emotion Regulation</td>
<td>.46 (.29)</td>
<td>.60</td>
<td>1.61</td>
<td></td>
</tr>
<tr>
<td></td>
<td>RM x ER</td>
<td>-.00 (.00)</td>
<td>-.21</td>
<td>-.403</td>
<td></td>
</tr>
</tbody>
</table>

* $p<.01$ ** $p<.001$

The second model examined emotion regulation as a moderator in the relationship between racial microaggressions and experiential avoidance (see Table 19). Racial microaggressions and emotion regulation were entered in the first step of the moderation analysis. The interaction term (racial microaggressions x emotion regulation) was entered in the second step, and moderation was found to be significant ($R^2$ change= .043, $F$ (1,87)= 21.61, $p$ =.01).
Results of hierarchical linear regression analyses testing moderation effects of emotion regulation difficulties on the relationship between racial microaggressions and experiential avoidance (N=91)

<table>
<thead>
<tr>
<th>Step</th>
<th>Variable</th>
<th>B (SE of B)</th>
<th>Beta</th>
<th>t</th>
<th>R² Change for step</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Microaggressions</td>
<td>.12 (.05)</td>
<td>.19</td>
<td>2.22</td>
<td>.38**</td>
</tr>
<tr>
<td></td>
<td>Emotion Regulation</td>
<td>.41 (.07)</td>
<td>.54**</td>
<td>6.15</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Microaggressions</td>
<td>-.26 (.16)</td>
<td>-.42</td>
<td>-1.65</td>
<td>.04*</td>
</tr>
<tr>
<td></td>
<td>Emotion Regulation</td>
<td>-.16 (.23)</td>
<td>-.22</td>
<td>-.71</td>
<td></td>
</tr>
<tr>
<td></td>
<td>RM x ER</td>
<td>.01 (.00)</td>
<td>.11*</td>
<td>2.56</td>
<td></td>
</tr>
</tbody>
</table>

* p < .01  ** p < .001

The third model examined emotion regulation difficulties as a moderator in the relationship between racial microaggressions and self-blame (see Table 20). Racial microaggressions and emotion regulation were entered in the first step of the moderation analysis. The interaction term (racial microaggressions x emotion regulation) was entered in the second step, and moderation was not significant (R² change= .006, F (1,87)= 3.25, p=.44).
Table 20

*Results of hierarchical linear regression analyses testing moderation effects of emotion regulation difficulties on the relationship between racial microaggressions and self-blame (N=91)*

<table>
<thead>
<tr>
<th>Step</th>
<th>Variable</th>
<th>B (SE of B)</th>
<th>Beta</th>
<th>t</th>
<th>R^2 Change for step</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Microaggressions</td>
<td>.01 (.01)</td>
<td>.17</td>
<td>1.56</td>
<td>.10</td>
</tr>
<tr>
<td></td>
<td>Emotion Regulation</td>
<td>-.03 (.01)</td>
<td>-.31*</td>
<td>-2.94</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Microaggressions</td>
<td>.03 (.02)</td>
<td>.39</td>
<td>1.25</td>
<td>.00</td>
</tr>
<tr>
<td></td>
<td>Emotion Regulation</td>
<td>-.00 (.04)</td>
<td>-.03</td>
<td>-.071</td>
<td></td>
</tr>
<tr>
<td></td>
<td>RM x ER</td>
<td>.00 (.00)</td>
<td>-.42</td>
<td>-.770</td>
<td></td>
</tr>
</tbody>
</table>

* *p<.01  ** p<.001

The fourth model examined emotion regulation as a moderator in the relationship between racial microaggressions and rumination (see Table 21). Racial microaggressions and emotion regulation were entered in the first step of the moderation analysis. The interaction term (racial microaggressions x emotion regulation) was entered in the second step, and moderation was not significant (R^2 change=.001, F (1,87)= 1.18, p=.828).
Table 21

*Results of hierarchical linear regression analyses testing moderation effects of emotion regulation difficulties on the relationship between racial microaggressions and rumination (N=91)*

<table>
<thead>
<tr>
<th>Step</th>
<th>Variable</th>
<th>B (SE of B)</th>
<th>Beta</th>
<th>t</th>
<th>R² Change for step</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Microaggressions</td>
<td>-.00 (.01)</td>
<td>-.02</td>
<td>-1.60</td>
<td>.04</td>
</tr>
<tr>
<td></td>
<td>Emotion Regulation</td>
<td>-.02 (.01)</td>
<td>-.19</td>
<td>-1.75</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Microaggressions</td>
<td>-.00 (.02)</td>
<td>.05</td>
<td>1.53</td>
<td>.00</td>
</tr>
<tr>
<td></td>
<td>Emotion Regulation</td>
<td>-.01 (.03)</td>
<td>-.11</td>
<td>-.27</td>
<td></td>
</tr>
<tr>
<td></td>
<td>RM x ER</td>
<td>-9.2 E-5 (.00)</td>
<td>-.12</td>
<td>-.22</td>
<td></td>
</tr>
</tbody>
</table>

*p<.01  ** p<.001

In summary, emotion regulation difficulties were found to be a significant moderator in the relationship between racial microaggressions and experiential avoidance. However, emotion regulation difficulties were found to be a nonsignificant moderator in the relationship between racial microaggressions and anger rumination, self-blame, and rumination, respectively. Hypothesis 3 was partially supported.

**Hypothesis 4**

Hypothesis 4 stated that mindfulness and self-compassion will moderate the relationship between exposure to racial microaggressions and rumination, anger rumination, self-blame, and avoidance.

Mindfulness was examined as a moderator in the relationship between racial microaggressions and anger rumination (see Table 22). Racial microaggressions and
mindfulness were entered in the first step of the moderation analysis. The interaction term (racial microaggressions x mindfulness) was entered in the second step, and moderation was not significant ($R^2$ change = .001, $F$ (1,86)= 2.18, $p$=.83).

Table 22

Results of hierarchical linear regression analyses testing moderation effects of mindfulness on the relationship between racial microaggressions and anger rumination (N=90)

<table>
<thead>
<tr>
<th>Step</th>
<th>Variable</th>
<th>B (SE of B)</th>
<th>Beta</th>
<th>$t$</th>
<th>$R^2$ Change for step</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Microaggressions</td>
<td>.12 (.06)</td>
<td>.20</td>
<td>1.89</td>
<td>.07*</td>
</tr>
<tr>
<td></td>
<td>Mindfulness</td>
<td>-.10 (.07)</td>
<td>-.17</td>
<td>-1.60</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Microaggressions</td>
<td>.21 (.41)</td>
<td>.34</td>
<td>.51</td>
<td>.00</td>
</tr>
<tr>
<td></td>
<td>Mindfulness</td>
<td>-.05 (.25)</td>
<td>-.08</td>
<td>-.204</td>
<td></td>
</tr>
<tr>
<td></td>
<td>RM x Mindfulness</td>
<td>-.00 (.00)</td>
<td>-.16</td>
<td>-.22</td>
<td></td>
</tr>
</tbody>
</table>

*p < .01  **p < .001

The second model examined mindfulness as a moderator in the relationship between racial microaggressions and experiential avoidance (see Table 23). Racial microaggressions and mindfulness were entered in the first step of the moderation analysis. The interaction term (racial microaggressions x mindfulness) was entered in the second step, and moderation was not significant ($R^2$ change = .024, $F$ (1,87)= 14.4, $p$=.08)
Table 23

*Results of hierarchical linear regression analyses testing moderation effects of mindfulness on the relationship between racial microaggressions and experiential avoidance (N=91)*

<table>
<thead>
<tr>
<th>Step</th>
<th>Variable</th>
<th>B (SE of B)</th>
<th>Beta</th>
<th>t</th>
<th>R² Change for step</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Microaggressions</td>
<td>.20 (.05)</td>
<td>.32**</td>
<td>3.63</td>
<td>.31**</td>
</tr>
<tr>
<td></td>
<td>Mindfulness</td>
<td>-.28 (.06)</td>
<td>-.44**</td>
<td>-4.91</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Microaggressions</td>
<td>.80 (.35)</td>
<td>1.3*</td>
<td>2.33</td>
<td>.02</td>
</tr>
<tr>
<td></td>
<td>Mindfulness</td>
<td>.09 (.21)</td>
<td>.14</td>
<td>.412</td>
<td></td>
</tr>
<tr>
<td></td>
<td>RM x MF</td>
<td>-.01 (.00)</td>
<td>-1.13</td>
<td>-1.78</td>
<td></td>
</tr>
</tbody>
</table>

* p<.01  ** p<.001

The third model tested mindfulness as a moderator in the relationship between racial microaggressions and self-blame (see Table 24). Racial microaggressions and mindfulness were entered in the first step of the moderation analysis. The interaction term (racial microaggressions x mindfulness) was entered in the second step, and moderation was not significant (R² change = .011, F (1,87)= 3.31, p=.309).
Table 24

*Results of hierarchical linear regression analyses testing moderation effects of mindfulness on the relationship between racial microaggressions and self-blame (N=91)*

<table>
<thead>
<tr>
<th>Step</th>
<th>Variable</th>
<th>B (SE of B)</th>
<th>Beta</th>
<th>t</th>
<th>R² Change for step</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Microaggressions</td>
<td>.01 (.01)</td>
<td>.09</td>
<td>.912</td>
<td>.09*</td>
</tr>
<tr>
<td></td>
<td>Mindfulness</td>
<td>.02 (.01)</td>
<td>.29*</td>
<td>2.88</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Microaggressions</td>
<td>-.04 (.05)</td>
<td>-.57</td>
<td>-.87</td>
<td>.01</td>
</tr>
<tr>
<td></td>
<td>Mindfulness</td>
<td>-.01 (.03)</td>
<td>-.09</td>
<td>-.234</td>
<td></td>
</tr>
<tr>
<td></td>
<td>RM x Mindfulness</td>
<td>.00 (.00)</td>
<td>.75</td>
<td>1.02</td>
<td></td>
</tr>
</tbody>
</table>

*p<.01  **p<.001

The fourth model tested mindfulness as a moderator in the relationship between racial microaggressions and rumination (see Table 25). Racial microaggressions and mindfulness were entered in the first step of the moderation analysis. The interaction term (racial microaggressions x mindfulness) was entered in the second step, and moderation was not significant (R² change = .01, F (1,87)= 1.50, p=.454).
Table 2

Results of hierarchical linear regression analyses testing moderation effects of mindfulness on the relationship between racial microaggressions and rumination (N=91)

<table>
<thead>
<tr>
<th>Step</th>
<th>Variable</th>
<th>B (SE of B)</th>
<th>Beta</th>
<th>t</th>
<th>R² Change for step</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Microaggressions</td>
<td>-.00 (.01)</td>
<td>-.06</td>
<td>-.582</td>
<td>.04</td>
</tr>
<tr>
<td></td>
<td>Mindfulness</td>
<td>.01 (.01)</td>
<td>.20</td>
<td>1.87</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Microaggressions</td>
<td>-.04 (.05)</td>
<td>-.56</td>
<td>-.834</td>
<td>.01</td>
</tr>
<tr>
<td></td>
<td>Mindfulness</td>
<td>-.01 (.03)</td>
<td>-.10</td>
<td>-.240</td>
<td></td>
</tr>
<tr>
<td></td>
<td>RM x Mindfulness</td>
<td>.00 (.00)</td>
<td>.57</td>
<td>.752</td>
<td></td>
</tr>
</tbody>
</table>

*p<.01  ** p<.001

In summary, mindfulness did not moderate the relationship between racial microaggressions and anger rumination, racial microaggressions and experiential avoidance, racial microaggressions and self-blame, or racial microaggressions and rumination.

The second set of regression models tested self-compassion as a moderator, first in the relationship between racial microaggressions and anger rumination (see Table 26). Racial microaggressions and self-compassion were entered in the first step of the moderation analysis. The interaction term (racial microaggressions x self-compassion) was entered in the second step, and moderation was not significant (R² change= .011, F (1, 86)= 8.82, p=.27).
Table 26

*Results of hierarchical linear regression analyses testing moderation effects of self-compassion on the relationship between racial microaggressions and anger rumination (N=90)*

<table>
<thead>
<tr>
<th>Step</th>
<th>Variable</th>
<th>B (SE of B)</th>
<th>Beta</th>
<th>t</th>
<th>$R^2$ Change for step</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Microaggressions</td>
<td>.12 (.06)</td>
<td>.19</td>
<td>1.97</td>
<td>.22**</td>
</tr>
<tr>
<td></td>
<td>Self-Compassion</td>
<td>-.28 (.06)</td>
<td>-.43**</td>
<td>-4.51</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Microaggressions</td>
<td>-.20 (.29)</td>
<td>-.32</td>
<td>-.69</td>
<td>.01</td>
</tr>
<tr>
<td></td>
<td>Self-compassion</td>
<td>-.60 (.29)</td>
<td>-.90*</td>
<td>-2.06</td>
<td></td>
</tr>
<tr>
<td></td>
<td>RM x SC</td>
<td>.00 (.00)</td>
<td>.68</td>
<td>1.11</td>
<td></td>
</tr>
</tbody>
</table>

*p<.01  **p<.001

The second regression model tested self-compassion as a moderator in the relationship between racial microaggressions and experiential avoidance (see Table 27).

Racial microaggressions and self-compassion were entered in the first step of the moderation analysis. The interaction term (racial microaggressions x self-compassion) was entered in the second step, and moderation was not significant ($R^2$ change= .00, $F(1,87)=10.3, p=.83$).
Table 27

Results of hierarchical linear regression analyses testing moderation effects of self-compassion on the relationship between racial microaggressions and experiential avoidance (N=91)

<table>
<thead>
<tr>
<th>Step</th>
<th>Variable</th>
<th>B (SE of B)</th>
<th>Beta</th>
<th>t</th>
<th>R^2 Change for step</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Microaggressions</td>
<td>.20 (.06)</td>
<td>.33*</td>
<td>3.56</td>
<td>.26**</td>
</tr>
<tr>
<td></td>
<td>Self-Compassion</td>
<td>-.25 (.06)</td>
<td>-.38**</td>
<td>-4.12</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Microaggressions</td>
<td>.14 (.28)</td>
<td>.23</td>
<td>.500</td>
<td>.00</td>
</tr>
<tr>
<td></td>
<td>Self-compassion</td>
<td>-.31 (.29)</td>
<td>-.47</td>
<td>-1.10</td>
<td></td>
</tr>
<tr>
<td></td>
<td>RM x SC</td>
<td>-.00 (.00)</td>
<td>.13</td>
<td>.220</td>
<td></td>
</tr>
</tbody>
</table>

*p<.01  **p<.001

The third regression model tested self-compassion as a moderator in the relationship between racial microaggressions and self-blame (see Table 28). Racial microaggressions and self-compassion were entered in the first step of the moderation analysis. The interaction term (racial microaggressions x self-compassion) was entered in the second step, and moderation was not significant (R^2 change = .03, F (1,87)= 6.59, p=.104).
Table 28

Results of hierarchical linear regression analyses testing moderation effects of self-compassion on the relationship between racial microaggressions and self-blame (N=91)

<table>
<thead>
<tr>
<th>Step</th>
<th>Variable</th>
<th>B (SE of B)</th>
<th>Beta</th>
<th>t</th>
<th>R² Change for step</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Microaggressions</td>
<td>.01 (.01)</td>
<td>.10</td>
<td>.982</td>
<td>.16**</td>
</tr>
<tr>
<td></td>
<td>Self-Compassion</td>
<td>.03 (.01)</td>
<td>.39**</td>
<td>4.02</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Microaggressions</td>
<td>-.05 (.04)</td>
<td>-.68</td>
<td>-1.41</td>
<td>.03</td>
</tr>
<tr>
<td></td>
<td>Self-compassion</td>
<td>-.03 (.04)</td>
<td>-.33</td>
<td>-.730</td>
<td></td>
</tr>
<tr>
<td></td>
<td>RM x SC</td>
<td>.00 (.00)</td>
<td>1.05</td>
<td>1.64</td>
<td></td>
</tr>
</tbody>
</table>

*p<.01  **p<.001

The fourth regression model tested self-compassion as a moderator in the relationship between racial microaggressions and rumination (see Table 29). Racial microaggressions and self-compassion were entered in the first step of the moderation analysis. The interaction term (racial microaggressions x self-compassion) was entered in the second step, and moderation was not significant ($R^2$ change = .01, $F$ (1,87)= 3.51, $p=.433$).
Table 29

Results of hierarchical linear regression analyses testing moderation effects of self-compassion on the relationship between racial microaggressions and rumination (N=91)

<table>
<thead>
<tr>
<th>Step</th>
<th>Variable</th>
<th>B (SE of B)</th>
<th>Beta</th>
<th>t</th>
<th>R^2 Change for step</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Microaggressions</td>
<td>-.00 (.01)</td>
<td>-.06</td>
<td>-.556</td>
<td>.10*</td>
</tr>
<tr>
<td></td>
<td>Self-Compassion</td>
<td>.02 (.01)</td>
<td>.31*</td>
<td>3.01</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Microaggressions</td>
<td>-.03 (.03)</td>
<td>-.45</td>
<td>-.882</td>
<td>.01</td>
</tr>
<tr>
<td></td>
<td>Self-compassion</td>
<td>-.00 (.03)</td>
<td>-.05</td>
<td>-.108</td>
<td></td>
</tr>
<tr>
<td></td>
<td>RM x SC</td>
<td>.00 (.00)</td>
<td>.53</td>
<td>.787</td>
<td></td>
</tr>
</tbody>
</table>

*p<.01  **p<.001

In summary, self-compassion did not moderate the relationship between racial microaggressions and anger rumination, experiential avoidance, self-blame, or rumination, respectively. Hypothesis 4 was not supported.
CHAPTER IV
DISCUSSION

Racial microaggressions are defined as subtle racial insults or slights that racial minorities may encounter daily, communicating negative messages to victims (Sue et al., 2007). Perceiving discrimination has been associated with negative outcomes in racial minorities such as symptoms of depression, anxiety, trauma, and low self-esteem (Pascoe & Richman, 2009; Chou et al., 2012; Soto et al., 2011; Carter, 2007). Previous research has suggested emotion regulation, anger, rumination, and psychological symptoms to all play a role in the experience of discrimination (Brondolo et al., 2009; Carter, 2007). Preliminary research has linked microaggressions and psychological symptoms, but the role of emotion regulation and experience is not entirely known. Further, research has yet to identify specific emotion regulation tactics that might offset the deleterious effects of racial microaggressions. Mindfulness and self-compassion have been found to buffer the negative emotional impact of chronic stressors that are similar to racial microaggressions (Maheux & Price, 2016; Sirois et al., 2015; Peters et al., 2015; Hoge et al., 2015; Koszycki et al., 2016). The current study sought to investigate the respective dynamics among cognitive/emotional experiences, emotion regulation, mindfulness and self-compassion, and racial microaggressions.

As shown in Figure 3, a process model of exposure to racial microaggressions was constructed to illustrate current study aims; it is important to note that although a linear model is shown for clarity in hypotheses, causality cannot be determined by cross-sectional data. As displayed by the model, negative affect and anger are affective
responses to the experience of racial microaggressions. In addition to these affective responses, rumination, self-blame, anger rumination, and experiential avoidance are cognitive responses to microaggression exposure. Further, social anxiety, worry, depression, and trauma symptoms are included as results of microaggression exposure. Lastly, mindfulness, self-compassion, and emotion regulation ability are hypothesized as buffers against cognitive/emotional distress resulting from microaggressions, with severity of distress depending on the strength of these emotion regulation responses.

*Hypothesis 1*

Hypothesis 1, which investigated whether rumination, anger rumination, self-blame, and experiential avoidance affected the relationship between exposure to racial microaggressions and symptoms of social anxiety, worry, depression, and trauma, was partially supported. Anger rumination had a similar effect on the relationship between racial microaggressions and trauma and depression, but not social anxiety. Rumination and self-blame, as measured by the CERQ, did not meet assumptions to complete an analysis of indirect effects.

The positive relationship between microaggressions and social anxiety, trauma, and depression can be partially explained by experiential avoidance. That is, microaggressions are related to higher levels of experiential avoidance, which is related to higher social anxiety or trauma or depression, and can therefore be considered a potential mediator of the microaggression-symptom relationship. This finding echoes available clinical data that increased experiential avoidance predicts increased symptom severity across social anxiety, depressive, and traumatic disorders (Bordieri, Tull, McDermott, & Gratz, 2014; Kashdan, Goodman, Machell et al., 2014; Spinhoven, Drost,
Clinically speaking, avoidance of emotional pain may prevent emotional processing and resolution. Experiencing emotional distress in response to negative stimuli allows processing and eventual habituation, while avoidance maintains fear of internal experiences (Foa, Huppert & Cahill, 2006). Because racial microaggressions may occur with chronicity and frequency, avoiding internal experiences may be the fastest initial coping response, immediately allowing victims to avoid acknowledging any emotional impact. However, as noted above, experiential avoidance may strengthen and maintain distress, which paints a problematic picture for racial minorities, who tend to avoid emotional distress more often than their non-Hispanic White counterparts (Masuda, Anderson & Edmons, 2012). This finding suggests that emotional engagement and regulation strategies may be important in preventing long-term stress due to racial microaggressions. However, such coping responses may be significantly impeded by stigma against expressing emotional discomfort in racial minority communities.

Anger rumination influenced the relationship between racial microaggressions and trauma and depression, such that anger rumination partly explained the relationship between microaggressions and trauma and depression symptoms. Ehlers et al. (1998) found a negative relationship between anger control and PTSD symptoms in a clinical sample, and further suggested that strong, posttraumatic stress responses lessen one’s mental resources to be able to effectively control anger responses. Further, (Ehlers et al., 1998) suggested that ruminative styles of emotion regulation may be closely related to re-experiencing in PTSD (Ehlers et al., 1998), explaining the relationship between PTSD and anger. In relation to the current finding, anger rumination may reflect the traumatic
conceptualization of racial microaggressions (Carter, 2007). Further, anger rumination may be more reflective of hyperarousal found in trauma cluster symptoms, explaining the lack of significance found for social anxiety in the current sample. The combination of the current findings and this prior literature suggests a potential two-way relationship between trauma and anger, such that anger rumination may exacerbate traumatic responses to microaggressions, and/or someone with trauma symptoms may be more likely to angrily ruminate following microaggression exposure. Anger rumination may also function to maintain depressive symptoms or feeling “down”, provided that rumination might occur outside of the immediate presence of the stressor, likely decreasing positivity of one’s worldview and present-moment focus on positive experiences. Further, it is well known that trauma and depression symptoms often co-occur (Foa et al., 2006). Future research will need to assess causality.

Considering exposure to microaggressions through a trauma conceptualization, we might speculate that traumatic, hyperarousing, “fight” responses may more readily provoke survival responses targeted outwardly at perpetrators as a form of personal protection. However, provided societal “rules” of emotional expression, such desired external responses (e.g., verbal expression of anger, physical violence) cannot occur, which promotes hyperarousal with no outlet to express such strong affect. Considering interpersonal dynamics, experiencing racial microaggressions may involve uncertainty in detecting threat, but still provoke negative emotional experiences. If anger at a perpetrator is the natural response after experiencing a microaggression, and there is uncertainty involved, outwardly expressing this anger may be socially risky. That is, there is already ambiguity in the subtlety of a cross-race interaction, with the victim
unable to directly assess and detect the micro-action as an actual, existing threat; there is the added complexity that the perpetrator may not be intending to harm the victim. This uncertainty may provoke traumatic hyperarousal and anger, with the caveat that social framing may not allow open expression, leaving victims with cognitive-emotional hyperarousal (anger rumination) during and following the microaggressive event.

Importantly, this finding may reinforce the primarily traumatic conceptualization through which racial microaggressions have been viewed in other empirical literature (e.g., Carter, 2007). It may be the effects of trauma that are responsible for feelings of depression or social anxiety, in a secondary manner, just as symptoms of depression and social anxiety can co-occur with a primarily traumatic symptom presentation in clinical populations (Knowles, Sripada, Defever, & Rauch, 2018). Further study is certainly needed, however, that an indicator of traumatic hyperarousal such as anger rumination may be a potential mediator for trauma symptoms but not social anxiety or depression, suggests the importance of traumatic hyperarousal in the experience of racial microaggressions. As mentioned above, the reverse interpretation is also possible, in that trauma due to other causes, or a propensity to trauma symptoms, might promote higher baseline levels of hyperarousal and anger, leading to heightened rumination in ambiguous social circumstances.

Hypothesis 2 and 3

Negative Affect, Emotion, and Avoidance

Hypothesis 2, which stated that negative affect and anger would moderate the relationships between exposure to racial microaggressions and rumination, anger
rumination, self-blame, and experiential avoidance was not supported: no moderating effects were significant. However, in the relationship between racial microaggressions and anger rumination, negative affect had significant positive main effects, such that higher negative affect was related to higher anger rumination. In the tests of Hypotheses 3, as expected, the relationship between racial microaggressions and experiential avoidance was stronger when emotion regulation ability was low, showing moderating effects of emotion regulation ability. There were also main effects for emotion regulation difficulties, which were related to greater anger rumination, less self-blame, and less rumination.

In the relationship between racial microaggressions and experiential avoidance, negative affect was shown to have a significant positive main effect, such that higher negative affect was related to higher experiential avoidance. In step 2 of the regression model, when the main effect for negative affect was included in the equation, the effect of microaggressions was rendered non-significant. Rather than hypothesized moderation, this finding suggests an indirect effect of microaggressions through negative affect, which is also consistent with Figure 3.

The finding that high negative affect is related to higher experiential avoidance hints at the hedonic desire to avoid negative affect, which was expected based on previous research (Shahar & Herr, 2011). The link between negative affective experiences and microaggressions may mean that those prone to experiences of negative affect are more likely to appraise ambiguous behavior as microaggressive, or that experiencing microaggressions leads to higher negative affect, or both. The role of experiential avoidance found in tests of Hypothesis 1 may also be relevant in
exacerbating or modulating the experience of negative affect. Future research should assess negative affect, anger rumination, and experiential avoidance while attempting to determine causality through experimental methods.

While longitudinal data are needed to determine causality for findings in the current study, associations between racial discrimination and poor mental health outcomes have been repeatedly found in previous research. Specifically, Priest, Paradies, Trenerry et al. (2013) completed a systematic review of 121 studies, finding that of 461 associations among variables examined in studies reviewed, mental health variables (e.g., anxiety, depression) were most commonly reported, with racial discrimination being associated with 76% of these mental health variables. Along with many studies finding consistent associations between discrimination and mental health symptoms, longitudinal research has established harmful physiological effects. One such study was completed by Brody, Yu, Chen et al. (2018), wherein authors longitudinally examined the relationship between perceived discrimination, body mass index (BMI), and insulin resistance (IR; IR increases risk for diabetes and early heart disease) across 8 years of study in a cohort of 315 African American women. Results displayed positive associations between discrimination, IR, and BMI, and positive associations between IR and BMI. Lastly, Brody et al. found that BMI acted as a mediator in the relationship between discrimination and IR, confirming their hypothesis that discrimination exposure precedes IR through its effects on BMI.

With such problematic health effects and consistency in mental health associations found, we might speculate with relative confidence that repeated experiences of microaggressions, associated with negative affect and experiential avoidance, might
explain mental health consequences over time. Disproportionate systemic/institutional barriers to mental and physical healthcare services might increase susceptibility to stress responses in racial minorities, yet such barriers might also be a product of institutional racism. While such dynamics certainly involve complex intra/inter-personal and intra/inter-societal variables, longitudinal data illustrating an individual’s pattern of experiential avoidance, emotion regulation attempts, and experiences of negative affect in response to discrimination, are needed to understand the long term individual effects of discrimination.

**Anger**

In the relationship between racial microaggressions and anger rumination, higher anger was related to higher anger rumination, but racial microaggressions were not. When experiential avoidance was the dependent variable, however, anger was not a significant contributor, and, as with previous analyses, did not moderate the relationship between microaggressions and experiential avoidance. None of the variables contributed significantly when self-blame was the dependent variable.

The finding that higher trait-level anger is related to higher anger rumination is expected. It may be that trait-level anger is a stronger predictor of anger rumination than experiences of discrimination, however future research should assess the relationship between racial microaggressions and trait-level anger. More frequent microaggressions being related to higher experiential avoidance is consistent with findings for Hypothesis 1. The lack of a relationship between trait-level anger and experiential avoidance suggests the non-avoidant nature of anger, that is, to consciously feel angry is the opposite of experiential avoidance. The lack of interaction between anger and
microaggressions may be a reflection of measuring the frequency of microaggressions rather than measuring the stress caused specifically by microaggressions. How angry someone is day to day in response to all stimuli, may not be related to affect experienced in response to interpersonal slights. Further research is needed to tease apart this interaction.

**Hypothesis 4**

Hypothesis 4 stated that mindfulness and self-compassion would moderate the relationship between exposure to racial microaggressions and rumination, anger rumination, self-blame, and avoidance. None of these tests for moderation supported Hypothesis 4.

**Mindfulness**

The development of trait-mindfulness has been hypothesized here to soothe strong emotional responses brought on by the experience of racial microaggressions. Specifically, mindfulness promotes acceptance, openness and curiosity in response to present moment emotions, thoughts, and physical sensations, rather than avoidance of such experiences (Bishop, Lau, Shapiro, et al., 2004). Further, mindfulness being associated with increased cognitive flexibility (Moore & Malinowski, 2009) directly addresses the concerns raised by Brondolo and colleagues (2009), stating that cognitive flexibility is needed when coping with racial discrimination. Higher trait-mindfulness has also been shown to buffer against anxious responses to discrimination (Graham et al., 2013).
Although as expected racial microaggressions were significantly related to dependent variables, moderation analyses examining mindfulness were non-significant. However, higher trait-mindfulness was related to lower experiential avoidance and anger rumination. The significant main effects of mindfulness, such that higher trait-mindfulness was related to lower experiential avoidance and anger rumination was expected, and suggests mindfulness as a potentially robust coping tool in response to racial microaggressions. For rumination and self-blame, significant positive main effects were found for mindfulness, such that higher mindfulness was related to higher self-blame and rumination, which is inconsistent with previous research (Moskowitz, Duncan, Moran, et al., 2015; Banerjee, Cavanagh, & Strauss, 2018). The limitations of the CERQ, which measured self-blame and rumination, will be discussed in the limitations section.

Experiencing negative affect in response to racial microaggressions, or generally being more predisposed to negative affect for reasons apart from microaggressions, might each be addressed by trait mindfulness. In particular, mindfulness promotes non-avoidance of internal experiences, whereas experiential avoidance, as shown in analyses related to Hypotheses 1-3, is associated with increased stress responses. Furthermore, with mindfulness reducing identification with internal experiences, it would make sense that anger rumination occurs less frequently in those with higher trait-mindfulness. The impact of experiential avoidance and anger rumination on the relationship between racial microaggressions and psychological symptoms suggests that mindfulness might be a useful strategy for coping with microaggression-related affective responses. Considering findings mentioned in previous sections illustrating that MBSR programs reduce depressive, socially anxious, and traumatic symptoms in clinically severe populations...
(Koszycki et al., 2016; Felleman et al., 2016), we might hypothesize mindfulness pathways through experiential avoidance and anger rumination. The reverse interpretation may also be true, in that those more likely to experientially avoid or experience anger rumination, are less likely to endorse trait mindfulness, and perceive more microaggressions in ambiguous situations. A larger sample size to increase power, longitudinal designs, and experimental research are all needed to further illustrate these relationships. Despite limitations in determining causality, developing trait-mindfulness has the potential to address distress at either end of the causal relationship; that is, reduce emotional distress resulting from microaggressions, or reduce emotional distress due to one’s predisposition to experience negative internal experiences not caused by microaggressions.

Self-compassion

Self-compassion means to extend feelings of kindness and caring towards oneself, be moved by one’s own suffering, recognize one’s negative experience as a part of the greater human experience, and hold a non-judgmental attitude toward one’s own failures or inadequacies (Neff, 2003). Self-compassion involves mindfulness-based metacognitive activity to help recognize related experiences of others and self. Self-compassion has been hypothesized here to reduce feelings of over-identification, and increase feelings of connectedness to others who suffer from racial discrimination. Once viewing feelings and thoughts as they occur without pushing them away or attempting to change them due to the mindfulness component of self-compassion, negative emotions may be effectively dampened, allowing individuals more “space” to cope with difficult emotions with objectivity and kindness, decreasing perceived distress.
The analyses focusing on self-compassion in this study found that racial microaggressions were significantly related to dependent variables, as was found in previous analyses, but moderation analyses were non-significant. Higher self-compassion was related to lower experiential avoidance and anger rumination, similar to findings for trait-mindfulness. In the relationship between racial microaggressions and self-blame and rumination, it was found that higher self-compassion was related to higher self-blame and rumination, respectively; both of these findings are inconsistent with previous research (Hamrick & Owens, 2018; Svendsen, Kvernenes, Wiker, & Dundas, 2017).

Finding that higher self-compassion is related to lower anger rumination likely reflects the kindness, mindfulness, and common humanity aspects of self-compassion, such that these traits make it less likely someone may use anger rumination as a coping tactic. A larger sample size might provide more robust findings for the interaction term, however, it may be useful to assess moderation with a measure that assesses stress directly related to racial microaggressions, rather than frequency of experiences. Utilizing anger rumination directed at perpetrators of racial microaggressions might reflect feelings of inadequacy in response to an interpersonal slight, as well as inadequacy in experiencing difficult emotions, and a hyperfocused attention placed on the perceived cause of the emotion (the perpetrator) rather than a focus on soothing internal experiences. Those with higher self-compassion might have the esteem to soothe their own suffering and be more willing to resolve challenging emotions internally rather than seeking external sources of relief. Feeling emotionally vulnerable without mindfulness or self-compassion may make it difficult to self-soothe in response to interpersonal stressors, due to: 1) lacking mindfulness to open up to and experience emotion without
reactivity/over-identification, 2) feeling isolated when experiencing distress, and 3) a lack of intra-personal kindness that actively extends kindness and discourages negative self-judgement. These components of self-compassion are likely responsible for respondents scoring lower in anger rumination when self-compassion is high, further, lower anger rumination may simply be a reflection of the positive relationship between anger rumination and experiential avoidance; that is, lower experiential avoidance is related to lower anger rumination.

Self-compassion being related to less experiential avoidance likely reflects self-kindness, promoting engagement with internal experiences regardless of whether those experiences are positive or negative; findings might also reflect the component of mindfulness within self-compassion, promoting more engagement with internal experiences. Lastly, findings might suggest common humanity, the view that one is not alone or abnormal for having negative emotions, which normalizes the occurrence of negative emotional states, reducing the likelihood one might avoid emotional states. Of course, future research must determine causality; regardless of causality, engaging in self-compassion has the potential to either decrease stress due directly to microaggressions, or decrease one’s likelihood of experiencing negative emotion and being susceptible to stress caused by microaggressions. That is, self-compassion, like mindfulness, might buffer against negative emotional states in racial minorities regardless of the cause.

**Limitations**

Although the aim of the current study was to recruit a heterogeneous sample of racial minorities, the sample was homogenous in critical ways. Participants recruited
online or from college campuses were limited to racial minorities who have the privilege of being able to attend college or internet access. Any results obtained in the current study must consider that those without such privileges might yield different data, hinting at the need for more inclusive samples. The significant differences in microaggressions experienced across racial group suggests a further need for caution when interpreting results. Future research is needed to clarify differential experiences of microaggressions across racial minority backgrounds. For example, contextually speaking, the discriminatory experiences of an American-born African American college student might differ greatly from the discriminatory experiences of a non-US born Asian college student.

While adequate reliability was found for each scale used in the current study, many scales have not been used with racial minority populations, and therefore little relevant psychometric data are available, particularly with respect to validity. A larger sample size would certainly ameliorate some caution in interpreting results of a cross-sectional sample size of <100, yet questions about cross-cultural validity of measurement may still warrant caution regardless of sample size. Sample size reduced analytical power in the current study, and any interpretations should be approached with caution. In considering key study variables, such as racial microaggressions and mindfulness, different cultural appraisals of items on measures are entirely possible, potentially having strong implications for study findings. Future research should seek to increase and diversify sample size, conduct experimental research, and collect longitudinal and follow-up data.
Along with the cross-sectional design of the study, another particular limitation was the CERQ, which we used to measure self-blame and rumination, two of the CERQ’s nine subscales. These measures were far too short in length in comparison to other scales used in the study, likely decreasing reliability of findings. Furthermore, both self-blame and rumination subscales only consisted of four true/false questions each, while all other scales had at least 10 items. While previous research has suggested adequate reliability and use, our findings from CERQ data in the current sample contradicted several previous findings. Measurement scales specific to self-blame and rumination, rather than mere subscales as in the CERQ, are likely more appropriate for research questions similar to those in the current study, especially considering the challenges that accompany cross-cultural scale validity.

Future study might reconsider the placement of mindfulness within Figure 3. Specifically, mindfulness might have a buffering role, but quality of mindfulness might also impact whether or not a racial minority is aware a microaggression has indeed occurred, aware of negative appraisals, or aware of subsequent emotions. Experimental data might clarify the interactive role mindfulness plays in the experience of microaggressions.

Scale validity of the RMAS might have also limited the scope of findings. For example, questions such as “Other people treat me like a criminal because of my race”, does not assess the “micro” versus “macro” nature of the aggression. That is, someone can make a micro assumption of criminality outside of their conscious awareness, or loudly yell at someone, exclaiming that they are a criminal due to their racial background. To increase validity when measuring microaggressions, future research must design a
more nuanced measure than can detect the “micro” nature of microaggressions, rather than leaving it up to interpretation of respondents.

As Priest et al. (2013) suggests at the conclusion of their systematic review of mental health and discrimination, the field is limited in its understanding of discrimination due to a lack of psychometrically valid scales to assess discrimination exposure, lack of longitudinal studies, and unclear definition and conceptualization of racial discrimination. The current study sought to assess microaggressions, potentially an even more complex phenomenon due to its ambiguity; results and future study should be considered in the context of the field’s current limitations.

Isolating a “microaggression” and directly linking it to several emotional reactions, oversimplifies the likely processes involved, especially when we consider the lengthy and insidious historical cultural penetration of discrimination. That is, all research seeking to understand microaggressions must consider a larger cultural context, and therefore, the etiology of discrimination. To illustrate etiological complexities: one microaggression alone might include racism/no racism on the part of a perpetrator, a heightened/not heightened likelihood of perceiving a microaggression, and generations of learned behavior within cross-race interactions that have been socialized and reinforced for both victims and perpetrators of microaggressions.

To creatively assess broader cultural contexts researchers might consider assessing minority expectations of non-minority groups, and vice versa. The history of power-laden cross-race interactions may discourage authentic expression of negative emotion or accusatory language towards a dominant racial group (non-Hispanic Whites), as in the past and present, such expressions were/are discouraged, invalidated, punished,
or ignored. This causes a dilemma for researchers in particular, as study subjects might not authentically express emotional states to this generationally normalized stressor (discrimination); researchers may be limited by what a racial minority views as “stressful” and/or “socially acceptable to report” versus not. If discrimination has become normalized across generations for all racial groups, what access might a survey respondent actually have to their true emotional states in response to discrimination? Finding consistent associations between experiential avoidance and microaggressions in the current study hints at glaring self-report limitations, yet such questions must be asked within larger experimental and longitudinal contexts. Physiological data may also be important in future study, as physiological measurement may capture sub-conscious emotional responses unlike self-report data. For researchers, while it is standard to improve upon the ability to capture complex phenomenon within self-report measures, it may be that measuring such nuanced and generationally loaded stressors via self-report provide an inappropriately simplified view of discrimination.

Further speculating, when we consider the small, ambiguous, and sometimes unintentional microaggression being linked to trauma symptoms within the current study and research past (e.g., Carter, 2007), we might consider microaggressions as generational trauma triggers, promoting safety behaviors in the presence of ambiguous behaviors from non-Hispanic Whites. While a generational trauma conceptualization greatly exceeds the scope of the current paper, we might hypothesize that hyperarousal and attunement to ambiguous behaviors within racial interactions is an adaptive biopsychosocial response to generational and lifetime experiences of discrimination, preparing a fight or flight response to the ambiguous interpersonal trigger. Further
hypothesizing microaggressions as potential triggers, another facet consistent with the experience of trauma would imply that mere reminders of one’s racial background while in the presence of non-Hispanic Whites might provoke a hyperarousal response; such hypotheses would require much experimental research to fully assess.

Considering such complexities, when measuring microaggressions future researchers should first consider variables which alter perception of stressful, racially-charged stimuli. In the current study, the addition of a racial identity measure could have been helpful in clarifying different levels of racial identity development within respondents. In a model of racial identity development (Cross & Vandiver, 2001) outline varying levels of racial identity awareness, which are related to a racial minority’s sense of self, which then influences how that racial minority perceives discrimination across different levels of identity development. Future study should consider the addition of measures specific to complexities of racial minority perception such as racial identity. Further, Gross’s model of emotion regulation (Gross & Barrett, 2011) might not be the best fit for the experience of racial microaggressions. Specifically, it might not be healthy to reappraise an emotion which is the result of justice infringement/societal wrong, and emotional avoidance may be the most adaptive regulation scenario.

CONCLUSION

This study investigated the associative emotional impact of racial microaggressions in a sample of 91 racial minority participants, and found experiential avoidance, negative affect, anger rumination, and trauma to be worthy of future study and understanding. Mindfulness and self-compassion in addressing experiential avoidance
and anger rumination specifically, while not significantly moderating effects due to microaggressions, have the potential to enhance wellbeing.

The current study found the framework depicted in Figure 3 to be a viable model for further investigation into the cognitive-emotional impact of racial microaggressions. Experiential avoidance, negative affect, anger rumination, mindfulness, self-compassion, and emotion regulation were all noteworthy variables in the model, as they appeared to partially explain relationships between microaggressions and psychological symptoms (social anxiety, trauma, depression), and provided preliminary evidence for emotion regulation tools as reducing emotional distress in response to microaggressions. Given the relationships among experiential avoidance, emotion regulation, anger rumination, and negative affect and psychological symptoms, future research should directly assess such cognitive-emotional variables, rather than assessing DSM-based psychological symptoms that are explained by these cognitive-emotional variables; further identifying additional variables contributing to DSM-based symptoms is worthy of future investigation to better tease apart subtler cognitive-emotional responses, which might contribute to the field’s understanding of intra/inter-personal dynamics involved in the etiology and experience of discrimination.
REFERENCES


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RESEARCH EXPERIENCE
Sept 2016- Feb 2019: Dissertation Research: Mindfulness, Self-Compassion, and Emotion Regulation: Microaggressions in Racial Minorities
Examining the self-reported cognitive-emotional experiences (e.g., anger, rumination, self-blame, experiential avoidance, negative affect) of racial discrimination in a sample of racial minority young adults. Investigating mindfulness and self-compassion as emotion regulation strategies.
Supervisor: Suzanne Meeks, Ph.D.

Sept 2015- May 2016: Graduate Research Assistant, 550 Clinic, University of Louisville
Acted as an outside research methodology/clinical consultant for the 550 outpatient clinic at the University of Louisville Medical Center. Provided guidance in scale selection and translation (Spanish), research design, and treatment selection for the Global Health Initiative (GHI) study. The GHI study aims to validate psychiatric measures and cognitive behavioral treatment modalities in Cuban refugees.
Supervisor: Monnica Williams, Ph.D., Rahel Bosson, Ph.D.

July 2013-July 2016: Graduate Research Assistant, Center for Mental Health Disparities, University of Louisville
Assisted in the writing of manuscripts, research presentations, and grants focused on minority mental health. Specific topics included sociocultural factors related to the etiology, development, and maintenance of cognitive and emotional distress in underserved populations. Worked under research mentor to develop skills necessary to generate novel research hypotheses pertaining to relevant factors in mental health treatment among racial minority populations, and critically evaluate empirical research. Assisted in the development and collection of data on the processing of racism-related stress in the context of traumatic, anxious, and depressive symptoms.
Supervisor: Monnica Williams, Ph.D.
June 2012-June 2013: Clinical Research Assistant, Olin Neuropsychiatry Research Center, Institute of Living, Hartford Hospital

Alcohol and Drug use in College Students: Cognition and fMRI: Worked on an NIAAA-funded grant researching alcohol and drug use in college students as they relate to brain functioning. Responsibilities included phone screening and scheduling/recruiting participants and administering structured clinical interviews, computerized tasks, neuropsychological and intelligence testing.

Neuroimaging of Adolescents in Treatment for Cannabis Use Disorders: Worked on an NIDA-funded grant investigating brain functioning of adolescents between the ages of 13-18 with cannabis use disorders undergoing Cognitive Behavioral and Motivational Enhancement Therapy. Responsibilities included scheduling and screening participants, administering drug, pregnancy and breathalyzer tests, and running subjects through fMRI protocol as trained secondary technologist.

Supervisor: Godfrey Pearlson, M.D.

CLINICAL & VOLUNTEER EXPERIENCE

Aug 2018-present: Eating Anxiety Therapy Clinic, Louisville, KY; Post-doctoral fellow

Administer evidence-based therapies in the treatment of severe anxious and traumatic disorders. Develop skills in supervising practicum students. Attend weekly supervision, treatment team meetings, and seminars. Conduct mindfulness and compassion-based groups; provide clinician trainings.

Supervisor: Street Russell, PsyD, HSP

Aug 2017-Aug 2018: Psychology doctoral internship: Stony Brook University Counseling and Psychological Services, Stony Brook University, Stony Brook, NY (APA Accredited)

Provided individual therapy to a caseload of approximately 20 short- and long-term individual cases with issues related to anxiety, depression, adjustment, trauma, prodromal symptoms, sociocultural identity difficulties, relationships, and personality (mild to severe psychopathology). Conducted two intake sessions per week to assess presenting problems, offer treatment plans, suggest referrals, and provide diagnoses and case formulations. Held on-call hours to intake/counsel emergency cases providing risk assessment and crisis intervention. Recruited for and co-facilitated an undergraduate student process group with eight members and a licensed psychologist co-facilitator. Supervised an extern with a caseload of four clients, providing feedback in supervision meetings through discussions of conceptual underpinnings of psychotherapy and interpersonal variables impacting treatment progress. Used electronic medical records (Medicat) to document intake reports, progress notes, closing summaries, psychiatric referrals, and client contact. Received individual and group supervision with licensed psychologists. Attended weekly staff and clinical service meetings, attended training seminars (case seminar, outreach/consultation, multicultural) and consulted with staff to review theory and clinical skills (e.g. short-term psychodynamic therapy, attachment theory, ethics, and multicultural counseling research/theory).
Primary clinical supervisor: Danielle Merolla, Ph.D.; Training director: Bethany Riddle, Ph.D.; Counseling Center director: Julian Pessier, Ph.D.

Sept 2017-present: Stony Brook University Counseling and Psychological Services: Mindfulness Apprenticeship, psychology doctoral internship elective
Apprenticeship activities included functioning as a participant observer for 5 mindfulness meditation “drop-in” sessions, serving as a participant observer for “Mindful Self-Compassion” structured clinical group, and weekly mindfulness and compassion-based supervision. During spring, 2018, activities will include leading mindfulness meditation and Mindful Self-Compassion groups. Mindfulness outreach events are provided as-requested, completed with several members of Stony Brook counseling staff.
Supervisors: JoAnn Rosen, Ed.D., LMHC; Gerald Shepard, Ph.D.; Becky Reed, Ph.D.

Aug 2016-June 2017: Clinical psychology doctoral practicum: Mindfulness, University of Louisville, Louisville, KY
Provided mindfulness, acceptance, and compassion-based interventions to community members and university students experiencing a wide array of psychological disorders. Treatment planning was formulated through an assessment of a client’s emotional awareness, acceptance, overall cognitive flexibility, and lifespan development. Generally, first treatment involved psychoeducation related to the benefits of mindfulness and compassion based therapies, and tailoring concepts to individual symptom expression and development. Second, treatment included the establishment of a formal and informal mindful meditation practice, with experiences processed throughout the therapeutic process.
Supervisor: Paul Salmon, Ph.D.

June 2016-May 2017: Resilient Families Project at Hotel Louisville, Louisville KY
Facilitated discussions about mindfulness, compassion, and building resiliency in families during weekly meetings of the Resilient Families Program at Wayside Christian Mission, working with a racially/ethnically diverse group of low-income women experiencing homelessness, poverty, and/or substance use recovery. Led weekly mindfulness and compassion meditation practices and facilitated reflective discussions and culturally sensitive practical mindfulness applications. Provided psychoeducation on the benefits of mindfulness.
Supervisor: Paul Salmon, Ph.D.

May 2016-Sept 2016: Mindful Social Justice Group, Department of Public Health, University of Louisville, Louisville KY
Facilitated bi-monthly group discussions among 8-10 disadvantaged young adults aged 18-24 from the West end of Louisville enrolled in a community violence prevention program, preparing them for social justice work in their respective disadvantaged communities. Discussions involved the past, current state, and future of social justice, along with self-care behaviors required to endure stressors those in social justice work are likely to endure. In addition, mindfulness and compassion based meditations were led, and then accompanied by psychoeducation
and discussion on the benefits of mindfulness and compassion in social justice work, as well as practical personal applications for meditative practices.
Supervisor: Monnica Williams, Ph.D.

Sept 2015-Aug 2016: Clinical psychology doctoral practicum: Cognitive Behavioral Therapy, University of Louisville, Louisville KY
Provided cognitive behavioral therapy (CBT) to clients experiencing a wide array of psychological disorders, based on case conceptualization from a CBT perspective. Specifically, treatment planning was derived from an assessment of maintenance and triggering factors, negative underlying assumptions, core beliefs, and developmental history. Assessed for psychopathology using structured clinical interviews, tracked client progress with validated self-report measures.
Supervisor: Janet Woodruff-Borden, Ph.D.

Sept 2015-Sept 2016: Disability Assessment Practicum, Private Practice, Louisville, KY
Conducted weekly disability assessments with adults, children and adolescents, and wrote integrative assessment reports. Clinical interviews and neuropsychological assessment tools were used to assess intelligence, personality, mood, and psychiatric symptom impairment.
Supervisor: David Winsch, Ph.D.

July 2015-May 2017: Behavioral Wellness Counseling Clinic, Louisville, KY
Provided empirically supported treatments for adults with PTSD, OCD, race based stress and trauma, anxiety and mood disorders from an integrative framework. Utilized prolonged exposure therapy for PTSD, mindfulness and acceptance-based therapies for racism based stress and trauma, and CBT for OCD. Assessed clients using empirically supported clinical interviews in conjunction with validated self-report measures. Completed integrative reports using assessment results.
Supervisor: Monnica Williams, Ph.D.

Jan 2016-May 2016: 550 Clinic, University of Louisville, Louisville KY
Assessed Cuban refugees entering the United States at the 550 outpatient clinic at the University of Louisville Medical Center for mood disregulation. Therapists worked with interpreters to conduct structured clinical interviews and administered self-report measures assessing mood, traumatic, and adjustment disorders.
Supervisor: Monnica Williams, Ph.D.

April 2015-April 2016: Big Brothers Big Sisters of Kentuckiana, Louisville, KY
Provided a child facing adversity with a strong, professionally supported 1-to-1 relationship.

Sept 2015-June 2017: Clinical psychology doctoral practicum: Assessment, University of Louisville, Louisville, KY
Provided neuropsychological, intelligence, personality, mood, and psychiatric assessment to a diverse range of clients. Following completion of assessment measures, independent scoring, interpretation, and integrative report writing was completed. The resulting assessment reports were presented in feedback sessions independently with clients.
Supervisor: Drs. Bernadette Walter and David Winsch

Aug 2014-Aug 2015: Clinical psychology doctoral practicum: PTSD, OCD, anxiety and mood disorders, University of Louisville, Louisville, KY

Supervisor: Monnica Williams, Ph.D.

Sept 2013-Aug 2014: Clinical psychology doctoral practicum: ADHD in children and adolescents, University of Louisville, Louisville, KY
Conducted intake interviews with children and families, taught problem solving strategies and coping skills to children with ADHD and emotion dysregulation. Led “managing frustration” groups for children with ADHD. Used behavioral interventions with ADHD afflicted children and their families to reduce symptoms in an individual therapeutic setting.

Supervisor: Paul Rosen, Ph.D.

OUTREACH

December 2017: Mental Health Banquet: Dismantling Stigmas against Mental Illness, Stony Brook University, Stony Brook, NY
Spoke at the “Mental Health Banquet” at Stony Brook University to a predominately Black American, undergraduate audience, which was organized by the Rho Rho Chapter of Alpha Phi Alpha Fraternity and the Pi Delta Chapter of Delta Sigma Theta Sorority. Two speakers from counseling and psychological services facilitated discussion related to emotional intelligence, fielded general questions about mental health, helped students process the meaning behind mental health stigma in the Black community, and discussed practical ways to facilitate mutual understanding of mental health difficulties within the campus community. In addition, this writer discussed his own emotional growth and overcoming masculine norms as an African American male, the value of emotional awareness, and discussed ways students can utilize emotional energy to uncover their personal paths to valued action.

Supervisor: Danielle Merolla, Psy.D.

September 2017: Tunnel of Oppression, Stony Brook University, Stony Brook, NY
Undergraduate students observed several exhibits at Stony Brook University to facilitate a deeper understanding of oppressive structures in the US and globally. Several counselors from counseling and psychological services participated in an informal “process” space for students to speak to their emotional reactions to oppressive structures that they observed in exhibits. Counselors reflected and validated statements and emotional reactions, facilitated a safe environment to express thoughts, emotions, and opinions about oppression, and encouraged students to consider mental health implications of oppressive environments. Counselors also advertised services available at the counseling center.

Supervisor: Danielle Merolla, Psy.D.

Nov 2016-Jan 2017: “Depression is Real” Campaign, Louisville, KY
In partnership with health literacy experts, University of Louisville public health faculty, and community members from the historically
underserved and predominately African American West End of Louisville, KY, functioned as consultant and spokesperson for the “Depression is Real” campaign with expertise in African American mental health. The “Depression is Real” campaign was created with the intention of reducing mental health stigma in the African American community, and connecting community members with psychological services. Activities included consultation with public health faculty in the area of African American psychological health, speaking to media outlets to reduce mental health stigma in the African American community, provide psychoeducation on depression, and discuss the benefits of psychotherapy.

Supervisor: Suzanne Meeks, Ph.D., Ryan Combs, Ph.D.

October 2015:

**Depression Screening Day, Psychological Services Center, University of Louisville, Louisville, KY**

Assisted in measure selection and formatting for Depression Screening Day at the Psychological Services Center, which offered free depression screenings to community populations in Louisville, Kentucky.

Supervisor: Bernadette Walter, Ph.D.

**LECTURES**

**Sawyer, B. A.** (April, 2018). Neuroscience and Fear: Race-Related Trauma and the Brain. Lecture for symposium: Trauma: Contextual and Race-Related Considerations. Anxiety and Depression Association of America conference, Washington, D.C.


**Sawyer, B. A.** (March, 2017). Mindfulness in Education. Workshop conducted for after school program providers at The Summer Learning Summit, Louisville, KY.

**Sawyer, B. A.** (November, 2016). Conflict and Peacemaking. Lecture provided to an undergraduate course in Social Psychology at the University of Louisville, Louisville KY.

**Sawyer, B. A.** (November, 2016). Discrimination, Negative Outcomes, and Promoting Healing. Lecture provided to an undergraduate course in the Psychology of Diversity at the University of Louisville, Louisville KY.

**Sawyer, B. A.** (October, 2016). Race-Based Stress and Trauma in Children and Adolescents: Background and Clinical Application. Grand rounds talk presented to the Department of Child and Adolescent Psychiatry at the University of Louisville Bingham Clinic, Louisville KY.

**Sawyer, B. A.** (April, 2016). Self-Compassion and Emotion Regulation: Racial Microaggressions in African Americans. Talk presented to the clinical psychology faculty at the University of Louisville, Louisville KY.

**Sawyer, B. A.** (November, 2015). Microaggressions and Mental Health: Negative Outcomes, Risk, and Protective Factors. Talk presented to the African American Special Interest Group at the Association for Behavioral and Cognitive Therapies, Chicago, IL.


Davis, D. M., & Sawyer, B. A. (October, 2015). Mental Health Assessment. Workshop conducted at the 550 clinic at the University of Louisville Medical Center to train medical doctors in psychological assessment.


Williams, M. T., Sawyer, B. A., DeLapp, R. C. T. (May 2015). Enhancing Clinical Skills with Ethnically and Racially Diverse Clients. Workshop conducted at the Kentucky Psychological Association’s Diversity Mini-Conference, Louisville, KY (6 CEs)

Tellawi, G., Ellsworth, M., & Sawyer, B. A. (April, 2015). Mental health issues in LGB populations: minority stress, the coming out process, and LGB-sensitive therapy. Workshop conducted at the Ekstrom Library, University of Louisville, Louisville, KY.

Williams, M. T., Sawyer, B. A. (February, April 2015, October 2015, December 2015, April 2016). Understanding and connecting with African American clients. Workshop conducted at the Center for Mental Health Disparities, University of Louisville, Louisville, KY.

Williams, M. T., Sawyer, B. A., Tellawi, G. (September, 2014). Assessing obsessive-compulsive disorder in diverse populations workshop. Oral presentation given at the Center for Mental Health Disparities, University of Louisville, Louisville, KY.


**ORGANIZATIONAL ACTIVITIES**

Jan 2017- present: Oppression and Resilience: Minority Mental Health Special Interest Group, Association for Cognitive and Behavioral Therapies (ABCT), Leader

Independently created and submitted proposal to ABCT special interest group committee advocating for the creation of the “Oppression and Resilience: Minority Mental Health” special interest group. The group’s first meeting was approved by ABCT and scheduled for November, 2017 at the ABCT annual conference. The group’s aim is to provide a space for clinicians and researchers to better understand intersectional distress caused by interpersonal and political oppression to increase the intersectional sensitivity of therapeutic interventions. The group also serves as a space to network with other researchers of oppressive stress. Importantly, the group has a strong focus on the development and empowerment of minority identified undergraduate and graduate students, so that they may further develop passions for minority psychology and feel supported by senior peers and faculty members in their research and professional endeavors. The group is in the process of implementing a mentor-mentee model, aiming to connect minority
identified students to minority identified faculty members for ongoing guidance and support throughout career development.

TEACHING ASSISTANT EXPERIENCE

Statistics (Fall 2013, Spring 2014)
Evaluated student performance through course assignments, conducted weekly lab recitation periods. Supported students in formulating areas of interest and professional development.

Psychology of Learning (Fall 2015)
Evaluated student performance through course assignments, conducted weekly lab recitation periods. Supported students in formulating areas of interest and professional development.

Lifespan Development (Fall 2015)
Evaluated student performance through course assignments, conducted weekly lab recitation periods. Supported students in formulating areas of interest and professional development.

Experimental Psychology (Spring 2016, Spring 2017)
Provided weekly lectures and stimulated discussions on topics related to experimental psychology. Evaluated student performance through course assignments. Supported students in formulating areas of interest and professional development.

Race and Discrimination (Summer 2016, online course)
Reviewed weekly written assignments related to undergraduate understanding of race-related issues and provided comprehensive and individualized feedback to stimulate deeper racial awareness. Supported students in formulating areas of interest and professional development.

Social Psychology (Fall 2016)
Provided lecture on peacemaking. Evaluated student performance through course assignments, led exam review sessions. Supported students in formulating areas of interest and professional development.

Psychology of Diversity (Fall 2016)
Provided lecture on racial discrimination and mindfulness-based interventions. Attended each lecture and assisted professor in teaching diversity concepts through addressing student questions about diversity literature. Evaluated student performance through course assignments. Supported students in formulating areas of interest and professional development.

MEDIA APPEARANCES


Sawyer, B. A. (2016, December). “Depression is Real” Campaign Promotion. Discussion took place on WLOU radio in the West end of Louisville, KY.

POSTER PRESENTATIONS


AD HOC REVIEWERSHIPS
ASSOCIATION ACTIVITIES
July 2013- Present: Student Affiliate, International OCD Foundation
Nov 2013-Present: Student Affiliate, Association for Behavioral and Cognitive Therapies (ABCT)
Nov 2013-Present: Student Affiliate, African American Psychology special interest group (SIG), ABCT
Mar 2014-Present: Student Affiliate, Anxiety and Depression Association of America
Jan 2016-Present: SIG Leader, Oppression and Resilience: Minority Mental Health, ABCT

HONORS & AWARDS
University of Louisville Graduate Dean Citation: May 2019
Ethnic Minority Fellowship, School of Interdisciplinary and Graduate Studies, University of Louisville: July 2014 - July 2015

CERTIFICATIONS & SPECIALIZED SKILLS
Functional Analytic Psychotherapy - Level 1 August 2015
Psychological Assessment
- Wechsler Adult Intelligence Scale- IV
- Wechsler Intelligence Scale for Children- IV
- Anxiety Disorders Interview Schedule
- Yale-Brown Obsessive Compulsive Scale
- M.I.N.I. International Neuropsychiatric Interview
- Cultural Formulation Interview
- Wide Range Achievement Test- 4
- Beery Visual Motor Integration
- Vineland Adaptive Behavior Scales
- Millon Clinical Multiaxial Inventory
- Minnesota Multiphasic Personality Inventory- 2
Software
- Microsoft Office
- SPSS
- G Power
Psychophysiological measurement and data analysis
- Trained Secondary fMRI technologist
- Trained Secondary EEG technologist