

THE MODERATING ROLE OF ONLINE RACISM IN THE RELATIONSHIP  
BETWEEN LIVED RACISM, RACIAL TRAUMA  
SYMPTOMS, AND WELL-BEING

A DISSERTATION IN  
Counseling Psychology

Presented to the Faculty of the University of  
Missouri-Kansas City in partial fulfillment of  
the requirements for the degree

DOCTOR OF PHILOSOPHY

by  
RASHIDA ZALIKA EDMONDSON-DAVIS

M.A., University of Missouri-Kansas City, 2016  
B.A., University of Texas, 2013

Kansas City, Missouri  
2021

© 2021

RASHIDA ZALIKA EDMONDSON-DAVIS

ALL RIGHTS RESERVED

THE MODERATING ROLE OF ONLINE RACISM IN THE RELATIONSHIP  
BETWEEN LIVED RACISM, RACIAL TRAUMA  
SYMPTOMS, AND WELL-BEING

Rashida Zalika Edmondson, Candidate for the Doctor of Philosophy  
University of Missouri-Kansas City, 2021

ABSTRACT

The relationship between lived experiences with racism, racial trauma symptoms, and well-being has been observed among Black individuals. Lived experiences with racism are related to negative racial trauma symptoms and a lower sense of well-being (Pieterse et al., 2012). Although online racism occurs frequently and explicitly on digital and social media platforms (Keum & Miller, 2017), there is little to no research available on its psychological impact on Black adults. The current study employed the Race-Based Traumatic Stress Model to understand how online racism affects the relationship between lived experiences with racism, racial trauma symptoms, and well-being. Participants were invited to participate in a Qualtrics panel-based survey, resulting in a sample of 385 Black adults. It was hypothesized that online racism would be positively related to racial trauma symptoms, negatively related to well-being, and have a significant exacerbating effect. Specifically, online racism would lead to more racial trauma symptoms and a lower sense of well-being. Overall results showed that both online racism and lived experiences with racism were positively related to more racial trauma symptoms (i.e., physical symptoms, intrusion, and hypervigilance) and negatively related to well-being at the bivariate level.

However, regression analyses did not yield significant interaction variables, indicating that online racism did not have an exacerbating moderating effect. Results, clinical implications, and study limitations were further discussed.

*Keywords:* Black, Black Americans, online racism, racial trauma, well-being.

## APPROVAL PAGE

The undersigned, appointed by the Dean of the School of Education, have examined a dissertation titled “The Moderating Role of Online Racism in the Relationship between Lived Racism, Racial Trauma Symptoms, and Well-being,” presented by Rashida Zalika Edmondson-Davis, candidate for the Doctor of Philosophy degree, and certify that in their opinion it is worthy of acceptance.

### Supervisory Committee

Laurel B. Watson, Ph.D., Committee Chair  
Division of Counseling & Counseling Psychology

Carolyn Barber, Ph.D.  
Division of Educational Leadership & Policy Foundations

LaVerne Berkel, Ph.D.  
Division of Counseling & Counseling Psychology

Carlton Green, Ph.D.  
Diversity Training & Education

Kimberly Langrehr, Ph.D.  
Department of Psychology

## CONTENTS

ABSTRACT .....	iii
LIST OF ILLUSTRATIONS.....	ix
LIST OF TABLES.....	x
ACKNOWLEDGMENTS .....	xi
Chapter	
1. INTRODUCTION AND REVIEW OF LITERATURE .....	1
Racism and Its Negative Effects.....	10
Racial Trauma: Theoretical Framework .....	13
Online Racism .....	18
2. ABBREVIATED REVIEW OF THE LITERATURE AND STUDY .....	24
Historical Context of Racial Violence for Black Americans.....	26
The Trauma of Racism for Black America.....	28
The Current Study.....	34
Methodology.....	36
Results.....	46
Discussion.....	59
Implications .....	68
Limitations and Future Directions .....	71
Conclusion .....	75
Appendix	
A. MTURK INVITATION AND POSTING .....	76

B. SCREENING QUESTIONS.....	78
C. INFORMED CONSENT .....	79
D. PERCEIVED ONLINE RACISM SCALE .....	81
E. THE PERCEIVED ETHNIC DISCRIMINATION QUESTIONNAIRE .....	84
F. RACE-BASED TRAUMATIC STRESS SYMPTOM SCALE.....	86
G. THE SATISFACTION WITH LIFE SCALE.....	89
H. DEMOGRAPHIC QUESTIONNAIRE.....	90
REFERENCES .....	94
VITA.....	109

## ILLUSTRATIONS

Figure	Page
1. Interaction between Lived Experiences with Racism and Online Racism as It Predicts Satisfaction with Life.....	54



## TABLES

Table	Page
1. Sample Descriptive Statistics .....	48
2. Correlations between Study Variables. ....	50
3. Summary of Hierarchical Regression Predicting Well-being .....	52
4. Summary of Hierarchical Regression Predicting Intrusion .....	55
5. Summary of Hierarchical Regression Predicting Hypervigilance .....	57
6. Summary of Hierarchical Regression Predicting Physical Symptoms .....	58

## ACKNOWLEDGMENTS

First and foremost, I wish to express my deepest gratitude to GOD for HIS faithfulness along this journey. I would also like to thank my husband and best friend, Dr. Jordan Davis, who never hesitated to remind me of what was important and what I had control over throughout this entire process. I would also like to thank my son Caleb, whose birth further motivated me to endure and finish strong. Next, my amazing family and friends who have been my biggest cheerleaders and supporters since day one. It truly takes a village, so this is our accomplishment. In addition, I would like to thank the University of Missouri-Kansas City School of Graduate Studies for supporting this research project through their Research Award Program. And last but certainly not least, my advisor, Dr. Laurel Watson and dissertation committee for your vital role in getting this research project completed. Thank you for sacrificing your time and lending your expertise.

## CHAPTER 1

### INTRODUCTION AND REVIEW OF THE LITERATURE

The dictionary defines the Internet as an electronic communications network that connects computer networks and organizational computer facilities around the world. In contemporary society, it can be difficult to efficiently function without the use of the Internet and accessing social media (Correa et al., 2010; Lenhart et al., 2010). Undeniably, the Internet has profoundly changed the human experience as we use the World Wide Web for various tasks, such as seeking information, buying and selling products, entertainment, seeking partners, joining communities, and basic communication (Gil de Zuniga et al., 2009; Gil de Zuniga et al., 2010; Park et al., 2009). Living in a time where people are more connected than ever has its advantages. For example, people can get their news in real time and keep in touch with friends and family via social networking platforms.

Social networking sites (more generally known as social media) are online tools that enable users to create a profile, make their connections known, interact with streams of content, and engage in interpersonal communication (Ellison & Boyd, 2013; Rains & Brunner, 2015; Stoycheff et al., 2017). The Internet represents a fundamental shift in how Americans connect with one another, gather information, and conduct their day-to-day lives (Pew Research Center, 2018). According to the Pew Research Center (2018) which has been analytically recording Internet usage since early 2000, Internet usage has steadily risen over time and roughly nine of ten American adults are estimated to use the Internet. Among Black Americans, 80% of Black Americans are Internet users, with 74% of them having some sort of Internet connection at home (Pew Research Center, 2018). Specifically, 45% of Black American seniors are Internet users, with 30% of them having Internet access at home

(Pew Research Center, 2018). Black individuals are increasingly using social media platforms; their use have gone from 6% in 2005 to 56% in 2015 (Perrin, 2015). In addition, 40% of Black Americans (18 to 29 years old) actively use Twitter, compared to 28% of young White Americans (Smith, 2014). These statistics suggest that Black Americans have a great deal of exposure to online content, which may include racially traumatic content.

The wide acceptance of social media use has been attributed to the decentralized nature of its content. In particular, social media depends on user-generated content, such that ordinary individuals from the public (i.e., not professional journalists) are responsible for media dissemination and creation (Correa et al., 2010). In addition, the dynamic nature of social media facilitates a two-way interaction with an audience, beyond any specified recipient (Carr & Hayes, 2015; Fang et al., 2014; Howard & Parks, 2012; Kaplan & Haenlein, 2010; Marwick & Ellison, 2012; Treem & Leonardi, 2012). Social media can be classified into a variety of ways, which include but are not limited to: blogs (e.g., LiveJournal), microblogs (e.g., Twitter), discussion forums (e.g., Yahoo message boards), content-sharing sites (e.g., Instagram, YouTube), bookmarking sites (e.g., Delicious, Pinterest), virtual communities (e.g., Second Life), and online review sites (e.g., Yelp) (Hogan & Quan-Haase, 2010; Kaplan & Haenlein, 2010). It should be noted that one-to-one computer-mediated communication (e.g., email, instant messaging, and so forth) content produced by media institutions (e.g., online news sites), simulation or fictional social media sites established only for research purposes, and offline social interactions (Stoycheff et al., 2017) are not considered social media content.

However, there is also a downside to the Internet, as more individuals have been using social platforms to spread division and racial hate (Daniels, 2013; Harrison et al.,

2010; Hughey & Daniels, 2013; Steinfeldt et al., 2010; Tynes et al., 2008; Tynes & Markoe, 2010). Racism has evolved in a variety of ways across continuously advancing online social platforms (Daniels, 2013; Hughey & Daniels, 2013). An example of this is cyber-racism, a term coined by Back (2002), that describes the use of the Internet by White nationalists to justify and promote White supremacist ideologies. In addition, the growth of online technology has also increased the likelihood for individuals to experience racism while using online social platforms (Keum & Miller, 2017). Researchers have started to document the use of racist representations on the Internet (Daniels, 2013; Goldsmith & Wu, 2006; Tynes, 2007) and explicit interpersonal exchanges of blatant and subtle racist messages between social media users (Chaudhry, 2015; Cleland, 2014; Weaver, 2011). In particular, explicit interpersonal exchanges of blatant and subtle racist messages between social media users have been the most documented forms of online racism by researchers (Chaudhry, 2015; Cleland, 2014; Gerstenfield et al., 2003; Harrison et al., 2010; Steinfeldt et al., 2010; Tynes et al., 2004; Weaver, 2011). Recently, scholars have started to acknowledge the use of the Internet as a vehicle for promoting racial hate and sharing controversial incidents of police brutality (Becker et al., 2011; Daniels, 2013; Hughey & Daniels, 2013; Lewis et al., 2015), that include (but are not limited to) the murder of Terrance Crutcher, who was fatally shot by Tulsa police in September 2016, Philando Castile, who was fatally shot during a traffic stop in St. Paul suburb in July 2016, and Alton Sterling, who was shot while being pinned down to the ground by officers in July 2016. Given that politics, media, and every other aspect of public life has become deeply racialized (Chaney & Robertson, 2015), it is not uncommon for individuals to repeatedly share photos and videos of these incidents across online communities to bring attention to issues of racial injustice. Scholars have

deemed these incidents as a never-ending pipeline of racism that people of color can experience at any time and across the globe, despite being in the comfort of their own home (Keum & Miller, 2017; Hunt et al., 2014).

Given the role of the Internet as a media platform for disseminating news to the general public, it is likely that exposure to these online incidents have the capability to instill anxiety or at the very least, a sense of discomfort among Black Americans, which could ultimately compromise their sense of safety and well-being (Harrell, 2000; Noelle, 2002). Similar to experiencing face-to-face encounters with racism (e.g., lived experiences of racism or off-line racism; Landrine & Klonoff, 2000; Sellers et al., 2003), it is possible that Black Americans who are continuously exposed to online forms of racism will also experience high levels of racial stress that can significantly impact their mental health. Although the literature on racial stress has predominantly focused on offline experiences with racism, the pervasive and growing nature of online racism cannot be ignored and warrants investigation into the mental and physical ramifications for people of color (Keum & Miller, 2018).

In the existing research, evidence has been provided concerning the prevalence of racism in online settings (Harrison et al., 2010; Steinfeldt et al., 2010; Tynes et al., 2008; Tynes & Markoe, 2010) and alarms have been sounded about the racist representations on the Internet (Daniels, 2013; Goldsmith & Wu, 2006; Hughey & Daniels, 2013; Tynes, 2007). Specifically, initial studies have found links between experiences with online racism and poor psychosocial functioning (e.g., depression, anxiety) among adolescents of color (Tynes et al., 2008; Umana-Taylor et al., 2015). However, few studies have investigated how online racism psychological affects Black adults exclusively. Bor et al. (2018)

specifically examined the impact on Black and White American adults of being exposed to police killings via online and offline mechanisms. Potential exposure mechanisms to police killings included word of mouth and stories in print, radio, television, and social media. Results showed a meaningful population-level impact on the mental health of Black American adults. Specifically, 49% of Black American respondents were exposed to one or more police killings of unarmed Black Americans in their state of residence in the three months prior to them taking the survey, and each additional police killing of an unarmed Black American was associated with 0.14 additional mental health days (95% CI 0.07-0.22;  $p = 0.00047$ ). Bor and colleagues (2018) noted that the largest effect on mental health occurred one or two months after exposure. Additionally, no mental health impact was observed among White respondents. Given the scarcity of research among this population, along with the high likelihood of exposure to online racism, additional research on the psychological effects of online racism is warranted. Although research concerning online racism is in its infancy, Keum and Miller (2018) provided several arguments to help distinguish online racism as a unique, yet denigrating force in today's society. First, they proposed that online racism is more pervasive than its offline counterpart, given that racist content is generated daily and can be easily and inadvertently encountered by online users (Bonilla & Rosa, 2015; Kirkpatrick, 2011). For example, the general public can now be exposed to a continuous reel of racist content and events in real time via their personal electronic device both locally and from across the globe (Keum & Miller, 2017). According to Hunt et al. (2014), the Internet provides the potential for a never-ending "pipeline" of online racism, which is changing the way in which people of color experience racial discrimination. Second, compared to offline racism, there is a permanence to online racism,

given that posted content is largely fixed and requires an active and intentional process to moderate and remove content from the Internet (Bickart & Schindler, 2001). In contrast to removing a racist flyer or painting over racial graffiti, removing online racist content is not as straightforward. Even when deleted, online racist content can exist indefinitely on Internet servers as well as through screenshots and reposts (Keum & Miller, 2017). Lastly, online racism has the capacity to evolve over time (e.g., become a trending topic or go viral) and can be disseminated in different multimedia formats (e.g., texts, photos, videos). Keum and Miller (2017) explained that the nature of racist content can change and/or intensify over time as online users share their perspectives, and at many times, engage in debates over posted incidents. For example, before boarding her plane to South Africa in December of 2013, Justine Sacco, the former public relations director of InterActiveCorp, tweeted, “Going to Africa. Hope I don’t get AIDS. Just kidding. I’m white!” (Chaudhry, 2016). Just a few hours after her tweet, Sacco’s remarks began to trend in South Africa, and eventually worldwide with the hashtag #HasJustineLandedYet (Vingiano, 2013). The story was then covered by media outlets, such as The New York Times, CNN and the BBC—all reporting on how a tweet about AIDS in Africa sparked Internet outrage (Dimitrova, 2013). The Twitter response to Sacco’s tweet speaks to how online users can rapidly expose and raise awareness about racially charged incidents (Nahon & Hemsley, 2013) in both the online and real world (Chaudhry, 2016).

Although the degree to which online racism can affect a person’s well-being has remained largely unknown, initial studies have found support for the relationship between experiences with online racism and negative psychosocial functioning (e.g., depression, anxiety) (Tynes et al., 2008; Umana-Taylor et al., 2015). Tynes et al. (2008) examined the



associations between individual and vicarious racial discrimination via the Internet and psychological adjustment (i.e., depression, satisfaction with life, anxiety) in a sample of White, Black, Asian, Latinx, and Multiracial adolescents. Results from this study found that online racial discriminatory experiences uniquely contributed to depressive symptoms and anxiety, over and above lived experiences with discrimination. Umana-Taylor and colleagues (2015) assessed the associations between perceived ethnic discrimination in online and offline (i.e., lived experiences) settings and multiple domains of adjustment (i.e., depression, self-esteem, externalizing behaviors, academic adjustment) in a sample of Latinx adolescents. Findings from this study yielded support for the association between online racism and psychological maladjustment (i.e., depression, self-esteem, and externalizing behaviors), after accounting for the negative impact of offline (i.e., lived experiences) with racism. Results from these foundational studies suggest the importance of investigating online racism and suggest that online racism may contribute unique variance to psychological outcomes when controlling for offline discrimination. However, these studies examined the relation between online racism and psychological outcomes among adolescents (i.e., ages 10–19) and not Black adults. This topic is particularly important to investigate among Black adult populations, given that recent research suggests that Black adults are experiencing psychological distress due to viral videos of discrimination and police brutality (Bor et al., 2018).

Continuous exposure to online forms of racism may be stressful for people of color and may ultimately compromise their sense of safety and well-being (Harrell, 2000; Noelle, 2002). This may be particularly true for Black Americans, given that face-to-face encounters with racism (e.g., lived experiences of racism or offline racism) have been linked to high

levels of racial stress and negative mental health outcomes (Landrine & Klonoff, 2000; Sellers et al., 2003). Together with the rise of Internet usage and the use of social media platforms to perpetuate (Back, 2002; Keum & Miller, 2018) and combat racial discrimination (Hill, 2018; Lee, 2017), it seems important to consider how individuals are affected by online forms of racism. Among Black communities, in particular, research has shown that individuals who are exposed to racism have a greater risk for mental and physical ailments (Gee & Ford, 2011) as well as trauma outcomes (Carter et al., 2018) such as anxiety, depression, and other forms of psychological distress (Carter & Sant-Barket 2015; Clark et al., 1999; Lewis et al., 2015; Thomas & Blackmon, 2015). According to Carter (2007), experiencing racial discrimination can serve as a form of psychological trauma deemed comparable to posttraumatic stress. Discrimination is likely to contribute to the ongoing release of stress hormones such as cortisol and epinephrine, which places the victim at-risk for a variety of physical health problems such as hypertension (Mouzon et al. 2017), diabetes (Duru et al., 2012), and accelerated aging (Geronimus et al., 2006). In other words, individuals can perceive racial discrimination as a threat to their safety and personal integrity, making it a genuine source of traumatic stress (Carter, 2007). Online racial discrimination can be seen as a pre-cursor to race-based trauma, as direct individual and vicarious exposure to racism within online context (i.e., viral images/videos of police killing of unarmed Black individuals) has been associated with worse mental health outcomes among Black adults and adolescents (Bor et al., 2019; Tynes et al., 2008, 2019).

The purpose of the current study is to use Carter's Race-Based Traumatic Stress Model as a general framework to investigate whether offline and online experiences with racism relate to racial trauma symptoms and well-being among a sample of Black

Americans. For the purpose of this study, the terms *race*, *racism*, *racial discrimination*, *ethnicity*, and *Black Americans* are used and conceptualized as follows: *Race* is considered a social construct that characterizes a group of people based on physical characteristics, such as shared skin color, facial features, and other phenotypical traits (Cokley, 2007; Dovidio, 2000). According to Clark and colleagues (1999), *racism* is considered the beliefs, attitudes, institutional arrangements, and acts that tend to denigrate individuals or groups because of ethnic group affiliation or phenotypic characteristics. Similarly, *racial discrimination* is considered a class or type of aversive racism that is reflected in behaviors, through policies and strategies that have the intent or accidental purpose or effect of maintaining distance or minimizing contact between a dominant racial group and marginalized racial group member (Carter et al., 2005). Both racism and racial discrimination can be overt or covert, intentional, or unintentional (Sue et al., 2007) and can be experienced both offline (e.g., face-to-face) or online (e.g., through social media usage). Although commonly interchanged with the term *race*, *ethnicity* refers to a characterization of a group of people who are seen by themselves and others as having a common ancestry, shared history, shared traditions, and shared cultural traits such as language, beliefs, values, music, dress, and food (Cokley, 2007). For the sake of inclusiveness, I use the term *Black Americans* to include all people of African descent living in the United States, which can include (but is not limited to) African American, Afro-Caribbean, African, Afro-Latinx, Biracial, and Multiracial individuals. More specifically I define each as follows: African American is considered an individual born in America who possesses ancestry from any of the Black racial groups of Africa and or is a descendant of enslaved Black people who were brought to the United States. Afro-Caribbean is deemed an individual who possesses ancestry from any of the Black racial

groups of Africa who lives in, comes from, or is the offspring of a person who comes from the Caribbean. Africans are considered individuals who are natives or inhabitants of the continent of Africa or are the offspring of an individual who is a native or inhabitant of the continent of Africa. Afro-Latinx are individuals possessing a combination of ancestry from any of the Black racial groups of Africa as well as Latin America and/or Spain (De Onis, 2017). Biracial individuals possess a combination of two racial identity experiences, with one of them being characterized as having African/Black ancestry. Lastly, Multiracial individuals are considered to have more than two racialized experiences. with at least one of them being characterized as having African/Black ancestry (APA, 2019).

### **Racism and Its Negative Effects**

#### **Prevalence of Racism**

Although the presidential election of Barack Obama in 2008 led members of the general public to believe that the United States had become a “post-racial” society (free from racial preferences, prejudice, and discrimination) (Bobo, 2011), the country experienced an 81.3% increase in racial hate groups from 2008 to 2012, rising from 149 to 1,360 groups (Southern Poverty Law Center, 2013). General statistics provide evidence that racial discrimination has not been eradicated and unfortunately, remains a common experience for many Black Americans, in particular. For example, when compared to White Americans, Black Americans are more likely to be stopped and frisked (New York Civil Liberties Union, 2014), less likely to receive adequate pain medication when visiting emergency rooms (Pletcher et al. 2008), and are given fewer housing options even when controlling for credit histories and incomes (Turner, 2013). In addition, a survey conducted for National Public Radio, the Robert Wood Johnson Foundation, and Harvard T. H. Chan

School of Public Health (2017) found that over half of Black Americans report being racially discriminated against when interacting with police, applying for jobs, and when being considered for promotion. Additionally, survey results indicated that Black Americans commonly have experienced racial slurs and have experienced racial violence. Overall, these statistics provide evidence that racism continues to persist throughout the United States and that Black Americans are attempting to function in a society that continues to dehumanize them and incite fear.

Studies across a variety of ethnic and racial groups have found empirical evidence suggesting that experiencing high levels of racial discrimination can have adverse consequences on both physical and mental health outcomes (Broman 1997; Brown et al., 2000; Carter & Sant-Barket, 2015; Clark et al., 1999; Neighbors & Jackson, 1996; Kessler et al., 1999; Landrine & Klonoff, 2000; Thompson, 1996; Thomas & Blackmon, 2015). In particular, studies have found that perceived racial discrimination is linked to lower levels of physical health and general life satisfaction, and greater levels of psychological distress when compared to general stress (Assari et al., 2017; Utsey et al., 2008; Williams & Mohammed, 2009).

### **Physical Health Symptoms**

One of the most common findings in research on the effects of racism is the link between racial discrimination and negative health outcomes (Brown et al., 2000; Carter et al., 2017; Pieterse et al., 2012). Research has supported the relationship between experiences of racial discrimination and physical health outcomes such as high blood pressure (Thomas & Blackmon, 2015) and increased risk for breast cancer, obesity, and substance abuse (Williams & Mohammed, 2009). In a study that explored the relationship between racial

discrimination and hypertension, participants who experienced racism at work were found to have significantly higher levels of hypertension (Din-Dzietham et al., 2004). Chronic cardiovascular, inflammatory and metabolic risk factors have also been found to be elevated in Black Americans and Hispanics in the United States, even after controlling for behaviors such as smoking, exercise, and diet (Crimmins et al., 2007).

### **Depression and Anxiety**

Among a variety of different racial-ethnic communities, racial discrimination has been linked to indicators of depression and anxiety, which are considered two of the most common reactions to stressful life events (Carter, 2007). Depression is considered a mood disorder that causes persistent feelings of sadness and loss of interest (Krell-Roesch et al., 2018) whereas anxiety is considered a feeling of worry, nervousness, or unease, typically about an imminent event or something with an uncertain outcome. In general, studies have established links between exposure to racism and symptoms of depression and anxiety among various Black communities (Piertse et al., 2013; Taylor & Turner, 2002). Specifically, among a sample of 300 African-American adults, perceived racial stigma and race-based rejection were associated with higher scores on the Beck Depression Inventory and lower scores on the Satisfaction with Life Scale (Ashburn-Nardo et al., 2007). In addition, Jones et al. (2007) found that Black women who scored higher on the Schedule of Racist Events, also scored higher on the Center for Epidemiological Studies Depression Scale and lower on the Rosenberg Self-Esteem scale. Similarly, African-American adolescents who reported facing greater racial hassles in their daily lives (e.g., being accused of something or treated suspiciously, being talked down to, harassment) scored higher on depressive symptomology and lower on indicators of well-being (Sellers et al., 2003). In

addition, experiencing racism has been linked to the use of survival mechanisms that include rehearsing defensive and aggressive responses to threat, which may be understood as a form of anxiety (Carter, 2007; Harrell et al., 2003).

In Pieterse and colleagues' meta-analysis that reviewed 66 studies on perceived racism among African-American adults (total sample size of 18,140 across studies), the authors found a positive correlation between perceived racism and psychological distress ( $r = .20$ ). The authors concluded that anxiety, depression, and psychiatric symptoms were the most commonly used indicators of mental distress in studies that focused on the correlates of racial discrimination among African Americans (Pieterse et al., 2013).

### **Racial Trauma: Theoretical Framework**

#### **Race-based Traumatic Stress**

Although race-based experiences have been found to relate to a variety of physical and psychological distress indicators (namely depression and anxiety), Carter and colleagues (2013) pointed out that other elements are necessary for the reactions to be considered traumatic. In particular, race-based trauma goes beyond general outcomes of psychological distress, and is typically deemed emotionally painful, sudden, and out of one's control (Carlson, 1997). Drawing from Clark and colleagues' (1999) stress and coping model of racism, Carter (2007) developed the Race-Based Traumatic Stress Model, which applies the concept of traumatic stress to racially discriminative encounters. Carter asserted that perceived racism typically results in psychological and physiological stress responses that require the employment of coping strategies that are associated with physical reactivity and health status. An individual may respond, cope, and adapt to race-based trauma in a multiplicity of ways, ranging from hypervigilance, avoidance, numbing, and emotional

distress. Specifically, reactions may manifest as intrusion (recurring thoughts), avoidance (pushing away the events), and arousal (irritability) and with symptoms such as depression, anger, low self-esteem, rage, shame, and guilt (Carter, 2007).

Several scholars have asserted that racist incidents should be recognized as potentially traumatizing due to the similarities to other forms of trauma (Bryant-Davis & Ocampo, 2005; Comas-Diaz & Jacobsen, 2001; Helms et al., 2010). According to Carter (2007), racial discrimination can be perceived as a threat to the integrity and safety of the affected individual and has similar features as rape and domestic violence, suggesting these incidents produce posttraumatic-like symptoms, which can be referred to as race-based trauma. More specifically, racial discrimination potentially yields emotional and psychological injury that can negatively impact mental health through eliciting traumatic stress, as these experiences are often perceived as negative, unexpected, ambiguous, repeated, and out of the individual's control (Polanco-Roman et al., 2016). The stress experience is thought to be highly personalized, as it involves biopsychosocial responses to situation(s) where individuals are stimulated and thus made anxious by positive or unfavorable challenges (Slopen & Williams, 2014). When faced with a threat, the body produces hormones and other signals that turn on bodily systems that are necessary for survival in the short term (Duru et al., 2012). These physical changes include accelerated heart rate, increased respiratory rate, and increased muscle tension. When the level of stress rises and overpowers a person's capacity to deal with the situation at hand, that person can have a traumatic reaction, which can lead to developing adverse mental health symptoms (Helms et al., 2010). There is empirical evidence that the deterioration of vital organs and body systems caused by increased allostatic load occurs at more frequent rates in Black



populations and could potentially lead to conditions such as diabetes, stroke, ulcers, cognitive impairment, autoimmune disorders, accelerated aging, and death (Duru et al., 2012; Geronimus et al., 2006).

On a racially diverse sample of participants, Carter and Forsyth (2010) found evidence to support the race-based traumatic stress model. Specifically, participants who experienced racism reported higher levels of guilt/shame, avoidance/numbing, and hypervigilance, suggesting that race-based trauma may share some symptoms with the experiences of PTSD. In addition, Feagin (2014) found that Black Americans not only reported prior experiences with discrimination but also indicated ways in which they prepared for the possibility of future experiences with discrimination that was based on their personal prior experiences with discrimination and the experiences of those in their community (Hicken et al., 2013). Scholars coined the term “racism-related vigilance” to describe these thoughts and behaviors, defining it as the tendency to focus on environmental events that could be recognized as involving racism (Clark et al., 2006). Racism-related vigilance may have serious long-term consequences for stress-related health outcomes (Hicken et al., 2013).

**Measuring race-based traumatic stress.** Given the unique nature of race-based trauma, Carter and colleagues (2013) developed the Race-Based Traumatic Stress Symptom Scale (RBTSSS) in effort to accurately assess the traumatic impact of encountering racism. Based on Carter’s race-based traumatic stress model (2007), the authors drew from existing measures of trauma and psychological distress to generate items for the RBTSSS. To help account for participants’ own personal encounters with racism, the RBTSSS specifically asks participants to identify a memorable racist experience prior to responding to each item.

Based on a racially diverse sample that included 32.8% Black Americans, results from the EFA revealed seven subfactors of race-based traumatic stress: Depression, Anger, Physical Reactions, Avoidance, Intrusion, Hypervigilance/Arousal, and Low Self-Esteem, which were consistent with the 10 possible reactions associated with Carter's original race-based traumatic stress model (Carter et al., 2013).

Hypervigilance is considered a state of extreme alertness that undermines quality of life and is considered one of the central features of post-traumatic stress disorder (PTSD) (Tull et al., 2019). Particularly, worry and rumination are pervasive cognitions associated with vigilance that can lead to increased somatic complaints and sleep loss (Himmelstein et al., 2015). Other features of PTSD include intrusive symptoms that are unwanted/involuntary (e.g., flashbacks, dreams) and make the person re-experience the trauma all over again.

A comparison between Carter et al.'s (2013) measure of race-based traumatic stress and the DSM-V criteria for PTSD reveal that several symptoms of race-based traumatic stress (e.g., hypervigilance, physical symptoms) overlap with symptoms of PTSD. Furthermore, Carter et al. (2019) found that race-based traumatic stress was highly related to trauma symptoms and traumatic reactions in a sample of adults predominantly identifying as Black American. Specifically, findings indicated that the Race Based Traumatic Stress Symptom Scale reactions of low self-esteem, depression, physical symptoms, and hypervigilance were strongly associated with PTSD trauma-like symptoms (as measured by The Trauma Symptom Checklist (TSC-40) (Briere & Runtz, 1989).

In a systematic review of 28 studies that explored the relationships between racial discrimination and trauma, Kirkinis et al. (2018) found that 70% of trauma symptomology

outcomes were significantly associated with racial discrimination. When controlling for relevant sociodemographic variables (e.g., neighborhood, crime), discrimination was significantly associated with PTSD symptoms such that participants who experienced any discrimination were more likely to screen positive for PTSD (Brooks Holliday et al., 2018).

### **Online Race-based Trauma**

Although several studies have helped to establish an empirical link between collective trauma experiences and symptoms of PTSD, few studies have considered this connection specifically in the context of repeated exposure to racially traumatic events online. Of the existing studies, Tynes et al. (2019) explored the relationship between mental health and exposure to traumatic events online in a sample of Black American and Latinx adolescents. It should be noted that traumatic event online was measured using three self-reported items that corresponded to seeing images or viral videos of a Black person being shot, arrested/detained, and beaten by a police officer. Thus, other forms of online racism (e.g., racist interpersonal exchanges) were not assessed by this prior study. Nevertheless, results showed a significant association between traumatic events online and PTSD symptoms, suggesting that frequent experiences of racially traumatic events online were associated with higher levels of PTSD symptoms (Tynes et al., 2019). Another study expanded research on collective trauma by specifically examining the impact of being exposed to police killings online. Bor et al. (2018) found adverse effects of online exposure to police killings of Black people on the mental health of Black American adults, with the largest effects occurring during one to two months after exposure. In addition, viewing distressing news (e.g., police killings) directed at members of one's own racial-ethnic group

have been found to relate to poor mental health outcomes (e.g., PTSD symptoms, depressive symptoms) (Tynes et al., 2019).

These findings, however, do not necessarily reflect more contemporary forms of Internet communication used by most Americans, such as online social media platforms that can elicit racist interactions. Additionally, these initial studies focused on viral images/videos of police violence against Black individuals alone and did not expand online racial discrimination to include both vicarious and direct individual racism experiences online. Lastly, racially charged traumatic events were not measured using a full and validated scale specific to online racism. The current study aimed to address this gap, as it examined more comprehensive forms of online racism among Black American adults. In the following sections, I discuss some of the factors specific to the Internet that have helped perpetuate the prevalence of racism in online settings and the initial steps that researchers are taking to assess online racism.

### **Online Racism**

Conceptualizing racism on the Internet can be challenging given its universality, enduring presence, and evolving nature. However, the presence of racism is certainly not new, as evidenced by the growth of racist culture in online settings, increased use of explicit hate speech (Daniels, 2013; Hughey & Daniels, 2013; Lewis et al., 2015), and cyberbullying of people of color (Tynes et al., 2008; Tynes et al., 2012). According to Keum and Miller (2018), the culture of the Internet has allowed users to freely disclose racist ideologies given that anonymity and virtual distance often protect users from the direct consequences of their statements. This potentially has negative implications for Black American online users who may fall victim to direct or vicarious racially charged messages, comments, or posts.

Overall, online racism is perceived as having a global or universal impact that is both created and accessed by people with diverse mindsets and undetermined credibility (Keum & Miller, 2018; Kirkpatrick, 2011). The anonymity of the Internet gives people a place to create and post a wealth of racially charged content, giving racism an enduring presence. Furthermore, given the protections of anonymity, individuals are more likely to act without inhibition (Bargh & McKenna, 2004) and engage in behavior that would not readily occur in non-anonymous conditions. In addition, the anonymity of the Internet enables people to lose a sense of individuality in social interactions and instead, rely on group (e.g., race) norms when engaging with others online (Postmes et al., 2001). As a result of this process, people may feel compelled to demonstrate their in-group membership by devaluing out-group members in stereotypical ways (Keum & Miller, 2018). As like-minded individuals come together and validate each other's opinions, their way of thinking can become increasingly polarized (Keum & Miller, 2018) and cause likeminded users to behave radically differently toward people who do not share those same beliefs (Conover et al., 2011; Sunstein, 2002). Therefore, the Internet may provide individuals with more confidence to engage in racist expressions compared to offline, face-to-face interactions (Keum & Miller, 2018).

### **Measuring Online Racism**

Given the minimal amount of research on online racism, only a few scholars have attempted to formally define and operationalize online racism as a construct. In general, online racism can be considered online racist interpersonal interactions and exposure to online racist content (Keum & Miller, 2019). Tynes et al. (2010) made one of the first attempts to assess online racism by adapting items from the Online Victimization Scale (OVS) (Tynes et al., 2010) to assess adolescents' (i.e., ages 14–19) online experiences with

racial victimization. Tynes and colleagues (2010) set out to determine the factor structure of the OVS and whether there was convergent validity between scores on the OVS and theoretically related measures (i.e., Children's Depression Inventory [Kovacs, 1992]), Profile of Mood States-Adolescents (POMS-A [Terry et al., 1999]), The Rosenberg Self-esteem Scale (RSE [Rosenberg, 1965]), The Perceived Stress Scale (PSS [Cohen et al., 1983]), and Satisfaction with Life Scale (SWLS [Diener et al., 1985]) in a sample of adolescents (i.e., White, African American, Asian, Latinx, Native American, Biracial). Results confirmed four distinct subscales (i.e., general victimization, sexual harassment, individual racial discrimination, and vicarious racial discrimination). In addition, online victimization subscales were associated with depressive symptoms, anxiety, perceived stress, and lower self-esteem and satisfaction with life (Tynes et al., 2010).

Given that the OVS is an adapted measure with limited psychometric support, Keum and Miller (2017) developed the Perceived Online Racism Scale (PORS) to specifically assess unique and diverse online activities through which people experience racism as they interact with others in online social platforms and consume online content (Keum & Miller, 2018). Items for the PORS were based on an extensive review of the literature (e.g., racism, cyber-psychology, and computer-mediated communication), online content (e.g., social media, blogs, online news articles), and racial discrimination measures (e.g., Inventory of Microaggressions against Black Individuals) (Keum & Miller, 2017). The authors also conducted focus groups and collected preliminary data about people's online experiences with racism to help generate item content. The initial PORS was tested among a large-scale sample of 1,023 racial minority participants (e.g., African American/Black, Asian

American/Asian, Hispanic American/Latinx, etc.) through Amazon's Mechanical Turk (MTurk).

Results from an exploratory and factor analysis resulted in a 30-item bi-factor model that was accounted for by a general factor of online racism as well as three domain-specific factors or subscales: (a) personal experiences of racial cyberaggression (PERCA), (b) online-mediated exposure to racist reality (OMERR), and (c) vicarious exposure to racial cyberaggression. Specifically, personal experience of racial cyberaggression reflects the direct racial aggression that individuals may experience in their online interactions with others. Online-mediated exposure to racist reality represents people's exposure to online content, such as racist incidents happening around the world that tend to illuminate racial injustices (e.g., police killings). The last domain-specific factor, vicarious exposure to racial cyberaggression, reflects the observation of racial aggression experienced by people of color in their online interactions with others. The general PORS factor reflects the common aspects of online racism not specific to any individual online experience. As a bi-factor model, the general factor of online racism shares variance in all of the items of the PORS in addition to the unique variance across the three factors. All items significantly loaded onto the general factor in the range of .28 to .72 and the specific factors in the range of .32 to .65 (Keum & Miller, 2017). The magnitude of these loadings rendered support for the authors' assumption that the general and domain specific factors were conceptually meaningful (Keum & Miller, 2017; Reise, 2012).

In support of the PORS construct validity, Keum and Miller (2017) found preliminary convergent evidence that the PORS correlated with two general forms of offline racial discrimination, as measured by the Perceived Ethnic Discrimination Questionnaire-

Community Version Brief (PEDQ-CVB [Brondolo et al., 2005]), which was used to measure perceived racism offline, and the General Ethnic Discrimination Scale (GED-S [Landrine et al., 2006]), which was used to measure racism-related stress. Specifically, scores on the PEDQ-CVB were significantly and positively correlated with the general factor of the PORS ( $r = 0.59, p < .01$ ) and with each subscale, with correlations ranging from  $r = 0.08 (p < .05)$  to  $r = 0.46 (p < .01)$  (Keum & Miller, 2017), providing support that online and offline racism are related constructs. In addition, scores on the GED-S were significantly and positively correlated with the PORS total score ( $r = 0.57, p < .01$ ) as well as with scores on Personal Experiences ( $r = 0.54, p < .01$ ), Vicarious Exposure ( $r = 0.34, p < .01$ ), and Online-Mediated Exposure ( $r = 0.50, p < .01$ ) (Keum & Miller, 2017).

Keum and Miller (2017) also provided criterion-related evidence for the PORS, such that psychological distress (as measured by the Mental Health Inventory-5) significantly and positively related to the total PORS score ( $r = 0.20, p < .01$ ) as well as each of the three subscale scores, with correlations ranging from  $r = 0.11 (p < .05)$  to  $r = 0.26 (p < .01)$  (Keum & Miller, 2017). Perceived Stress also positively and significantly correlated with the total score on the PORS ( $r = 0.32, p < .01$ ), but was only significantly related to scores on Vicarious Exposure ( $r = .16, p < .05$ ) at the subscale level.

Considering that the PORS was related to the outcomes of psychological distress (Mental Health Inventory-5) and racism-related stress, the current study sought to expand the current understanding of how online racism is related to racial stress and trauma. Given the foundational studies of online racism that give evidence to it being related to PTSD (Bor et al., 2018; Tynes et al., 2019) symptoms, this research aspires to investigate this connection between online racism and racial trauma. In light of the sociopolitical climate



and the increased use of the Internet, it feels warranted to examine this possible connection at this time, as online racism is being seen as a major chronic stressor in the lives of people of color (Keum & Miller, 2017).

## CHAPTER 2

### ABBREVIATED REVIEW OF THE LITERATURE AND STUDY

In contemporary society, it can be difficult to efficiently function without the use of the Internet and accessing social media (Correa et al., 2010; Lenhart et al., 2010). Living in a time where we are more connected than ever has its advantages as we are able to get our news in real time and keep in touch with friends and family via social networking platforms. According to the Pew Research Center (2018), Internet usage has steadily risen over time, reporting that today roughly nine of ten American adults use the Internet. Social networking sites can be classified in a variety of ways such as blogs (e.g., LiveJournal), microblogs (e.g., Twitter), discussion forums (e.g., Yahoo message boards), content-sharing sites (e.g., Instagram), bookmarking sites (e.g., Pinterest), virtual communities (e.g., Second Life), and online review sites (e.g., Yelp) (Hogan & Quan-Haase, 2010; Kaplan & Haenlein, 2010). The dynamic nature of social media facilitates a two-way interaction with an audience, beyond any specified recipient (Carr & Hayes, 2015; Howard & Parks, 2012).

However, there is a downside to the Internet, as individuals are taking advantage of the advances in social media technology to create social-political divisions and spread racial hate (Daniels, 2013; Hughey & Daniels, 2013). In particular, scholars have started to acknowledge the use of the Internet as a vehicle for engaging in blatant racism and promoting racial violence (Chaudhry, 2015; Cleland, 2014). For example, it is not uncommon for people to repeatedly share and comment on racially charged video clips that involve police brutality (Becker et al., 2011; Daniels, 2013; Lewis et al., 2015) and the murders of Black men (e.g., Terrance Crutcher, Philando Castile, and Alton Sterling, to name a few). Scholars have characterized these incidents as a never-ending pipeline of

racism that people of color can experience at any time and across the globe, despite being in the comfort of their own home (Keum & Miller, 2017; Lin & Atkin, 2014). Given the role of the Internet as a media platform for disseminating news to the general public, it is likely that exposure to these online incidents has the capability to instill at the very least, a sense of discomfort among Black Americans, which could ultimately compromise their sense of safety and well-being (Harrell, 2000; Noelle, 2002). Similar to experiencing face-to-face encounters with racism (e.g., lived experiences of racism or offline racism) (Landrine & Klonoff, 1996; Sellers et al., 2003), it is possible that Black Americans who are continuously exposed to online forms of racism will also experience high levels of racial stress that can significantly impact their mental health, given the pervasive and growing nature of online racism (Keum & Miller, 2018). According to Carter's (2007) race-based traumatic stress theory, people of color may experience racial discrimination as a psychological trauma that elicits responses deemed comparable to Post-Traumatic Stress Disorder (PTSD). In other words, racial discrimination can function as a source of traumatic stress for people of color (Carter, 2007).

The purpose of the current study is to investigate whether lived experiences with racism as well as online racism are related to racial trauma symptoms and well-being among a sample of Black Americans. For the sake of inclusiveness in this study, the term *Black Americans* is used to include all people of African descent living in the United States, which can include African American, Afro-Caribbean, African, Afro-Latinx, Bi-racial, and Multi-racial.

## **Historical Context of Racial Violence for Black Americans**

It has been said that our country's national crime is lynching....The practice whereby mobs capture individuals suspected of crime...,and execute them without any process of law...,is to be found in no other country of a high degree of civilization. Riots and mob execution take place in other countries, but there is no such frequent administration of what may be termed popular justice which can properly be compared with lynch-law procedure in the United States. ~ James E. Cutler, 1905

In order to help illustrate how online racism can function as a form of race-based trauma, it is necessary to provide some historical context about Black Americans in U.S. history. In particular, lynching was used as a very public way to control the actions of Black slaves and maintain the social order of White supremacy (Wood, 2005). From an extrajudicial standpoint, lynching can be defined as punishment by an informal group or mob, in which someone is killed (especially by, but not limited to hanging), for an alleged offense with or without a legal trial (Equal Justice Initiative [EJI], 2015).

As a common form of punishment, particularly in the South, lynching has been estimated to have claimed the lives of at least 4,000 Black Americans from 1880 to 1950 (Chaney & Robertson, 2015). Although the last official lynching, by original definition, was recorded to have occurred in 1968, lynching has also been used to describe recent atrocities toward Black Americans in the United States (Garcia & Sharif, 2015). For example, the 1998 death of James Byrd in Jasper, Texas, involved lynching-by-dragging, and clearly involved violent acts intended to demean, denigrate, and harm. Similar to public spectacle lynchings of the past, James Byrd's murder was quite public and as a result, instilled fear within the Black community (Ainslie & Brabeck, 2003). Furthermore, between 1880 and 1940, when the number of lynchings peaked, lynching was largely tolerated by law enforcement (EJI, 2015). In particular, the goal of inciting fear was quite successful and

heavily influenced the mass migration of Black individuals from the South into North and West regions (EJI, 2015). Although the official practice of lynching has ended, the violence enacted toward Black communities has continued to permeate throughout modern day society, leaving many Black Americans to live and operate in a constant state of fear and stress (Thomas & Blackmon, 2015).

### **Racial Violence and Police Brutality**

As a political, economic, and cultural system, White supremacy gives White individuals the power and material resources that inevitably support both conscious and unconscious values of White superiority (Huber, 2016). Researchers have linked the ideals of White supremacy with police brutality and have suggested that ongoing inequalities within the justice system can be viewed as a continuation of slavery logics (Agozino, 2003; Reinka & Leach, 2018; Tatum, 1994). Police brutality is defined as a form of unwarranted physical violence perpetrated by an individual or group symbolically representing a government sanctioned, law enforcement agency as opposed to an individual perpetrator who only represents themselves (Bryant-Davis et al., 2017). Racial bias in policing is an issue that was initially brought to light by the publicized recorded beating of Rodney King in 1991 (Sastry & Bates, 2017). Since then, racial violence in the form of police brutality has become increasingly salient due to a series of recorded publicized incidents spread through social media (Reinka & Leach, 2018).

Research has also shown that Black individuals are significantly more likely to experience police brutality than their White counterparts (Swaine et al., 2015). According to *The Guardian* (2015), 21% of the 1,093 people killed by police in 2016 were Black; of those 21%, 16% were unarmed. Similarly, of the 1,129 people killed by police officers in 2017,

27% were Black and 37% were unarmed. This warrants concern, given the fact that Black Americans make up about 13% of the U.S. population (United States Census Bureau, 2010). With the numbers of Black people being killed at the hands of law enforcement reaching sizeable proportions, the culture of fear, stress, and trauma is likely being passed down onto new generations of Black Americans (Noble, 2018). In addition, fear among Black communities is likely to intensify knowing that systems (i.e., law enforcement) intended to serve and protect the American public, are actually responsible for a sizeable number of deaths of Black Americans.

Research has shown that structural racism indicative of White supremacy (e.g., norms, laws, and policies) operate throughout institutions that ultimately limit the life chances for communities of color (Gee & Ford, 2011). Considering this evidence, it is likely that witnessing incidents of racial violence through online platforms can also have psychological effects on Black communities. For example, witnessing harassment, unwarranted searches, and shootings by law enforcement can send a message to Black communities that their bodies are disposable and undeserving of dignity and justice (Chaney & Robertson, 2013). For Black Americans, in particular, such incidents could elicit historical memories of public spectacle lynchings (Embrick, 2015) and exacerbate racial stress symptoms.

## **The Trauma of Racism for Black Americans**

### **Racism and Well-Being**

Racism is understood to have the potential to affect well-being through a few maladaptive outcomes (i.e., physical, psychological, social, functional, and spiritual) (Harrell, 2000). Physically, racial discrimination has been associated with hypertension

(Dolezsar et al., 2014), cardiovascular reactivity (Fang & Myers, 2001; Guyll et al., 2001), and risk behavior (e.g., cigarette smoking) (Landrine & Klonoff, 2000). Depression (Prelow et al., 2006), anxiety (Soto, 2011), and trauma-related symptoms (Smith, 2010) have been negatively linked to the psychological outcome of well-being. Socially, racial discrimination has the potential to negatively affect feelings of social connectedness, intragroup, and intergroup relations (Liao, 2016). Job performance (Forman, 2003), academic achievement (Tynes et al., 2012), and parental functioning (Murry et al., 2001) have been linked to racial discrimination. Lastly, loss of faith, feeling of meaninglessness, and existential angst have been associated with racism (Harrell, 2000). Previous research has found the link between racial discrimination and negative mental health outcomes (e.g., depression) may be stronger than for positive psychological outcomes such as self-esteem (Schmitt et al., 2014).

Considering that internet users may experience an impact from a viewed racist incident that they did not experience directly, those experiencing vicarious racism may be vulnerable to experiencing lower positive affect (Low et al., 2007). This study refers to the positive aspects of psychological health (e.g., satisfaction with life) measured by the Satisfaction with Life Scale (SWLS), which is a judgment-oriented component of well-being. Deiner and colleagues (1985) explained that life satisfaction stems from a judgment process by the individual in which they set the standard they perceive as appropriate for themselves and compare the circumstances of their life to that standard.

### **Models of Racial Stress and Racial Trauma**

When communities witness or experience racial violence, they are likely to face a variety of challenges after these events, such as depression, anxiety, anger, fear, lack of trust, and other psychosocial problems (Ford et al., 2012). This leaves people of color to live

with the trauma of these acts that instill fear, despair, and anxiety throughout their lives (Brunson & Miller, 2006; Bryant-Davis et al., 2017). According to Carter (2007), racism is a potential source of traumatic stress for people of color in particular, which can be referred to as race-based traumatic stress (Carter, 2007). More specifically, racial discrimination potentially yields emotional and psychological injury that can negatively impact mental health through eliciting traumatic stress, as these experiences are often perceived as negative, unexpected, ambiguous, repeated, and out of the individual's control (Polanco-Roman et al., 2016). Although many definitions of stress exist, most scholars agree that it is an emotional, physical, and behavioral response to an event that is appraised as positive or unwanted (Carter, 2007). The stress experience is thought to be highly personalized, as it involves biopsychosocial responses to a situation where an individual is stimulated and thus made anxious by positive or unfavorable challenges (Slopen & Williams, 2014).

### **Specific Symptoms of Race-Related Traumatic Stress**

According to Carter's theory of racial trauma (2007), individuals may respond, cope, and adapt to race-based traumatic stress in a multiplicity of ways ranging from hypervigilance, avoiding, numbing, and emotional distress. Specifically, reactions manifest as intrusion (recurring thoughts), avoidance (pushing away the events), and arousal (irritability) and with symptoms such as depression, anger, low self-esteem, rage, shame, and guilt (Carter, 2007). Indeed, research indicates that racism-related stress can severely compromise the mental health of Black Americans, in particular, and in traumatic ways (Carter & Sant-Barket, 2015; Clark et al., 1999; Landrine & Klonoff, 2000). There is initial evidence of the relationship of online racism to race-related traumatic stress as exposure to online racism was positively correlated with the racism-related stress (Keum & Miller,



2017) and symptoms of PTSD (Bor et al., 2018). Considering this, the current study sought to explore online racism's possible relationship with specific symptoms of race-based trauma. Physical symptoms were chosen as an outcome variable as it is shown to be a common outcome in studies that investigate discrimination, racial trauma, and adverse health effects. Hypervigilance and Intrusion were chosen as outcome variables due to their correspondence with hyperarousal and re-experiencing, which has been shown to be specific to PTSD and distinct from general psychological distress (Tynes et al., 2019). Additionally, Carter et al. (2019) provided evidence to suggest that symptoms of hypervigilance (-0.86) and physical symptoms (-0.83) were strongly associated with PTSD. Both hypervigilance and physical symptoms were found to be correlated higher than depression (-0.79), avoidance (-0.60), anger (-0.60), and intrusion (-0.59), with low self-esteem (-0.83) being the same as physical symptoms. Although self-esteem was strongly associated with PTSD, it was not included because it was not necessarily a specific symptom of PTSD. Limitations related to choosing three specific symptoms of race-related trauma and suggestions for future research are in the discussion section.

### ***Physical Symptoms***

One of the most frequent findings in research on racial stress is the link between racial discrimination and negative health outcomes (Brown et al., 2000; Carter et al., 2017). When faced with a threat, the body produces hormones and other signals that turn on the systems that are necessary for survival in the short term (Duru et al., 2012). These physical changes include accelerated heart rate, increased respiratory rate, and increased muscle tension. In the case of police brutality, the threat is reoccurring and persistent, making this

natural response to engage in the survival process (fight or flight) dangerous due to the rapid wear and tear on the body's vital organs and elevated allostatic load (Duru et al., 2012).

Research has supported the relationship between experiences of racial discrimination and physical health outcomes among Black Americans (Thomas & Blackmon, 2015). In a study that looked at the relationship between racial discrimination and hypertension, participants who experienced racism at work were found to have significantly higher levels of hypertension (Din-Dzietham et al., 2004). Chronic cardiovascular, inflammatory, and metabolic risk factors have been found to be elevated in Black Americans and Hispanics in the United States even after behaviors such as smoking, exercise, and diet are controlled for (Crimmins et al., 2007). The negative outcomes of racial discrimination do not end with physical health; there is increasing evidence suggesting racial discrimination has a negative impact on the mental health of individuals as well.

### ***Hypervigilance and Intrusion***

Hypervigilance is a state of extreme alertness that undermines one's quality of life and is considered one of the central features of PTSD (Tull et al., 2019). Other features of PTSD include avoidance, which the dictionary defines as the action of keeping away from or not doing something, and intrusive symptoms that are involuntary (e.g., flashbacks, dreams) and make the person re-experience the trauma all over again.

In a study done by Carter and Forsyth (2010) on a sample of racially diverse adults, people of color who experienced racism reported high levels of anxiety, guilt/shame, avoidance/numbing, and hypervigilance, which suggests that race-based traumatic stress may share some symptoms with the experiences of PTSD. Specifically, Feagin (2014) found that Black Americans not only reported prior experiences with discrimination but also

indicated ways in which they prepared for the possibility of future experiences with discrimination based on their personal prior experiences with discrimination and the experiences of those in their community (Hicken et al., 2013). Scholars coined the term “racism-related vigilance” to describe these thoughts and behaviors conceptualizing vigilance as a psychological predisposition particularly salient to Black Americans. They defined it as the tendency to focus on environmental events that could be recognized as involving racism (Clark et al., 2006). Racism-related vigilance may have serious long-term consequences for stress-related health outcomes (Hicken et al., 2013). Particularly, worry and rumination are pervasive cognitions associated with vigilance that can lead to increased somatic complaints and sleep loss (Himmelstein et al., 2015).

### **Prevalence of the Internet and Social Media**

With everyday use of the Internet becoming commonplace for most Americans, scholars have started to acknowledge the use of the Internet as a vehicle for promoting racial hate and sharing controversial incidents of police brutality (Becker et al., 2011; Daniels, 2013; Hughey & Daniels, 2013; Lewis et al., 2015). The increased use of the Internet to express and share incidents of racial violence may be due to the anonymity and virtual distance that the Internet provides, along with minimized influence of societal norms and inhibitions that encourage political correctness in face-to-face interactions (Keum & Miller, 2017; Van Blarcum, 2005). Given the virtual distance that the Internet provides, online interactions may allow for more psychological and emotional detachment, creating an atmosphere in which users feel free to publicly promote racist ideologies without accountability or immediate fear of consequence (Hardaker, 2010; Lojeski & Reilly, 2008).

## **Measuring Online Racism**

Keum and Miller (2017) recently developed the Perceived Online Racism Scale (PORS) to assess online racist interpersonal interactions and exposure to online racist content among people of color. Items were developed based on literature (e.g., racism, cyber-psychology, and computer mediated communication), online social media content, relevant measures (e.g., Inventory of Macroaggressions against Black Individuals), focus group data, and preliminary survey results on online racism experiences. Based on a sample of 1,023 racial minority participants, the authors found that online racism was best reflected by a bi-factor model that consisted of three subfactors and one general factor of Online Racism. Specifically, the Personal Experience of Racial Cyberaggression subfactor reflects the direct racial aggression that individuals may experience in their online interactions. The Online-Mediated Exposure to Racist Reality subfactor represents people's exposure to online content, such as racist incidents happening around the world that tend to illuminate racial injustices. The third subfactor, Vicarious Exposure to Racial Cyberaggression, reflects the observation of racial aggression experienced by people of color in their online interactions. Lastly, the general PORS factor reflects common aspects of online racism not specific to any individual online experience.

## **The Current Study**

The purpose of the current study is exploratory in nature and is intended to contribute to the emerging area of research pertaining to online racism. Findings from this study may shed light on how current racially charged events and the present racial climate may affect the mental health of Black Americans. By examining the role of online racism in the relationship between Black Americans' lived experiences with racism, race-based

trauma, and well-being, this study sought to further illuminate the multiple and layered forms of racism faced by Black Americans and how different forms of racism can impact their mental health. For the purpose of the current study, I was interested in well-being and the three specific outcomes of race-based trauma symptoms: physical reactions, hypervigilance/arousal, and intrusion given that these symptoms are specific to trauma.

In doing so, the results of the study may aid clinicians and mental health personnel in helping Black Americans cope with racial trauma, effectively manage their racial stress symptoms, and improve their overall psychological well-being. Therefore, this study investigated the following hypotheses among a sample of Black American adults:

1. Lived experiences and general online racism will be negatively related to well-being and positively related to racial trauma symptoms (i.e., physical symptoms, hypervigilance, and intrusion).
2. After controlling for lived experiences with racism, general online racism will be significantly negatively related to well-being, and significantly positively related to the three racial trauma outcomes (e.g., physical symptoms, hypervigilance, and intrusion).
3. Given that lived experiences and online racism may represent two distinct forms of racial oppression, it is possible that they will have a multiplicative relationship, such that, in combination, they produce more adverse outcomes. Thus, I hypothesize that general online racism will exacerbate the following relationships:
  - a. between lived experiences with racism and well-being
  - b. between lived experiences with racism and physical symptoms

- c. between lived experiences with and hypervigilance
- d. between lived experiences with racism and intrusion

## **Methodology**

### **Participants and Recruitment**

Following approval from the University of Missouri-Kansas City Institutional Review Board, all recruitment procedures and data collection took place online on Amazon's Mechanical Turk (MTurk). MTurk is an online crowdsourcing marketplace that helps researchers distribute tasks to workers. MTurk allows researchers to conduct targeted recruitment for underrepresented populations (Huff & Tingley, 2015) and provides alternatives to the use of college samples for academic research (2007). MTurk has been found to recruit a diverse sample with reliable data (Buhrmester et al., 2011; Casler et al., 2013). MTurk workers perform brief tasks (known as Human Intelligence Tasks [HITs]) posted by researchers in exchange for payment. In contrast to other means of recruiting samples for academic research, the cost of MTurk is deemed significantly lower, with workers completing tasks for less than half the U.S. minimum wage. For the current study, each participant who completed the online survey was compensated \$0.50. Non-probability sampling (i.e., convenience sampling) was employed to recruit MTurk workers who met the following criteria: (a) identified racially as Black or of African descent, (b) were 18 years or older, and (c) was currently a United States citizen.

A total of 450 adults ( $M_{\text{age}} = 34.62$ ;  $SD = 10.11$ ) accessed the survey. Of these, 411 identified as Black and of these 411, only 385 met inclusion criteria. Thus, the sample size was reduced to 385 following inclusion criteria checks. The sample included 141 cisgender women (36.6%), 203 cisgender men (52.7%), 11 transgender women (3.9%), 15 transgender

men (3.9%), and 13 non-binary persons (3.4 %). In terms of sexual orientation, 308 participants (80%) identified as heterosexual, 60 as bisexual (15.6%), 4 as lesbian (1%), 6 as gay (1.6%), and 5 as “sexual orientation is not listed above” (1.3%). Ethnically, the majority of the sample identified as African American ( $n = 276$ ; 71.69%), followed by Afro-Caribbean ( $n = 65$ ; 16.89%), Afro-Latinx ( $n = 35$ ; 9.09%), and Afro-Asian ( $n = 9$ ; 2.34%). In terms of highest educational attainment, 30 (7.8%) attained a high school diploma or less, 28 (7.3%) attained an associate degree, 62 (16.1%) did some college (but did not attain a degree), 162 (42.1%) attained a bachelor’s degree, 98 (25.5%) attained a master’s degree, and 3 (.8%) attained a doctoral degree.

## **Procedures**

The MTurk posting (see Appendix A) that advertised the study was viewable by all registered MTurk workers. Specifically, the posting advertised the HIT as a study focused on the racial experiences of Black Americans living in the United States. MTurk workers who accessed the HIT were given more details about the study and were presented with a few screening questions (e.g., Do you identify as Black or of African descent? Are you a United States Citizen? Are you over 18?) (see Appendix B) to ensure that they meet screening criteria. In particular, participants were presented with a list of racial-ethnic categories (i.e., White, Asian, Black/African, Latina/o/Hispanic, Native/First Nations, Northern African or Middle Eastern, Biracial or Multiracial) and asked to select their racial-ethnic background. Participants who select a response other than Black/African were thanked for their interest and informed that they did not meet study qualifications.

Participants who selected Black/African were re-directed to Qualtrics, a secure, web-based application designed to support data capture for research studies. Once participants

followed the link to Qualtrics, they were presented with the informed consent information (see Appendix C) that outlined the voluntary nature of the study and potential risks and benefits for participants. In order to continue on to the survey items, participants were asked to indicate that they read the above information and were voluntarily choosing to proceed to the study items. Participants were also informed that in order to be compensated, they must meet screening criteria and must respond to all study items. To ensure that participants were not randomly responding, validity check items were added to the survey (e.g., “To ensure you are paying attention, please select 1 for this answer”). Once participants completed all study items, they were asked to provide their MTurk worker ID in order to be compensated \$.50.

Once participants agreed to continue to the survey portion of the study, they were presented with a series of questionnaires (which are described in detail in the measures section). There was no time limit for completion of the survey itself, but participants were expected to take approximately 30 minutes to complete it.

## **Measures**

The following measure were included in the online survey: The Perceived Online Racism Scale (PORS [Keum & Miller, 2017]), The Perceived Ethnic Discrimination Questionnaire-Community Version Brief (PEDQ-CVB) Race-Based Traumatic Stress Symptom Scale (RBTSSS [Carter et al., 2013]), The Satisfaction with Life Scale (SWLS) and a demographic questionnaire.

### ***Online Racism***

Online racism was measured by the Perceived Online Racism Scale (PORS), a 30-item questionnaire intended to assess online racist interpersonal interactions and exposure to



online racist content among people of color (see Appendix D). The authors found that the PORS was best represented as a bi-factor model that includes one factor of General Online Racism and three specific factors (i.e., Personal Experience of Racial Cyberaggression [PERCA], the Online-Mediated Exposure to Racist Reality [OMERR], and the Vicarious Exposure to Racial Cyberaggression [VERC]). Specifically, the Personal Experience of Racial Cyberaggression ( $n = 14$ ) reflects the direct racial aggression that individuals may experience in their online interactions with others (e.g., *Received racist insults regarding my online profile (e.g., profile picture user ID)*). The Online-Mediated Exposure to Racist Reality ( $n = 11$ ) represents people's exposure to online content, such as racist incidents happening around the world that tend to illuminate racial injustices (e.g., *Encountered online resources [e.g., Urban Dictionary] promoting negative racial/ ethnic stereotypes as if they are true*). Lastly, the Vicarious Exposure to Racial Cyberaggression scale ( $n = 5$ ) reflects the observation of racial aggression experienced by people of color in their online interactions with others (e.g., *Seen other racial/minority users being treated like a second-class citizen*).

Participants were presented with the following directions: "We are interested in your personal experiences of racism in online settings as you interact with others and surf the Internet. As you answer the questions below, please think about your online experiences in the past 6 months." Each item began with the following stem: "In the past 6 months, I have..." Responses are rated on a 5-point rating scale ranging from 1 (never) to 5 (all the time).

Given that the PORS was modeled as bi-factor structure, traditional scoring methods (summing scores) for the subscale scores are considered inappropriate, as the variance shared with the general factor would confound the unique variance of the subscales (Keum

& Miller, 2017). Therefore, the authors recommend using ipsative scoring to correct the subscale score by subtracting the mean of the total scale score in order address the overall mean elevation due to the effects of the general factor score (Keum & Miller, 2017). Specifically, the total mean scores were subtracted from each subscale score to calculate the true subscale scores, with higher scores indicating more exposure to online racism, while lower scores indicated less exposure. Subscale scores were only included in the preliminary analysis (e.g., correlations) and reported as descriptive results. I calculated the PORS general score when examining regression analyses, as the research questions for the current study only include the general factor of online racism. This was done by averaging item responses, which could range from 1 to 5. Higher scores represented higher levels of online racism. The PORS has demonstrated scores, with factor-based scale scores producing Cronbach's alpha coefficients of  $\alpha = 0.88$  and higher in an adult sample of racial minority participants (Keum & Miller, 2017). In this sample, it should be noted that about 33% (306) of the participants self-identified as Black American. The PORS has also demonstrated adequate construct validity based on significant positive correlations with other racism constructs (i.e., perceived racism offline and racism-related stress) and psychological well-being indicators (i.e., psychological distress and perceived stress), and belief in a just world (Keum & Miller, 2017). In addition, the PORS has demonstrated sufficient convergent validity, as evidenced by a significant positive correlation between the general PORS factor with scores on the Perceived Ethnic Discrimination Questionnaire-Community Version Brief (PEDQ-CVB [Brondolo et al., 2005]), which also had the largest effect size compared to the smallest effect size being found for the online-mediated exposure factor. In addition, the total score of the PORS was significantly and positively correlated ( $r = 0.57, p < .01$ )

with scores on the General Ethnic Discrimination Scale (Landrine et al., 2006) among a racially diverse sample of adults (Keum & Miller, 2017). It should be noted that the authors of the PORS demonstrated measurement invariance across four different racial-ethnic groups. Specifically, the construct of perceived online racism was deemed equivalent across Black, Asian, Latinx, and Multiracial participants (Keum & Miller, 2017). For the current study's sample, the total scale score for the PORS produced a Cronbach's alpha of .96. The PERCA, OMERR, and VERCA subscales produced Cronbach's alphas of .95, .91, and .87 respectively.

### ***Lived Experiences with Racism***

Perceived lived experiences with racism were assessed using the Perceived Ethnic Discrimination Questionnaire Community Version Brief (PEDQ-CVB), which was created to measure the degree to which individuals experience racism in their everyday life (see Appendix E). The PEDQ-CVB is intended for use among racially diverse adults in the community and across various educational backgrounds, as the difficulty level of the vocabulary has been reduced from the original version. The PEDQ-CVB is a 17-item measure of racial discrimination and consists of four subfactors: Exclusion/Rejection (e.g., *Have others ignored you or not paid attention to you?*), Stigmatization/Devaluation (e.g., *Have people not trusted you?*), Work/School Discrimination (e.g., *Have you been treated unfairly by coworkers or classmates?*), and Treatment/Aggression (e.g., *Have others actually hurt you or tried to hurt you?*). Participants were asked to rate their exposure to each item using a 5-point scale ranging from 1 (almost never) to 5 (almost always). Scores on the PEDQ-CVB are calculated by averaging item responses, which can range from 1 to 5. Higher scores represent higher levels of perceived racial-ethnic discrimination.

For the purpose of the current study, I used the full-scale version of the PEDQ-CVB, as it is often used as a general measure with non-clinical samples of adults across racial-ethnic groups and educational backgrounds (Brondolo et al., 2005; Keum & Miller, 2017). Particularly, Keum and Miller (2017) found that the full-scale version of the PEDQ-CVB was positively and significantly related to the subscale scores on the POS, ranging from  $r = 0.08$  to  $r = 0.46$ . The PEDQ-CVB has also demonstrated adequate convergent validity based on positive and significant correlations with scores on the Perceived Racism scale ( $r = 0.61$ ,  $p < .001$ ) in a sample of Black and Latinx college students ( $r = 0.57$ ,  $p < .001$ ) (Brondolo et al., 2005). Concurrent and discriminant validity of the PEDQ-CV has also been established through positive associations with appraisals of racist interactions. Specifically, scores on the PEDQ-CV have been positively associated with primary appraisals of threat ( $r = 0.43$ ,  $p < .001$ ) and harm ( $r = 0.46$ ,  $p < .001$ ) in a sample of Black and Latinx college students. PEDQ-CV scores have also showed some evidence of discriminant validity, such that perceived racism was not significantly correlated with the primary appraisal of challenge ( $r = 0.09$ ,  $p = .22$ ) and weakly correlated with perceptions of benefit ( $r = 0.18$ ,  $p < .01$ ). This demonstrated discriminant validity, as the authors expected appraisals of challenge or benefit to be a function of perceived coping resource and personality style, but not a function of exposure to a discriminatory stressor (Brondolo et al., 2005). The PEDQ-CVB has demonstrated construct validity based on significant correlations with trait measures of anxiety, defensiveness, hostile attributions, and cynicism (Brondolo et al., 2005). Results have also indicated that the PEDQ-CV was positively correlated with anxiety ( $r = 0.35$ ,  $p < .001$ ), hostile attributions ( $r = 0.39$ ,  $p < .002$ ), and cynicism ( $r = 0.44$ ,  $p < .001$ ); and negatively correlated with defensiveness ( $r = -0.30$ ,  $p < .01$ ) in a sample of 93 community

members (Brondolo et al., 2005). Lastly, the full-scale version of the PEDQ-CVB has produced acceptable reliability estimates ranging from  $\alpha = 0.87$  to  $\alpha = 0.94$  in racially diverse community and college student samples (Brondolo et al., 2005; Keum & Miller, 2017). Specifically, Brondolo and colleagues (2005) found that Black people reported more exposure to discrimination, and American-born participants reported more exposure to ethnic or racial discrimination than non-U.S.-born participants. These findings support the current study's use of the PEDQ-CVB on Black Americans. Responses to this study demonstrated excellent internal consistency with a Cronbach's alpha of .96.

### ***Racial Trauma Symptoms***

Racial trauma symptoms were assessed using the Race-Based Traumatic Stress Symptom Scale (see Appendix F) (Carter et al., 2013). Consistent with Carter's (2007) Race-Based Traumatic Stress Model, the RBTSSS was created to assess various psychological and emotional stress reactions to racial discrimination based on seven symptom subscales (i.e., Depression, Anger, Physical Reactions, Avoidance, Intrusion, Hypervigilance/Arousal, and Self-Esteem) and should be scored and interpreted as separate measures. Although I administered the entire RBTSSS to participants, for the purpose of the current study, I focused on three subscales of race-based trauma: The Intrusion subscale (e.g., *I experience mental images of the event*), the Hypervigilance/Arousal subscale (e.g., *I experience trouble falling or staying asleep*), and the Physical Reactions subscale (e.g., *I was in a state of nervous tension*). Each subscale consists of eight items.

Before responding to items, participants were first asked to recall their three most memorable experiences with racism and use the most memorable incident to inform how they respond to each item. In particular, participants were instructed to provide two

responses to indicate their how they felt in reaction to the racist event. Specifically, participants were asked to rate their reactions (a) immediately *after* the event (within one month) and (b) more *recently*. For the purpose of the current study, I used only the immediate (*after*) reaction responses. Responses were rated using a 5-point rating scale, ranging from 0 (*does not describe my reaction*) to 4 (*this reaction would not go away*). Higher scores show a greater presence of that reaction.

Although group mean scale scores were originally used in the initial development and validation of the RBTSSS (Carter et al., 2013), the authors have since recommended a new scoring method that involves converting summed scores to standardized scores. According to the authors, converting subscale scores is intended to help illustrate elevated symptoms of racial stress to further elucidate the meaning for both clinical and research purposes (Carter & Sant-Barket, 2015). After summing the values for each symptom subscale, scores are first converted to *z*-scores and then changed to *t*-scores. Specifically, for each of the three subscales (i.e., Hypervigilance/Arousal, Intrusion, and Physical Reactions) participants' summed scale scores, mean, and standard deviation were used to convert the raw summed scale score to a *z*-score. *Z*-scores were converted to *t*-scores by multiplying by 10, and then adding 50 to the result.

Scores on all seven symptom subscales of the RBTSSS have demonstrated adequate reliability across multiple samples of Black American and other racially diverse adults (Carter et al., 2013; Carter et al., 2016; Carter et al., 2017). In particular, reliability estimates for Physical Reactions has ranged from  $\alpha = 0.87$  to  $\alpha = 0.90$ , Intrusion from  $\alpha = 0.87$  to  $\alpha = 0.89$ , and Hypervigilance/Arousal from  $\alpha = 0.88$  to  $\alpha = 0.91$ . The scale also demonstrated evidence of construct validity in a sample of Black adults, based on significant correlations

with psychological outcomes such as anxiety ( $r = -0.90$ ), depression ( $r = -0.88$ ), and loss of emotional/behavioral control ( $r = -0.95$ ) (Carter & Muchow, 2017). Responses to this study demonstrated excellent internal consistency with a Cronbach's alpha of .98 with subscales of intrusion, hypervigilance and physical symptoms producing Cronbach's alphas of .90, .93, and .94, respectively.

### ***Well-being***

The Satisfaction with Life Scale (Diener et al., 1985) was used to assess participants' general well-being (see Appendix G). Research has provided evidence of well-being consisting of two major components: the emotional or affective component and the judgmental or cognitive component (Diener, 1984; Pavot et al., 1991; Veenhoven, 1991). The Satisfaction with Life Scale (SWLS) was developed as a measure of the judgmental/cognitive component of subjective well-being (Pavot et al., 1991). The SWLS is considered a good measure for well-being as it is a single factor, multi-item measure of global life satisfaction, showing good reliability and internal consistency, with content appropriate for a wide range of age groups. Additionally, the Satisfaction with Life Scale has been used in previous research assessing the effects of racial discrimination on Black Americans (Chang et al., 2019; Driscoll et al., 2015; Utsey et al., 2000; Utsey et al., 2002), making it suitable to be used in the current study. The SWLS is a five-item (e.g., *In most ways my life is close to my ideal*) Likert-type scale that was derived from a pool of 48 items that examine an individual's global judgment of one's life satisfaction (Diener et al., 1985; Pavot & Diener, 2008). Participant responses are rated on a 7-point rating scale ranging from 1 (strongly disagree) to 7 (strongly agree). Scores are summed and can range from 5 to 35, with higher scores indicating greater satisfaction with life. Using a sample of 176

undergraduates at the University of Illinois, Diener et al. (1985) reported that the SWLS exhibited good test-retest reliability with a correlation coefficient of  $\alpha = 0.82$  and coefficient alpha of  $\alpha = 0.87$  in a diverse sample of college students. It should be noted that the SWLS was significantly and positively correlated with personality measures of psychopathology and poor adjustment, along with being free from the influences of social desirability (Diener et al., 1985). For the current study's sample, the SWLS produced a Cronbach's Alpha of .87.

### ***Demographic Questionnaire***

For the purpose of the current study, questions were created to collect the following demographic information: ethnicity, age, gender, sexual orientation, religion/spirituality, education level, SES, current demographic region of residence, and location of current residence (rural vs. urban). See Appendix H for the demographic questionnaire.

## **Results**

### **Data Screening**

Analysis of the data was completed using IBM SPSS version 22. Participants with excessive amounts of missing data (> 25%) were removed from the data set, resulting in the removal of eight participants for a total of 403 participants (Parent, 2013). It should be noted that a lot of ethnic diversity was lost (approximately 100 participants) due to participants not responding to the question of ethnic diversity with a choice from the African diaspora (e.g., Afro-Latinx), but instead indicating the state or country of their birth. Since there was no way to determine if those who did this were indeed a part of the African diaspora, these individuals were not included in the final sample. Limitations pertaining to this and suggestions for future research are in the discussion section. In addition, three validity check



questions were embedded in the survey (e.g., *Please select almost always for this question*). Participants who did not answer two out of the three correctly were removed from the data set, resulting in the removal of 18 participants for a total of 385 participants. Little's MCAR test ( $X^2 = 5325.265$ ,  $df = 4871$ ,  $p = .15$ ) confirmed that the remaining incomplete data for the independent, dependent, and moderator variables were missing completely at random. Excluding demographic variables, no case was missing more than 21% of the data, and no item was missing more than 2% of the data. Item 4 (*Received replies/posts suggesting that I should avoid connecting online with friends from my own racial/ethnic group*) on the Perceived Online Racism Scale (PORS) was missing the most data; this could be because participants did not fully understand the question at first glance. Given that the data were MCAR, I imputed the remaining missing values (five imputations) at the item level using the multiple imputation approach.

In addition, the data were examined for violations of regression assumptions. Univariate normality was assessed via inspection of histograms and skewness and kurtosis statistics (skewness < 3, kurtosis, < 10) (Weston & Gore, 2006), and no violations were observed. Moreover, no violation in multicollinearity or heteroscedasticity were observed. Univariate outliers were observed via examination of z-scores (> |3.29|) (Tabachnick & Fidell, 2007). No univariate outliers were observed. Multivariate outliers were also examined using Mahalanbois distance; this procedure revealed no multivariate outliers. Thus, the sample size remained the same at 385.

### **Descriptive Statistics and Correlational Analysis**

Prior to running analyses, I examined age, social media use, gender, and education level as potential covariates. Education was handled linearly, and gender was coded

dichotomously due to the lack of gender diversity. Specifically, cisgender women and transgender women were combined into a woman category, while cisgender men and transgender men were combined into a man category. Gender demonstrated no significant effects with outcome measures and therefore was not included as a covariate. Descriptive statistics were also examined, including the raw mean scores for intrusion, hypervigilance, and physical symptoms (see Table 1).

Demographically, the sample was majority cisgender African American heterosexual men who had attained a bachelor’s degree.

**Table 1**  
*Sample Descriptive Statistics*

	<i>n</i>	%
Ethnicity		
African American	276	71.69
Afro-Caribbean	65	16.89
Afro-Latinx	35	9.09
Afro-Asian	9	2.34
Gender		
Cisgender woman	141	35.6
Cisgender man	203	52.7
Transgender woman	11	3.9
Transgender man	15	3.9
Non-Binary	13	3.4
Sexual Orientation		
Heterosexual	308	80
Bisexual	60	15.6
Lesbian	4	1
Gay	6	1.6
Not Listed	5	1.3
Education		
High School Diploma or Less	28	7.3
Some College (No Degree)	62	16.1
Associate Degree	28	7.3
Bachelor’s Degree	162	42.1
Master’s Degree	98	25.5
Doctorate Degree	3	.8

Note: *N* = 385

Generally, participants' mean scores on the measures showed that participants scored in the mid-range when it came to social media use, online racism, lived experiences with racism, intrusion, hypervigilance, physical reactions, and well-being (see Table 2).

Social media use was significantly positively related to racial trauma symptoms and well-being.<sup>1</sup> Correlations among the observed variables were also evaluated (see Table 2). It should be noted that the currently study's sample showed a significant high degree of overlap between the PORS and PEDQ. More details about this are in the discussion section. The results of the Pearson's correlation analysis indicated that lived experiences and general online racism was positively related to the racial trauma symptoms of physical symptoms, hypervigilance, and intrusion. However, lived experiences with racism and online racism were not significantly related to well-being. Therefore, hypothesis one was only partially upheld.

When looking further at the subscale scores of the PORS, results generally suggested that each of the three subscales yielded moderate to strong correlations with the three symptoms of PTSD. However, personal experiences of racist cyberaggression demonstrated

---

<sup>1</sup> Notably, although education level was significantly positively correlated with intrusion ( $r = .14, p = .005$ ), hypervigilance ( $r = .13, p = .009$ ), and physical symptoms ( $r = .17, p < .001$ ), and significantly negatively correlated with well-being ( $r = -.31, p < .001$ ), education level was only significantly related to well-being in the regression analyses. Therefore, social media use was controlled for in each regression analysis, and education level was only controlled for in the regression analysis examining well-being.

**Table 2**

*Correlations between Study Variables*

	1	2	3	4	5	6	7	8	9	10
1. Social Media Use	-									
1. PORS	.45***	-								
2. PERCA	.50***	.89***	-							
3. OMERR	.27***	.86***	.55***	-						
4. VERC	.27***	.78***	.50***	.78***	-					
5. PEDQ	.40***	.86***	.83***	.66***	.64***	-				
6. Intrusion	.40***	.67***	.64***	.51***	.50***	.69***	-			
7. Hypervigilance	.41***	.65***	.69***	.43***	.43***	.67***	.80***	-		
8. Physical Symptoms	.48***	.64***	.70***	.38***	.40***	.68***	.76***	.87***	-	
10. SWLS	-.30***	-.03	-.14**	.08	.12**	-.03	.02	-.05	.04	
<i>M</i>	3.12	2.76	32.26	30.29	11.95	2.67	50	50	50	17.68
<i>SD</i>	.89	.85	13.19	9.22	4.11	.88	10	10	10	6.98
Possible Range	1 - 5	1 - 5	N/A	N/A	N/A	1 - 5	1 - 5	1 - 5	1 - 5	7 - 35
Raw mean score (standard deviation)	N/A	N/A	N/A	N/A	N/A	N/A	16.16 (5.34)	17.26 (7.01)	18.45 (8.02)	N/A

Note: *N* = 385. PORS=Perceived Online Racism Scale; PERCA = Personal Experience of Racist Cyberaggression; OMERR = Online-Mediated Exposure to Racist Reality; VERC = Vicarious Exposure to Racist Cyberaggression; PEDQ=Perceived Ethnic Discrimination Questionnaire Community Version Brief; SWLS=Satisfaction with Life Scale

\**p* < .05. \*\**p* < .01. \*\*\**p* < .001

the strongest correlations with each of the PTSD symptoms, suggesting that this form of online racism may be especially traumatic for Black Americans. In addition, personal experiences of racist cyberaggression was negatively related to well-being. Of interest, vicarious exposure to racist cyberaggression was significantly positively related to well-being.

### **Regression Analyses**

Hypotheses two and three were addressed through multiple linear regression analyses. Four regression models were examined: one with intrusion as the outcome, a second with hypervigilance as an outcome, a third with physical symptoms as an outcome, and a fourth with well-being as an outcome (see Tables 3–6). For each model, variables were entered in four blocks. For the analysis of well-being, I entered education level and social media use into the first step, lived experiences with racism in the next step, online racism in the second step, and the interaction term in the fourth step. For the other three analyses (intrusion, hypervigilance, and physical symptoms), I entered social media use into the first step, lived experiences with racism in the next step, online racism in the second step, and the interaction term in the fourth step. Prior to creating interaction terms, variables were mean centered to reduce multicollinearity and facilitate interpretation (Field, 2013).

When examining well-being as the outcome variable, results of the regression analysis revealed that the first block was statistically significant,  $r = .39.$ ,  $SE = 6.46$ ;  $F(2, 380) = 33.04$ ,  $p < .001$ . Specifically, social media use ( $t = 4.72$ ,  $p < .001$ ) and education level ( $t = 5.17$ ,  $p < .001$ ) predicated more satisfaction with life. The second block of variables was also statically significant,  $r = .40.$ ,  $SE = 6.42$ ;  $F(3, 379) = 24.13$ ,  $p < .001$ ,  $\Delta F = 5.52$ ,  $p =$

.02, explaining 1.2% of the additional variance in psychological well-being. Specifically, lived experiences with racism ( $t = -2.35, p = .02$ ) were related to a lower sense of well-being. However, the third block of variables was non-significant,  $r = .41., SE = 6.42; F(4,378) = 18.56, p < .001, \Delta F = 1.72, p = .19$ , only explaining less than 1% of the variance in psychological well-being, suggesting that online racism did not add any additional variance in psychological well-being. The fourth block of variables was significant,  $r = .46., SE = 6.25; F(5,377) = 19.79, p < .001, \Delta F = 20.83, p < .001$ , explaining 4% of the variance in psychological well-being. Specifically, the interaction between lived experiences with racism and online racism was statistically significant ( $t = 4.56, p < .001$ ).

**Table 3**

*Summary of Hierarchical Regression Predicting Well-being*

Predictor	$\beta$	R <sup>2</sup>	R <sup>2</sup> change	F change	df
Step 1					
Main effects		.15	.15	33.04***	2,380
SMU	.23***				
HEL	.25***				
Step 2					
Main effects		.16	.01	5.52*	1,379
SMU	.28***				
HEL	.26***				
PEDQ	-.12*				
Step 3					
Main effects		.16	.00	1.73	1,378
SMU	.29***				
HEL	.26***				
PEDQ	-.02				
PORS	-.13				
Step 4					
Main effects		.21	.04	20.83***	1,377
SMU	.28***				
HEL	.27***				
PEDQ	-.04				
PORS	-.10				
PORS x PEDQ	.21***				

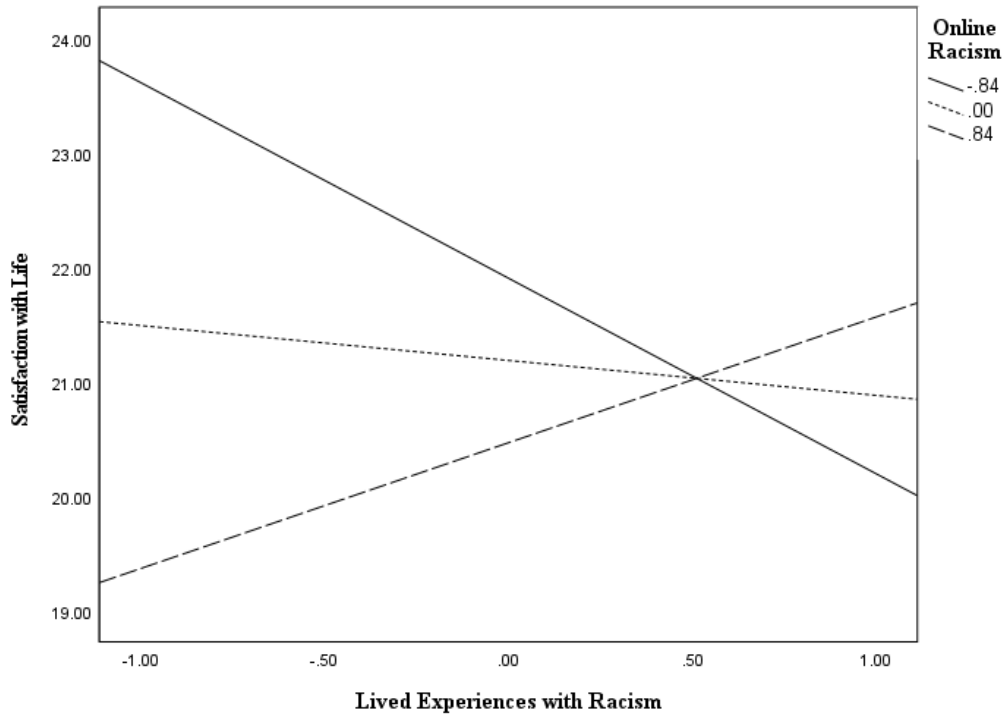
Note: SMU=Social Media Use, HEL= Highest Education Level, PORS=Perceived Online Racism Scale; PEDQ=Perceived Ethnic Discrimination Questionnaire Community Version Brief; SWLS=Satisfaction with Life Scale

\* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$

Hayes's (2013) PROCESS SPSS macro was used to decompose the interaction term. The macro examines the strength and direction of the relationship at three different levels of the moderating variable: the mean and +/- 1 standard deviation from the mean (Hayes, 2013). Moreover 5,000 bootstrap samples were taken from the data set to compute 95% confidence intervals. The results revealed that the relationship between lived experiences with racism and well-being was significant and negative at 1 standard deviation below the mean (i.e.,  $B = -1.71$ ,  $SE = .80$ ,  $t(382) = -2.15$ ,  $p = .03$ , 95% confidence interval = -3.28 to -.15), but non-significant at mean levels (i.e.,  $B = -.31$ ,  $SE = .72$ ,  $t(382) = -.42$ ,  $p = .67$ ) and 1 standard deviation above the mean (i.e.,  $B = 1.10$ ,  $SE = .77$ ,  $t(382) = .15$ ,  $p = .15$ ); see Figure 1) of online racism. Specifically, well-being is highest when both lived experiences and online racism are at low levels. There is no relationship between lived experiences with racism and well-being when online racism is at average and high levels.

**Figure 1**

*Interaction between Lived Experiences with Racism and Online Racism as it Predicts Satisfaction with Life*



When examining intrusion as the outcome variable, results of the regression analysis of the first block was statistically significant,  $r = .40.$ ,  $SE = 9.20$ ;  $F(1, 383) = 70.72$ ,  $p < .001$ . Specifically, social media use ( $t = 8.41$ ,  $p < .001$ ) predicated more intrusion symptoms. The second block of variables was also statistically significant,  $r = .70.$ ,  $SE = 7.15$ ;  $F(2,382) = 184.10$ ,  $p < .001$ ,  $\Delta F = 251.28$ ,  $p < .001$ , explaining 34% of the additional variance in the trauma outcome of intrusion. Specifically, lived experiences with racism ( $t = 15.85$ ,  $p < .001$ ) were related to more intrusion symptoms. The third block of variables was significant,



$r = .71$ ,  $SE = 7.05$ ;  $F(3, 381) = 130.37$ ,  $p < .001$ ,  $\Delta F = 12.16$ ,  $p < .001$ , explaining nearly 2% of the variance in the trauma outcome of intrusion. Specifically, lived experiences with racism ( $t = 6.06$ ,  $p < .001$ ) and online racism ( $t = 3.49$ ,  $p < .001$ ) were related to more intrusion symptoms. However, the fourth block of variables was non-significant,  $r = .72$ ,  $SE = 7.23$ ;  $F(4, 380) = 99.32$ ,  $\Delta F = 3.55$ ,  $p = .06$ , explaining less than 1% of the variance in intrusion symptoms, suggesting that online racism did not moderate the lived experiences and symptoms of intrusion link.

**Table 4**

*Summary of Hierarchical Regression Predicting Intrusion*

Predictor	$\beta$	R <sup>2</sup>	R <sup>2</sup> change	F change	df
Step 1					
Main effects		.16	.16	70.72***	1, 383
SMU	.40***				
Step 2					
Main effects		.50	.34	251.28***	1, 382
SMU	.15***				
PEDQ	.63***				
Step 3					
Main effects		.51	.02	12.16***	1, 381
SMU	.11**				
PEDQ	.43***				
PORS	.25***				
Step 4					
Main effects		.51	.01	3.55	1, 380
SMU	.12*				
PEDQ	.43***				
PORS	.25***				
PORS x PEDQ	-.07				

Note: SMU=Social Media Use, PORS=Perceived Online Racism Scale; PEDQ=Perceived Ethnic Discrimination Questionnaire Community Version Brief; SWLS=Satisfaction with Life Scale  
 \* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$

When examining hypervigilance as the outcome variable, results of the regression analysis of the first block was statistically significant,  $r = .41$ ,  $SE = 9.15$ ;  $F(1, 383) = 75.75$ ,

$p < .001$ . Specifically, social media use ( $t = 8.70, p < .001$ ) predicated more hypervigilance symptoms. The second block of variables was also statistically significant,  $r = .69, SE = 7.27; F(2, 382) = 171.83, p < .001, \Delta F = 233.85, p < .001$ , explaining 31% of the additional variance in the trauma outcome of hypervigilance. Specifically, lived experiences with racism ( $t = 14.96, p = .001$ ) were related to more hypervigilance symptoms. The third block of variables was significant,  $r = .70, SE = 7.21; F(3, 381) = 119.28, p < .001, \Delta F = 7.94, p = .01$ , explaining an additional 1% of the variance in the trauma outcome of hypervigilance. Specifically, lived experiences with racism ( $t = 6.07, p < .001$ ) and online racism ( $t = 2.82, p = .005$ ) were related to more hypervigilance symptoms. However, the fourth block of variables were non-significant,  $r = .70, SE = 7.22; F(4, 380) = 89.23, \Delta F = .00, p < .96$ , explaining 0% of the variance in hypervigilance symptoms, suggesting that online racism did not moderate the lived experiences and symptoms of hypervigilance link.

**Table 5*****Summary of Hierarchical Regression Predicting Hypervigilance***

Predictor	$\beta$	R <sup>2</sup>	R <sup>2</sup> change	F change	df
Step 1					
Main effects		.17	.17	75.75***	1,383
SMU	.41***				
Step 2					
Main effects		.47	.31	223.85***	1,382
SMU	.17***				
PEDQ	.61***				
Step 3					
Main effects		.48	.01	7.94**	1,381
SMU	.14***				
PEDQ	.44***				
PORS	.21**				
Step 4					
Main effects		.48	.00	.00	1,380
SMU	.14***				
PEDQ	.44***				
PORS	.21**				
PORS x PEDQ	.00				

Note: SMU=Social Media Use, PORS=Perceived Online Racism Scale; PEDQ=Perceived Ethnic Discrimination Questionnaire Community Version Brief; SWLS=Satisfaction with Life Scale  
 \* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$

When examining physical symptoms as the outcome variable, results of the regression analysis of the first block was statistically significant,  $r = .42$ ,  $SE = 9.11$ ;  $F(1, 383) = 80.00$ ,  $p < .001$ . Specifically, social media use ( $t = 8.94$ ,  $p < .001$ ) predicted more physical symptoms. The second block of variables was also statistically significant,  $r = .69$ ,  $SE = 7.22$ ;  $F(2, 382) = 177.40$ ,  $p < .001$ ,  $\Delta F = 80$ ,  $p < .001$ , explaining an additional 31% of the variance in the trauma outcome of physical symptoms. Specifically, lived experiences with racism ( $t = 15.08$ ,  $p < .001$ ) were related to more physical symptoms. The third block of variables was significant,  $r = .70$ ,  $SE = 7.19$ ;  $F(3, 381) = 120.73$ ,  $p < .001$ ,  $\Delta F = 227.49$ ,  $p < .001$ , explaining less than 1% of the variance in the trauma outcome of physical symptoms. Specifically, lived experiences with racism ( $t = 6.71$ ,  $p < .001$ ) and online racism

( $t = 2.08, p = .04$ ) were related to more physical symptoms. However, the fourth block of variables was non-significant,  $r = .70, SE = 7.20; F(4, 380) = 90.44, \Delta F = .28, p = .60$ , explaining less than 1% of the variance in physical symptoms, suggesting that online racism did not moderate the lived experiences with racism and physical symptoms link.

**Table 6**

***Summary of Hierarchical Regression Predicting Physical Symptoms***

Predictor	$\beta$	R <sup>2</sup>	R <sup>2</sup> change	F change	df
Step 1					
Main effects		.17	.17	80.00***	1,383
SMU	.42***				
Step 2					
Main effects		.48	.31	227.49***	1,382
SMU	.18***				
PEDQ	.61***				
Step 3		.49	.01	4.31*	1,381
Main effects					
SMU	.16***				
PEDQ	.48***				
PORS	.15*				
Step 4		.49	.00	.28	1,380
Main effects					
SMU	.16***				
PEDQ	.48***				
PORS	.16				
PORS x PEDQ	.02				

Note: SMU=Social Media Use, PORS=Perceived Online Racism Scale; PEDQ=Perceived Ethnic Discrimination Questionnaire Community Version Brief; SWLS=Satisfaction with Life Scale  
 \* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$

Thus, hypothesis two was only partially supported as general online racism accounted for a significant degree of variance in the three racial trauma outcomes (e.g., physical symptoms, hypervigilance, and intrusion) above and beyond what is already explained by lived experiences with racism but did not account for additional variance in well-being. Hypothesis three was not supported. That is, online racism only moderated the

lived experiences with racism and well-being link but did not exacerbate this relationship; no moderation was observed for the relationship between lived experiences with racism and all three trauma outcomes (e.g., physical symptoms, hypervigilance, and intrusion).

## **Discussion**

This study adds to the literature on effects of online racism by examining the moderating effects of online racism on the already well-established link between lived experiences with racism and symptoms of racial trauma in a sample of American Black adults. In line with Carter's (2007) race-based traumatic stress model and the current understanding of the negative psychological effects associated with racism, these results offer initial evidence that online racism may also be considered a traumatic stressor for Black Americans. The results underscore the significance of seeing online racism experiences as an additional area to study when it comes to the negative impact racism has on persons of color. In the following sections, I summarize my study's findings and suggest direction for future studies.

### **Hypothesis One**

I hypothesized that lived experiences and general online racism would be negatively related to well-being and positively related to racial trauma symptoms (i.e., physical symptoms, hypervigilance, and intrusion). Racism is recognized to have the ability to negatively affect well-being through a few maladaptive outcomes (i.e., physical, psychological, social, functional, and spiritual (Harrell, 2000)). However, results from this study showed that lived experiences with racism and online racism were not significantly related to well-being as measured by satisfaction with life. This could be seen as a positive

finding, as there may be no direct connection to frequency of online and lived experiences with racism and satisfaction with life. In other words, although lived experiences and online racism may adversely affect other domains of life, it is plausible that there is no relation with general satisfaction with life. However, these findings are inconsistent with the literature that supports a significant negative link between lived experiences with racism and well-being (Pieterse et al., 2012). This inconsistency may be because racial stressors are more consistently related to adverse outcomes (e.g., symptoms of trauma) as opposed to indicators of psychological health, such as well-being. Additionally, the Satisfaction with Life Scale, which was used to assess well-being, may have contributed to these results because it is a unidimensional measure that focuses on the cognitive dimension of well-being. Therefore, it is possible that discriminatory experiences tend to be related to more affective outcomes and more multidimensional aspects of well-being (e.g., health, affect, self-esteem).

At the subscale level, findings from the current study did not remain consistent, as well-being was significantly and negatively related to the personal experience of racial cyberaggression (PERCA) ( $r = -0.14, p < .01$ ), non-significantly and positively related to the online-mediated exposure to racist reality (OMERR) ( $r = 0.08, p > .05$ ), and significantly positively related to the vicarious exposure to racial cyberaggression (VERCA) ( $r = 0.12, p < .01$ ).

In addition, results supported that the three types of racial trauma symptoms were positively and significantly related to both lived experiences and general online experiences with racism at the bivariate level. These positive bivariate relationships support the results found in literature that examined the relationship between lived and online experiences with

racism and racial trauma symptoms among racial and ethnic minority Americans (Carter et al., 2019; Tynes et al., 2019). Tynes and colleagues (2019) found that traumatic events online (TEO) were significantly associated with PTSD symptoms (re-experiencing, hyperarousal, numbing) ( $b = 0.14, p < .001$ ), indicating that more frequent experiences of TEO were associated with higher level of PTSD symptoms. Carter (2007) posed that experiences with racially charged discrimination may be perceived as a threat to the safety and integrity of the affected individual. Specifically, experiences with racial discrimination may solicit psychological and emotional injury that negatively impacts mental health by yielding traumatic stress (Polanco-Roman et al., 2016). Individuals are thought to respond to race-based traumatic stress with hypervigilance, intrusion, numbing, and emotional distress (Carter, 2007). The current study's findings support prior research suggesting that offline racism is robustly linked to symptoms of PTSD among Black Americans (Helms et al., 2010; Hemmings & Evans, 2018; Himmelstein et al., 2015) while also underscoring the role of online racism in these relationships.

At the subscale level, findings from the current study remained consistent, as intrusion was significantly and positively correlated with the personal experience of racial cyberaggression (PERCA) ( $r = 0.64, p < .001$ ), online-mediated exposure to racist reality (OMERR) ( $r = 0.51, p < .001$ ), and vicarious exposure to racial cyberaggression (VERCA) ( $r = 0.69, p < .001$ ). Hypervigilance was significantly and positively correlated with the personal experience of racial cyberaggression (PERCA) ( $r = 0.43, p < .001$ ), the online-mediated exposure to racist reality (OMERR) ( $r = 0.43, p < .001$ ), and the vicarious exposure to racial cyberaggression (VERCA) ( $r = 0.50, p < .001$ ). Lastly, physical

symptoms were significantly and positively correlated with the personal experience of racial cyberaggression (PERCA) ( $r = 0.70, p < .001$ ), the online-mediated exposure to racist reality (OMERR) ( $r = 0.38, p < .001$ ), and the vicarious exposure to racial cyberaggression (VERCA) ( $r = 0.40, p < .001$ ). Additionally, it should be noted that lived experiences with racism was highly correlated with online racism ( $r = 0.86, p < .001$ ), which is inconsistent with findings by Keum and Miller (2017), who saw a much lower correlation between online and lived experiences with racism ( $r = 0.59, p < .01$ ). The findings suggest that offline and online racism share a large degree of overlap among Black Americans, such that Black Americans who have high levels of exposure to online racism are likely to have high exposure to offline racism as well. In addition, these differences may be due to this study's timing, as data were collected at the beginning of 2021 (January-February). America's sociopolitical climate during this time was marked by feelings of distress and racial tension among participants, which may have impacted the results. Additionally, data were collected during the COVID-19 pandemic, which highlighted the intersection of structural racism, social risk factors, and health, as Black Americans were disproportionately being infected and dying (Egede & Walker, 2020). Another possibility for the relationships found is the participant pool for this study. All participants were MTurk workers, which suggests they make a living using the Internet. This could possibly mean they have greater exposure to online racism and may have a more difficult time differentiating online from offline or lived experiences with racism. Given that the measure used to assess lived experiences with racism (Perceived Ethnic Discrimination Questionnaire-Community Version Brief, PEDQ-



CVB) did not explicitly ask questions about the forms of racism being offline, it is plausible that participants answered these questions based on exposure to online content too.

## **Hypothesis Two**

I hypothesized that general online racism would account for a significant degree of variance in well-being and the three racial trauma symptoms (i.e., physical symptoms, hypervigilance, and intrusion) above and beyond what is already explained by lived experiences with racism. After controlling for social media use and lived experiences with racism, the results of the current study found that general online racism did, indeed, account for unique variance in each of the three racial trauma outcomes (e.g., physical symptoms, hypervigilance, and intrusion). This aligns with previous research that supports a distinction between online and lived experiences with racism. Research suggests that the anonymity of the Internet potentially gives individuals more confidence to engage in racist expressions compared to doing so in face-to face, offline communications (Keum & Miller, 2018). Additionally, online racism can evolve over time (i.e., go viral) and be circulated in different multimedia formats (i.e., videos, photos, posts, texts). Moreover, compared to lived experiences with racism), online racism has a permanence, as posted content is largely fixed and requires an intentional process to moderate and remove it from the Internet (Bickart & Schindler, 2001). Lastly, online racism can be seen as more pervasive compared to lived experiences with racism, since racist content is generated daily and can be easily and unintentionally encountered by online users (Bonilla & Rosa, 2015; Kirkpatrick, 2011). Despite the theorized unique nature of online racism, however, the high correlation between

online and offline racism suggests that the distinction between these two forms of racism should be tempered and further investigated.

Nevertheless, it is interesting that, despite the high degree of overlap between online and offline racism, online racism was still able to predict a significant degree of variance in PTSD symptoms while controlling for lived experiences. These results suggest that, similarly to lived experiences with racism, online experiences with racism are uniquely related to symptoms of racial trauma. Specifically, exposure to racism via digital platforms, such as social media, appear linked to PTSD symptoms in Black individuals. These findings support foundational work done by Tynes and colleagues (2008), which found that online experiences with racism were related to adverse psychological symptoms (i.e., depression, anxiety), over and above lived experiences with racism (i.e., offline) among Black and Latinx adolescents.

Results of this current study contradicted previous literature in finding that general online racism did not account for any additional variance in well-being (Tynes et al., 2019). Lived experiences with racism were uniquely negatively related to less well-being, but became non-significant when adding online racism to the model. Thus, the amount of variance that lived experiences and online racism contributed to well-being may be minimal, and the resulting lack of significance may be due to collinearity between online racism and lived experiences. In addition, the non-significant finding between online experiences of racism and well-being could be due to the way in which well-being was operationalized in this study. That is, other scholars have suggested that well-being is a multi-dimensional construct of overall happiness (Dodge et al., 2012), and this study conceptualized well-being

as satisfaction with life. Additionally, it is plausible that the experience of online and lived experiences with racism do not relate to one's overall satisfaction with life. Thus, additional research that assesses well-being in a more holistic way is needed. Moreover, as previously mentioned, it may be that experiences of discrimination are more consistently related to adverse versus positive mental health outcomes.

### **Hypothesis Three**

I hypothesized that general online racism would exacerbate the positive links from lived experiences with racism to racial trauma symptoms (i.e., physical symptoms, hypervigilance, and intrusion) and the negative relation between lived experiences with racism and well-being. Results failed to support this exacerbating effect of general online racism with each of the three trauma symptoms. However, online racism did moderate the relation between lived experiences with racism and well-being (Hypothesis 3a), although not exactly in the manner anticipated. That is, the relationship between lived experiences and well-being was non-significant at average and high levels of online racism, but significant and negative at low levels. Specifically, at low levels of online racism, satisfaction with life was higher when lived experiences with racism were infrequent. However, even when low levels of online racism are present, satisfaction with life decreased as lived experiences with racism became more frequent. These findings suggest that well-being is greater when both lived experiences with racism and online racism are low, but even in the context of low levels of online racism, well-being is diminished if lived experiences with racism are high. In other words, low levels of online racism do not appear to offset the deleterious role of frequent experiences of racism in relation to well-being.

Hypothesis 3b anticipated that online racism would exacerbate the positive relationship between lived experiences with racism and physical symptoms. In the regression model, online racism demonstrated a statistically significant main effect, but a non-significant interaction with lived experiences with racism. Although lived experiences with racism and online racism were each uniquely positively related to more physical symptoms of trauma, the additional variance was minimal (< 1%) in the interaction term. Thus, online racism does not exacerbate the already established relationship between lived experiences with racism and physical symptoms. These results align with the research that supports the already established relationship between lived experiences with racial discrimination and physical health outcomes among Black Americans (Thomas & Blackmon, 2015), and suggests that online racism does, indeed, have a harmful impact on Black adults.

Hypothesis 3c anticipated that online racism would have an exacerbating effect on the relationship between lived experiences with racism and hypervigilance. In the regression model, online racism demonstrated statistically significant main effects, but a non-significant interaction with lived experiences with racism. Although lived experiences with racism and online racism were each related to more hypervigilance symptoms of trauma, the additional variance was minimal (1%) in the interaction term. These results support the established research that sees racism-related vigilance as a serious consequence for stress-related health outcomes (Hicken et al., 2013). Additionally, this shows that both lived experiences and online experience with racism have a harmful and separate impact when it comes to the trauma symptom of hypervigilance. Thus, online racism does not exacerbate

the already established relationship between lived experiences with racism and hypervigilance.

Hypothesis 3d anticipated that online racism would have an exacerbating effect on the relationship between lived experiences with racism and intrusion. In the regression model, online racism demonstrated statistically significant main effects, but a non-significant interaction with lived experiences with racism. Although lived experiences with racism and online racism were related to more physical symptoms of trauma, the additional variance was minimal (< 2%). These results suggest that when it comes to intrusion symptoms of trauma, lived experiences and online experience with racism both have a harmful and separate impact. Thus, online racism does not exacerbate the already established relationship between lived experiences with racism and intrusion. In other words, lived experiences with racism are significantly positively related to symptoms of intrusion, regardless of the degree to which a person also experiences online racism. This supports the research that shows race-related worry and rumination can have adverse effects on Black Americans (Clark et al., 2006; Himmelstein et al., 2015).

Overall, findings for hypothesis three suggest that both lived experiences with racism and online racism are uniquely related to symptoms of racial trauma (i.e., physical symptoms, hypervigilance, intrusion), but the relation between lived experiences and racial trauma symptoms do not change based on frequency of online racism. This is consistent with the emerging research on online racism, which shows that online racism is linked to mental health costs and racial trauma (Keum & Miller, 2017; Tynes et al., 2019). Online

racism only moderated the relation between lived experiences with racism and well-being, such that well-being was highest when both online racism and lived experiences were low.

Although not part of the study's hypotheses, results also suggested that social media use may yield increased exposure to direct and vicarious racism, thus triggering adverse psychological responses (i.e., racial trauma symptoms; Keum & Miller, 2019; Mason et al., 2017; Tynes et al., 2019). However, social media use was also found to be significantly positively related to well-being, suggesting that it may also have positive psychological outcomes, thus making outcomes associated with social media use more nuanced.

### **Implications**

Providing multiculturally competent care includes the awareness of race, racism, and discrimination and how these may contribute to, or be the source of, problems that people of color experience (Hemmings & Evans, 2018). The results of this study contribute to the existing research that shows Black individuals' experiences of racism and discrimination are related to negative psychological outcomes, including race-based trauma. For the purpose of the current study, I was interested in three specific outcomes of race-based trauma symptoms: physical reactions, hypervigilance/arousal, and intrusion, given that these symptoms are specific to symptoms of PTSD. Thus, the results of the study may aid clinicians and mental health personnel in helping Black Americans cope with racial trauma, effectively manage their racial stress symptoms, and improve their overall psychological well-being by helping them understand how lived experiences and online racism are linked with negative mental health outcomes among Black individuals. Additionally, research may

also be helpful in better understanding how online users of African descent navigate and cope with contentious online environments.

Considering that following the 2016 presidential election there has been a drastic rise in reported cyberbullying, cyber racism, hate crimes, and live-streamed media footage of racial violence (Edwards & Rushin, 2018), it is important that mental health providers are aware of how current online events are contributing to their clients' presenting concerns. Clinicians may want to have intentional conversations with clients about their online racism exposure and give psychoeducation about its negative psychological effects, while also recognizing that social media use may provide a forum for social connection and political organization.

Given the positive relationship between social media use and well-being, clients may benefit from learning the social justice implications of social media and how it could be used to have their voice heard, build community, and connect with others who are having similar experiences. In the wake of recent social unrest, mass protest, and riots partly due to the war on Black bodies by police and state officials, Black Americans have turned to social media to share their voices and respond to racial bias (Lee, 2017). For example, Black Twitter has evolved as a collective identity that centralizes issues of interest to the Black community. Black Twitter operates as a digital counterpublic that enables new and transgressive forms of organizing, pedagogy and, ultimately, resistance (Hill, 2018). Therefore, the Internet has potential to both expose Black Americans to online racism, while also facilitating social action. It may be beneficial for clinicians to work with their clients in helping them to monitor their exposure to racist online content, while capitalizing on the promises of the

Internet for social justice movement. Moreover, the current study's results could aid in the formation of policy level actions to address the pervasive anti-Black racism online. Social media platforms could improve their community standards and policies to better ensure consumers are safe while using their services. Additionally, social media platforms could create, outline, and enforce consequences for posting harmful content. Specifically, social media platforms could more actively address anti-Black racism and other forms of discrimination by removing harmful content and suspending users who post such messages.

Finally, results from this study have training and supervision implications, as it is important for both trainees and supervisors to be open and willing to acknowledge and address issues of racism and racial trauma in supervision. Supervisors should remain aware and take initiative to learn the ways in which historic and current sociopolitical forces can affect privileged and marginalized trainees. Due to power dynamics, supervisors should take the responsibility of modeling cultural humility and initiating conversations about racial injustice. For example, viral news of an unarmed Black individual being killed at the hand of law enforcement and/or a not-guilty verdict of a long-awaited trial from the case of an unarmed Black individual being killed, may have a significant impact on a Black trainee that warrants intentional check-ins from supervisors and colleagues. Supervisors also need to be aware that trainees may have experienced stereotyping or racial bias in supervision, which may make them less forthcoming or guarded with new supervisors (Constantine & Sue, 2007). Thus, supervisors are encouraged to be patient, sensitive, and consistent when it comes to initiating conversations about racial injustice. Additionally, training programs should consider having policies and community standards in place when it comes to online



learning platforms and forums, as these could potentially be spaces that could feel unsafe for Black trainees. This could include outlining online learning policies and standards in course syllabi and identifying an ombudsperson to whom students could report misconduct.

### **Limitations and Future Directions**

Despite the noteworthy findings of the current study, there are several limitations that inform future research. The exploratory nature of this study, the correlational analysis, and the use of self-reported measures impact the conclusion and generalizability of this study and should be interpreted with caution. This study relied on a convenience sample of Black adults; therefore, this study may not speak to the experiences of all Black adults living in the United States, as there was a lack of subpopulation diversity given that the majority of the sample identified as cisgender men, heterosexual, and African American. Future research could address this limitation by increasing underrepresented identities among Black adults in America. This could be done by through recruiting on various platforms in addition to Amazon Mechanical Turk and community outreach, such as recruiting via social media platforms and specific support groups that serve underrepresented Black adults.

Coding gender dichotomously prior to running analysis to examine for potential covariates was another limitation of this study. Although the current study's sample included individuals who identified outside of cisgender women and cisgender men, it was decided to code gender dichotomously due to having such low numbers of those who identified as transgender and non-binary. Future research may address this by being more intentional to recruit and include more gender diversity in their sample of Black American adults, and examining how these relations may differ across diverse gender identities.

Additionally, this study had some issues related to ethnic identification, as some participants misunderstood the demographic question of ethnicity and identified where they were born (e.g., California or Jamaica) instead how they identify ethnically (e.g., African American or Afro-Caribbean). Thus, a significant number of participants were not able to be included in this study, which may have affected the subpopulation diversity of the sample. To address this issue, future researchers may want to be clearer when it comes to defining ethnicity in their survey. This could be done by adding more description to what the question of ethnicity is asking and having participants click a drop-down box that includes ethnicities in the Black diaspora.

Since the current study did not employ an intervention, but rather relied on a correlational design, no causal inferences can be made about the effects of online experiences with racism or lived experiences with racism on racial trauma symptoms and well-being. Therefore, future researchers may want to conduct longitudinal studies that investigate the psychological effects of online racism.

Another limitation was the measure used to assess well-being. As mentioned previously, well-being may be more of a multi-dimensional construct that refers to the positive aspects of mental health as opposed to simply satisfaction with life. Future research could address this by using a different measure of well-being (Tennant et al., 2007). Furthermore, future researchers could gain a more in-depth understanding of how online racism affects Black individuals by employing a mixed methods study, as qualitative techniques may provide richer descriptions and understanding (Trend Report, 2012).

Choosing to only use the general perceived online racism scale (PORS) factor for regression analyses and not including the subscales of personal experience of racial cyberaggression (PERCA), online-mediated exposure to racist reality (OMERR), and vicarious exposure to racial cyberaggression (VERCA) is a limitation of the current study. The personal experience of racial cyberaggression (PERCA) measures people's direct personal experiences of online racism in their interactions with others (e.g., *Received posts with racist comments*). The online-mediated exposure to racist reality (OMERRR) measures exposure to online content through which individuals witness the reality of racism in society (e.g., *Encountered a viral/trending online racist content*). Finally, the vicarious exposure to racial cyberaggression (VERCA) measures vicarious and indirect experiences of online racism via the observation of other being victimized as targets of racial aggression in online interactions (e.g., *Seen other racial/minority users being threatened to be harmed or killed*). Keum and Miller (2017) found that the personal experience of racial cyberaggression (PERCA) had a correlation ( $r = 0.46, p < .01$ ) with the Perceived Ethnic Discrimination Questionnaire-Community Version Brief (PEDQ-CVB), giving evidence to a possible moderate level of overlap with the lived experiences with racism. It should be noted that the current study found a much stronger correlation between the overall PORS ( $r = 0.83, p < .001$ ) with the PEDQ-CVB. Keum and Miller (2017) also found that the vicarious exposure to racial cyberaggression (VERCA) and online-mediated exposure to racist reality (OMERR) had respective correlations of  $r = 0.13, p < .01$ , and  $r = 0.08, p < .05$  with the PEDQ-CVB, indicating that they may have less overlap with lived experiences with racism. It is possible that the personal experience of racial cyberaggression (PERCA) is driving the

relationship between online and lived experiences with racism and race-based trauma symptoms. Indeed, bivariate correlations revealed that scores on the PERCA demonstrated the strongest relations with the three PTSD outcomes of intrusion (0.64), hypervigilance (0.69), and physical symptoms (0.70). Future research may consider examining these relations at the subscale level to get a more nuanced idea of what aspects of online racism experiences are related to PTSD symptoms and well-being.

Another limitation to consider is the choice to not include Carter et al.'s (2013) full scale model, and instead use the race-based trauma symptoms of hypervigilance, intrusion, and physical symptoms, which were chosen due to their correspondence with hyperarousal and re-experiencing of PTSD, and association with racial discrimination and health outcomes in Black Americans (Thomas & Blackmon, 2015; Carter et al., 2019; Tynes et al., 2019). Carter et al. (2019) found that the RBTSSS subscales of hypervigilance (-0.86), physical symptoms (-0.83), low self-esteem (-0.83), and depression (-0.79) were the most strongly correlated with PTSD trauma-like symptoms, while avoidance (-0.60), anger (-0.60), and intrusion (-0.59) were moderately correlated with PTSD. Future researchers may want to include Carter et al.'s (2013) full RBTSSS to gain a richer understanding on how online racism is linked to racial trauma symptoms. Finally, how online and lived experiences with racism were measured could be seen as a limitation. Both the Perceived Online Racism Scale and the Perceived Discrimination Scale measured the frequency with which participants experience racism but not the severity of each experience. It is possible that someone could score low on these measures, despite having experienced a more significant psychological impact. Future researchers may want to find ways to examine the

intensity of the stress associated with each experience with racism (e.g., subjective stress), to get a clearer understanding of the relationship between experiences with racism and racial stress symptoms.

### **Conclusion**

As individuals spend more time socializing and learning online, it is important to recognize how this medium can affect racial messaging and psychological well-being. Findings from the study suggest that Black adults are at risk of race-based trauma when exposed to social media use and online racism. Results from the current study may help inform the development of interventions to mitigate the harmful psychological impact of lived experiences with racism and online racism. Additionally, findings could help inform structural and policy level initiatives to address the pervasive anti-Black racism in the digital world at the systemic level.

## APPENDIX A

### MTURK INVITATION AND POSTING

To Whom It May Concern,

My name is Rashida Z. Edmondson-Davis, and I am a doctoral candidate at the University of Missouri-Kansas City in Counseling Psychology. I am currently conducting a dissertation study on the impact racial stress and online racism has on well-being and psychological outcomes in Black Americans. This study has been approved by the UMKC Institutional Review Board.

In order to participate you **MUST**:

- Be Black or of African Decent
- Be over the age of 18
- Currently live in the United States of America

**The survey will take approximately 30 minutes to complete.** There will be no identifying information asked of you on any part of the survey, so your responses are completely anonymous and confidential in this regard. That being said, there is a possibility for a breach of confidentiality because MTurk is connected to your Amazon account, leaving an electronic record of your participation with Amazon, but the researchers will not be linking Amazon accounts to participant's responses. There is no known risk in participating in this study, and you are free to withdraw your participation at any time. There are no direct benefits to participating in this study. However, the information acquired from this study will help to extend knowledge regarding the effects of online racism on Black Americans.

If you choose to participate, you will be paid .50 cents from Amazon via MTURK.

Please complete the entire survey in a thoughtful manner. In order to receive compensation, you must complete the entire survey.

This HIT is periodically re-posted. If you've already completed this HIT previously, please do not complete it a second time. You will not be compensated a second time.

Please click on the link below if you are interested in participating:

.....

Clicking this link and beginning the survey indicates that you have read the description of the study and agree to participate.

At the end of the survey, you will receive a code to paste into the box below to receive credit for taking the survey. Make sure to leave this window open as you complete the survey. When you are finished, you will return to this page to paste the code into the box.

If you have any questions, please contact Rashida Z. Edmondson-Davis [rze53f@umsystem.edu](mailto:rze53f@umsystem.edu) or Dr. Kimberly J. Langrehr [langrehrk@umkc.edu](mailto:langrehrk@umkc.edu). You should contact the Office of UMKC's Social Sciences Institutional Review Board at 816-235-5927 if you have any questions, concerns, or complaints about your rights as a research subject.

Thank you for taking the time to consider participating!

Sincerely,

Rashida Z. Edmondson-Davis, M.A.  
Doctoral Candidate in Counseling Psychology  
Division of Counseling and Educational Psychology  
University of Missouri-Kansas City

## APPENDIX B

### SCREENING QUESTIONS

Please answer the following about yourself:

1) Which best describes your racial-ethnic background? (**choose one**)

White

Asian

Black/African

Latina/o/Hispanic

Native/First Nations

Northern African or Middle Eastern

Biracial

Are one of the races you identify with Black? **Y/N**

Multiracial

Are one of the races you identify with Black? **Y/N**

2) Are you a United States Citizen?

3) Are you 18 or older?

### VALIDITY CHECKS

1) To ensure that you are paying attention, please select 1 for this answer

2) To ensure that you are paying attention, please select 3 for this answer

3) To ensure that you are paying attention, please select 2 for this answer



## APPENDIX C

### INFORMED CONSENT

**Request to participate:** You are being asked to participate in a research study on the impact racial stress and online racism has on well-being and psychological outcomes in Black Americans. This study is being conducted by) Rashida Edmondson-Davis (Counseling & Educational Psychology, UMKC) and Dr. Kimberly Langrehr (Counseling & Educational Psychology, UMKC).

**Background & Purpose of the Study.** We would like to gain your perspectives on the effects of online racism. The goal is to assess online racism's impact on Black Americans. To participate in this study, you are confirming that you are (a) of African (Black) descent, & (b) at least 18 years of age. We anticipate that at least 360 participants will complete the survey.

**Procedures:** If you choose to participate in this study, you will be asked to complete a survey & demographic questionnaire. The survey should take 30 minutes or less to complete.

**Voluntary participation:** Your participation in this research study is Completely Voluntary; you may refuse to participate in any part of this study without penalty.

**Confidentiality:** The researchers will make every effort to keep your survey responses confidential. There will be no information on the survey that will personally identify you & no way for your survey response can be linked to particular participants. To ensure your privacy please do not put your name on any part of the survey. Data will only be accessible to the researcher & research team & stored on UMKC's password -protected network. Research Protections Program, & Federal regulatory agencies may look at records related to this study to make sure we are doing proper, safe research & protecting human subjects. The results of this study may be published or presented to others. You will not be named in any reports of the results.

**Risks & Inconveniences:** There are no immediate risks associated with this study. In the event that you do feel some discomfort, resources will be provided so you can further process your feelings.

**Compensation:** Participants who take the survey via MTurk will receive .50 cents if the entire survey is completed.

**Benefits:** The benefit of participating in this study is that you may develop an increased interest in exploring social issues around the effects of online racism. We hope that the knowledge gained from your grouped responses will contribute to improving knowledge about how online racism effect people today.

**Fees & Expenses:** There are no monetary costs to participants in this study.

**Contacts for Questions about the Study:** If you should have any concerns or questions, Rashida Edmondson-Davis can be reached at [rze53f@umsystem.edu](mailto:rze53f@umsystem.edu) and Dr. Kimberly Langrehr can be reached at [langrehrk.umkc.edu](mailto:langrehrk.umkc.edu). Please feel free to contact us any time before or after completing the survey with any questions or concerns you may have. You can also contact the UMKC Institutional Review Board Office at 816-235-5927 if you should have questions about your rights as a research participant.

By continuing to the survey portion of this study, you are indicating that you have read & understood the purpose of the study & are agreeing to participate in this research study.

\_\_\_ I have reviewed the informed consent and am willing to proceed.

## APPENDIX D

### PERCEIVED ONLINE RACISM SCALE

**DIRECTIONS:** We are interested in your personal experiences of racism in online settings as you interact with others and surf the Internet. As you answer the questions below, please think about your online experiences in the past 6 months. Each item begins with the following stem: “In the past 6 months, I have...” Responses are rated on a 5 –point rating scale ranging from 1 (*never*) to 5 (*all the time*).

1. Received racist insults regarding my online profile (e.g., profile picture user ID).
2. Been kicked out of an online social group because I talked about race/ethnicity.
3. Been intentionally invited to join a racist online social/hate group.
4. Received replies/posts suggesting that I should avoid connecting online with friends from my own racial/ethnic group.
5. Received replies/posts suggesting that I should avoid connecting online with friends from my own racial/ethnic group. Received racist insults about how I write online.
6. Been threatened of being harmed or killed due to my race/ethnicity.
7. Received replies/posts hinting that my success is surprising for a person of my race/ethnicity.
8. Received a message with a racist acronym such as FOB (Fresh Off the Boat) or PIBBY (Put In Black’s Back Yard).
9. Been harassed by someone (e.g., troll) who started a racist argument about me for no reason.

10. Received a racist meme (e.g., racist catchphrases, captioned photos, #hashtags etc.).
11. Been tagged in (or shared) racist content (e.g., web sites, photos, videos, posts) insulting my race/ethnicity.
12. Received posts with racist comments.
13. Received replies/posts hinting that what I share online cannot be trusted due to my race/ethnicity.
14. Been unfriended/lost online ties because I disagreed with racist posts.
15. Been informed about a viral/trending racist event happening elsewhere (e.g., in a different location).
16. Been informed about unfairness in healthcare for racial/ethnic minorities (e.g., biased quality of treatment, insurance issues).
17. Seen online videos (e.g., YouTube) that portray my racial/ethnic group negatively.
18. Encountered online resources (e.g., Urban Dictionary) promoting negative racial/ethnic stereotypes as if they are true.
19. Been informed about unfairness in financial gains for racial/ethnic minorities (e.g., earning less money than Whites for doing the same work, unfair housing, and loan opportunities).
20. Been informed about unfairness in education for racial/ethnic minorities (e.g., higher suspension rates for racial/ethnic minority students).
21. Been informed about a viral/trending racist event that I was not aware of.

22. Seen online news articles that describe my racial/ethnic group negatively.
23. Seen photos that portray my racial/ethnic group negatively.
24. Encountered a viral/trending online racist content (e.g., many likes, stars).
25. Encountered online hate groups/communities against non-White racial/ethnic groups.
26. Seen other racial/minority users receive racist comments.
27. Seen other racial/minority users being treated like a second-class citizen.
28. Seen other racial/minority users being treated like a criminal.
29. Seen other racial/minority users receive racist insults regarding their online profile (e.g., profile pictures, user ID).
30. Seen other racial/minority users being threatened to be harmed or killed.

## APPENDIX E

### THE PERCEIVED ETHNIC DISCRIMINATION QUESTIONNAIRE

Directions: Rate your exposure to each item using a 5-point scale ranging from 1 (*almost never*) to 5 (*almost always*).

1. Because of your ethnicity/ race, how often have people been nice to face, but said bad things behind back
2. Because of your ethnicity/ race, how often have people made you feel like an outsider because of appearance
3. Because of your ethnicity/ race, how often have those speaking a different language made you feel like an outsider
4. Because of your ethnicity/ race, how often have people ignored you
5. Because of your ethnicity/ race, how often have people hinted you are stupid
6. Because of your ethnicity/ race, how often have a clerk or waiter ignored you
7. Because of your ethnicity/ race, how often have people called you bad names
8. Because of your ethnicity/ race, how often have people made rude gestures
9. Because of your ethnicity/ race, how often have people hinted you must be lazy
10. Because of your ethnicity/ race, how often have people hinted you must not be clean
11. Because of your ethnicity/ race, how often have people hinted you were dishonest
12. Because of your ethnicity/ race, how often have people not trusted you
13. Because of your ethnicity/ race, how often have people hinted you must be violent.
14. Because of your ethnicity/ race, how often have people not taken you seriously

15. Because of your ethnicity/ race, how often have you been treated unfairly by coworkers
16. Because of your ethnicity/ race, how often has a boss or supervisor been unfair
17. Because of your ethnicity/ race, how often have you been treated unfairly by teachers
18. Because of your ethnicity/ race, how often have people thought you couldn't do things/handle a job
19. Because of your ethnicity/ race, how often have people actually hurt you
20. Because of your ethnicity/ race, how often have people threatened to hurt you
21. Because of your ethnicity/ race, how often have people actually damaged your property or threatened to damage your property

## APPENDIX F

### RACE-BASED TRAUMATIC STRESS SYMPTOM SCALE

**DIRECTIONS:** Before responding to items below, please recall three most memorable experiences with racism and use the most memorable incident to inform how you will choose to respond to each item. Rate your reactions (a) immediately *After* the event (within one month) and (b) more *Recently*. Responses are rated using a 5-point rating scale, ranging from 0 (*does not describe my reaction*) to 4 (*this reaction would not go away*).

As a consequence of the memorable encounter I had with racism,

1. ...I felt that I had nothing to look forward to.
2. ...I felt that life was meaningless.
3. ...I couldn't seem to experience any positive feelings at all.
4. ...I experience tiredness and lack of energy.
5. ...I found it difficult to work up the initiative to do things.
6. ...I find myself spending a lot of time at home and away from family or friends.
7. ...I experience feelings of hopelessness.
8. . . . I experience tearfulness.
9. ...I feel a lack of initiative or a lessened desire to succeed since the event.
10. ...I feel I can seldom do anything right.
11. ...I can't seem to get the event out of my mind even when I try.
12. ...I experience mental images of the event.
13. ...I feel emotionally upset when I am reminded of the event.
14. . . . I find myself thinking about what happened even when I don't want to.



15. ...I just can't believe the event really happened to me.
16. . . . I try not to think about, talk about, or have feelings about the event.
17. ...I tend to stay away from people/places who remind me of the event.
18. . . . there are times when I feel and think as if the event is happening again.
19. ...I become easily pissed off (as if you can't control your temper during an otherwise normal conversation).
20. ...I become easily upset or defensive (for example, when receiving feedback from a peer about a paper you wrote).
21. ...I found myself getting agitated.
22. ...I found myself getting upset rather easily.
23. ...I found it hard to calm down after something upset me.
24. ...I felt that I was rather touchy.
25. ...I tended to overreact to situations.
26. ...I found it difficult to relax.
27. ...I become easily frightened (for example, when you hear subtle noises).
28. ...I feel worried a lot (for example, walking down the street).
29. ...I feel easily intimidated (as if someone is going to hurt you as they walk past you in the street).
30. ...I feel nervous (for example, when others approach you).
31. ...I feel hyperactive all the time (for example, feel like you can't relax).
32. ...I feel paranoid (for example, when people look at you when you walk into a room).
33. ...I experience trouble falling or staying asleep.

34. ...I feel distressed and frustrated about things that used to not bother me.
35. ...I experienced trembling (e.g., in the hands).
36. . . . I was aware of the action of my heart in the absence of physical exertion (e.g., racing heart)
37. ...I experience physical reactions (e.g., heart pounding, trouble breathing, sweating) when something reminds me of the event.
38. ...I experience poor appetite.
39. . . . I was aware of dryness of my mouth.
40. ...I feel as though my heart is beating hard and fast, as if it might pop out of my chest.
41. . . . I was in a state of nervous tension.
42. ...I experience more headaches and stomachaches since the event.
43. ...I feel a sense of responsibility for the event.
44. ...I certainly feel useless at times.
45. . . . I am inclined to feel that I am a failure.

## APPENDIX G

### THE SATISFACTION WITH LIFE SCALE

DIRECTIONS: Below are five statements with which you may agree or disagree.

Using the 1-7 scale below, indicate your agreement with each item by placing the appropriate number in the line preceding that item. Please be open and honest in your responding.

1 = Strongly Disagree

2 = Disagree

3 = Slightly Disagree

4 = Neither Agree or Disagree

5 = Slightly Agree

6 = Agree

7 = Strongly Agree

1. In most ways my life is close to my ideal.
2. The conditions of my life are excellent.
3. I am satisfied with life.
4. So far, I have gotten the important things I want in life.
5. If I could live my life over, I would change almost nothing.

APPENDIX H

DEMOGRAPHIC QUESTIONNAIRE

Please answer the following about yourself:

1. Ethnicity

\_\_\_\_ Please Enter Ethnic Background

2. Gender

\_\_\_\_ Cisgender Man (person declared at birth to be male and identifies as a man)

\_\_\_\_ Cisgender Woman (person declared at birth to be female and identifies as a woman)

\_\_\_\_ Transgender

\_\_\_\_ Non-binary/Gender non-conforming

\_\_\_\_ Other (please write below)

\_\_\_\_\_

3. Sexual Orientation

\_\_\_\_ Heterosexual

\_\_\_\_ Lesbian

\_\_\_\_ Gay

\_\_\_\_ Bisexual

\_\_\_\_ Other (please write below)

\_\_\_\_\_

4. Age \_\_\_\_\_

5. Highest Education Level

- High School
- Associates (2-year)
- Some college (but didn't graduate)
- Undergraduate degree
- Master's degree
- PhD, JD, MD

6. Estimated Yearly Family Income:

- Less than \$10,000
- \$10,000-\$30,000
- \$30,000-\$50,000
- \$50,000-\$70,000
- \$70,000-\$90,000
- Above \$90,000

7. What social class did you grow up in?

- Lower class
- Working class
- Middle class
- Upper class

8. Did you grow up in the United States?    Yes    No

If yes, in what setting? (choose one)

- Rural
- Suburban

\_\_\_Urban

\_\_\_Other \_\_\_\_\_

If no, how many years have you lived in the US? \_\_\_\_

9. Please tell us how often you use the following Internet and/or social media sites. Using the 1-5 scale below, indicate how often you use each platform in the space provided.

1 = Never

2 = A few times

3 = Sometimes

4 = Most of the time

5 = All the time

a. \_\_\_Facebook

b. \_\_\_Twitter

c. \_\_\_Instagram

d. \_\_\_Snapchat

e. \_\_\_YouTube

f. \_\_\_Tumblr

g. \_\_\_Any other Internet platform used to engage in social networking

h. \_\_\_Any other Internet platform used to gain access to media-related stories

i. \_\_\_Other (please list what these platforms are)

\_\_\_\_\_

10. Please tell us how often you use the following ways to access Internet/Social Media sites. Using the 1-5 scale below, indicate how often you use each platform in the space provided.

1 = Never

2 = A few times

3 = Sometimes

4 = Most of the time

5 = All the time

a. \_\_Smart phone

b. \_\_Desktop/Laptop

c. \_\_Tablet

d. \_\_Watches, glasses, or other devices not listed

11. On average, how many MINUTES you spend on social media sites PER DAY

12. On average, how many times do you check social media sites PER DAY

---

## REFERENCES

- Ainslie, R. C., & Brabeck, K. (2003). Race murder and community trauma: Psychoanalysis and ethnography in exploring the impact of the killing of James Byrd in Jasper, Texas. *Journal for the Psychoanalysis of Culture and Society*, 8(1), 42–50.
- Agozino, B. (2003). *Counter-colonial criminology: A critique of imperialist reason*. Pluto Press.
- American Psychological Association. (2019). *Publication manual of the American Psychological Association* (7<sup>th</sup> ed.).
- Back, L. (2002). Aryans reading Adorno: Cyber-culture and twenty-first century racism. *Ethnic and Racial Studies*, 25(4), 628–651.
- Assari, S., Moazen-Zadeh, E., Caldwell, C. H., & Zimmerman, M. A. (2017). Racial discrimination during adolescence predicts mental health deterioration in adulthood: Gender differences among Blacks. *Frontiers in Public Health*, 5, 104.
- Back, L. (2002). Aryans reading Adorno: cyber-culture and twenty-first century racism. *Ethnic and Racial Studies*, 25(4), 628–651.
- Bargh, J. A., & McKenna, K. Y. (2004). The Internet and social life. *Annual Review of Psychology*, 55, 573–590.
- Becker, H., Naaman, M., & Gravano, L. (2011). Beyond trending topics: Real-world event identification on Twitter. *International Conference on Web and Social Media*, 11, 438–441.
- Bickart, B., & Schindler, R. M. (2001). Internet forums as influential sources of consumer information. *Journal of Interactive Marketing*, 15(3), 31–40.
- Bobo, L. D. (2011). Somewhere between Jim Crow & post-racialism: Reflections on the racial divide in America today. *Daedalus*, 140(2), 11–36.
- Bonilla, Y., & Rosa, J. (2015). #Ferguson: Digital protest, hashtag ethnography, and the racial politics of social media in the United States. *American Ethnologist*, 42(1), 4–17.
- Bor, J., Venkataramani, A. S., Williams, D. R., & Tsai, A. C. (2018). Police killings and their spillover effects on the mental health of black Americans: A population-based, quasi-experimental study. *The Lancet*, 392(10144), 302–310.
- Briere, J., & Runtz, M. (1989). The Trauma Symptom Checklist (TSC-33) early data on a new scale. *Journal of Interpersonal Violence*, 4(2), 151–163.



- Brooks Holliday, S., Dubowitz, T., Haas, A., Ghosh-Dastidar, B., DeSantis, A., & Troxel, W. M. (2018). The association between discrimination and PTSD in African Americans: Exploring the role of gender. *Ethnicity & Health*, 1–15.
- Broman, C. L. (1997). Race-related factors and life satisfaction among African Americans. *Journal of Black Psychology*, 23(1), 36–49.
- Brondolo, E., Kelly, K. P., Coakley, V., Gordon, T., Thompson, S., Levy, E., Cassells, A., Tobin, J., Sweeney, M., & Contrada, R. J. (2005). The Perceived Ethnic Discrimination Questionnaire: Development and preliminary validation of a community, version 1. *Journal of Applied Social Psychology*, 35(2), 335–365.
- Brown, T. N., Williams, D. R., Jackson, J. S., Neighbors, H. W., Torres, M., Sellers, S. L., & Brown, K. T. (2000). “Being black and feeling blue”: The mental health consequences of racial discrimination. *Race and Society*, 2(2), 117–131.
- Brunson, R. K., & Miller, J. (2006). Young black men and urban policing in the United States. *British Journal of Criminology*, 46(4), 613–640.
- Bryant-Davis, T., Adams, T., Alejandre, A., & Gray, A. A. (2017). The trauma lens of police violence against racial and ethnic minorities. *Journal of Social Issues*, 73(4), 852–871.
- Bryant-Davis, T., & Ocampo, C. (2005). Racist incident-based trauma. *The Counseling Psychologist*, 33, 479–500.
- Buhrmester, M., Kwang, T., & Gosling, S. D. (2011). Amazon’s Mechanical Turk: A new source of inexpensive, yet high-quality, data? *Perspectives on Psychological Science*, 6(1), 3–5.
- Carlson, E. B. (1997). *Trauma assessments: Clinician’s guide*. Guilford Press.
- Carr, C. T., & Hayes, R. A. (2015). Social media: Defining, developing, and divining. *Atlantic Journal of Communication*, 23(1), 46–65.
- Carter, R. T. (2007). Racism and psychological and emotional injury: Recognizing and assessing race-based traumatic stress. *The Counseling Psychologist*, 35, 13–105.
- Carter, R. T., & Forsyth, J. (2010). Reactions to racial discrimination: Emotional stress and help-seeking behaviors. *Psychological Trauma: Theory, Research, Practice, and Policy*, 2(3), 183.
- Carter, R. T., Forsyth, J. M., Mazzula, S. L., & Williams, B. (2005). Racial discrimination and race-based traumatic stress: An exploratory investigation. In R. T. Carter (Ed.), *Handbook of racial-cultural psychology and counseling: Training and practice* (pp. , 2, 447–476). John Wiley & Sons.

- Carter, R. T., Johnson, V. E., Kirkinis, K., Roberson, K., Muchow, C., & Galgay, C. (2019). A meta-analytic review of racial discrimination: Relationships to health and culture. *Race and Social Problems*, *11*(1), 15–32.
- Carter, R. T., Johnson, V. E., Muchow, C., Lyons, J., Forquer, E., & Galgay, C. (2016). Development of classes of racism measures for frequency and stress reactions: Relationships to race-based traumatic symptoms. *Traumatology*, *22*(1), 63.
- Carter, R. T., Johnson, V. E., Roberson, K., Mazzula, S. L., Kirkinis, K., & Sant-Barket, S. (2017). Race-based traumatic stress, racial identity statuses, and psychological functioning: An exploratory investigation. *Professional Psychology: Research and Practice*, *48*(1), 30.
- Carter, R. T., Kirkinis, K., & Johnson, V. E. (2019). Relationships between trauma symptoms and race-based traumatic stress. *Traumatology*, *26*(1), 11–18. <https://doi.org/10.1037/trm0000217>
- Carter, R. T., Lau, M. Y., Johnson, V., & Kirkinis, K. (2017). Racial discrimination and health outcomes among racial/ethnic minorities: A meta-analytic review. *Journal of Multicultural Counseling and Development*, *45*(4), 232–259.
- Carter, R. T., Mazzula, S., Victoria, R., Vazquez, R., Hall, S., Smith, S., Sant-Barket, S., Forsyth, J., Bazelaïs, K., & Williams, B. (2013). Initial development of the Race-Based Traumatic Stress Symptom Scale: Assessing the emotional impact of racism. *Psychological Trauma: Theory, Research, Practice, and Policy*, *5*(1), 1.
- Carter, R. T., & Muchow, C. (2017). Construct validity of the Race-Based Traumatic Stress Symptom Scale and tests of measurement equivalence. *Psychological Trauma: Theory, Research, Practice, and Policy*, *9*(6), 688.
- Carter, R. T., Muchow, C., & Pieterse, A. L. (2018). Construct, predictive validity, and measurement equivalence of the Race-Based Traumatic Stress Symptom Scale for Black Americans. *Traumatology*, *24*(1), 8–16. <https://doi-org.proxy.library.umkc.edu/10.1037/trm0000128>
- Carter, R. T., & Sant-Barket, S. M. (2015). Assessment of the impact of racial discrimination and racism: How to use the Race-Based Traumatic Stress Symptom Scale in practice. *Traumatology*, *21*, 32.
- Casler, K., Bickel, L., & Hackett, E. (2013). Separate but equal? A comparison of participants and data gathered via Amazon's MTurk, social media, and face-to-face behavioral testing. *Computers in Human Behavior*, *29*(6), 2156–2160.
- Chaney, C., & Robertson, R. V. (2013). Racism and police brutality in America. *Journal of African American Studies*, *17*, 480–505.

- Chaney, C., & Robertson, R. V. (2015). Armed and dangerous? An examination of fatal shootings of unarmed black people by police. *Journal of Pan African Studies*, 8, 45–78.
- Chang, E. C., Chang, O. D., Rollock, D., Lui, P. P., Watkins, A. F., Hirsch, J. K., & Jeglic, E. L. (2019). Hope above racial discrimination and social support in accounting for positive and negative psychological adjustment in African American adults: Is “knowing you can do it” as important as “knowing how you can”? *Cognitive Therapy and Research*, 43(2), 399–411.
- Chaudhry, I. (2015). #Hashtagging hate: Using Twitter to track racism online. *First Monday*, 20(2).
- Chaudhry, I. (2016). “Not so black and white”: Discussions of race on Twitter in the aftermath of #Ferguson and the shooting death of Mike Brown. *Cultural Studies & Critical Methodologies*, 16(3), 296–304.
- Clark, R., Anderson, N. B., Clark, V. R., & Williams, D. R. (1999). Racism as a stressor for African Americans: A biopsychosocial model. *American Psychologist*, 54, 805.
- Clark, R., Benkert, R. A., & Flack, J. M. (2006). Large arterial elasticity varies as a function of gender and racism-related vigilance in black youth. *Journal of Adolescent Health*, 39(4), 562–569.
- Cleland, J. (2014). Racism, football fans, and online message boards: How social media has added a new dimension to racist discourse in English football. *Journal of Sport and Social Issues*, 38(5), 415–431.
- Cohen, S., Kamarck, T., & Mermelstein, R. (1983). Perceived stress scale (PSS). *Journal of Health and Social Behavior*, 24, 285.
- Comas-Díaz, L., & Jacobsen, F. M. (2001). Ethnocultural allodynia. *The Journal of Psychotherapy Practice and Research*, 10(4), 246.
- Cokley, K. (2007). Critical issues in the measurement of ethnic and racial identity: A referendum on the state of the field. *Journal of Counseling Psychology*, 54, 224–234. DOI: 10.1037/0022-0167.54.3.224
- Conover, M. D., Ratkiewicz, J., Francisco, M., Gonçalves, B., Menczer, F., & Flammini, A. (2011, July). *Political polarization on Twitter*. Fifth international AAAI conference on weblogs and social media. <https://www.aaai.org/Conferences/ICWSM/icwsm11.php>
- Constantine, M. G., & Sue, D. W. (2007). Perceptions of racial microaggressions among black supervisees in cross-racial dyads. *Journal of Counseling Psychology*, 54(2), 142.

- Correa, T., Hinsley, A. W., & De Zuniga, H. G. (2010). Who interacts on the Web? The intersection of users' personality and social media use. *Computers in Human Behavior, 26*(2), 247–253.
- Crimmins, E. M., Kim, J. K., Alley, D. E., Karlamangla, A., & Seeman, T. (2007). Hispanic paradox in biological risk profiles. *American Journal of Public Health, 97*(7), 1305–1310.
- Cutler, J. E. (1905). *Lynch-law: An investigation into the history of lynching in the United States*. Longmans, Green, and Company.
- Daniels, J. (2013). Race and racism in Internet studies: A review and critique. *New Media and Society, 15*, 695–719. <http://dx.doi.org/10.1177/1461444812462849>
- de Onís, C. M. (2017). What's in an "x"? An exchange about the politics of "Latinx." *Chiricú Journal: Latina/o Literatures, Arts, and Cultures, 1*(2), 78–91. <https://doi.org/10.2979/chiricu.1.2.07>
- Diener, E. D., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The satisfaction with life scale. *Journal of Personality Assessment, 49*(1), 71–75.
- Dimitrova, K. (2013). *Woman fired after tweet on AIDS in Africa sparks Internet outrage*. ABC News. <https://abcnews.go.com/International/woman-fired-tweet-aids-africa-sparks-internet-outrage/story?id=21298519>
- Din-Dzietham, R., Nembhard, W. N., Collins, R., & Davis, S. K. (2004). Perceived stress following race-based discrimination at work is associated with hypertension in African-Americans: The Metro Atlanta Heart Disease Study, 1999–2001. *Social Science & Medicine, 58*(3), 449–461.
- Dodge, R., Daly, A. P., Huyton, J., & Sanders, L. D. (2012). The challenge of defining wellbeing. *International Journal of Wellbeing, 2*(3).
- Dolezsar, C. M., McGrath, J. J., Herzig, A. J., & Miller, S. B. (2014). Perceived racial discrimination and hypertension: A comprehensive systematic review. *Health Psychology, 33*(1), 20.
- Dovidio, J. (2000). Racism. In A. Kazdin (Ed.), *The encyclopedia of psychology* (Vol. 6, pp. 497–501). Oxford University Press.
- Driscoll, M. W., Reynolds, J. R., & Todman, L. C. (2015). Dimensions of race-related stress and African American life satisfaction: A test of the protective role of collective efficacy. *Journal of Black Psychology, 41*(5), 462–486.

- Duru, O. K., Harawa, N. T., Kermah, D., & Norris, K. C. (2012). Allostatic load burden and racial disparities in mortality. *Journal of the National Medical Association, 104*(1-2), 89–95.
- Edwards, G. S., & Rushin, S. (2018). *The effect of President Trump's election on hate crimes*. [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3102652](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3102652)
- Egede, L. E., & Walker, R. J. (2020). Structural racism, social risk factors, and Covid-19: A dangerous convergence for Black Americans. *New England Journal of Medicine, 383*(12), e77.
- Ellison, N. B., & Boyd, D. M. (2013). Sociality through social network sites. In W. H. Dutton (Ed.), *The Oxford handbook of Internet studies* (pp. 151–172). Oxford University Press.
- Embrick, D. G. (2015). Two nations, revisited: The lynching of black and brown bodies, police brutality, and racial control in “post-racial” Amerikkka. *Critical Sociology, 41*(6), 835–843.
- Equal Justice Initiative. (2015). *Report of the subcommittee on the efficient delivery and adequate funding of legal services to the poor*. Delaware Access to Justice Commission. <https://courts.delaware.gov/forms/download.aspx?id=98708>
- Fang, J., Wen, C., & Prybutok, V. (2014). An assessment of equivalence between paper and social media surveys: The role of social desirability and satisficing. *Computers in Human Behavior 30*, 335–343.
- Fang, C. Y., & Myers, H. F. (2001). The effects of racial stressors and hostility on cardiovascular reactivity in African American and Caucasian men. *Health Psychology, 20*(1), 64.
- Feagin, J. R. (2014). *Racist America: Roots, current realities, and future reparations*. Routledge.
- Field, A. (2013). *Discovering statistics using IBM SPSS statistics*. Sage.
- Ford, J. D., Chapman, J. C., Connor, D. F., & Cruise, K. C. (2012). Complex trauma and aggression in secure juvenile justice settings. *Criminal Justice & Behavior, 39*(5), 695–724.
- Forman, T. A. (2003). The social psychological costs of racial segmentation in the workplace: A study of African Americans' well-being. *Journal of Health and Social Behavior, 332–352*.
- García, J., & Sharif, M. Z. (2015). Black lives matter: A commentary on racism and public health. *American Journal of Public Health, 105*, e27–e30.

- Gee, G. C., & Ford, C. L. (2011). Structural racism and health inequities: Old issues, new directions. *Du Bois Review: Social Science Research on Race*, 8(1), 115–132.
- Geronimus, A. T., Hicken, M., Keene, D., & Bound, J. (2006). “Weathering” and age patterns of allostatic load scores among blacks and whites in the United States. *American Journal of Public Health*, 96(5), 826–833.
- Gerstenfield, P. B., Grant, D. R., & Chiang, C. P. (2003). Hate online: A content analysis of extremist Internet sites. *Analyses of Social Issues and Public Policy*, 3, 29–44. <http://dx.doi.org/10.1111/j.1530-2415.2003.00013.x>
- Gil de Zúñiga, H., Puig-i-Abril, E., & Rojas, H. (2009). Weblogs, traditional sources online and political participation: An assessment of how the Internet is changing the political environment. *New Media & Society*, 11(4), 553–574.
- Gil de Zúñiga, H., Veenstra, A., Vraga, E., & Shah, D. (2010). Digital democracy: Reimagining pathways to political participation. *Journal of Information Technology & Politics*, 7(1), 36–51.
- Goldsmith, J. L., & Wu, T. (2006). *Who controls the Internet? Illusions of a borderless world* (Vol. 89). Oxford University Press.
- Guyll, M., Matthews, K. A., & Bromberger, J. T. (2001). Discrimination and unfair treatment: Relationship to cardiovascular reactivity among African American and European American women. *Health Psychology*, 20(5), 315.
- Hardaker, C. (2010). Trolling in asynchronous computer-mediated communication: From user discussions to academic definitions. *Journal of Politeness Research*, 6, 215–242. <http://dx.doi.org/10.1515/jplr.2010.011>
- Harrell, S. P. (2000) A multidimensional conceptualization of racism-related stress: Implications for the well-being of people of color. *American Journal of Orthopsychiatry*, 70, 42–57.
- Harrison, C., Tayman, K., Janson, N., & Connolly, C. (2010). Stereotypes of Black male athletes on the Internet. *Journal for the Study of Sports and Athletes in Education*, 4(2), 155–172. <http://dx.doi.org/10.1179/ssa.2010.4.2.155>
- Hayes, A. F. (2012). PROCESS: A versatile computational tool for observed variable mediation, moderation, and conditional process modeling [White paper]. <http://www.afhayes.com/public/process2012.pdf>
- Helms, J. E., Nicolas, G., & Green, C. E. (2010). Racism and ethnoviolence as trauma: Enhancing professional training. *Traumatology*, 16(4), 53–62.

- Hemmings, C., & Evans, A. M. (2018). Identifying and treating race-based trauma in counseling. *Journal of Multicultural Counseling and Development, 46*(1), 20–39.
- Hicken, M. T., Lee, H., Ailshire, J., Burgard, S. A., & Williams, D. R. (2013). “Every shut eye, ain’t sleep”: The role of racism-related vigilance in racial/ethnic disparities in sleep difficulty. *Race and Social Problems, 5*(2), 100–112.
- Hill, M. L. (2018). “Thank you, Black Twitter”: State violence, digital counterpublics, and pedagogies of resistance. *Urban Education, 53*(2), 286–302.
- Himmelstein, M. S., Young, D. M., Sanchez, D. T., & Jackson, J. S. (2015). Vigilance in the discrimination-stress model for Black Americans. *Psychology & Health, 30*(3), 253–267.
- Hogan, B., & Quan-Haase, A. (2010). Persistence and change in social media: A framework of social practice. *Bulletin of Science, Technology & Society 30*(5), 309–315.
- Howard P. N., & Parks, M. R. (2012). Social media and political change: Capacity, constraint, and consequence. *Journal of Communication 62*, 359–362.
- Huber, L. P. (2016). Make America great again: Donald Trump, racist nativism and the virulent adherence to white supremacy amid US demographic change. *Charleston Law Review, 10*, 215.
- Huff, C., & Tingley, D. (2015). “Who are these people?” Evaluating the demographic characteristics and political preferences of MTurk survey respondents. *Research & Politics, 2*(3), 2053168015604648.
- Hughey, M. W., & Daniels, J. (2013). Racist comments at online news sites: A methodological dilemma for discourse analysis. *Media, Culture & Society, 35*(3), 332–347. <http://dx.doi.org/10.1177/0163443712472089>
- Hunt, D. S., Lin, C. A., & Atkin, D. J. (2014). Communicating social relationships via the use of photo-messaging. *Journal of Broadcasting & Electronic Media, 58*(2), 234–252.
- Kaplan, A. M., & Haenlein, M. (2010). Users of the world, unite! The challenges and opportunities of social media. *Business Horizons, 53*(1), 59–68.
- Kessler, R. C., Mickelson, K. D., & Williams, D. R. (1999). The prevalence, distribution, and mental health correlates of perceived discrimination in the United States. *Journal of Health and Social Behavior, 208–230*.
- Keum, B. T., & Miller, M. J. (2017). Racism in digital era: Development and initial validation of the Perceived Online Racism Scale (PORS v 1. 0). *Journal of Counseling Psychology, 64*(3), 310.

- Keum, B. T., & Miller, M. J. (2018). Racism on the Internet: Conceptualization and recommendations for research. *Psychology of Violence, 8*(6), 782.
- Kirkpatrick, D. (2011). *The Facebook effect: The inside story of the company that is connecting the world*. Simon & Schuster.
- Kovacs, M. (1992). *Manual of the Children's Depression Inventory*. Multi-Heath Systems.
- Krell-Roesch, J., Lowe, V. J., Neureiter, J., Pink, A., Roberts, R. O., Mielke, M. M., Vemuri, P., Stokin, G. B., Christianson, T. J., Jack, C. R., Knopman, D. S., Boeve, B. F., Kremers, W. K., Petersen, R. C., & Geda, Y. E. (2018). Depressive and anxiety symptoms and cortical amyloid deposition among cognitively normal elderly persons: The Mayo Clinic Study of Aging. *International Psychogeriatrics, 30*(2), 245–251.
- Landrine, H., & Klonoff, E. A. (1996). The schedule of racist events: A measure of racial discrimination and a study of its negative physical and mental health consequences. *Journal of Black Psychology, 22*(2), 144–168.
- Landrine, H., & Klonoff, E. A. (2000). Racial discrimination and cigarette smoking among Blacks: Findings from two studies. *Ethnicity & Disease, 10*(2), 195–202.
- Landrine, H., Klonoff, E. A., Corral, I., Fernandez, S., & Roesch, S. (2006). Conceptualizing and measuring ethnic discrimination in health research. *Journal of Behavioral Medicine, 29*(1), 79–94.
- Lee, L. (2017). Black Twitter: A response to bias in mainstream media. *Social Sciences, 6*(1), 26.
- Lenhart, A., Purcell, K., Smith, A., & Zickuhr, K. (2010). *Social media & mobile internet use among teens and young adults*. Pew Internet & American Life Project. [https://www.researchgate.net/publication/286376855\\_Social\\_Media\\_Mobile\\_Internet\\_Use\\_Among\\_Teens\\_and\\_Young\\_Adults](https://www.researchgate.net/publication/286376855_Social_Media_Mobile_Internet_Use_Among_Teens_and_Young_Adults)
- Lewis, T. T., Cogburn, C. D., & Williams, D. R. (2015). Self-reported experiences of discrimination and health: Scientific advances, ongoing controversies, and emerging issues. *Annual Review of Clinical Psychology, 11*, 407– 440. <http://dx.doi.org/10.1146/annurev-clinpsy-032814-112728>
- Liao, K. Y. H., Weng, C. Y., & West, L. M. (2016). Social connectedness and intolerance of uncertainty as moderators between racial microaggressions and anxiety among Black individuals. *Journal of Counseling Psychology, 63*(2), 240.
- Lojeski, K. S., & Reilly, R. R. (2008). *Uniting the virtual workforce: Transforming leadership and innovation in the globally integrated enterprise* (Vol. 2). Wiley.



- Low, K., Radhakrishnan, P., Schneider, K. T., & Rounds, J. (2007). The experiences of bystanders of workplace ethnic harassment. *Journal of Applied Social Psychology*, 37(10), 2261–2297. doi:10.1111/j.1559-1816.2007.00258.x
- Marwick, A., & Ellison, N. B. (2012). “There isn’t Wifi in heaven!” Negotiating visibility on Facebook memorial pages. *Journal of Broadcasting & Electronic Media* 56(3), 378–400.
- Mason, T. B., Maduro, R. S., Derlega, V. J., Hacker, D. S., Winstead, B. A., & Haywood, J. E. (2017). Individual differences in the impact of vicarious racism: African American students react to the George Zimmerman trial. *Cultural Diversity and Ethnic Minority Psychology*, 23(2), 174.
- Mouzon, D. M., Taylor, R. J., Woodward, A. T., & Chatters, L. M. (2017). Everyday racial discrimination, everyday non-racial discrimination, and physical health among African-Americans. *Journal of Ethnic & Cultural Diversity in Social Work*, 26(1–2), 68–80.
- Murry, V. M., Brown, P. A., Brody, G. H., Cutrona, C. E., & Simons, R. L. (2001). Racial discrimination as a moderator of the links among stress, maternal psychological functioning, and family relationships. *Journal of Marriage and Family*, 63(4), 915–926.
- Nahon, K., & Hemsley, J. (2013). *Going viral*. Polity Press.
- National Public Radio, Robert Wood Johnson Foundation, & Harvard T. H. Chan School of Public Health. (2017). *Discrimination in America: Experiences and views of African Americans*. <https://www.npr.org/assets/img/2017/10/23/discriminationpoll-african-americans.pdf>
- Neighbors, H. W., & Jackson, J. S. E. (1996). *Mental health in Black America*. Sage.
- New York Civil Liberties Union. (2014, August 19). *Stop-and-frisk during the Bloomberg administration (2002–2013)*. <https://www.nyclu.org/en/publications/stop-and-frisk-during-bloomberg-administration-2002-2013-2014>
- Noble, S. U. (2018). *Algorithms of oppression*. New York University Press.
- Noelle, M. (2002). The ripple effect of the Matthew Shepard murder: Impact on the assumptive worlds of members of the targeted group. *American Behavioral Scientist*, 46(1), 27–50.
- Parent, M. C. (2013). Handling item-level missing data: Simpler is just as good. *The Counseling Psychologist*, 41(4), 568–600.

- Park, N., Kee, K. F., & Valenzuela, S. (2009). Being immersed in social networking environment: Facebook groups, uses and gratifications, and social outcomes. *Cyberpsychology & Behavior, 12*(6), 729–733.
- Pavot, W., & Diener, E. (2008). The Satisfaction with Life Scale and the emerging construct of life satisfaction. *The Journal of Positive Psychology, 3*(2), 137–152.
- Pavot, W., Diener, E. D., Colvin, C. R., & Sandvik, E. (1991). Further validation of the Satisfaction with Life Scale: Evidence for the cross-method convergence of well-being measures. *Journal of Personality Assessment, 57*(1), 149–161.
- Perrin, A. (2015). *Social media usage, 2005-2015*. Pew Internet & American Life Project. <https://www.pewresearch.org/internet/2015/10/08/social-networking-usage-2005-2015/>
- Pew Research Center. (2018). *Social media fact sheet*. <http://www.pewinternet.org/2018/02/05/social-media-fact-sheet/>
- Pieterse, A. L., Todd, N. R., Neville, H. A., & Carter, R. T. (2012). Perceived racism and mental health among Black American adults: A meta-analytic review. *Journal of Counseling Psychology, 59*(1), 1.
- Pletcher, M. J., Kertesz, S. G., Kohn, M. A., & Gonzales, R. (2008). Trends in opioid prescribing by race/ethnicity for patients seeking care in US emergency departments. *JAMA, 299*(1), 70–78.
- Polanco-Roman, L., Danies, A., & Anglin, D. M. (2016). Racial discrimination as race-based trauma, coping strategies, and dissociative symptoms among emerging adults. *Psychological Trauma: Theory, Research, Practice, and Policy, 8*(5), 609.
- Prellow, H. M., Mosher, C. E., & Bowman, M. A. (2006). Perceived racial discrimination, social support, and psychological adjustment among African American college students. *Journal of Black Psychology, 32*(4), 442–454.
- Rains, S. A., & Brunner, S. R. (2015). What can we learn about social network sites by studying Facebook? A call and recommendations for research on social network sites. *New Media & Society, 17*(1), 114–131.
- Reinka, M. A., & Leach, C. W. (2018). Racialized images: Tracing appraisals of police force and protest. *Journal of Personality and Social Psychology, 115*(5), 763.
- Reise, S. P. (2012). The rediscovery of bifactor measurement models. *Multivariate Behavioral Research, 47*(5), 667–696.
- Rosenberg, M. (1965). Rosenberg self-esteem scale (RSE). *Acceptance and commitment therapy: Measures package, 61*(52), 18.

- Sastry, A., & Bates, K. G. (2017). *When LA erupted in anger: A look back at the Rodney King riots*. NPR. <https://prod-text.npr.org/2017/04/26/524744989/when-la-erupted-in-anger-a-look-back-at-the-rodney-king-riots>
- Schmitt, M. T., Branscombe, N. R., Postmes, T., & Garcia, A. (2014). The consequences of perceived discrimination for psychological well-being: A meta-analytic review. *Psychological Bulletin, 140*(4), 921.
- Sellers, R. M., Caldwell, C. H., Schmeelk-Cone, K. H., & Zimmerman, M. A. (2003). Racial identity, racial discrimination, perceived stress, and psychological distress among African American young adults. *Journal of Health and Social behavior, 302–317*.
- Slopen, N., & Williams, D. R. (2014). Discrimination, other psychosocial stressors, and self-reported sleep duration and difficulties. *Sleep, 37*(1), 147–156.
- Smith, A. (2014, January 6). *African Americans and technology use: A demographic portrait*. Pew Research Center. <http://www.pewinternet.org/2014/01/06/african-americans-andtechnology-use/>
- Smith, W. H. (2010). *The impact of racial trauma on African Americans*. African American Men and Boys Advisory Board.
- Soto, J. A., Dawson-Andoh, N. A., & BeLue, R. (2011). The relationship between perceived discrimination and generalized anxiety disorder among African Americans, Afro Caribbeans, and non-Hispanic Whites. *Journal of Anxiety Disorders, 25*(2), 258–265.
- Southern Poverty Law Center. (2013). *Sovereign citizens movement*. <https://www.splcenter.org/fighting-hate/extremist-files/ideology/sovereign-citizens-movement>.
- Steinfeldt, J. A., Foltz, B. D., Kaladow, J. K., Carlson, T. N., Pagano, L. A. Jr., Benton, E., & Steinfeldt, M. C. (2010). Racism in the electronic age: Role of online forums in expressing racial attitudes about American Indians. *Cultural Diversity and Ethnic Minority Psychology, 16*(3), 362– 371. <http://dx.doi.org/10.1037/a0018692>
- Stoycheff, E., Liu, J., Wibowo, K. A., & Nanni, D. P. (2017). What have we learned about social media by studying Facebook? A decade in review. *New Media & Society, 19*(6), 968–980.
- Sunstein, C. R. (2002). The law of group polarization. *Journal of Political Philosophy, 10*(2), 175–195.
- Sue, D. W., Capodilupo, C. M., Torino, G. C., Bucceri, J. M., Holder, A., Nadal, K. L., & Esquilin, M. (2007). Racial microaggressions in everyday life: Implications for clinical practice. *American Psychologist, 62*(4), 271.

- Swaine, J., Laughland, O., & Lartey, J. (2015). *Black Americans killed by police twice as likely to be unarmed as white people*. The Guardian.  
<https://www.theguardian.com/us-news/2015/jun/01/black-americans-killed-by-police-analysis>
- Tabachnick, B. G., Fidell, L. S., & Ullman, J. B. (2007). *Using multivariate statistics* (Vol. 5). Pearson.
- Tatum, B. (1994). Teaching White students about racism: The search for White allies and the restoration of hope. *Teachers College Record*, 95(4), 462–476.
- Taylor, J., & Turner, R. J. (2002). Perceived discrimination, social stress, and depression in the transition to adulthood: Racial contrasts. *Social Psychology Quarterly*, 213–225.
- Tennant, R., Hiller, L., Fishwick, R., Platt, S., Joseph, S., Weich, S., Parkinson, J., Secker, J., & Stewart-Brown, S. (2007). The Warwick-Edinburgh Mental Well-Being Scale (WEMWBS): Development and UK validation. *Health and Quality of Life Outcomes*, 5(1), 1–13.
- Terry, P. C., Lane, A. M., Lane, H. J., & Keohane, L. (1999). Development and validation of a mood measure for adolescents. *Journal of Sports Sciences*, 17(11), 861–872.
- Thomas, A. J., & Blackmon, S. K. M. (2015). The influence of the Trayvon Martin shooting on racial socialization practices of African American parents. *Journal of Black Psychology*, 41(1), 75–89.
- Thompson, V. L. S. (1996). Perceived experiences of racism as stressful life events. *Community Mental Health Journal*, 32(3), 223–233.
- Treem J. W., & Leonardi, P.M. (2012). Social media use in organizations: Exploring the affordances of visibility, editability, persistence, and association. *Communication Yearbook*, 36, 143–189.
- Trend Report. (2012). *Freedom on the net 2012: A global assessment of internet and digital media*. <https://trends.ifla.org/node/24>
- Tull, M. T., Forbes, C. N., Weiss, N. H., & Gratz, K. L. (2019). An investigation of the effect of trauma script exposure on risk-taking among patients with substance use disorders and posttraumatic stress disorder. *Journal of Anxiety Disorders*, 62, 77–85.
- Turner, M. A. (2013). *Housing discrimination against racial and ethnic minorities 2012: Executive summary*. U.S. Department of Housing and Urban Development.  
[https://www.huduser.gov/portal/Publications/pdf/HUD-514\\_HDS2012\\_execsumm.pdf](https://www.huduser.gov/portal/Publications/pdf/HUD-514_HDS2012_execsumm.pdf)

- Tynes, B. M. (2007). Internet safety gone wild? Sacrificing the educational and psychosocial benefits of online social environments. *Journal of Adolescent Research, 22*(6), 575–584. <https://doi.org/10.1177/0743558407303979>
- Tynes, B. M., Giang, M. T., Williams, D. R., & Thompson, G. N. (2008). Online racial discrimination and psychological adjustment among adolescents. *Journal of Adolescent Health, 43*(6), 565–569.
- Tynes, B. M., & Markoe, S. L. (2010). The role of color-blind racial attitudes in reactions to racial discrimination on social network sites. *Journal of Diversity in Higher Education, 3*(1), 1–13. <https://doi.org/10.1037/a0018683>
- Tynes, B. M., Reynolds, L., & Greenfield, P. M. (2004). Adolescence, race, and ethnicity on the Internet: A comparison of discourse in monitored vs. unmonitored chat rooms. *Journal of Applied Developmental Psychology, 25*(6), 667–684. <http://dx.doi.org/10.1016/j.appdev.2004.09.003>
- Tynes, B. M., Rose, C. A., & Williams, D. R. (2010). The development and validation of the online victimization scale for adolescents. *Cyberpsychology: Journal of Psychosocial Research on Cyberspace, 4*(2).
- Tynes, B. M., Umana-Taylor, A. J., Rose, C. A., Lin, J., & Anderson, C. J. (2012). Online racial discrimination and the protective function of ethnic identity and self-esteem for African American adolescents. *Developmental Psychology, 48*(2), 343.
- Tynes, B. M., Willis, H. A., Stewart, A. M., & Hamilton, M. W. (2019). Race-related traumatic events online and mental health among adolescents of color. *Journal of Adolescent Health, 65*(3), 371–377. <https://psycnet.apa.org/record/2019-32812-001>
- Umaña-Taylor, A. J., Tynes, B. M., Toomey, R. B., Williams, D. R., & Mitchell, K. J. (2015). Latino adolescents' perceived discrimination in online and offline settings: An examination of cultural risk and protective factors. *Developmental Psychology, 51*(1), 87.
- Utsey, S. O., Giesbrecht, N., Hook, J., & Stanard, P. M. (2008). Cultural, sociofamilial, and psychological resources that inhibit psychological distress in African Americans exposed to stressful life events and race-related stress. *Journal of Counseling Psychology, 55*(1), 49.
- Utsey, S. O., Payne, Y. A., Jackson, E. S., & Jones, A. M. (2002). Race-related stress, quality of life indicators, and life satisfaction among elderly African Americans. *Cultural Diversity and Ethnic Minority Psychology, 8*(3), 224.
- Utsey, S. O., Ponterotto, J. G., Reynolds, A. L., & Cancelli, A. A. (2000). Racial discrimination, coping, life satisfaction, and self-esteem among African Americans. *Journal of Counseling & Development, 78*(1), 72–80.

- United States Census Bureau. (2010). *QuickFacts 2010*. Retrieved from <https://www.census.gov/quickfacts/fact/table/US/PST045217>
- Van Blarcum, C. D. (2005). Internet hate speech: The European framework and the emerging American haven. *Washington and Lee Law Review*, 62(2), 781– 830. <https://scholarlycommons.law.wlu.edu/cgi/viewcontent.cgi?article=1280&context=wlu>
- Veenhoven, R. (1991). Questions on happiness. In F. Strack, M. Argyle, & N. Schwarz (Eds.), *Subjective wellbeing, an interdisciplinary perspective* (pp. 7–26). Pergamon Press. <https://personal.eur.nl/veenhoven/Pub1990s/91c-full.pdf>
- Vingiano, A. (2013, December). *This is how a woman's offensive Tweet became the world's top story*. BuzzFeed.com. Retrieved from <http://www.buzzfeed.com/alisonvingiano/this-is-howa-womans-offensive-tweet-became-the-worlds-top-s>
- Weaver, S. (2011). Jokes, rhetoric and embodied racism: A rhetorical discourse analysis of the logics of racist jokes on the internet. *Ethnicities*, 11(4), 413– 435. <http://dx.doi.org/10.1177/1468796811407755>
- Weston, R., & Gore Jr., P. A. (2006). A brief guide to structural equation modeling. *The Counseling Psychologist*, 34(5), 719–751.
- Williams, D. R., & Mohammed, S. A. (2009). Discrimination and racial disparities in health: Evidence and needed research. *Journal of Behavioral Medicine*, 32(1), 20–47.
- Wood, A. L. (2005). Lynching photography and the visual reproduction of White supremacy. *American Nineteenth Century History*, 6(3), 373–399.

## VITA

Rashida Zalika Edmondson-Davis was born on May 16, 1990, in Atlanta, Georgia. She received a B.A. in Psychology and African Diaspora Studies from the University of Texas at Austin in May 2013. Rashida went on to pursue a Ph.D. in Counseling Psychology in August of 2013 at the University of Missouri-Kansas City (UMKC). In May of 2016, she received her M.A. in Counseling and Guidance from UMKC. During her graduate program, Rashida co-founded the UMKC Black Graduate Student Organization and was a founding member of the Counseling and Educational Psychology Recruitment and Retention Task Force. While at UMKC, she was also the recipient of several fellowships and awards, including the Graduate Opportunity Fellowship, Women's Council Graduate Assistance Fund, and the School of Graduate Studies Research Grant.

Rashida has received clinical practicum training at various sites, including UMKC Community Counseling and Assessment Services, UMKC Counseling Center, Leavenworth VA, Center for Behavioral Medicine KC, and Abundant Life Counseling Center. In August of 2021, Rashida completed her APA pre-doctoral internship at the University of Missouri-Columbia Counseling Center.