The racial and ethnic discrimination stress model: Development, adaptation, and preliminary empirical testing

by

Renée Elizabeth Wilkins-Clark

B.S., Kansas State University, 2017
M.S., Kansas State University, 2019

AN ABSTRACT OF A DISSERTATION

submitted in partial fulfillment of the requirements for the degree

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Department of Applied Human Sciences
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Abstract

Racial and ethnic discrimination (RED) is a common experience in the lives of Black Americans (Anderson, 2019) with connections to mental health (i.e., distress, anxiety, and depression; Carden et al., 2021; Hart et al., 2021; Thomas Tobin & Moody, 2021). For decades, researchers have consistently demonstrated the utility of family stress models to examine stressor-related outcomes; however, only recently have family scientists integrated sociocultural context. These reconceptualized models either do not fully explain familial outcomes associated with mundane extreme environmental stress (MEES) or are difficult to test statistically which limits their applicability. Building off the contextual model of family stress (Boss et al., 2016; Boss, 2002), Study 1 introduced the Racial and Ethnic Discrimination Stress Model (RED-SM) and integrates tenants of Bronfenbrenner’s (2005) ecological model, family systems theory (Kerr & Bowan, 1988), and Symbolic Interactionism (Blumer, 1969) and provided suggestions for its usage in family science with Black young adults. Study 2 tested this framework by examining the relationship between (RED), coping strategies, familial racial socialization (i.e., parent and sibling socialization), and mental health outcomes (i.e., depressive, anxiety, and stress symptomology) with a sample of 314 Black American young adults. Findings of this study demonstrated that family racial socialization significantly mediated the relationship between RED and mental health outcomes and was associated with lower levels of reported depressive and stress symptomology; however, coping strategy usage was associated with increases in these outcomes. Study 3 utilized the same sample to expand upon the findings of Study 2 and address gaps in the literature by directly testing the influence of sibling racial socialization on the relationship between RED and depressive, anxiety, and stress symptomology and examining the role of sibling closeness on the transmission of these racial socialization messages. The findings
of this study demonstrated that sibling racial socialization significantly mediated the relationship between RED and depressive and stress symptomology in similar patterns to family socialization. Sibling closeness and dyadic characteristics (i.e., sibling gender and birth order) were associated with the transmission of sibling racial socialization messages to participants. Overall, findings of all three studies support the utility of the RED-SM to explore factors that can influence the relationship between RED encounters and their related outcomes and highlight how integral siblings are for the transmission of racial socialization and well-being. Additional research using the RED-SM and that explores family socialization, coping strategy usage, and sibling influences on racial socialization may help to inform practices and policy to: (a) decrease the likelihood that Black Americans will experience these events and (b) navigate these experiences with fewer negative consequences to mental health.
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Approved by:
Major Professor
Anthony J. Ferraro, PhD
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Dedication

This dissertation is dedicated first and foremost to my two children, Isaac Gabriel Wilkins Clark and Quinn Julia Wilkins Clark. I love you both dearly, and you inspire me to be better each day and enjoy every moment in life. You are two of the best people in my life, and I look forward to seeing you two grow into the humans you were meant to be.

I would also like to dedicate this dissertation to the memory of my father, Ronald Eric Wilkins, who passed on March 4, 2021. I wish that I could tell you how much your words and teachings have provided me with the passion to continue my work. Although you were not able to see me graduate like you wanted, I will continue to work towards my mission of greater accessibility and application of research.
Chapter 1 - Introduction

Racial and ethnic discrimination continues to be a prominent feature in the lives of Black Americans. This population often reports the highest levels of racial and ethnic discrimination compared to all racial minority groups (Chen & Mallory, 2021; Lee et al., 2019), and around 76% of Black adults report that they experience discrimination due to their race (Anderson, 2019), with as high as 90% of youth reporting discriminatory experiences (Roberts et al., 2012; Seaton et al., 2008). These experiences occur while engaged in common daily activities (i.e., working, engaging with social media, driving; Bleich et al., 2019, Cano et al., 2020) and multiple levels (i.e., individual – person to person; institutional - within schools and healthcare; and cultural levels - attitudes, beliefs, and practices within society; Hope et al., 2019). These experiences have been linked with poor mental health outcomes like depression, anxiety, and stress (Carden et al., 2021; Hart et al., 2021; Thomas Tobin & Moody, 2021).

In an effort to help their children navigate a society that is rife with racial and ethnic discrimination, Black American parents transmit racial socialization messages to their children to prepare them for the bias that they will encounter and instill cultural pride (Hughes et al., 2006). Racial socialization messages from parents have been linked to positive outcomes like lower anxiety and depression (Bannon et al., 2009; Neblett et al., 2013). Though parents are key socialization agents, much of the literature neglects the contributions of other important figures (i.e., siblings, grandparents, close friends, and adult role models) in this process (Said & Feldmeyer, 2022). Siblings in particular are important to development (McHale et al., 2012) and have been found to influence the racial socialization process (Caughey et al., 2011). Thus, further investigation of the socialization messages transmitted to individuals is warranted to obtain a more complete understanding of the racial socialization process.
Study 1

The first study addressed the need for a parsimonious and testable theoretical framework to assess how Black American families respond to an environment where racial and ethnic discrimination is pervasive. We introduced the racial and ethnic discrimination stress model (RED-SM) and demonstrate its utility in examining how resources, racial socialization, and meaning influence the relationship between racial and ethnic discrimination and adjustment. This theoretical framework builds off the contextual model of family stress (Boss et al., 2016; Boss, 2002) and integrates tenants of Bronfrenbrenner’s (2005) ecological model, family systems theory (Kerr & Bowan, 1988), and symbolic interactionism (Blumer, 1969). We highlighted the framework’s application with a young adult population, given the current sociopolitical climate (e.g., rise of post-racial statements, increased visibility of police brutality and other injustices, and increased apathy towards racial injustice intervention; Forman & Lewis, 2015; Lane et al., 2020).

Study 2

The second study aims to test several parts of the larger RED-SM (see Study 1). First, racial socialization was expanded to include socialization messages from siblings. Most studies examine the parental racial socialization process (Priest et al., 2014); though limited, researchers have found that individuals receive socialization messages from other individuals (Minniear & Soliz, 2019; Said & Feldmeyer, 2022; Taylor et al., 2013). For example, sibling relationships contribute to individual development and psychological adjustment (McHale et al., 2012); however, and the research on their contributions to the racial socialization process is limited and needs to be further explored (Caughy et al., 2011; Padilla et al., 2021). Second, we investigated how family socialization and coping strategies mitigated the influence of racial and ethnic
discrimination. Young adulthood is characterized as a time of instability, identity development, and the formation of intimate relationships, and racial and ethnic discrimination can present additional challenges during this time (Arnett, 2000; 2014; Arnett & Brody, 2008). Current young adults have developed or are developing during a time when a Black man was able to obtain the highest office in the country, yet racial and ethnic disparities continue (Baptist, 2014; Craemer et al., 2020). Recently researchers have begun to explore the ways that racial and ethnic discrimination contribute to irreversible physiological changes to the body’s major stress response system (Busse et al., 2017; Lehrer et al., 2020; Seaton et al., 2021; Zeiders et al., 2018), and changes to this system have been linked with poorer mental health (Adam et al., 2017). The findings from this study have practical implications for professionals working with Black American families.

**Study 3**

The third study directly examined potential mediation effects of sibling socialization on racial and ethnic discrimination and mental health. More individuals grow up with a sibling in the home than a residential father, yet sibling relationships continue to be an understudied in family science (McHale et al., 2012). To the best of our knowledge, no studies directly examine the ways that siblings contribute to the racial socialization process. Of the studies that examine the influence of siblings in this way, one study conducted by Padilla and colleagues (2021) found that siblings’ ethnic racial identity exploration in adolescence positively predicted young adults’ ethnic racial identity even after controlling for parents’ ethnic racial identity. Another study found that children received different socialization messages from parents when an older brother was present (Caughy et al., 2011). Additionally, sibling relationships can be sources of emotional support and can contribute to lower levels of internalizing and externalizing behaviors and
greater life satisfaction (Buist et al., 2014; Milevsky, 2019). Individuals are more likely to receive such support when there are higher levels of relational closeness (Burleson, 1985, 2003). The findings from this study will provide a better understanding of the ways that siblings can contribute to well-being during challenging experiences with an underrepresented population.

Taken together, these three studies seek to fill gaps within the family science literature for a social problem faced by a systemically marginalized population. A parsimonious theoretical stress model that: (a) embeds racial and ethnic discrimination as the stressor, (b) incorporates the influence of multiple socialization agents, and (c) incorporates a meaning-making process will serve to provide additional information for researchers and practitioners working with Black Americans. Additionally, as part of a larger mixed-method study, the data collected will inform the qualitative component, which will provide additional nuance on the racial socialization process and the meaning-making process for the RED-SM.
Chapter 2 - Development of the Racial and Ethnic Discrimination Stress Model
Abstract

Family stress models have been used extensively in family science for decades and have consistently demonstrated utility in the examination of familial responses to stressors. Although these models have been applied to research on Black families and researchers have more recently considered the impact of integrated sociocultural context, and reconceptualized models accordingly, current models do not fully explain familial outcomes associated with mundane extreme environmental stress (MEES), and the simultaneous influence of an iterative meaning-making process. To address this gap, we extend the contextual model of family stress, through integrating the concept of MEES and propositions from symbolic interactionism, family systems theory, and ecological theory. We introduce the Racial and Ethnic Discrimination Stress Model (RED-SM), a conceptual framework to explain how the mundane extreme environment, resources, and socialization messages contribute to a meaning-making process that influences adjustment outcomes for Black Americans. We conclude by offering suggestions for its usage in family science for future research.

Keywords: family stress theory, contextual model of family stress, Black youth, emerging adults
Introduction

Black American youth must navigate the process of identity development much like the youth of any other racial or ethnic group; however, they must do so within the context of prevalent, systemic racism in society. Despite the inauguration of the first Black president of the United States in 2008 and post-racial rhetoric (i.e., statements that suggest that America has moved beyond issues of race and ethnicity), Black Americans are bombarded by instances of racial inequity, tension, and attacks (Huber, 2016). Though the vast majority of research on the prevalence and consequences of racial and ethnic discrimination (RED; i.e., differential treatment on the basis of race that disadvantages a racial and/or ethnic group; Blank et al., 2004) has focused on adult populations (Pachter et al., 2010), some researchers have documented the salience of RED for minority youth (Umaña-Taylor, 2016). Researchers have found perceived RED to have occurred for as high as 90% of Black American youth (Roberts et al., 2012; Seaton et al., 2008).

Perceived discrimination, especially during adolescence, may have consequences for identity formation as it is during this time that children become more aware of how racial-ethnic differences are connected to social disadvantage, which conveys information about the status of one’s racial and ethnic group in society (Quintana, 1998). Researchers found that Black girls’ understanding of what it meant to be a part of their own race was connected to social processes related to bias and discrimination (Mims & Williams, 2020). These experiences during adolescence may further complicate identity formation during later developmental time periods. Arnett (2000, 2014) defines emerging adulthood as an extended period of identity development, between the ages of 18 and 29, that is characterized by additional markers such as instability, self-focus, feeling in between, and optimism. It also represents a time in which individuals will
have more opportunities to navigate life challenges and their evolving sense of self on their own (Arnett, 2000); however, Black Americans may face significant challenges to identity formation compared to other emerging adults (Arnett & Brody, 2008).

An alternative framing to this developmental period can be attributed to Erikson (1980), who defines young adulthood as a time of increased commitment and intimacy with others, with the successful navigation of this development period influenced by identity development during adolescence. The stage is conceptualized to last from roughly the ages of 18 and 40. It is important to recognize both stages as members of the Millennial and Generation Z cohorts have navigated or are navigating identify formation during the unique sociocultural time mentioned herein, and thus fall under the omnibus categories of emerging adulthood or young adulthood. Specifically, Black young adults must navigate identity development, while also facing barriers such as anti-Black racial discrimination when seeking employment or admission to colleges and universities (Pager & Shepherd, 2008). Having to face these challenges simultaneously is a unique experience among Black young adults, and the intersection of such experiences has been understudied, highlighting the need for further work, which explores how this population perceives themselves in relation to their environment.

Researchers have found that Black children who learn about and are exposed to racial discrimination experience heightened levels of anxiety, depression, and helplessness (Davis & Stevenson, 2006; Osborne et al., 2021). In a longitudinal study, Hurd and colleagues (2014) found that Black emerging adults who perceived discrimination reported greater depressive and anxiety symptoms over time. RED is an important and understudied form of adversity that can affect how the body reacts to stress, which has long-term implications (Adam et al., 2020). Previously, researchers have found that exposure to racial and ethnic discrimination is associated
with alterations to the stress-responsive hypothalamic-pituitary-adrenal (HPA) axis and that the direction of the effect depended on the timing and chronicity of the experiences (Busse et al., 2017). Using longitudinal data, researchers found that RED levels from adolescence were related to cortisol levels at age 32 (Adam et al., 2015). Further, research indicates that ethnic-racial identity was related to better-regulated cortisol levels for Black participants (Adam et al., 2020). An examination of the factors that promote positive identity and well-being may illuminate potential leverage points that could serve to mitigate the effects of RED as Black youth launch into adulthood.

Racial socialization has been operationalized as the messages that parents communicate to their children about race, discrimination, and cultural heritage (Hughes et al., 2006). Racial socialization can play a critical role in mitigating the influence of RED for Black youth and has been well-documented for its ability to buffer the negative effects of awareness of oppression and discrimination regarding minority children functioning. Positive racial socialization and cultural pride are associated with higher reports of self-esteem (Harris-Britt et al., 2007) and lower rates of depression, anger (Davis & Stevenson, 2006), and anxiety (Bannon et al., 2009). Youth who experience racial discrimination but do not receive support in the form of racial socialization are more susceptible to internalizing discriminatory or stigmatizing experiences (Richardson et al., 2014). Although much of the research on racial socialization has focused on its role as a protective factor against the harmful effects of racism, it serves as more than a buffer for negative outcomes. Racial socialization has also been found to be a predictor for positive outcomes in youth, including the ability to form connection by creating positive bonds with peers, family, and community (Evans et al., 2012), increased perceived competence in skills (i.e.,
academic, social, emotional; Evans et al., 2012), and improved academic performance, motivation, and engagement (Wang et al., 2020).

Calls to consider the sociocultural context of Black families have been made for roughly the last 30 years (Allen, 1995; Burton et al., 2010; McAdoo, 1998); however, theories that incorporated the experiences of Black families, specifically, within the larger sociocultural setting remained undeveloped. More recently, Buehler and Few-Demo (2018) put out a call to family and developmental scholars to integrate critical race theory and intersectionality into family science. Revising theories to center race and ethnicity provides greater utility for racial and ethnic minorities and provides opportunities to consider how well these theories capture the experiences of these populations (Murry et al., 2018). This process also allows for the creation of theories that better explain these experiences; however, to the best of our knowledge, no theory exists that frames Black familial adjustment to RED that incorporates an iterative meaning-making process and the vast range of the racial socialization messages that they receive. To these points and the current sociocultural context, this paper seeks to utilize existing theoretical frameworks and extant literature to create a singular conceptual framework that can be used to examine ways that environmental RED, resources, and socialization messages (that occur from within and/or are in reference to the environment itself) contribute to a meaning-making process that influences adjustment outcomes for Black Americans. We begin our discussion by first acknowledging theoretical perspectives already in existence that explain either the experiences of RED or distal outcomes related to RED for racial and ethnic minorities. Next, we propose a theoretical framework developed through the extension of the Contextual Model of Family Stress (CMFS; Boss, 2002; Boss et al., 2016) that integrates the concept of MEES (Carroll, 1998) and propositions from family systems theory (Kerr & Bowen, 1988), ecological theory
(Bronfenbrenner, 2005), and symbolic interactionism (Blumer, 1969). We conclude by offering suggestions for family and developmental scholars that use our conceptual model as a foundation for future research.

Acknowledgement of Theoretical Forebears

Mundane Extreme Environmental Stress

Pierce (1974) was the first to describe the environment in which Black Americans live, to be a mundane extreme environment, namely an environment where racism and oppression were so pervasive, ongoing, and mundane that Black Americans must experience daily micro-aggressions that are inherent in the environment. Carroll (1998) labeled the stress of living in such an environment as mundane extreme environmental stress (MEES) because the impact on Black individuals and their families is “stressful, detracting and energy-consuming” (p. 271). We agree with the framework of MEES as one that explains the lived experiences of Black Americans. Therefore, rather than viewing RED as singular instances that occur within the environment, we suggest that it is better to view RED as being inherent to the environment.

Racial Encounter Coping Appraisal and Socialization Theory

Anderson and Stevenson (2019) proposed a theoretical model to account for the moderating role of racial socialization in stress, self-efficacy, and coping processes during two appraisal processes for ethnic and racial minorities, titled the racial encounter coping appraisal and socialization theory (RECAST). In this model, the identification of RED contributes to the primary appraisal process. The secondary appraisal process is one in which a decision on how to navigate RED occurs. The relationship between the primary appraisal process and coping and self-efficacy is assumed to be moderated by racial socialization (parent-child interactions), and the relationship between the primary appraisal process and the secondary appraisal process is
mediated by racial coping and self-efficacy. The secondary appraisal process then contributes to individual outcomes. So, for example, a person of color is told they are “articulate.” The primary appraisal is hearing this statement and recognizing it as racist. The second appraisal is when the person decides, primarily based on the congruency between the available resources and the situation, is how a person deals with the racism, such as ignoring it or pointing it out to the perpetrator.

Though, we agree that racial socialization contributes to the overall process of how individuals respond to RED, we contend that several propositions of RECAST do not adequately account for the range of experiences for Black youth. From a RECAST perspective, the process of racial socialization is assumed to begin when individuals recognize experiences as discriminatory, after the first appraisal process. As such, this theory fails to account for the environment being one in which discriminatory encounters are inherent, as outlined by Pierce (1974). The mundane stressful environment establishes that racism is not experienced in singular situations or instances and is instead marked by its ubiquitous and pervasive nature; it is also categorized by increased exposure to violence and risk (Pierce, 1974). For example, Black Americans are more likely to be exposed to pollution (Clark et al., 2014), suffer from poverty (Iceland, 2019), have access to less nutritious food (Wright et al., 2016), attend schools with less resources (Sosina & Weathers, 2019), and die during altercations with the police (Edwards et al., 2018). Therefore, rather than being isolated, instances of RED should be viewed as pervasive and rooted into the environment itself. These experiences influence Black Americans even if they do not perceive these instances to be discriminatory. For example, researchers have found that Black mothers experience lower quality care during delivery than other populations (Mehra et al., 2020). It is possible that a Black mother, faced with this experience, may not perceive
discrimination in the care that she received; however, the lack of sufficient care can be attributed to RED, namely healthcare workers’ negative assumptions and stereotypes about Black women and motherhood (i.e., single mothers who drain the welfare system), which enables healthcare professionals to treat these women with contempt instead of compassion (Mehra et al., 2020).

Second, it is assumed that parents begin the racial socialization process after the experience of RED and that this process is one that is inherently stressful. We disagree with this conceptualization. First, this framing fails to consider the myriad of ways that socialization happens outside of discriminatory racial experiences and structured conversations between parents and children. In other words, racial socialization is operationalized as an end product rather than a process that unfolds overtime across many instances. Due to the idea that discrimination is an integral part of the environment (Pierce, 1974), there may be no one point that initiates racial socialization. Additionally, the process of racial socialization does not have to be inherently stressful. Black parents may uniquely consider racial socialization as an inherent part of their parenting responsibilities due to the experience of living in a racially discriminatory world. For example, parents might ensure that their children receive positive messages about features like hair, skin, etc. to counteract the societal messages that favor European features, straight hair, and light skin (McWhorter, 2021). In this socialization process, Black parents can also communicate cultural feelings of pride, group unity, and commitment. For example, parents might educate their children on the accomplishments made by Black Americans despite the racism and adversity they faced to instill hope in their children, and they may communicate messages about the importance of supporting the community by being patrons of Black businesses (Coard et al., 2004). Finally, the focus on parent-child racial socialization ignores another important dyad present in the family home in the form of siblings. Though the literature
in this area is limited, some researchers have found that siblings may act as influencers of racial socialization as well (Caughy et al., 2011; Padilla et al., 2021).

Third, appraisal as defined by Anderson and Stevenson (2019) is only attributed to the RED experiences. We argue that though individuals appraise RED due to their experiences, individuals also incorporate messages from other sources in their appraisals. As has been mentioned, parents may be an important resource; however, the limitation of racial socialization to only the messages communicated by parents does not account for the messaging that children receive from important others about their race and ethnicity, discrimination, and cultural heritage. Ecological theory (Bronfenbrenner, 2005) views development as a complex system of interactions that are influenced by various sources from immediate settings and relationships to the broader sociocultural setting. Siblings are an oft-forgotten relationship in both family and developmental science (McHale et al., 2012), and some researchers have found them to be sources of racial socialization as well (Caughy et al., 2011; Padilla et al., 2021). Additionally, Black youth receive racial messages from both the external environment (e.g., peers and school), as well as the broader culture (Adams-Bass, 2014; Aldana & Byrd, 2015; Minniear & Soliz, 2019). Taken together, these limitations may suggest that RECAST is not an ideal framework to explore topics related to Black youths’ adjustment to the mundane extreme environment.

**Integrative Model for the Study of Stress in Black American Families**

Murry and colleagues (2018) responded to Buehler and Few-Demo’s (2018) call for a revision of theories to integrate intersectionality and race by conducting a systemic review of the literature and combining tenets of (1) family stress theories (Hill, 1949; 1958; McCubbin & Patterson, 1983), (2) ecological theory (Bronfenbrenner, 2005), (3) García Coll and colleagues’ (1996) integrative model, (4) mundane extreme environmental stress (MEES; Peters & Massey,
1983), and (5) the family resilience conceptual model (Walsh, 2015), to construct an integrative model for the study of stress in Black American families. Although this model better captured the nuances of the contextual factors that affect Black American families than previous family stress models, the model lacks parsimony, which makes it particularly difficult to theoretically test. The operational definition of MEES is such that several of the constructs in the larger model can be collapsed and labeled as MEES to enhance testability. For example, Murry et al. (2018) consider distinction between historical vestiges of slavery and Jim Crow laws, RED current sociocultural contextual stressors, and the social position of Black families. We contend herein that all of these are descriptors of mundane, extreme environmental stress and distinction between them is unnecessary as systems of oppression work in ways that mutually reinforce one another.

Another noteworthy consideration is that this integrative model does not include or account for meaning-making processes. Meaning can influence the relationship between events and adjustment. It is possible for individuals to experience RED without perceiving these encounters to be discriminatory. The ways in which children are socialized influences not only their awareness of RED but their feelings as well. Theoretical frameworks that examine the relationship between RED and adjustment should incorporate some meaning-making process rather than simply attribute outcomes to stressors and/or protective factors.

**Overview of Family Stress Models**

Reuben Hill’s (1949) ABC-X family stress model was the first to examine how families adjusted to stress and resulted from his research of World War II veterans and their families. In Hill’s (1949) conceptual model, the A represents the stressor event; B, the family’s resources to meet the crisis event; C, the family’s perception of the event; and X, the family’s adjustment to
the event. This model served as a foundation for the development of an expanded model created by McCubbin and Patterson (1983) called the family adjustment and adaptation response (FAAR), or the double ABC-X model, which includes the effect of time and additional sources of stressors. In the double ABC-X model, aA represents pile-up of stressors and strains, particularly after an initial event, bB, the new and existing resources for the family, and cC, the family’s perception of aA and bB. Together these factors contribute to coping, which then leads to adaptation, either positive (bonadaptation) or negative (maladaptation). Though there is not a singular standard of what makes a “good” theoretical framework, some scholars have suggested that theories are better when they acknowledge the sociocultural context and can reflect the “complexity and uniqueness” of different populations (Doherty et al., 1993, p. 26). As currently constructed, these family stress models do not integrate a sociocultural lens, which would increase applicability for racial and ethnic minorities.

More recently researchers have sought to address this gap. Boss and colleagues (2002; 2016) expanded upon Hill’s ABC-X model by incorporating the role of context through the integration of symbolic interactionism (LaRossa & Rietzes, 1993) in understanding families’ adjustment to stress in the contextual model of family stress (CMFS). In this model (Boss, 2002; Boss et al., 2016), context is defined as the culture, history, economics, development, and genetic makeup (e.g., race, class, gender, etc.) that influences how family members perceive stressors. Hill’s (1949) model is embedded within the aforementioned context. Another recent example of theory building in response to requests for the inclusion of intersectionality and sociocultural context in family theories, is Smith and Landor’s (2018) development of the sociocultural family stress (SFS) model. Their model embeds the family’s position within family stress processes as developed by Boss and colleagues (2016) with the underlying assumption that families become
more vulnerable to the experience of stress as they are further marginalized across multiple identities, like race, gender, sexuality, etc., but Black families also face other structural oppressions, such as classism, sexism, and colorism, as a result of the mundane extreme environment (Smith & Landor, 2018). We agree with this assumption; however, it should be noted that Smith and Landor’s (2018) model seeks to explain how the sociocultural context influences stress that Black families face in general. In contrast, our focus is on how Black family members experience outcomes in response to the mundane extreme environment, conceptualizing it as a stressor, specifically. In other words, rather than the mundane extreme environment being the context by which families navigate, we aim to understand adjustment to the MEES and the mechanisms that alleviate the impact of this stressor, therefore complementing prior work and providing an alternative framing for the use of MEES.

Racial and Ethnic Discrimination Stress Model (RED-SM)

In light of the national events that have unfolded over the last 15 years and the influence that sociocultural events have on familial and individual experiences, functioning, and dynamics, this paper aims to expand family stress theories through the integration of propositions from family systems theory and symbolic interactionism through the centering of race and ethnicity. Though we acknowledge that family stress models serve to explain a family’s response to stressors, in this paper we utilize RED-SM to better understand individual adjustment to stressors. Given the importance of the sociocultural context and a greater understanding of how meaning can influence prolonged identity development and well-being for Black youth, the CMFS serves as a suitable foundational framework by which to examine Black family members’ responses to RED. We provide extensions of CMFS in the four main ways, detailed as follows.
First, we acknowledge the work conducted by previous researchers to: (a) account for the ways that individuals respond to RED (Anderson & Stevenson, 2019; Carroll, 1998; Murry et al., 2018; Pierce, 1974), (b) account for outcomes related to stress (Hill, 1949; McCubbin & Patterson, 1983), and (c) extend knowledge of the influence of stress on individual and family outcomes via an incorporation of contextual factors (Boss; 2002; Boss et al., 2016; Smith and Landor., 2018); our goal is to explain how Black family members adjust to the stress of the mundane extreme environment and how their resources and perceptions of these experiences influence their outcomes. To that point, we aim to reconceptualize the stress event or circumstance in CMFS from one that is assumed to be a specific event or circumstance to include both covert and overt experiences of racism that are embedded within the environment as a life circumstance in and of itself, through the concept of MEES (Carroll, 1998; Pierce, 1974). Rather than include MEES as a contextual factor, we seek to expand its theoretical placement and use within the broader stress literature, and instead consider it as an a-factor.

Our second aim is to extend family perceptions to include racial socialization from multiple sources including the immediate family, external interactions and messages, and the larger cultural setting. Ecological theory (Bronfenbrenner, 2005) posits that individuals develop, and are therefore socialized, by multiple levels of interactions. Parents represent but one racial and ethnic socializer. Other family members, like siblings, grandparents, and extended and fictional kin, are also important socializers (Said & Feldmeyer, 2022). Additionally, Black youth also receive messages about race and ethnicity from socializers like external sources like schools, the local community, and the larger American cultural setting like historical events, laws, and attitudes.
Third, we suggest that racial socialization is not something that occurs as a reaction to a specific racial or ethnic discriminatory event. Messaging occurs over time and across contexts and settings. As previously stated, Bronfenbrenner’s (2005) ecological theory asserts that human development across the lifespan is affected by the interactions an individual has with their environment and the larger systems that influence that environment. Thus, ecological theory provides a theoretical framework for positing racial socialization as a continuous process that happens across different settings and environments. In a study examining the motivations behind racial socialization for Black fathers, participants reported their own experiences, negative media portrayals, preservation of families, developing awareness, cultivating positive identities, and achievement, as the reasons why they communicate race-related messages to their children (Cooper et al., 2020). Though limited, these findings offer support for the idea that racial socialization is a complex process which is not solely reactive and can develop or change overtime.

Last, we also seek to extend the model by incorporating a meaning-making process that is dynamic and influenced by multiple factors, not simply acting in direct response to a stressor or stressors. This is similar to what was done previously by McCubbin and Patterson (1983). Blumer (1969) describes the meaning-making process as one in which individuals check and recheck the information that they receive in order to develop and refine meaning. Therefore, the meaning that an individual constructs, relative to RED depends on the circumstance, the entirety of the received messages regarding race and ethnicity, and the resources that they perceive to be influential in shaping their experience of RED. Thus, the meaning-making process is influenced by socialization, but socialization is only one of a vast assortment of factors that shapes this process, underscoring the importance of not conflating the two conceptually. Though small, there
is a body of literature that examines meaning related to racial socialization messaging. Individuals may receive a variety of racial socialization messages from family, peers, school, the media, etc.; however, the meaning that they ultimately construct will be dependent upon their own iterative, meaning-making process. In a qualitative study, Mims and Williams (2020) found that Black adolescent girls constructed meaning, in part, through the messages that they received from a multitude of sources (e.g., family, school, classrooms, and peers) but still relative to a larger sociocultural backdrop inclusive of the discrimination that they faced. For example, the participants in this qualitative study could point to instances of discrimination that they faced and attribute meaning to these experiences while at the same time receiving RED messages such as negative connotations of cultural hairstyles, like braids, behaviors, (e.g., being perceived as controlling), and minimization (e.g., implications that racism is no longer a current issue; Mims & Williams, 2020). Despite these RED messages, Black youth can still report feelings of pride, which suggests the co-occurrence of a set of intertwined feedback processes, which simultaneously work to form a complex and interpretive meaning-making process.

Therefore, we propose the racial and ethnic discrimination stress model (RED-SM), which holds that the mundane extreme environment (A), in combination with resources and coping strategies (B), and perceptions of racial socialization (C) contribute to an iterative meaning-making process that influences outcomes (X) of Black, American individuals (see Figure 2.1). The following section provides information from the extant literature that speaks to the points addressed and demonstrated in the model. Using CMFS (Boss; 2002; Boss et al., 2016) as a framework, we highlight how the process by which Black emerging adults attribute meaning is dependent upon their experience of the mundane extreme environment, their resources to mitigate the effects of MEES, and their perception of socializing messages, and how
these factors contribute to their identity formation/maintenance and well-being. We acknowledge that the conceptual model can be utilized with any member of the family; however, we focus on Black emerging adults given the cultural significance at this time (i.e., Black youth coming of age amidst more visible images of RED and prevalence of post-racial narratives). Propositions are similar to what Boss and colleagues (2016) proposed with the exception of the last proposition (#6) as stressors associated with the mundane, extreme environment are not acceptable.
Table 2.1. Comparison of Theoretical Propositions

<table>
<thead>
<tr>
<th>CMFS Propositions (Boss et al., 2016, p. 15)</th>
<th>RED-SM Propositions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Strong families can become immobilized when stressed to the point of crisis.</td>
<td>1. All Black families face discrimination, knowingly or unknowingly, as a result of the environment, and adapt to this stressor.</td>
</tr>
<tr>
<td>2. Families differ in how they define stressful events due to their values, beliefs and how they attribute meaning to the stressful situation</td>
<td>2. Families differ in how they define RED due to a multitude of socialization messages.</td>
</tr>
<tr>
<td>3. The meaning that is attributed to a situation is often influenced by context, (i.e., gender, age, race, ethnicity, and class).</td>
<td>3. Families also differ in the meaning that they attribute to RED, and this meaning is influenced by their own discriminatory experiences, the messages that they have received about discrimination, and the resources available to them to combat RED.</td>
</tr>
<tr>
<td>4. Mind and body are connected, such that psychological stress can lead to physical ailments, and this process has the ability to influence the entire family.</td>
<td>4. A link exists between the physiological stress resulting from RED and physical ailments.</td>
</tr>
<tr>
<td>5. Some family members may be stronger or more resilient to the effects of stress than other members.</td>
<td>5. Some family members may be more resilient to the effects of RED stress or may experience discrimination differently.</td>
</tr>
<tr>
<td>6. The experience of a crisis is not always “bad”</td>
<td>6. The experience of RED is never acceptable.</td>
</tr>
</tbody>
</table>
The Mundane Extreme Environment (A)

Boss and colleagues (2016) provide several classifications of stressors, which include the source (i.e., either beginning internally within the family or externally); type (i.e., stressors that are expected or unexpected, ambiguous or clear, and wanted or unwanted); duration (i.e., chronic versus acute); and density (i.e., cumulative or isolated to one stressor). The proposed model conceptualizes the A factor as the mundane extreme environment. The concept of MEES is one in which acts of discrimination and racism are so ingrained in the environment that they are expected, ongoing, and pervasive (Carroll, 1998; Pierce, 1974). In line with the definition of stressor events (Boss et al., 2016), MEES represents an unwanted stressor that is external to the family. Acts of RED within the mundane extreme environment are also both predictable and unexpected and may be either ambiguous or clear. Furthermore, despite specific RED acts being
acute or chronic, RED as a facet of the mundane extreme environment is a persistent circumstance, given the treatment of Black people over the course of U.S. history.

RED in America is as old as the country itself. The African ancestors of Black Americans did not willingly enter the U.S. and were enslaved for the benefit of White people. Enslaved people were considered property and their value depended solely on the fit between their characteristics (age, sex, ability to work, etc.) and the needs of those who enslaved them (Radburn, 2015). The failure of politicians to fulfill promises of aid to Black citizens in an effort to unify the nation and pacify southern states, left newly freed Black Americans empty handed despite their extensive contributions to the country through unpaid labor and wartime service (Baptist, 2014). Such negligence stemmed from White Americans’ belief in the inferiority of Black people and played a role in the continued oppression of Black Americans via laws that maintained subordinate status, like Jim Crow laws (i.e., poll taxes, literacy tests), segregation in public places like schools, employment discrimination, housing discrimination (i.e., redlining, higher interest rates, inability to use V.A. loans), etc. (Baptist, 2014; Bonilla-Silva, 2003). These historical events, driven largely by discriminatory beliefs, have a direct influence on the inequity that Black Americans face today (Craemer et al., 2020).

Researchers have found that Black individuals experience RED across multiple settings in the environment. Researchers have found that racism and discrimination happen at the individual, institutional, and cultural levels (Hope et al., 2019). At the individual level, RED can manifest through bigotry, prejudice, and microaggressions (Jones, 1997; Sue, 2010). Institutional forms of RED are comprised of systemic inequity, hidden in the support structures of the environment (Jones, 1997; Saleem & Lambert, 2016). Within overarching U.S. culture, discrimination is continued via a system of encompassing beliefs, norms, and practices of the
society that favor specific groups and mutually reinforce one another (Reskin, 2012). Despite decreases in support for more visible discrimination (i.e., segregation), racial apathy and sentiments of indifference or resistance to continued intervention to address racial inequity by younger White American cohorts (Forman & Lewis, 2015).

The experience of the mundane extreme environment happens over time and takes many forms. Rather than only viewing RED as overt and isolated events, in line with the MEES concept, these instances should also be seen as inherent to the environment and often subtle. The denial of racism represents a mechanism by which instances of racism continue in cultural and covert forms (Essed, 1988). Such covert experiences, though often unintentional, can be frequent and can occur across different settings. Black Americans must address the typical stressors of daily living like any other population, as well as a set of additional stressors that are uniquely specific to them as people of color. For example, colorism, a byproduct of racism, has been found to influence the achievement status of Black Americans in education and employment (Dhillon-Jamerson, 2018). Even when obtaining higher levels of education, Black Americans still experience aspects of marginalization and in the workplace. Black faculty and staff in higher education report feelings of isolation and marginalization through exclusion and face penalties for expressing these experiences (Arday, 2021). Further, structural and institutional forms of discrimination physiologically, psychologically, and emotionally affect minorities in a variety of ways (Embrick et al., 2017), with covert instances of RED, in particular, contributing to decreases in confidence and productivity in the workplace (Rowe, 1990).

Youth spend a considerable amount of time in school settings, and this can be a place in which Black youth may experience elevated amounts of discrimination. Children as young as age four were found to have a strong and constituent pro-White bias that was expressed more
strongly for males, such that Black boys were viewed less positively than Black girls and White peers (Perszyk et al., 2019; Stepanova et al., 2021). Within the school setting, Black youth can experience RED from either adults or peers (Montoro et al., 2021). Using nationally representative data, Sykes and colleagues (2017) found that Black high school students still experienced higher rates of discrimination than their counterparts even in schools that were perceived to be safer. Black elementary school children were found to have 3.5 times greater odds of receiving detention or suspension than all other racial or ethnic peers even after controlling for typical predictive behaviors (Fadus et al., 2021). Such discrimination in this setting has been found to have several long-term negative outcomes. Researchers have found that Black youth who reported higher levels of racial discrimination showed lower levels of school engagement, academic curiosity, and persistence (Leath et al., 2019; Smalls et al., 2007). Such discrimination does not end even when completing secondary school. In their longitudinal study, Del Toro and colleagues (2020) found that discrimination from college peers and professors contributed to unfavorable grades, lower likelihood of graduating on time, and less satisfaction with school. Additionally, higher reports of discrimination from peers when entering college predicted greater depressive symptomology and health problems in the fourth year (Del Toro et al., 2020).

Another common setting of RED is the media. It has been reported that as high as 89% of American teens are online at least several times a day during their leisure time, with social media platforms such as Tik Tok, Instagram, and YouTube remaining popular mediums for young populations to communicate (Anderson & Jiang, 2018; Auxier & Anderson, 2021). Social media is also a space to witness or experience RED in the mundane environment. In spite of the emergence of the Black Lives Matter movement, the media and cultural attitudes often reinforce
racial bias by portraying police shootings as a justified effort to control the Black person in these situations, who are often portrayed as an example of the larger lawless and threatening population (Lane et al., 2020). This was the case in the killing of Michael Brown from which the social media hashtag #IfTheyGunnedMeDown stemmed in response to biased media portrayals of Black youth (Gross, 2017). Not only do people witness examples of RED but cries for change are also adversely depicted or challenged. Kilgo and Harlow (2019) found that media coverage of protests that denounce anti-Black racism follow more delegitimizing patterns than stories of protests related to immigrants’ rights, health, and the environment. When creating social media movements, like #BlackGirlsRock or #BlackLivesMatter, that are meant to either increase awareness towards greater social change or provide a positive counternarrative against anti-Black RED, Black people often experience and must address pushback (i.e., #WhiteGirlsRock; #AllLivesMatter) that detracts from their original messages (Davis, 2018). In this space where Black youth often occupy, researchers have found that Black adolescents and young adults perceived that persistent, negative messages about Black people continued to exist and that these negative portrayals influenced the identity development process (Adams & Stevenson, 2012; Nordberg et al., 2018). Cano and colleagues (2020) found that over 65% of the racial and ethnic minorities (Hispanic) in their study reported targeted RED, and 85% reported being exposed to discrimination on social media, with these experiences linked to higher rates of depressive and anxiety symptoms. It is important to note that although there is a considerable amount of attention that focuses on the media portrayal of Black men, Black women also experience and express concerns about further marginalization in the media (i.e., erasure in instances of police brutality due to intersectionality, hypersexuality, television characters that rely on negative, widespread stereotypes; Click & Smith-Frigerio, 2019; Gross, 2017; McGruder, 2010).
Despite evidence that Black youth are exposed to the mundane extreme environment, limited research focuses on the effects that such exposure has on Black American young adults. Emerging adulthood is conceptualized as a time of many possibilities, feelings of optimism, and further identity development that can be complicated by the unique challenges faced by Black individuals (Arnett, 2000, Arnett & Brody, 2008). Additionally, according to Erikson (1980), successful navigation of identity development impacts development in subsequent developmental stages; however, more research is needed to understand the influence of the mundane extreme environment on well-being and identity development during Black emerging adulthood.

**Resources and Coping Strategies (B)**

Boss and colleagues (2016) conceptualize resources as the strengths and assets available at the time of stress. Examples include financial stability, health, education, and job skills, and can belong to the individual, family, or the community as long as they are accessible (Boss et al., 2016). The proposed model conceptualizes the B factor as any resource that Black individuals use in response to RED. It is important to acknowledge that these resources and strategies must be both accessible to the family, with the potential to mitigate the effects of MEES for Black families rather than universal resources available that are less culturally sensitive (Smith & Landor, 2018). In other words, rather than only assessing whether participants have visited with a mental health professional, it is equally important to examine whether participants have access to mental health professionals at all due to findings that Black Americans, on average, have less access to quality health care (Copeland, 2005) and experience more economic distress (Conger et al., 2002), making it more difficult to pay for mental health services.
Black individuals have been found to utilize a variety of resources to mitigate the influence of RED in the mundane extreme environment. When compared to all other ethnic and racial groups, Black Americans are much more likely to pray and be participants in religious events, which may help to instill feelings of hope and strength in the face of RED especially when these spaces predominantly Black (Chatters et al., 2008; Smith & Landor, 2018). Positive effects have been found for Black youth and religion, in particular. Religious involvement was associated with higher levels of life satisfaction, self-esteem, and coping and lower rates of depressive symptomology for Black American and Caribbean youth (Rose et al., 2020). These associations may be influenced by perceptions of social connectedness, which has been found to be learned through religious involvement (Dill, 2017; Rose et al., 2019).

In addition to communicating racial socialization messages, Black individuals also learn strategies to utilize in response to the mundane extreme environment. Forsyth and Carter (2014) identified a variety of coping strategies that Black Americans learn and use as resources for RED mitigation including racially conscious action, hypervigilance, confrontation, empowered action, resistance, bargaining, spiritual coping, and anger regulation. Parents and other agents of socialization may teach children certain strategies for specific situations. For example, Johnson and colleagues (2021) have found that Black fathers teach their sons how to engage with police to help ease tension during incidents like traffic stops. Researchers have found that Black youth will alter coping strategies based on the type of discrimination they face, such that proactive strategies were used in response to peer discrimination in schools (Montoro et al., 2021). Other researchers have found that youth will use disengagement strategies in response to violent stressors and engagement strategies in response to academic stressors in the mundane extreme
environment (Cory et al., 2020). Findings suggest that the strategies that Black youth use in response to RED are varied and used as individuals see fit to meet the circumstance.

**Messages about the Mundane, Extreme Environment (C)**

The C factor in the CMFS is defined as the family’s collective perception of a stressor (Boss et al., 2016) as there was disagreement with Hill’s (1949) initial conceptualization of this factor as the definition of the event. We, however, utilize Hill’s (1949) conceptualization here as we suggest that the definition of a stressor is influenced by a myriad of sources, that this definition contributes to overall meaning, but that meaning and definitions are distinctive. We also extend the conceptualization of racial socialization as a process in which individuals receive various messages from multiple sources and levels of interactions, which is in line with ecological theory (Bronfenbrenner, 2005).

An overview of the literature reveals that the conceptual definition of racial socialization has referred to the process where children receive messages from their parents about their racial heritage, so they can better navigate society (Coard et al., 2004; Hughes et al., 2006, Miller, 1999; Umaña-Taylor & Hill, 2020). Anderson and Stevenson (2019) further operationalize racial socialization as a bidirectional communication between parents of color and their children which acts as a buffer to race based traumatic stress. Research has also shown that racial socialization messaging usually falls into four major content areas: cultural pride, preparation for bias, promotion of mistrust, and egalitarianism (Anderson & Stevenson, 2019; Coard et al., 2004; Evans et al., 2012; Hughes et al., 2006). Racial socialization centered on instilling cultural pride might include messaging about loving one’s physical attributes and recognizing the strength and resiliency in their racial community (Coard et al., 2004). Preparation for bias is the process of readying a child to experience discrimination due to the racist mundane extreme environment.
and often include parents’ sharing their own stories about the barriers they faced and how their children can potentially cope if they face similar issues (Hughes et al., 2006). Researchers have found that even after controlling for parents’ education, mental health, and income, parents who raised families in mostly White neighborhoods gave more preparation for bias messages than those in mostly Black neighborhoods (Varner et al., 2021). Promotion of mistrust coincides with the messages parents give about preparing for bias. Parents of color communicate the need for their children to be vigilant during interracial encounters to protect themselves from potential instances of RED (Coard et al., 2004). Egalitarianism refers to the messages where parents encourage their children to see themselves as equal to others and to view people as individuals and not just members of their racial groups (Coard et al., 2004; Evans et al., 2012). Though the transmission of racial socialization messages from parents has been traditionally viewed from the perspective that the transmission of these messages is additive or otherwise a positive process, it is important to recognize that Black American families exist in a country that has for centuries created and perpetuated stereotypes about them. Black Americans have been called unintelligent, lazy, violent, and critiques have directed towards their skin color, hair, and other features (Jackson, 2006; Vara-Dannen, 2015). These negative messages can be, and in many case are likely are, internalized and passed on to subsequent generations. For example, colorism, (i.e., bias or consciousness regarding skin tone) and non-verbal actions, like emphasizing that one needs to straighten their hair, are examples of the negative messages (both verbal and non-verbal) that can be transmitted in Black families and from parents to children (Wilder & Cain, 2011). Though parents represent an influential source of racial socialization, they are not the only source. Said and Feldmeyer (2022) found that the racial socialization process for college students varied widely in content and sources. To this point and in accordance with ecological theory, we
suggest that Black racial socialization is a process in which individuals receive varying definitions about RED from multiple sources.

**Immediate socializers**

The parent-child relationship has frequently been studied as a mode of racial socialization; however, fewer studies have examined the role that other members in the immediate family play in communicating racial socialization messages. Family systems theory (Kerr & Bowen, 1988) suggests that the family is a natural and emotional system and that behavior is best understood through recognition of the influence of the family system as a whole. This speaks to the notion that each family unit is interdependent and interconnected, so the feelings, actions, and beliefs of one person affects another. This interconnectedness underscores the importance of expanding our knowledge of familial influence on individual development.

More children grow up in the home with a sibling than a residential father figure, yet siblings remain an understudied immediate familial relationship (McHale et al., 2012). Siblings have been found to influence psychological adjustment and development directly and indirectly in children (McHale et al., 2012) and such findings provide a basis for including the sibling dyad in the racial socialization process.

In a study utilizing a Mexican American sample, Padilla and colleagues (2021) found that siblings’ ethnic and racial identity in late adolescence positively predicted young adults’ ethnic racial identity even after controlling for parents’ ethnic racial identity. Caughy and colleagues (2011) conducted a study with a largely Black sample and found that male children with a residential brother over the age of 11 were more likely to receive racial socialization messages that promoted mistrust compared to boys who did not; however, other sibling effects were not found, and the small sample size limited the type of analyses that could be undertaken.
Furthermore, it is necessary to examine the influence of various other immediate socialization agents for Black American youth. Extended family, close friends, and non-kin/fictive kin relationships play a prominent role in the lives of Black Americans via socialization and support (Taylor et al., 2013). Young adult participants in Said and Feldmeyer’s (2022) qualitative study reported that they received socialization messages from multiple sources including grandparents, peers, and other adult role models. Though limited, the findings from these studies highlight the importance of the inclusion of socializing agents other than parents.

**External Socializers**

Although parent-child socialization has been well-researched, little is known about socialization that occurs in other developmental settings (Priest et al., 2014). Youth spend a considerable amount of time in the school setting with other peers, suggesting its relevance as a key context by which to examine racial socialization. Peers have been found to endorse similar practices of socialization as parents (Wang et al., 2015). These socialization experiences can exist on a continuum of congruency, with research indicating positive effects when parent and adolescent peer socialization were congruently high (Chen et al., 2020; Wang et al., 2015). When adolescents report negative processes and messaging from peers, they also reported lower school engagement (Wang, 2021). Peer subgroups can be particularly important to Black youth and can be a safe space for stylistic expression that counters dominant institutional norms with alternative cultural ones (Blackman, 2005; Hodkinson, 2004); however, the stylistic expressions of culture (e.g., hairstyles like locks and braids) are often associated with negative messaging within mainstream society.

In the 1990’s many school districts implemented uniform dress codes or specifically banned items frequently used as forms of stylistic expression among Black youth (e.g., Air
Jordan tennis shoes and team jerseys) from being worn in the school setting (Baxter & Marina, 2008). These rules regarding hair and clothing are often framed as methods to maintain order, enforce morality, and promote hygiene, but in targeting practices or styles that are embraced by Black individuals, school administration communicate the message that Black people, specifically, are not orderly, moral, or clean (Baxter & Marina, 2008). These policies also communicate the message that it is acceptable to limit the expression of Blackness (Joseph-Salisbury & Connelly, 2018), which is further reinforced through the use of disciplinary actions meant to punish these expressions. Rocque and Paternoster (2011) found that the Black students in their study were more than two times as likely to receive at least one disciplinary report compared to students of all other races and that this discrepancy was not due to differences in behavior or academic performance. With the school representing a place of significant variance in messages (e.g., culturally similar peers and the academic institution), examining the ways in which these messages influence racial socialization may uncover a more nuanced understanding of the process.

**Culture Socialization**

Regarding culture, a key influencer of racial and ethnic messaging for Black youth are the mainstream beliefs about Black Americans. Characters depicting widespread negative stereotypes about Black people have had prominent presence in American media and entertainment (Allen & Thornton, 1992; Jackson, 2006). Early to mid-20th century films and television shows featured White actors in blackface who portrayed Black people as unintelligent, uncivilized, and/or illiterate and Black actors were largely portrayed in subservient roles with the sole focus of pleasing White people (Jackson, 2006). Though some strides have been made, the television and film industry still often depict Black people in negative ways or fail to
acknowledge them as fully realized, nuanced, and well-developed characters. Black characters are still often given secondary roles with few speaking lines (Cocca, 2016; Mafe, 2018). Black women are often given roles that emphasize their sexuality or place them in subordinate positions (Griffin, 2014; Moffitt, 2019). Black fathers and father figures are often portrayed as perpetrators of violence (Perry & Johnson, 2017).

Standards of beauty in America are largely Eurocentric (Johnson & Bankhead, 2014) and the messages that youth receive about Blackness are largely negative. For example, Black people with natural hair are portrayed as less attractive, low class, and less feminine (Patton, 2006), which complicates decision making for something as simple as embracing their own natural hair. Black youth may question whether cutting or straightening their hair is denying their ethnic identity and whether embracing their hair means that they will be subject to negative criticism or diminished attractiveness (Asakitikpi & Choene, 2019). Black students have reported completely changing hair habits after even one negative response about their hair (McWhorter, 2021). The effects of these negative messages along with the frequency of exposure are concerning and varied. Black youth were less likely to identify negative stereotypes but were more likely to endorse them, and older youth were more likely to report negative media images (Adams-Bass et al., 2014). Given these differences, it is important to examine the influence of cultural messages on Black youth outcomes.

**Meaning**

Boss and colleagues (2016) do not include a conceptualization of meaning, rather they label it as subsumed within the C factor. Drawing on Blumer’s (1969) assumption of the meaning-making process, we believe that meaning is constructed through an iterative process, and we prefer to utilize Hill’s (1949) conceptualization of the C-factor for the proposed model.
Blumer (1969) asserts that it is a mistake to assume that meaning is derived solely from the interactions one has with a given person, place, idea, or thing. Rather symbolic interactionism assumes that individuals create meaning through a process of interpretation, by which an individual must first recognize the concept as having meaning and next transforming that meaning in light of the situation and their own interactions with the concept. As is the case with RED, not all individuals recognize discriminatory instances (Hughes et al., 2006); however, RED experiences still have the ability to influence identity and adjustment for that individual. As we have outlined above, Black youth receive racial and ethnic messaging from a variety of sources. Their meaning of race shifts from more literal interpretations to more abstract definitions that incorporate the social realities that exist (Quintana, 1998). Researchers have found that perception of the RED depends on the socializing messages that individuals receive.

According to symbolic interactionism, Black youth would utilize all interactions to develop or refine the meaning ascribed to any object, including the racial and ethnic messaging received. Additionally, RED can influence both the decision to employ and the utility of a particular resource. Lazarus and Folkman (1984) defined coping as the behavioral and cognitive strategies that individuals use to adapt to or manage stress. Strategies may be employed intentionally or unintentionally, and meaning ascribed to given situations, in response to certain stimuli, and can be influenced by socialization processes and experiences that individuals draw from. For example, there may be instances where Black people may construct meaning of an experience, recognizing it to be racially-based, by considering the resources that they have available or have already attempted to leverage in the face of stressful stimuli. Recognizing that the resources expended do not result in tantamount alleviation of that stressful stimuli to others in a similar context, helps to position and provide meaning to that experience for Black
individuals. An example of this could be the 2009 arrest of Henry Louis Gates Jr., a Black distinguished Harvard professor. In can be reasoned that RED played a role in this event as Gates was arrested for disorderly conduct after an officer responded to a call about him breaking and entering into his own home even after Gates attempted to leverage his resources of professional status and proof of residency by showing both his Harvard employee identification and driver’s license with the matching address (Staples, 2011).

Identity and Well-Being Outcomes (X)

The X factor in the CMFS model is conceptualized as a crisis, in which disequilibrium is so overwhelming and pressure is so severe that families become immobilized (Boss et al., 2016). Additionally, Boss and colleagues (2016) state that this X factor should be viewed categorically (e.g., families are either immobilized or not). For the mundane extreme environment, individuals’ adjustment may exist on a continuum as each person constructs meaning differently. For instance, individuals may have some ambivalent ideas about identity that are less healthy when considering development holistically. Black women, in a study conducted by Nelson and colleagues (2016), reported a myriad of feelings regarding the strong Black woman/superwoman schema (i.e., demonstrating strength, suppressing emotion, and maintaining strength in the face of adversity; Woods-Giscombé, 2010) that is often seen as integral to Black women’s identity. Some reported ambivalent feelings (e.g., wanting to honor the resiliency and strength of their community while also believing struggling or taking on too much is inappropriate), rejected the identity all together, or chose to redefine the concept for themselves (Nelson et al., 2016). Of developmental importance for Black young adults is well-being and identity, and we contend that these outcomes, in particular, are best viewed on a continuum.
Positive associations have been found between identity and well-being. The effects of positive views of ones’ group and the perception that others view their group positively, was shown to be associated with higher reports of self-esteem and fewer depressive symptoms (Rivas-Drake et al., 2014). Ethnic racial identity is positively associated with indicators of better psychological, academic, and psychosocial well-being (Buckley & Carter, 2005; Butler-Barnes et al., 2018; Chavous et al., 2008; Mandara et al., 2009). According to Sellers and colleagues (2003), Black young adults who experience race-related stress caused by discrimination suffer from higher levels of anxiety and depression. However, they also found that Black young adults who see their race as a central part of their identity experience lower levels of psychological distress (Sellers et al., 2003). Though the RED-SM considers identity development to be an outcome, it is worth noting that researchers have explored the ways that identity can serve as a moderator between RED and adjustment. Banks and Kohn-Wood (2007) found that racial identity can moderate the relationship between discrimination and depressive symptoms among Black emerging adults. Additionally, higher levels of ethnic identity and self-esteem have also been shown to buffer the relationship between online racial discrimination and anxiety levels among Black adolescents entering adulthood (Tynes et al., 2012). Although we acknowledge that identity may have potential moderation effects, we label identity as an outcome variable in the model given our focus on identity development and outcomes for young adults that exist within the current sociohistorical time, the relative importance of identity development from adolescence to emerging adulthood (Arnett, 2000), and how later developmental stages depend on successful identity formation (Erikson, 1980).
Conclusion and Suggestions for Research

It is beneficial to reconceptualize prevailing theory to account for outcomes related to living in the mundane extreme environment as this can help to better account for the lived experiences of Black Americans. Research on the experiences of Black individuals and families continues to be underdeveloped and the generation of theories for this population allows for researchers to properly study this population. We use our proposed racial and ethnic discrimination stress model to propose suggestions for scholars when conducting research on Black populations. Though the conceptualization, framing, and examples used within this paper intentionally highlights processes for Black Americans and therefore may not be generalizable to a larger population, we encourage future researchers and theorists to investigate the utility of the model for other racial and ethnic groups and people with multi-ethnic and cultural backgrounds, including Black Americans who identify as biracial and/or multi-racial/ethnic, those that have recent non-Black ancestry and may have variable views of that ancestry, or from immigrant families.

First, we encourage researchers to operationalize MEES through both overt and covert forms of discrimination across a variety of contexts. Pierce (1974) defined the mundane extreme environment as one in which discrimination is both overt and subtle and pervasive and inherent to the environment. Therefore, overt forms of discrimination and/or isolated incidents of discrimination should not solely be examined for outcomes in Black emerging adults. It is important to examine the multiple ways (e.g., microaggressions, institutional, vicarious) and contexts (e.g., school, community) that discrimination occurs for Black American emerging adults.
Second, we suggest that family scientists examine the multiple contexts in which Black youth learn racial and ethnic messages, particularly siblings. Siblings have been found to play a unique role in the racial and ethnic socialization of ethnic and racial minorities (Caughey et al., 2011; Padilla et al., 2021). Youth spend a considerable amount of time with siblings and more people grow up with a sibling in the residential home than fathers (McHale et al., 2012). Therefore, it is important to examine the messages that siblings in particular communicate to Black youth, whether these messages are congruent with parental messages, and the effects that these messages have on Black youth.

We also suggest that researchers examine the effect that RED and the outcomes of identity and depression, anxiety, and stress have on emerging and young adults. Emerging adulthood represents an extended period of identity development marked by additional markers such as instability, self-focus, feeling in between, and optimism, and it represents a time where Black Americans will have more opportunities to navigate identity development with greater autonomy (Arnett, 2000) while continuing to develop their racial identity embedded in a stressful mundane environment. Today’s emerging and young adults have or are currently experiencing this developmental period against the backdrop of increased conversations and images surrounding social injustice, both in the current experiences of racial and ethnic minorities and the continuing influence of past events on the inequity that we see today, while also seeing such conversations unfold across various social media platforms. Such identity formation has implications for development across the lifespan (Erikson, 1980). The process of identity development during this specific time in history represents a unique challenge faced by Black young adults and deserves more attention in the literature.
We recommend comprehensive statistical testing of the theoretical model using the recommendations above. In particular, we recommend structural equation modeling techniques, particularly those that leverage longitudinal data to determine the nature of association between these variables and allow for the potential to identify causal mechanisms. Beyond initial testing of the model itself, replication studies are important to better gain confidence in the model itself, and to demonstrate utility across contexts. These approaches would allow for rigorous exploratory testing of the C factor, featuring multiple socialization messages that Black individuals receive. To the best of our knowledge, no measure exists for either the C factor or the meaning making construct in the model. Thus, it is also recommended that future qualitative studies seek to better illuminate the range and scope of meaning-making process in context, which, in turn, may lead to future measurement development that can more fully capture this construct. In the interim, we recommend the use of moderation techniques to account for the interaction of the variables when examining the meaning-making construct in the model. In the event that researchers wish to utilize a latent variable structural equation modeling, the use of more advanced statistical programs and techniques should be utilized (see Malowsky et al., 2015).

Use of this model, both as an orienting framework and as an analytic model, has several implications for practitioners. Certified family life educators (CFLEs) are responsible for providing families with the knowledge and skills to enhance well-being and strengthen interpersonal relationships (Goddard et al., n.d.) CFLEs can use this framework and research that tests this model to provide information to families about the influence of RED and how the benefits of equipping children with the knowledge and skills to mitigate the impact RED. CFLEs can also highlight the influence that socialization messages outside of the external family have
on well-being and identity. Further, this information could be leveraged to help better discuss the ways that families can combat or support these messages, depending upon their nature and impact on developing young adults. Practitioners, like counselors and therapists, can work with Black Americans to help them reconcile the meaning that they have developed of race, RED, and more broadly identity, as individuals may struggle to both understand the various sources of racial socialization and the influence of more covert examples of RED. Additionally, research-based programs may be developed from this model for Black American youth, that help youth learn about RED to mitigate its impact on adjustment, aiding in health developmental trajectories and fostering more positive racial and ethnic identities. Such programs can be integrated in the community or schools to facilitate community-based research and programming specific to the unique needs of the location.
Chapter 3 - An Exploration of Parental and Sibling Socialization on the Relationship Between Racial and Ethnic Discrimination and Reports of Depression, Anxiety, and Stress
Abstract

The present study examined the relationship between racial and ethnic discrimination (RED), coping strategies, familial racial socialization (i.e., parent and sibling socialization), and mental health outcomes (i.e., depressive, anxiety, and stress symptomology) for Black American young adults (\(N = 314\)) using the Racial and Ethnic Discrimination Stress Model. Hypotheses were tested using latent variable structural equation modeling. Results demonstrated a significant positive relationship between greater frequency of RED and higher reports of depressive, anxiety, stress symptomology. Greater usage of coping strategies was significantly associated with higher reports of depressive and stress symptomology, but not anxiety symptoms. Additionally, higher levels of positive family socialization were related to lower levels of depressive and stress symptomology, but not reported anxiety symptoms. Family racial socialization was also positively related to usage of coping strategies such that higher levels of positive family racial socialization were associated with greater usage of coping strategies. Findings provide insight into the ineffectiveness of some coping strategies and the protective role of families in buffering against the negative associations between RED and mental health. Implications for practitioners, educators, and researchers are included.

Keywords: Black Americans, racial socialization, racial and ethnic discrimination, coping strategies, mental health
Introduction

Researchers have found that although changes in racial attitudes have occurred over time, these changes do not indicate improvements in racial attitudes (Forman & Lewis, 2015). Specifically, though younger, White cohorts have demonstrated greater support for racial integration; these cohorts have also demonstrated higher levels of beliefs that contribute to racial inequality and discrimination (e.g., racial apathy and the belief that targeted intervention for racism is unnecessary), compared to older cohorts (Forman & Lewis, 2015). These beliefs have implications for racial and ethnic minorities, particularly Black Americans, who: (a) have faced unique forms of oppression in the history of the United States (e.g., enslavement, housing discrimination, underemployment, substantial pay inequality; Reskin, 2012); (b) tend to report the highest levels of racial and ethnic discrimination (RED) of all racial minority groups (Chen & Mallory, 2021; Lee et al., 2019); and (c) report greater rates of depression, alcohol abuse, cardiovascular disease, and worse metabolic health and maternal health, due to RED (Alhusen et al., 2016; Beatty Moody et al., 2018; Chen & Mallory, 2021; Hart et al., 2021; Su et al., 2021).

As might be anticipated given the range of maladaptive experiences that can be attributed in the face of RED, many Black American parents feel a sense of responsibility towards providing their children with positive cultural information and preparation for bias, that can in turn act to counter the negative messaging their children may receive (Hughes et al. 2006; Varner et al., 2021). The urgency to communicate this information is further increased by instances of nation-wide coverage and conversations regarding racial disparity and shootings of Black Americans that have taken place over the last decade (Jones Thomas & Blackmon, 2015; Threlfall, 2018). The positive influence of these racial socialization messages from parents have been well-documented (Derlan & Umaña-Taylor, 2015; Gaston & Doherty, 2018; Neblett et al.,
Researchers have found that in addition to parents, children receive racial socialization messages from other individuals, like siblings, whose influence is understudied, despite their unique role in the racial socialization process for racial and ethnic minorities (Caughey et al., 2011; Padilla et al., 2021).

The purpose of this study is to utilize a new theoretical model to assess the ways in which familial racial socialization, conceptualized herein to involve the influence of siblings in the racial socialization process, and coping strategies implored both independently and combine to influence the relationship between RED and mental health (i.e., depression, anxiety, and stress symptoms) for young adults. The decision to use a young adult sample stems from the sociopolitical climate in which this population has developed and the ways that race can create challenges for individuals during this developmental period that is already largely characterized by instances of instability and continued identity formation (Arnett, 2000; Arnett & Brody, 2008). RED has been linked with poorer mental health in young adulthood (Del Toro et al., 2021; Su et al., 2021), and young adults with moderate and high levels of perceived racial discrimination report higher levels of anxiety and depressive symptoms and perceived lack of control in adulthood, compared to otherwise similarly situated peers (Lee et al., 2020). This study will test a conceptual model derived from the racial and ethnic discrimination stress model (see Figure 2.1) through an examination of the influence of racial socialization and strategies on the relationship between RED and well-being.

**Theoretical Framework**

The racial and ethnic discrimination stress model (RED-SM) provides a framework to examine how RED influences mental health outcomes for Black individuals. The RED-SM posits that Black individuals can have (x) a range of variation in response to the meaning that
they attribute to: (a) RED, (b) the resources that are available and used to combat RED, and the (c) racial socialization messages that they receive. The RED-SM differs from other frameworks as it: (1) assesses how individuals directly respond to the stressor of RED; (2) asserts that individuals are racially socialized by other individuals in addition to parents; and (3) posits that the range of outcomes experienced by individuals is due in part to the meaning that they ascribe to their experiences of RED, the racial socialization messages that they have received, and the resources available to them.

The aim of this study was to test the RED-SM by examining how resources, measured via coping strategies, and racial socialization from parents and siblings influence the relationship between RED and mental health (see Figure 3.1). Limited research exists that examines the influence of siblings in the racial socialization process. Though structural characteristics like age and birth order can affect power dynamics (Della Porta & Howe, 2017; Della Porta et al., 2021; Punch, 2005), sibling relationships are uniquely different from the more hierarchical parent-child relationship and are considered to become more egalitarian over time (Buhrmester & Furman, 1990; Lindell & Campione-Barr, 2017; Punch, 2005); siblings may share their own meaning and experiences of race and RED that might be similar to or differ from that of the parent. A deeper examination of the messages that siblings transmit about race and RED will provide additional knowledge on their contributions to the familial racial socialization process.
Racial and Ethnic Discrimination

Racial and ethnic discrimination is a common problem faced by many Black Americans, with around 76% reporting that they have experienced discrimination due to their race (Anderson, 2019). This discrimination is experienced while engaged in everyday activities (Brewster & Nowak, 2020) and occurs across numerous settings and institutions (e.g., schools, workplaces, communities; Bleich et al., 2019; Bradshaw et al., 2010; Donahoo & Smith, 2022; Unnever et al., 2017). Though attitudes towards racial integration have improved over time, racial apathy (i.e., indifference towards racism and denial of racism; Brown et al., 2019) and the belief that it is no longer necessary to intervene in widespread instances of racial inequity, have increased over time among White Americans (Forman & Lewis, 2015). In other words, younger, White American cohorts are more willing to share spaces with racial and ethnic minorities than their predecessors, but there is less support for targeted action towards addressing inequity.
Racial apathy and ignorance of racial inequity is particularly problematic as it undermines initiatives that undue the systems that create and continue racial and ethnic discrimination (Bracey & McIntosh, 2020; Glacer & Liebow, 2021; Mueller & Washington, 2021). Taken together, these factors create an environment that is permeated by racial and ethnic discrimination with little recourse for Black Americans. This is consistent with Reskin’s (2012) description of the discrimination system as a “set of dynamically related subsystems or domains in which: (a) disparities systemically favor certain groups, (b) disparities across subsystems are mutually reinforcing, and (c) one source of within-subsystem disparity is discrimination” (p. 19). Thus, racial prejudice shifts in expression overtime, and both reinforces and is reinforced by, continuing disparity. The stress related to living with these experiences has been defined as mundane extreme environmental stress, as this environmentally induced stressor is so common that it is almost taken for granted, yet produces a profound, negative impact on the lives of Black Americans (Carroll, 1998).

Recently, researchers have begun to explore the ways in which RED, as a stressor, contributes to physiological changes in how the body responds to stress via the hypothalamic-pituitary-adrenal (HPA) axis, one of the body’s major stress-response systems (Busse et al., 2017). The HPA axis helps to maintain the body’s homeostasis when individuals perceive challenges and threats, and repeated activation of this system through frequent and/or chronic stress can alter its ability to effectively respond to stressors (Juruena et al., 2017). HPA axis alterations can be assessed by comparing differences in waking and evening cortisol levels and diurnal (e.g., daytime) cortisol patterns to normative levels and patterns, and these differences have been linked to poorer mental health and externalizing behaviors (Adam et al., 2017). This body of literature has important implications for understanding the impact of RED stress in the
lives of Black Americans. Exposure to RED may be associated with alterations to the HPA axis, indicated by nonnormative cortisol levels and patterns (Busse et al., 2017; Lehrer et al., 2020; Seaton et al., 2021; Zeiders et al., 2018). Such research provides a link between RED and reports of a myriad of mental health outcomes, like higher levels of depression, distress, and anxiety (Carden et al., 2021; Hart et al., 2021; Thomas Tobin & Moody, 2021). Given the lasting impact of HPA axis alterations on the ability to manage stress in adulthood (Juruena et al., 2017), it is important to examine ways to reduce the impact of RED for Black Americans, especially young adults, when experiences with RED can have associations with depressive and anxiety symptoms into later adulthood and across the lifespan (Lee et al., 2020).

**Coping Strategies in Response to RED**

Lazarus and Folkman (1984) describe the concept of coping as including a range of behavioral or cognitive strategies that individuals use to adapt to or manage stress and are typically thought of as serving two functions: (a) problem-solving (i.e., attempts to change, minimize, or remove the stressor) and (b) emotion-focused (i.e., attempts to decrease the negative emotions that result from stress). Harrell (2000) has asserted that Black Americans utilize social support to serve either function, such that intragroup (i.e., within one’s own race) support can be used to teach individuals how to deal with race-related encounters or manage emotions via increased connectedness. Intergroup support (i.e., outside one’s own race) from allies can serve to instill feelings of hope, decrease feelings of isolation, and increase environmental and institutional support. Black Americans employ a variety of coping strategies both in response to RED, and young adults have been found to frequently use emotion suppression, avoidance, confrontation, and social support (Wilson & Gitzler, 2021). The types of strategies used also seem to vary by gender. For example, Black women have been found to use
a greater variety of coping strategies to address RED like speaking up/educating, disengagement, advocacy and social support, internalization, etc. (Brownlow et al., 2019; Lewis et al., 2013; Shorter-Gooden, 2004; Volpe et al., 2021) than Black men, who are much more likely to employ hypervigilance as a strategy in response to RED (Pieterse et al., 2010).

It is important to consider how RED influences the decision to employ a particular coping strategy. Though some problem-solving coping strategies (i.e., confrontation or educating someone about discrimination) may be constructive methods for addressing general stressors in some situations, Black Americans may consider these to be ineffective, unsafe, or not worth their time and effort given the persistent nature of RED or the context (Harrell, 2000). Additionally, avoidance strategies may be less effective for some types of stressors but can serve to protect mental health in the face of a persistent range of RED experiences. This seems to be supported by mixed findings in the literature regarding the efficacy of coping strategies on mitigating the negative impact of RED. Wright and colleagues (2020) found no differences in health outcomes (i.e., blood pressure) for Black Americans who used either active problem-solving or emotional-focused strategies (e.g., doing something about the situation and talking to someone) or avoidant coping strategies (e.g., accepting that discrimination was a part of life and keeping to oneself) for those who reported experiencing RED. Some researchers have found that John Henryism, a problem-solving coping style where individuals specifically work to overcome either negative perceptions attributed to being Black or in direct response to RED, or strategies similar to John Henryism (i.e., working harder and speaking up), were related to hypertension because individuals might overwork themselves (Hudson et al., 2016; Michaels et al., 2019). However, research is mixed and there is some literature that has detailed no ill-effects of John Henryism on health outcomes (Barajas et al., 2019). Limited research exists that examines the connection
between coping strategies and mental health outcomes. Previous researchers have found that *John Henryism* had positive associations with better mental health; however, this study did not specifically address the stressor of RED and utilized a racial and ethnic heterogenous group (Kiecolt et al., 2009). Given the unique nature of RED and the links between cortisol levels and mental health (Dziurkowska & Wesolowski, 2021), further investigation into how coping strategies buffer the negative influence of RED and mental health is warranted.

**Racial Socialization**

In line with the RED-SM, this study utilizes Lesane-Brown’s (2006) description of racial socialization as verbal and non-verbal messages communicated to subsequent generations for the purpose of developing values, attitudes, behaviors, and beliefs about the meaning of race, interactions (both between and within racial groups), and racial identity. Although, some researchers suggest that racial socialization is a process that is intentionally and solely used to reduce the negative outcomes associated with RED (Anderson et al., 2020), the RED-SM model posits that it may be more appropriate to think of racial socialization as a process by which youth receive messages that they use to ascribe meaning, consistent with Lesane-Brown’s (2006) operationalization. To this point, it can be reasoned that Black children are racially socialized as part of their development, as they receive messages that convey meaning (i.e., significance and stratification) about race from multiple sources (e.g., community, institutions in society, extended family), over time (Harrell, 2000). Nevertheless, many Black parents do indeed provide verbal and non-verbal messages to their children often in the hopes of instilling culture and preparing them for RED.

Though many Black parents see racial socialization as an inherent part of their parenting responsibilities, nation-wide coverage and discussions highlighting RED, like the shootings of
Trayvon Martin, Tamir Rice, and Michael Brown, may further demonstrate to Black parents, the necessity of explaining RED and providing strategies for RED to their children (Cooper et al., 2020; Jones Thomas & Blackmon, 2021; Threlfall, 2018). As socialization agents (i.e., individuals who transmit racial-socialization messages to youth), Black parents frequently employ practices such as cultural pride and preparation for bias in their racial socialization efforts to help children make meaning of their own race and to prepare them for RED, with these methods utilized more frequently in contexts where children have less access to others who share their racial/ethnic background (Hughes et al. 2006; Varner et al., 2021). Cultural pride has been found to contribute to more positive mental health outcomes, like lower levels of anxiety and depression (Bannon et al., 2009; Neblett et al., 2013), in part, because these practices communicate positive messages to youth about their race (Neblett et al., 2013).

In contrast, some research indicates that preparation for bias is associated with poorer mental health outcomes (Banerjee et al., 2015; Stevenson et al., 2002). One argument for this finding is that preparation for bias can create a “reactive orientation” as it centers the negative intergroup interactions and inequity within institutional structures (Banerjee et al., 2015; Hughes et al., 2006). However, transmission of these messages does not exist in a vacuum and choosing to not prepare children for discrimination does not mean that these events will not happen and may contribute to feelings of confusion when an individual experiences RED. It may be, for that reason, that Black parents seem to communicate these messages more frequently when they anticipate or expect that their children will face more RED (Varner et al., 2021). As such, it is possible that those who experienced higher levels of preparation for bias also experienced higher levels of RED, which might contribute to poorer mental health outcomes.
A noteworthy limitation of the current research on RED, is a consistent conceptual omission of the strategies that parents share or the influence of racial socialization on decision to employ a particular strategy. It can be reasoned that emphasizing bias preparation may contribute to feelings of helplessness that may contribute to poorer mental health outcomes, or such messages may underscore the need to confront perpetrators of discrimination. To these points, when examining preparation for bias, it may also be beneficial to examine: (a) levels of perceived RED, (b) neighborhood composition, and (c) the strategies transmitted by parents and those used by children.

**Siblings as Socialization Agents**

In line with Lesane-Brown’s (2006) description of racial socialization, researchers have found that other individuals like community members, grandparents, extended family, adult role models, and peers can serve as socialization agents (Minniear & Soliz, 2019; Said & Feldmeyer, 2022); however, siblings have been largely absent in the literature regarding racial socialization. The presence of a sibling can affect the familial environment and influence the messages transmitted by parents, such that boys with an older brother were more likely to receive messages related to promotion of mistrust than those without older brothers (Caughy et al., 2011). Siblings may also directly influence racial and ethnic identity formation. Using a sample of Mexican-origin participants, Padilla and colleagues (2020) found that sibling ethnic racial identity exploration predicted increases in young adults’ exploration for both younger and older siblings and that these effects were significant even when controlling for the effects of parents. To the best of our knowledge, no study to date explores how siblings influence the racial socialization process for Black Americans.
Current Study

The purpose of this study was to test the RED-SM and to explore the ways in which siblings contribute to the racial socialization process for Black American young adults. A young adult sample was utilized given connections between RED encounters and poorer mental health for this population (Del Toro et al., 2021; Su et al., 2021) and the challenges that RED can present during this developmental time and into later adulthood (Arnett & Brody, 2008; Lee et al., 2020). Though previous researchers have found associations between RED, parental racial socialization messages, strategies to combat RED, and mental health (Bannon et al., 2009; Neblett et al., 2013; Wright et al., 2020), fewer studies examine the influence of both resources and messaging on the relationship between RED and mental health outcomes. Given these empirical findings, the first aim of this study was to explore the ways in which racial socialization and strategies implored to address RED might buffer the effects of RED on mental health outcomes.

The second aim of this study was to examine the importance of siblings in the familial racial socialization process. Researchers who examine racial socialization typically assess how parents transmit cultural knowledge and RED preparation to children, and do not account for the contributions of siblings. Siblings may influence this process in two ways. First, the presence of a sibling can shift the messages that parents convey to children (Caughy et al., 2011). Second, siblings’ ethnic racial identity exploration may further instill cultural pride by increasing individual’s own racial identity exploration (Padilla et al., 2020). Sibling contributions to racial socialization may be distinct from parents in that sibling relationships are less hierarchical than parent-child relationships (Punch, 2005), and siblings have a similar shared familial history. Investigating how siblings contribute to racial socialization allows for researchers to have a
better understanding of how individuals make meaning of the RED that they face, the meaning that they attribute to race and ethnicity, and the outcomes that they experience due to discrimination. On the basis of this information, the following hypotheses are proposed:

(H1): Higher levels of perceived racial and ethnic discrimination will be associated with higher reports of depressive, anxiety, and stress symptomology.

(H2): Racial socialization from siblings and parents will contribute to overall familial racial socialization.

(H3): Positive racial socialization messages from family and usage of coping strategies to combat RED will mediate the positive relationship between RED and mental health outcomes, such that higher levels of familial racial socialization and frequent use of strategies will be associated with lower levels of depressive, anxiety, and stress symptomology.

Method

This study was part of a larger data collection effort to examine adverse experiences (early childhood and racial and ethnic discrimination), familial processes (communication and racial socialization), coping and resilience, and adjustment for Black American young adults. This study specifically examined the potential buffering effects of parent and sibling racial socialization and coping strategies on the relationship between RED and mental health for Black American young adults. Data for the study were collected using Prolific Academic, an online data collection platform, which recruits participants from an international pool. Data were collected between January and March 2022, and participants were paid between $4.25-$4.67 to complete the approximately 30-minute survey. Participants were pre-screened, such that only participants who: (a) identified as a monoracial Black and/or African American (i.e., having both
parents who identify as African American and/or Black), (b) were young adults (i.e., 18-40 years of age; Erikson, 1980), and (c) had at least one sibling were provided access to the survey. Participants outside of the United States were excluded. This resulted in an analytic sample of 314 participants.

Participants

The average age of participants was 25.45 years ($SD = 5.38$) who reported on their sibling and parent/caregivers. Participants were asked to report on the sibling, if they had more than one sibling, and the parent/caregiver who they felt taught them the most about what it means to be Black or African American. The average age of reported parents/caregivers was 55.44 years ($SD = 9.11$), and most participants reported on mothers or other female caregivers (85.4%). The average age of reported siblings was 26.59 years ($SD = 7.90$) and 51.3% of participants reported on their sisters. Most participants identified as women (69.1%). Additionally, most participants reported being employed at least part-time (59.56%), 33.76% reported having at least a four-year degree, and 23.9% reported that they were students. Of the participants who were currently students or attended college, 11.6% attended or had attended a Historically Black College or University (HBCU), 64.6% attended or had attended a predominantly White institution (PWI), 16.5% attended a minority serving institution (MSI) that was not an HBCU, 4.3% attended and HBCU and another institution, and 3.1% attended a PWI and MSI.

Measures

**Racial and ethnic discrimination.** RED was assessed using the Daily Life Experiences-Frequency (DLE-F; Harrell, 1997; Lee et al., 2021), an 18-item measure that assesses how often participants experience discrimination. Participants were asked to rate how often the experiences
occurred within the last year using a 6-point scale from 0 = *never* to 5 = *once a week or more*. Example items will include “being disciplined unfairly because of your race” and “overhearing or being told an offensive joke.” This scale has been validated for a Black emerging adult sample (Lee et al., 2021). Items were averaged to obtain an overall score of RED and internal consistency was acceptable ($M = 2.25; SD = .99; \alpha = .95$).

**Strategies.** Strategies to address RED were assessed using the racially-conscious action (9 items), hypervigilance (11 items), and confrontation (8 item) subscales from the Racism-Related Coping Scale (RRCS; Forsyth & Carter, 2014) because these subscales closely matched the strategies most used by Black young adults (Wilson & Gitzler, 2021). Few emotion-regulation items could be utilized as the RRCS does not have a subscale that closely mirrors these strategies without heavy emphasis on spiritual behaviors “I relied on my faith in God or a higher power” or unhealthy emotional coping strategies (e.g., “I fantasized about getting revenge” or “I fantasized about harming the person(s) involved or damaging/destroying their property”). Example items used in this study included “I participated in organized efforts to combat racism and/or support Black people” (racially-conscious action); “I became more cautious around people in positions of authority” (hypervigilance); and “I confronted the person(s) involved and told them that their actions were racist” (confrontation). Participants were asked to report how often they used a particular strategy using a 4-point scale from 0 = *did not use* to 3 = *used a great deal*. Internal consistency for the 28 items was acceptable ($M = 1.99; SD = .62; \alpha = .94$). Items were averaged and treated as one observed variable in favor of a more parsimonious model to test the RED-SM.

**Racial socialization.** Participants were asked to reflect on their overall racial socialization experiences from both parents and siblings using five subscales (coping with racism
and discrimination [4 items], racial barrier awareness [6 items], African American history [4 items], African American cultural values [4 items], and ethnic pride [5 items]) from the Adolescent Racial and Ethnic Socialization Scale (ARESS; Brown & Krishnakumar, 2007). Participants responded to items on a 4-point scale from 0 = *never* to 3 = *always*. Example items include “My parent/caregiver taught me what to do if I’m called a racist name” (coping with racism and discrimination); “My parent/caregiver taught me that racism is present in America” (racial barrier awareness); “My parent/caregiver encourages me to learn about the history of Black people” (African American history); “My parent/caregiver teaches me that Black people should give back to the Black community” (African American cultural values), and “My parent/caregiver taught me to never be ashamed of my skin color” (ethnic pride). The same items were used so that participants could report on their sibling’s racial socialization messages with the word “parent/caregiver” replaced with the word “sibling.” Internal consistency was acceptable for parent socialization ($M = 2.77; SD = .83; \alpha = .96$) and for sibling socialization ($M = 2.07; SD = .95; \alpha = .98$).

**Mental health.** Depressive, anxiety, and stress symptoms were assessed using the Depression, Anxiety, and Stress Scales (DASS-21; Lovibond & Lovibond, 1995). Participants were asked to indicate how much each statement applied to them over the past week using a 4-point scale from 0 = *did not apply to me at all* to 3 = *applied to me very much or most of the time*. Example items included “I felt down-hearted and blue” (depression); “I felt I was close to panic” (anxiety); “I found it difficult to relax” (stress). Internal consistency for each subscale was acceptable for depressive ($M = 1.83; SD = .88; \alpha = .95$), anxiety ($M = 1.47; SD = .59; \alpha = .82$), and stress ($M = 1.83; SD = .74; \alpha = .95; \alpha = .89$) symptomology.
Covariates. Previous researchers have found that gender and neighborhood have the ability to influence either the experience of RED, the perceptions of RED, socialization, and/or strategies used (Brownlow et al., 2019; Lateef et al., 2021; Varner et al., 2021). Educational attainment has also been linked to depression (Platt et al., 2020). Additionally, gender has been found to impact the ways in which parents/caregivers transmit racial socialization messages, such that mothers are more likely to transmit cultural messages to their children and fathers provide more racial socialization messages to their sons (McHale et al., 2006). Therefore, these variables were included as covariates. Gender was dichotomized (0 = not women, and 1 = women). Given recent research regarding the importance of incorporating context when understanding discriminatory experiences within varying environments (e.g., Black people facing increased discrimination in suburban areas that are perceived to be affluent and safe; James et al., 2022), participants were asked which description best described their current and childhood neighborhoods: suburban, urban, and rural, rather than asking if their neighborhood was predominantly White or not. Three dichotomized variables were created: suburban (0 = not suburban, 1 = suburban), rural (0 = not rural, 1 = rural), and urban (0 = not urban, 1 = urban).

Analysis

Descriptive analyses (i.e., bivariate correlations, missing data, and exploratory factor analysis for the latent variable construction) were conducted in IBM SPSS 28. Tests of normality including assessment of skew and kurtosis were conducted, and data were deemed to be normally distributed (Curran et al., 1996). Exploratory factor analysis (EFA) was used to determine the factor structure for the latent outcome variables. Next, a measurement model was fit for the outcome variables. Then, a latent variable structural equation model was fit in which the additional latent variables and paths of interest were added to test the hypotheses using Amos
28. Standard statistics recommended by Kline (2016) were utilized to determine the acceptability of the model fit to the data and reported: (a) model chi-square and degrees of freedom with $p$ value, (b) an RMSEA value $< .08$ and ideally $< .05$ and 90\% confidence interval, (c) CFI of $.9$ and ideally greater than $.95$ or higher, and (d) SRMR $< .08$ and ideally less than $.05$. The Sobel (1982) test was used to determine the significance of the hypothesized indirect effects.

**Results**

Missing data were minimal (averaging 0.32\% with no item exceeding 1.3\%). The results of Little’s missing completely at random (MCAR) test supported the hypothesis that the data were likely missing at random ($\chi^2 = 2830.81$, $df = 2839$, $p = .69$). Missing data were accounted for using full information maximum likelihood (FIML) in IBM Amos 28. Bivariate correlations and other descriptives are shown in Table 3.1. Moderate correlations were found between RED and strategies ($r = .55$, $p < .001$), anxiety symptomology ($r = .36$, $p < .001$), and stress symptomology ($r = .38$, $p < .001$). Strategies were also moderately correlated with parent socialization ($r = .43$, $p < .001$), and sibling socialization ($r = .45$, $p < .001$). Sibling racial socialization and parent socialization were also moderately correlated ($r = .51$, $p < .001$).
Table 3.1. Bivariate Correlations and Descriptive Statistics for the Variables of Interest in Study 2 (N = 314)

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M = 25.45. SD = 5.38. skew = .75. kurtosis = -.19. α = .95.

*aGender: 0 = participant does not identify as a woman, 1 = participant identifies as a woman.
*bSibling gender: 0 = sibling not a woman, 1 = sibling is a woman.*Parent gender: 0 = parent/caregiver is not a woman, 1 = parent/caregiver is a woman. *Current area urban: 0 = participant does not live in an urban area, 1 = participant lives in an urban area. *Current area rural: 0 = participant does not live in a rural area, 1 = participant lives in a rural area. *Current area suburban: 0 = participant does not live in a suburban area, 1 = participant lives in a suburban area. RED = Racial and Ethnic Discrimination *p < .05. **p < .01.
The results of the EFA demonstrated a three-factor structure for the latent outcome variables. The Kaiser-Meyer Oklin value was .95, which exceeded the recommended .60 cutoff (Kline, 2002). A significant Bartlett’s Test of Sphericity supported factorability (Bartlett, 1954). Two items from the anxiety subscale “I was aware of dryness in my mouth” and “I was worried about situations in which I might make a fool of myself” did not load well for any factors and were removed. All other items had high loadings (no less than .61) and minimal cross-loadings, consistent with recommendations from the literature (Kline, 2002), and factors were consistent with the original measure. As such, mental health was assessed with three latent constructs of stress symptomology, depressive symptomology, and anxiety, respectively.

The measurement model demonstrated acceptable fit ($\chi^2/df = 1.82$, CFI = .97; RMSEA = .05, $p = .42$). The latent variable structural equation model also demonstrated acceptable fit ($\chi^2/df = 1.81$, CFI = .90; RMSEA = .05, $p = .26$; see figure 3.2). H1 was supported, as perceived RED was positively associated with depressive ($\beta = .27$, $p < .001$), anxiety ($\beta = .33$, $p < .001$), and stress symptomology ($\beta = .33$, $p < .001$). H2 was also supported, as the loadings for the family racial socialization latent variable were high for both parent ($\beta = .77$) and sibling racial socialization ($\beta = .70$), suggesting that sibling racial socialization contributes meaningfully to overall family socialization. H3 was partially supported, with strategy usage by participants significantly related to depressive ($\beta = .18$, $p = .033$) and stress symptomology ($\beta = .23$, $p = .010$). However, the direction of association was contrary to expectations. When participants reported high levels of RED, they also reported greater usage of strategies to combat RED ($\beta = .40$, $p < .001$). A significant negative relationship was found between family racial socialization and depressive ($\beta = -.31$, $p < .001$) and stress symptomology ($\beta = -.23$, $p = .013$) respectively.

When participants reported higher levels of RED, they also reported higher levels of family
socialization ($\beta = .30, p < .001$). Higher levels of family socialization were associated with higher usage of strategies to combat RED ($\beta = .48, p < .001$).

Regarding the covariates, participants’ reports of RED were not significantly related to living in a suburban ($\beta = .13, p = .178$) or urban area ($\beta = .08, p = .442$). Sisters were reported to provide greater socialization messages to participants ($\beta = .18, p < .001$). Gender did not significantly influence provision of racial socialization ($\beta = .07, p = .164$). Women reported higher levels of stress than people who did not identify as women ($\beta = .09, p = .017$).

Educational attainment was also linked to mental well-being such that greater educational attainment was associated with lower levels of depressive symptomology ($\beta = -.13, p = .002$).

Figure 3.2. Latent Variable Structural Equation Mediation Model of Coping Strategies and Racial Socialization as Mediators on the Relationship Between RED and Mental Health Symptomology

Note: Error variances of the outcome latent variables and strongly associated items within latent variables were allowed to correlate. *$p < .05$, **$p < .001$. 

$\text{cmin/df} = 1.81$  
$\text{CFI} = .90$  
$\text{RMSEA} = .05$  
$p = .26$  
$\text{Racial and Ethnic Discrimination}$

$\text{Racial Socialization}$

$\text{Parental Messages}$

$\text{Sibling Messages}$

$\text{Depressive Symptomology}$

$\text{Anxiety Symptomology}$

$\text{Stress Symptomology}$

$\text{Education}$

$\text{Gender}$

$cmin/df = 1.81$  
$\text{CFI} = .90$  
$\text{RMSEA} = .05$  
$p = .26$  
$\text{Racial and Ethnic Discrimination}$

$\text{Racial Socialization}$

$\text{Parental Messages}$

$\text{Sibling Messages}$

$\text{Depressive Symptomology}$

$\text{Anxiety Symptomology}$

$\text{Stress Symptomology}$

$\text{Education}$

$\text{Gender}$
Post-hoc Tests for Mediation

Sobel test was utilized to determine the significance of indirect paths in the model. Coping strategy usage did significantly mediate the relationship between RED and depressive symptomology \((Z = 1.99, p = .047)\) and the relationship between RED and stress symptomology \((Z = 2.33, p = .020)\). Family racial socialization also significantly mediated the relationship between RED and depressive symptomology \((Z = 2.90, p = .004)\) and stress symptomology \((Z = 3.02, p = .003)\). Coping strategy usage also significantly mediated the relationship between racial socialization and depressive symptomology \((Z = 2.03, p = .043)\) and stress symptomology \((Z = 2.39, p = .017)\).

Discussion

The purpose of this study was to utilize the RED-SM to assess the relationship between RED, coping strategies, socialization messages, and mental health (i.e., depressive, anxiety, and stress symptomology) for young adults and to examine the influence that siblings have on familial racial socialization. This study provides an important advancement for the literature, integrating the role of siblings firmly in the racial socialization process for Black young adults. Results indicated that greater experiences of RED were significantly related to higher levels of depressive, anxiety, and stress symptomology, providing further support for prior research that has established the harm of such experiences on the well-being of Black Americans. Sibling racial socialization contributed meaningfully to overall familial racial socialization, and family racial socialization was negatively associated with targeted depressive and stress symptomology outcomes in this study, providing support for the notion of the contributions of both caregivers and siblings in helping to alleviate some of the elevated mental health symptomology common to this segment of the population, a particularly important finding when considering the relative impact and strong positive association of RED and coping strategies on mental health.
Discrimination

RED is a persistent problem in the lives of Black Americans. Anderson (2019) reported that around 76% of Black Americans have experienced discrimination due to their race/ethnicity. Most of the participants in this study (91.7%) reported at least one RED encounter over the last year, which underscores the prevalence of RED within the environment for Black American young adults. The RED-SM posits that RED is a stressor that can contribute to negative adjustment, such as elevated mental health problems (see Study 1) in line with Carroll’s (1998) proposition that the stress of living in an environment permeated by discrimination can produce a profound, negative impact on the lives of Black Americans. Additionally, previous researchers have found associations between RED, depression, distress, and anxiety (Carden et al., 2021; Hart et al., 2021; Thomas Tobin & Moody, 2021). The positive significant relationship between RED and depressive, anxiety, and stress symptomology in this study offer support for the theoretical framework, recent empirical findings, and urgency in finding ways to minimize the impact of these experiences on mental health outcomes, which have been linked with alterations to the body’s major stress response system, the HPA axis (Adam et al., 2017). Alterations to the HPA axis has unique implications for young adults as these potentially irreversible changes impact the ways in which people respond to stress over the lifespan (Juruena et al., 2021), underscoring the long-term importance of these experiences. Thus, it is important to not only work towards changes that are likely to decrease the likelihood that Black Americans will experience RED, but it is also important to investigate ways to minimize the effect of these experiences on mental well-being and what, if any, effects contribute to physiological changes in the body’s stress response system.
Strategies

Research on the effectiveness of individual strategies used to combat RED have been mixed. Typically, avoidance strategies are seen as less effective strategy; however, such strategies may serve to protect the mental health of Black Americans for an expected stressor that Black Americans have little control over (Harrell, 2000). More active, problem-solving strategies like *John Henryism* have been found to contribute to poorer health outcomes as individuals may overwork themselves (Hudson et al., 2016; Michaels et al., 2019). The RED-SM (see Study 1) posits that resources have the ability to lessen the negative impact attributed to RED; however, the findings of this study do not offer support for the use of the coping strategies, at least the ones utilized herein and in aggregate, as a resource to combat RED. The young adult participants in this study reported significantly higher levels of depressive and stress symptoms with greater frequency of coping strategy usage. Though some strategy items were less active, the hypervigilance and confrontation subscales that mirrored the strategies most frequently used by young adults (Wilson & Gitzler, 2021), contained items that were more action focused and few items overall were emotion focused, which can serve to decrease one’s emotions to a stressor (Lazarus & Folkman, 1984). Though differences between active and more passive, emotion focused coping strategies were not within the scope of this study, these findings support previous research demonstrating that greater usage of some problem-solving strategies like speaking up and expending greater mental capacity to actively avoid RED, contribute to poorer mental health as demonstrated by the findings of this study. It is important that Black American young adults have effective strategies to combat RED experiences and to know which strategies are ineffective.
Socialization

Racial socialization from families played a unique role. Experiences of RED vary, and it can be difficult to determine the cause of more covert forms of discrimination (i.e., subtle behaviors less obviously attributed to racial bias; Sue et al., 2007). The participants in this study were asked to report the frequency of their experiences, but not all the items for the RED variable directly mentioned race and/or ethnicity as a reason for the experience listed. The RED-SM (see Study 1) asserts that familial socialization can help to alleviate the influence of RED on mental health, which was partially supported by the findings given the significant negative relationship between family socialization and depressive and stress symptomology. Though previous researchers have suggested that greater preparation for RED can contribute to poorer mental health (Banerjee et al., 2015; Hughes et al., 2006), the findings of this study may not support this notion; however, this cannot be definitively stated, as an investigation of the influence of different types (preparation for bias versus cultural socialization) of family socialization on mental health outcomes was outside of the scope of this study. The decision was made to examine the two most common messages transmitted by parents, so the latent variables of both parental/caregiver and sibling messages included items that represented both preparation for bias (coping with racism and discrimination; racial barrier awareness) and cultural socialization (ethnic pride; cultural values; history). Familial racial socialization may play a key role in helping individuals understand what RED is and serve to help individuals make sense of and attribute a cause to the experiences of discrimination that they face which then diminishes the impact of these experiences (Hughes et al., 2006). The findings of this study highlight the protective role of families regarding the relationship between RED and mental health.
Higher levels of family socialization were significantly related to more frequent usage of strategies to combat RED, which included items for hypervigilance, confrontation, and racial-conscious awareness, but fewer emotion-focused coping strategy items. Previously, researchers have proposed that greater preparation for bias could potentially contribute to more hyperawareness and thus poorer mental health (Banerjee et al., 2015; Hughes et al., 2006), a finding which seems to be supported by the results herein. Results indicated that coping strategy usage significantly mediated the relationship between family racial socialization and depressive and stress symptomology. It is possible that family socialization contributed to greater awareness of RED, which influenced the usage of the more active strategies examined in this study; however, because we utilized aggregated variables for both coping strategy usage and family socialization, we cannot draw definitive conclusions about this relationship.

The contributions of siblings to familial racial socialization was a primary focus of this study, expanding beyond commonly assessed agents of socialization such as caregivers and parents. The importance of siblings in this socialization process was hypothesized and supported, with results of this study further demonstrating that sisters provided greater racial socialization messages than brothers. This gender effect was not found for parental racial socialization, which is contrary to previous findings (McHale et al., 2006). To the best of our knowledge, no study examines the reasons for racial socialization among Black siblings. Black parents, however, have been found to employ a variety of practices (e.g., cultural pride, preparation for bias, promotion of mistrust, and egalitarianism) in their racial socialization efforts to help children construct meaning about race and to prepare them for RED, and cultural pride and preparation for bias were the most frequently used methods (Hughes et al. 2006; Varner et al., 2021). It is possible that parents and caregivers of the participants in this study, regardless of gender, perceived racial
socialization to be an inherent part of their parental role, especially in light of greater national coverage of RED, as found by previous researchers (Cooper et al., 2020; Jones Thomas & Blackmon, 2021; Threlfall, 2018). This same obligation may not hold for sibling relationships, in which sisters have been found to provide more practical (i.e., help with chores) and emotional (i.e., advice) support (Voorpostel & Blieszner, 2008).

**Variation Between Anxiety and Depression and Stress Symptoms**

One unexpected finding was the lack of association found between key variables of interest and anxiety symptoms. Though depression, anxiety, and stress are related and attributes of mental health, anxiety is defined as persistent and excessive worries even in the absence of a particular stressor (Alford & Halfond, 2022). Stress is defined as an emotional response to specific triggers (Alford & Halfond, 2022), and depression involves feelings of sadness and/or loss of interest in activities (Torres, 2020). No correlation was found between anxiety symptomology and parent/caregiver and sibling socialization for the participants in this study, and it is possible that racial socialization may do little to influence symptoms of anxiety at all. A small, but significant correlation existed between coping strategy usage and anxiety symptomology, which suggests that coping strategies may have less influence on anxiety symptomology even in the absence of RED encounters because of the ongoing and persistent nature of this stressor as posited by the RED-SM (see Study 1) and previous research (Anderson, 2019; Brewster & Nowak, 2020). With this in mind, individuals may come to reason that this is an expected experience for Black people, and therefore any emotional response from excessive and ongoing worries in the absence of discrimination may be unaffected because even in the absence of RED, discriminatory experiences are still likely. Continuing with this assumption, it can be reasoned that strategies have the ability to impact both one’s depressive symptoms (i.e.,
feelings of sadness) and stress symptoms (i.e., emotional responses to this particular stressor) because through these strategies, one may come to or fail to regulate feelings of sadness or ongoing distress from these experiences. Additionally, this may be the reason why the more active, problem-solving strategies utilized in this study were linked to higher levels of depression and stress symptoms as these strategies may elevate emotional responses compared to emotion-focused strategies, which decrease emotion reactions to stressors (Lazarus & Folkman 1984). Participants in this study did not respond to items assessing emotion-focused coping strategies, so we could not determine the cause of the null findings between strategies and anxiety symptomology nor could we determine the cause of the significance in the relationships between strategy usage and depressive and stress symptomology. Researchers may wish to replicate this study using longitudinal, mixed-method, or qualitative approaches to determine the cause of the insignificant findings.

**Limitations and Future Directions**

This study has several limitations worth noting. First data are cross sectional and retroactive, and statements of causality cannot be made. Longitudinal methods would be needed to determine potential causality between the variables of interest. Additionally, a key assumption of the RED-SM (See Study 1) is that one’s experiences with discrimination, resources, and definitions of a stressor contribute to the meaning that one ascribes of the stressor which then impacts overall adjustment. This meaning-making process was not accounted for in this study for two reasons. First, to the best of our knowledge no measure exists to directly assess this meaning-making process as theoretically posited. A worthwhile future step may be measurement development efforts, and specifically development of instruments that capture the process of attribution regarding racial socialization and utilization of coping strategies, such that
meaning may be more directly assessed and that specifically target attributions and/or the nature of the relationship (i.e., “How meaningful was this experience for your understanding of race, ethnicity, and discrimination?). In the absence of a more purposeful measure, researchers could utilize open ended or qualitative follow-up questions about meaning when conducting studies using this framework. Such studies would provide information about if and how the iterative meaning-making process described in the RED-SM (see Study 1) impacts the relationship between RED and mental health outcomes.

Second, an investigation of the influence of the sibling relationship and testing of the overall framework were prioritized for this study, and thus potential moderation effects, even with proxy measures of the proposed meaning making process were not appropriate given the nature of the research questions being asked and ultimately beyond the scope of our analyses herein. In making the decision to explore familial racial socialization as a second-order latent variable, rather than as a singular observed variable, the ability to test such a model became impractical and would have decreased the utility of theoretical model testing undertaken, as exploring moderation effects using latent variables are particularly complex and do not consistently yield reliable fit indices (Malowsky et al., 2015). Future researchers may wish to explore moderation effects between the a, b, and c factors or develop a measure to assess this meaning-making process, and such future research would have potential to provide greater understanding of the RED-SM theoretical model, as well as advance our understanding of these complex and understudied connections between RED and mental health symptomology amongst Black American young adults.

Another limitation is that this study did not include assessments of less active coping strategies to combat RED, which made comparisons between coping strategies impossible.
Given the significant positive relationships between greater usage of strategies and depressive and stress symptomology in this study and previous findings of poorer mental health when using active problem-solving strategies to combat RED (Hudson et al., 2016; Michaels et al., 2019), future researchers may wish to examine the ways in which emotion focused strategies may be more effective at reducing the negative impact that RED can have on mental health outcomes. A better understanding of the coping strategies that work for Black young adults is particularly important as young adults face unique challenges to mental health during a large part of their development in this stage (Arnett & Brody, 2008) and connections between mental health and later life adjustment (Lee et al., 2020). Additionally, we could not examine the influence that various types of family socialization messages (e.g., preparation for bias and cultural pride) have on the usage of specific types of strategies (e.g., hyperawareness and confrontation). Perhaps parsing apart these dimensions and examining how various agents of socialization and specific coping strategies interact could allow us to have a better understanding of which types of messages contribute to the use of particular strategies that may exacerbate or decrease outcomes related to RED encounters.

Additionally, we did not examine the role of negative family racial socialization on relationship between RED and mental health. Our racial socialization variable was measured using items to increase cultural pride, values, history, and preparation for bias awareness. Families are not immune from passing along harmful messages about race and ethnicity (e.g., colorism and negative statements about hair texture) or inaccurate definitions of RED (Wilder & Cain, 2011) that can be attributed, in large part, to the messages from the larger cultural setting. Given the significance of positive racial socialization, future researchers should examine the influence of negative racial socialization from families, particularly in sibling interactions.
considering the dynamics that can be present within these relationships (e.g., power, hostility) in which teasing can involve undertones about features like skin color and hair texture. Further, models that leverage assessments of both positive and negative racial socialization messages may be particularly relevant to any such studies that want to explore meaning making processes amongst this population.

It is important to note that the data for this study were collected during the COVID-19 pandemic, a sociohistorical context in which younger adults in particular have been found to have higher likelihood for experiencing poorer mental health (i.e., depression and anxiety) compared to other age groups (MacDonald et al., 2022). The participants in this study were not asked about their experiences with COVID-19, and thus the influence of COVID-19 on the outcome variables could not be controlled for in the analyses. Researchers may wish to consider and account for the ways that the pandemic has contributed to mental health outcomes when conducting research on mental health.

Implications

First, the findings have important implications for researchers and provide support for an examination of the influence that coping strategy usage and family racial socialization have on the relationship between RED and mental health outcomes for Black American young adults. Researchers may build on the findings from this study by continuing to explore the influence of coping strategy usage and family racial socialization on the link between RED and mental health, while also exploring variations like emotion-focused coping strategies or negative racial socialization messaging. Researchers might also wish to examine other resources (i.e., emotional support for RED experiences), socialization messages (i.e., cultural, media, community), and outcomes (i.e., self-esteem, resilience, identity, physiological health) using the RED-SM.
Continued refinement and testing of this model will serve two purposes. First, additional studies using similar or different variables can provide contextual information that will add to the literature about the impact that RED has on the lives of Black Americans would provide further support for the utility of the RED-SM, and could provide greater validation of the proposed theoretical propositions herein. Second, applied researchers and practitioners who focus on areas for intervention with Black American youth can place the RED-SM at the center of program development or utilize this model in existing programs to evaluate effectiveness at developing effective strategies to address RED and understand the variation that can exist in RED and why it occurs in order to minimize the impact of these experiences on development and well-being.

The findings have important implications for Black young adults, who must experience and navigate typical life and developmental stressors in addition to racial and ethnic bias. These experiences are not only prevalent, but are also associated with poorer mental health and physiological alterations to the body’s stress response system. Though we should collectively work to minimize the likelihood that Black Americans will face RED, Black Americans must also have effective strategies to address RED encounters as we work towards more inclusive spaces. Though active strategies like hyper awareness or confrontation may have utility for preparedness and educating others, they may be negatively tied to mental health, as our findings herein, as well as the broader literature seem to suggest may be the case. Family life educators and other professionals, like therapists, can work with Black young adults to determine which strategies are least conducive to preserving mental well-being. Therapists and educators of young adult learners can also normalize feelings regarding the impact that these strategies on mental health and help them process these experiences. Such information can set the foundation for not only better mental well-being, but healthy coping strategies across the lifespan.
Black parents can experience feelings of stress when it comes to protecting their children from discrimination (Mehra et al., 2022), and family life educators can use the findings of this study and similar studies to underscore the protective nature of family racial socialization in lessening the impact of RED on young adults’ mental well-being. Additionally, practitioners who work directly with Black youth (i.e., therapists and facilitators of community-based programs) may wish to acknowledge and build on the role of families when it comes to addressing mental health outcomes stemming from RED. Parents and siblings can be utilized to further strengthen the approaches and techniques of programming and practices.

It is important to note that the implications of this study extend to populations other than Black Americans. People of color are often expected to shoulder the burden of racism and educate others about their experiences. Research indicates that younger White American cohorts believe that it is no longer necessary to intervene in widespread instances of racial inequity (Forman & Lewis, 2015), yet the broader literature and the findings of this study suggest that intervention is necessary. As such, having a keen understanding of the issues facing Black Americans also have implications for White and non-Black populations. Following the increase of civil unrest during the summer of 2020 after the murder of George Floyd, Breonna Taylor, Ahmaud Arbery, and others, many individuals and organizations were pushed to respond to activists’ calls for action by taking tangible steps to address and understand social justice and inequity (Singletary et al., 2021). Educators who teach adult learners or conduct diversity trainings can utilize the findings from this study to help White and non-Black populations to understand both the impact of RED on mental health of Black Americans and the toll that active coping strategies, like hypervigilance and speaking up, have on mental health.
Conclusion

Understanding the ways in which discrimination presents challenges in the lives of Black young adults is important given the current sociohistorical context and lasting impact that mental health during this time can have on later life adjustment. The RED-SM (see Study 1) provides a lens by which to understand the relationship between RED encounters, racial socialization, coping strategies, and mental health outcomes for this population. The findings of this study align with previous research regarding poorer mental health with greater use of active, problem-solving strategies and the ways that racial socialization from families can lessen the impact of discriminatory experiences on mental health outcomes. Our study also extended family racial socialization to encompass socialization from siblings as research on this topic is understudied despite prior research highlighting that siblings have the ability to shape this process. By examining the relationship between RED, strategies, socialization, and mental health, researchers not only provide additional support to underscore the need to stop these encounters, but they also provide information that can help Black Americans navigate these experiences in ways that contribute to more positive adjustment across the lifespan.
Chapter 4 - The Hidden Role of Siblings: An Examination of Sibling Racial Socialization on Racial and Ethnic Discrimination and Well-Being Among Black Young Adults
Abstract

The present study sought to expand upon gaps in the literature regarding the inclusion of siblings in the racial socialization process and examine the influence of sibling closeness on the transmission of racial socialization messages using the Racial and Ethnic Discrimination Stress Model. Participants included Black American young adults ($N = 314$) who reported on the sibling who taught them the most about what it means to be Black or African American. The hypotheses and research question were tested using latent variable structural equation modeling in IBM Amos 28. Results demonstrated a significant positive relationship between greater frequency of RED and higher reports of depressive, anxiety, and stress symptomology. Higher levels of sibling racial socialization were associated with lower levels of depressive and stress symptomology. Sibling closeness was significantly linked to sibling racial socialization, such that higher levels of sibling closeness were associated with higher levels of the transmission of sibling racial socialization messages to the participants in this study. Participants in sister-sister dyads reported higher levels of sibling closeness than siblings in other gender dyads, and participants with sisters reported higher levels of racial socialization. Findings provide insight on the influence of sibling racial socialization and mental health and the ways that sibling closeness contributes to this process. Implications for researchers and practitioners are included.

Keywords: Black Americans, racial socialization, racial and ethnic discrimination, siblings, mental health
Introduction

Despite some visible signs of progress towards greater recognition of the importance of diversity and equity in recent years, Anderson (2019) found that 76% of Black Americans still report facing discrimination due to their race. Researchers have found that such experiences have the potential to negatively impact mental health, with racial and ethnic discrimination (RED) being linked to higher levels of depression, anxiety, and distress (Carden et al., 2021; Hart et al., 2021; Thomas Tobin & Moody, 2021). RED can occur across multiple settings (e.g., schools, workplaces, healthcare; Bleich et al., 2019; Bradshaw et al., 2010; Mehra et al., 2020) and present in overt (i.e., behaviors that are obvious and easy to identity as racially motivated) or covert (i.e., subtle behaviors less obviously attributed to racial bias) ways (Su et al., 2007). Given such variation, racial socialization (i.e., a process by which messages about race and discrimination are communicated) plays a key role in helping individuals understand what RED is and can serve as an avenue to mitigate the negative influence that this form of discrimination can have on individuals (Hughes et al., 2006). Black Americans frequently rely on social support for RED experiences (Harrell, 2000; Wilson & Gentzler, 2021). Such findings underscore the ways that Black Americans navigate these unnecessary, life stressors through coping strategies and intergenerational teaching practices.

The literature on racial socialization is typically focused on the ways in which socialization agents (e.g., parents, friends) prepare individuals for the discrimination that they will face or alternatively how individuals can serve as sources of support (Anderson & Stevenson, 2019). Understudied, yet highly salient and impactful agents in this process, siblings represent a familial relationship that can: (a) contribute to better mental health outcomes for individuals (e.g., lower levels of internalizing and externalizing behaviors, greater life
satisfaction; Buist et al., 2014; Geertz-Perry et al., 2021; Milevsky, 2019) and (b) influence the racial socialization process (Caughey et al., 2011; Padilla et al., 2021; Study 2). A greater understanding of the contributions of siblings in the racial socialization process allows for a better assessment of individuals’ adjustment to RED; siblings are significant contributors to individual development and adjustment and less is known about the positive effects of siblings in the lives of racial and ethnic minorities (McHale et al., 2012). Further, individuals in close relationships have been found to display greater emotional support availability (Hood et al., 2017) though gaps exist in the literature regarding the influence of close relationships on the racial socialization process, stemming perhaps in large part to racial socialization being seen as an inherent part of the parental role (Cooper et al., 2020; Threlfall, 2018). The purpose of this study is to expand upon current gaps in the literature that fail to account for the role and influence of siblings in the racial socialization process (see Study 2) and subsequently whether close relationships contribute to the transmission of these messages by: (a) examining the ways in which sibling racial socialization directly influences the relationship between RED and mental health outcomes and (b) exploring associations between sibling closeness and the racial socialization process using the Racial and Ethnic Discrimination Stress Model (RED-SM; see Study 1), a newly developed theoretical framework.

**Theoretical Framework**

The Racial and Ethnic Discrimination Stress Model (RED-SM; see Study 1) provides a framework by which to understand: (1) the connection between mental health outcomes and RED, as a stressor, in the lives of Black individuals and (2) the variation in mental health outcomes as a result of this stressor. The RED-SM model assumes that a (x) range of variation in response to (a) RED is possible, due to the (b) resources used to confront RED and the (c) racial
socialization messages that individuals receive. Additionally, meaning arises when individuals interact with each factor, and this meaning making process is posited to influence one’s response or adjustment to the stressor. As is theoretically (see Study 1) and empirically (Minniear & Soliz, 2019; Said & Feldmeyer, 2022) supported, there exist an array of important family members that may act socializers for race and ethnicity beyond the commonly considered and assessed role of caregivers and parents. Siblings comprise a dynamic and interconnected dyad that exists within the larger family unit, a better assessment of individual outcomes is obtained by examining the influence of this dyad (Cox & Paley, 2003). It is possible that racial socialization messages have more prominence or occur more frequently in sibling relationships with high levels of closeness or that these messages still serve a key role regardless of perceived levels of closeness. Such nuance can only be obtained through further examination of this process given how little research has been conducted regarding the role of siblings in studies that examine RED, racial socialization, and resource utilization for Black Americans.

**Racial and Ethnic Discrimination**

Reskin (2012) describes discrimination as a system in which: “(a) disparities systemically favor certain groups, (b) disparities across subsystems are mutually reinforcing, and (c) one source of with-in subsystem disparity is discrimination” (p. 19). Though few White Americans consider themselves to be racist, increases in racial apathy and failure to stop racial inequity have increased over time and continue to be a driving force of the system that maintains racial and ethnic discrimination and inequity for Black Americans (Bonilla-Silva, 2003; Forman & Lewis, 2015). These trends suggest that Black Americans will inevitably experience RED, either knowingly or unknowingly, at some point across the lifespan. This is an unfortunate reality for Black Americans, with research suggesting that as many as 76% of Black Americans have
encountered racially motivated discriminatory experiences (Anderson, 2019). In a recent study of Black and White Americans, a majority of Black participants (92%) believed that discrimination against Black Americans currently existed and reported significantly higher levels of discriminatory encounters compared to White participants that included acts such as being stopped or unfairly treated by police, hearing microaggressions and racial slurs, and unequal pay or promotion (Bleich et al., 2019). Black children are 3.5 times more likely to receive detention or suspension than their peers even after controlling for behaviors (Fadus et al., 2021), and college students have reported discrimination from both peers and professors (Del Toro et al., 2020). Many Black Americans experience discrimination in clinical settings and may choose to not seek healthcare avoid anticipated RED (Bleich et al., 2019). Black women are 3 times more likely to die from pregnancy-related causes, largely due to disparities, including but not limited to the quality of care during delivery (CDC, 2022; Mehra et al., 2020). These experiences have negative implications for Black Americans as experiences of RED have been linked with a myriad of mental health outcomes, such as higher levels of depression, distress, and anxiety (Carden et al., 2021; Hart et al., 2021; Thomas Tobin & Moody, 2021; Study 2).

In line with the RED-SM framework (see Study 1), it is important to recognize that an individual's understanding of discriminatory experiences can vary due to the different ways that RED can present. In other words, despite the pervasive nature of RED in the lives of Black Americans, individuals may fail to recognize that a particular incident is rooted in racial or ethnic bias for several reasons. First, discrimination can occur at individual (i.e., person-to-person), institutional (i.e., within schools and healthcare), and cultural (i.e., attitudes, beliefs, and practices within society) levels (Hope et al., 2019). RED can also fall into two categories: overt and covert. Overt RED is easiest to identify and can include action and things such as bigoted
Microaggressions, a term originally coined by Pierce in 1970, was operationalized by Sue and colleagues (2007) as the “brief, everyday exchanges that send denigrating messages to people of color because they belong to a racial minority group” (p. 273). Additionally, these actions can be more difficult to label as rooted in racial and ethnic bias because they can be passive and/or seemingly benevolent in nature. For example, a Black person might receive compliments about how articulate they are. At face value, these statements seem well-meaning; however, they are often said because they align with White assimilation standards and contradict negative stereotypes that the speaker may hold about Black Americans (in this scenario, a preconceived notion that Black Americans are generally inarticulate). The socialization messages that individuals receive about RED play a role in how individuals construct meaning or make sense of these experiences and their ability to accurately determine whether such experiences are rooted in racial and ethnic bias.

**Racial Socialization**

The RED-SM asserts that how individuals define a situation or event contributes to the overall meaning that they ascribe to it (see Study 1). Though individuals receive racial socialization messages from various sources (Minniear & Soliz, 2019; Said & Feldmeyer, 2022), many researchers have focused on the process of familial racial socialization, which is typically described as the ways in which parents communicate cultural heritage knowledge, the realities of
RED, and preparation for RED to children (Hughes et al., 2006; Stevenson et al., 2005). Racial socialization from parents has been found to act as a buffer against race based traumatic stress (Anderson & Stevenson, 2019); however, few studies examine this process using different family relationships (e.g., extended family, siblings). Operating from a RED-SM perspective and Lesane-Brown’s (2006) definition, racial socialization in this study is considered to be a process by which verbal and non-verbal messages are transferred to instill values, attitudes, behaviors, and beliefs about the meaning and significance of race, race stratification, within group vs. between group interactions (i.e., interactions between Black individuals vs. interactions with non-Black individuals), and racial and ethnic identity. It is necessary to examine the ways in which other family members transmit racial socialization messages to individuals about RED to obtain a more complete understanding of what this process looks like for Black Americans and this study extends prior work by directly focusing on the role of siblings in this socialization process.

Sibling relationships are unique in that these relationships are less hierarchical than parent-child relationships and are different from relationships with friends given their shared familial history (Punch, 2005). Due to shared parentage and/or residence, siblings may be more likely to and have more opportunities to transmit racial socialization messages over time. Additionally, siblings may serve to bolster the messages provided to children from parents, or they may transmit messages that are more generationally relevant than what parents communicate, given increases in covert RED that have been seen over time in the United States and the likelihood of similar cohort and generational experiences. Only a few studies have examined the influence that siblings have on the racial socialization process. Though they were unable to directly examine the messages transmitted between siblings, Caughey and colleagues
(2011) found that male children with an older brother in the home over the age of 11, were more likely to receive racial socialization messages that promoted mistrust of White people compared to their peers. In a recent study, Padilla-Walker and colleagues (2021) found that Mexican American siblings’ ethnic racial identity (ERI) in adolescence positively predicted young adults’ ERI even after controlling for parents’ ERI. These studies, though limited, offer support for the notion that that additional research is needed to understand the range of ways that siblings contribute to the racial socialization process.

**The Role of Sibling Closeness**

Researchers have found associations between positive perceptions of family relationships and individual benefits, such that perceived relationship importance for immediate family members (specifically, spouse and child) was associated with more positive reports of well-being (Chopik, 2017). Further examination of the quality of family relationships has revealed positive associations between higher levels of perceived relationship quality and well-being. Specifically, higher quality relationships with parents, particularly mothers, have been associated with lower rates of depression, anxiety (Lindell et al., 2021; Memmott-Elison et al., 2020), and emotional distress and reactivity (Maller et al., 2010). Higher quality and more harmonious (i.e., low conflict and high warmth) sibling relationships have been associated with greater life satisfaction and lower levels of anxiety, depression, and aggression than lower quality or more conflictual sibling relationships (Buist et al., 2014; Milevsky, 2019). Emotional support is considered to be a key aspect of close relationships and can include empathizing, feeling exploration, and listening to others when they are distressed (Burleson, 1984, 2003). Taken together, these findings suggest that close familial relationships can be an important resource in the maintenance of mental health.
Harrell (2000) suggested that Black Americans frequently use social support for RED encounters. Empirically, social support has been identified as a key supportive resource for RED that typically serves as a venue to regulate the emotions that arise from such experiences (Wilson & Gentzler, 2021). Ajrouch and colleagues (2010) found that instrumental support contributed to lower levels of discrimination-related distress stemming from daily discrimination; however, Warren-Findlow and colleagues (2011) found that when the older Black Americans in their study perceived high levels of emotional support from friends and families, they had better self-reported emotional health. Emotional support availability and provision are higher in close social networks (Cross et al., 2018; Hood et al., 2017). Chief amongst social networks for Black youth are sibling relationships, in which shared familial history, experiences, and dyadic characteristics (i.e., gender, birth order) may contribute to greater feelings of closeness (Cicirelli, 1995; Voorpostel & Blieszner, 2008).

Examining the influence of sibling relationships on the relationship between RED and mental health outcomes during young adulthood is complicated by typical features of this developmental stage. During this time, siblings typically spend less time together (White, 2001) and might have fewer opportunities to provide direct emotional support for RED encounters given the frequency and uncertainty in the timing of these occurrences. In a recent study, sibling racial socialization contributed meaningfully to familial socialization and that familial socialization mediated the relationship between RED and mental health, such that higher levels of family socialization was linked to lower levels of depression and anxiety (Study 2). Thus, it may be more appropriate to examine the role of sibling closeness on the transmission of racial socialization than as a mediator for RED and mental health. Racial socialization messages communicated overtime may remain with individuals even when siblings have lower frequency
of interactions. Given the significance of the relationship between familial racial socialization and mental health, it is important to examine what contributes to the transmission of such messages. Parents tend to have a sense of obligation to transmit messages of preparedness and cultural knowledge (Hughes et al., 2006); however, siblings may not have this same sense of obligation. It is possible that sibling relationships act as a resource by increasing the transmission of racial socialization messages or closeness may be irrelevant in the transmission of these messages. This study will examine how sibling relationship closeness as a resource for RED experiences by investigating the relationship between sibling closeness and racial socialization.

**Current Study**

The purpose of this study was to extend prior research, by examining the ways in which sibling racial socialization, specifically, might buffer against the relationship between RED and mental health (i.e., depressive, anxiety, and stress symptomology). In Study 2, we found that siblings meaningfully contributed to familial racial socialization. Researchers have found that experiences of RED are associated with poorer mental health (i.e., higher levels of depression, distress, and anxiety; Carden et al., 2021; Hart et al., 2021; Thomas Tobin & Moody, 2021). Despite the presence of studies examining the beneficial nature of the racial socialization process and resources that Black Americans use in response to RED (Anderson et al., 2020; Anderson & Stevenson, 2019; Wilson & Gentzler, 2021), few studies examine the roles that siblings play in either providing these socialization messages or serving as a resource for these experiences. The RED-SM model (Study 1) suggests that racial socialization is a process by which various socializers (i.e., immediate, external, and cultural) communicate messages about the environment permeated by RED, with siblings serving as an immediate socializer in this process. Two
hypotheses were proposed based on the current literature and theoretical model (see Figure 4.1 for conceptual model):

(H1): Levels of perceived RED would be positively associated with higher reports of depressive, anxiety, and stress symptomology.

(H2): Sibling racial socialization would mediate the relationship between racial and ethnic discrimination, such that sibling socialization would be negatively related to levels of depressive, anxiety, and stress symptomology.

A second goal of this study was to explore the relationship between sibling relationship closeness and sibling racial socialization. Close relationships are a frequently used resource in response to RED and have the ability to impact that close relationships have on mental health outcomes (Harrell, 2000; Lindell et al., 2021; Mallers et al., 2010; Memmott-Elison et al., 2020), influenced, in large part, due to associations between emotional support (i.e., provision and availability) and close relationships (Cross et al., 2018; Hood et al., 2017); however, close sibling relationships during young adulthood may have less influence on daily reports of mental health. Therefore, it may be appropriate to examine how close relationships may influence the transmission of racial socialization messages transmitted from one sibling to another during this developmental time. Thus, the following research question was proposed:

(RQ): How do levels of perceived sibling closeness influence the transmission of racial socialization messages?
Method

Participants

This study was part of a larger data collection effort to examine adverse experiences (early childhood and racial and ethnic discrimination), familial processes (communication and racial socialization), coping and resilience, and adjustment for Black Americans. This study focused exclusively on sibling socialization and closeness as buffers for racial and ethnic discrimination and explored the relationship between sibling closeness and sibling racial socialization. Prolific Academic, an online data collection platform that provides an international pool of participants, was used to recruit participants for this study. Data collection occurred between January and March 2022, and participants were paid approximately $4.25-$4.67 to complete the approximately 30-minute survey. Prolific Academic allows researchers to select inclusion criteria to limit the pool of potential participants to those who meet the requirements for their study. Inclusion criteria for this study included: (a) identifying as a monoracial Black
and/or African American (e.g., having both parents identify as African American and/or Black) person, (b) being between the ages of 18-40 (Erikson, 1980), and (c) having at least one sibling. Participants outside of the United States were excluded. This resulted in an analytic sample of 314 participants.

The average age of participants was 25.45 years ($SD = 5.38$), and most participants identified as women (69.1%). Participants were asked to report on their sibling. If they had more than one sibling, they were asked to report on the sibling who they felt taught them the most about what it means to be Black or African American. The average age of reported siblings was 26.59 years ($SD = 7.90$), and 51.3% of participants reported on their sisters. The average age spacing between siblings was and 57.3% of participants reported that they were younger than their reported sibling. A little under half of participants (45.9%) reported on mixed-gender sibling dyads, and the majority of same-gender sibling dyads were reported as sister-sister dyads (37.3%).

**Measures**

**Racial and ethnic discrimination.** Racial and ethnic discrimination was assessed using the Daily Life Experiences- Frequency (DLE-F; Harrell, 1997; $\alpha = .89$), an 18-item measure that assesses how often participants experience discrimination. Participants will rate how often they experience discrimination within the last year using a 6-point scale from $0 = \text{never}$ to $5= \text{once a week or more}$. Example items will include “being disciplined unfairly because of your race” and “overhearing or being told an offensive joke.” This scale was validated for a Black emerging adult sample (Lee et al., 2021). Items were averaged to obtain an overall score of RED. Internal consistency for the scale was acceptable ($M = 2.25; SD = .99; \alpha = .95$).
Sibling racial socialization. Participants were asked to retrospectively report on their racial socialization experiences from a sibling using five subscales (coping with racism and discrimination [4 items], racial barrier awareness [6 items], African American history [4 items], African American cultural values [4 items], and ethnic pride [5 items]) from the Adolescent Racial and Ethnic Socialization Scale (ARESS; Brown & Krishnakumar, 2007) that are directly connected to discrimination. Items will be rated on a 4-point scale from 0 = never to 3 = always. Example items include “My sibling taught me what to do if I’m called a racist name” (coping with racism and discrimination); “My sibling taught me that racism is present in America” (racial barrier awareness); “My sibling encourages me to learn about the history of Black people” (African American history); “My sibling teaches me that Black people should give back to the Black community” (African American cultural values), and “My sibling taught me to never be ashamed of my skin color” (ethnic pride). Internal consistency was acceptable (M = 2.07; SD = .59; α = .98).

Sibling relationship closeness. The Lifespan Sibling Relationship Scale (LSRS; Riggio, 2000) was used to assess participants’ perceptions of sibling relationship closeness. Participants responded to 24 items using a 5-point scale from 1 = strongly disagree and 5 = strongly agree. Sample items include “My sibling makes me happy,” “My sibling and I do a lot of things together,” and “My sibling is very important in my life.” Items were averaged to obtain an overall score of sibling closeness, and internal consistency was strong (M = 3.56; SD = .97; α = .97).

Mental health. Depressive, anxiety, and stress symptomology will be assessed using the Depression, Anxiety, and Stress Scales (DASS-21; Lovibond & Lovibond, 1995). Participants will be asked to indicate how much each statement applied to them over the past week using a 4-
point scale from 0 = *did not apply to me at all* to 3 = *applied to me very much or most of the time*. Example items will include “I felt down-hearted and blue” (depression); “I felt I was close to panic” (anxiety); and “I found it difficult to relax” (stress). Reliability for each subscale was acceptable for depressive ($M = 1.83; SD = .87; \alpha = .95$), anxiety ($M = 1.47; SD = .59; \alpha = .82$), and stress ($M = 1.83; SD = .74; \alpha = .95$).

**Covariates.** Findings from previous researchers demonstrate that gender has the ability to influence either experiences or perceptions of RED, socialization, and sibling relationship dynamics (Killoren et al., 2014; Lateef et al., 2021; Spitze & Trent, 2006; Varner et al., 2021). Researchers have also found educational attainment to be linked to depression (Platt et al., 2020). Educational attainment was treated as a multi-categorical variable with 1 = less than a high school diploma to 6 = post graduate education. Gender was dichotomized such that 0 = not a woman, and 1 = woman.

**Analysis**

Descriptive analyses (i.e., bivariate correlations, missing data, and exploratory factor analysis for the latent variable construction) were conducted in IBM SPSS 28. Tests of normality including assessment of skew and kurtosis were conducted, and data were deemed to be normally distributed (Curran et al., 1996). Next, measurement model was fit for the outcome variables. Then, a latent variable structural equation model was fit in which the additional latent variable of sibling racial socialization, and pathways of interest were added using Amos 28. Standard statistics recommended by Kline (2016) were utilized to determine the acceptability of the model fit to the data and reported: (a) model chi-square and degrees of freedom with $p$ value, (b) an RMSEA value $< .08$ and ideally $< .05$ and 90% confidence interval, (c) CFI of .9 and
ideally greater than .95 or higher, and (d) SRMR < .08 and ideally less than .05. To determine the significance of indirect effects, post-hoc Sobel (1982) tests were utilized.

**Results**

Missing data were minimal (averaging .26% with no item exceeding 1.3%). The results of Little’s missing completely at random (MCAR) test supported the hypothesis that the data were likely missing at random ($\chi^2 = 2713.56, df = 2687, p = .36$). Missing data were accounted for using full information maximum likelihood (FIML) in IBM Amos 28. Bivariate correlations and other descriptives are shown in Table 4.1. Moderate correlations were found between RED and anxiety symptomology ($r = .34, p < .001$) and stress symptomology ($r = .37, p < .001$). Sibling racial socialization was also moderately correlated with RED ($r = .57, p < .001$).
Table 4.1. Correlations and Descriptive Statistics for the Variables of Interest in Study 3 (N = 314)

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<td>.98</td>
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<sup>a</sup>Gender: 0 = participant does not identify as a woman, 1 = participant identifies as a woman. <sup>b</sup>Sibling gender: 0 = sibling not a woman, 1 = sibling is a woman. <sup>c</sup>Birth order: 0 = participant not older, 1 = participant older. <sup>d</sup>Dyad constellation: 0 = not sister-sister dyad, 1 = sister-sister dyad. <sup>e</sup>Current area urban: 0 = participant does not live in an urban area, 1 = participant lives in an urban area. <sup>f</sup>Current area rural: 0 = participant does not live in a rural area, 1 = participant lives in a rural area. <sup>g</sup>Current area suburban: 0 = participant does not live in a suburban area, 1 = participant lives in a suburban area. *p < .05. **p < .01.
The measurement model demonstrated acceptable fit ($\chi^2/df = 1.82, \text{CFI} = .97; \text{RMSEA} = .05, p = .42$). The latent variable structural equation model also demonstrated acceptable fit ($\chi^2/df = 2.03, \text{CFI} = .92; \text{RMSEA} = .06, p < .001$; see figure 4.2). H1 was supported, as RED was significantly associated with reported symptoms of depression ($\beta = .31, p < .001$), anxiety ($\beta = .38, p < .001$), and stress symptomology ($\beta = .41, p < .001$). H2 was partially supported, with sibling racial socialization negatively associated with depressive ($\beta = -.14, p = .015$) and stress ($\beta = -.13, p = .031$) symptoms. Regarding the RQ, sibling relationship closeness was positively related to sibling racial socialization ($\beta = .57, p < .001$).

There were several significant findings associated with gender. Participants who identified as women reported higher levels of stress symptoms ($\beta = .10, p = .011$). Sisters were reported to provide higher levels of racial socialization than siblings who were not women ($\beta = .09, p = .039$). Those who reported on sister-sister dyads reported greater feelings of closeness than other dyads ($\beta = .25, p < .001$). Additionally, birth order was significantly related to racial socialization, such that participants who reported that they were the youngest, received higher levels of socialization messages ($\beta = .21, p < .001$). Educational attainment was also associated with levels of depressive symptoms, such that higher levels of educational attainment contributed to lower levels of reported depressive symptomology ($\beta = -.14, p < .001$).

Results of the Sobel indicated that sibling racial socialization significantly mediated the relationship between RED and depressive symptomology ($Z = -2.00, p = .046$) and stress symptomology ($Z = -2.03, p = .042$).
Figure 4.2. Model of Sibling Racial Socialization as a Mediator on the Relationship Between RED and Mental Health Symptomology and Sibling Closeness Association

Note: Error variances of the outcome latent variables and strongly associated items within latent variables were allowed to correlate. *p < .05, **p < .001.

Discussion

The purpose of this study was to utilize the RED-SM (Study 1), and to build upon an emerging line of research to better understand the role of siblings in the racial socialization process (see Study 2). Specifically, we sought to directly examine the relationship between sibling racial socialization on mental health outcomes outside of parental racial socialization. Consistent with Study 2, higher frequency of RED experiences were associated with higher levels of reported mental health symptomology. Of note, sibling racial socialization was negatively related to reports of depressive and stress symptomology, even without the inclusion of parental racial socialization. A second goal of this study was to examine variables related to sibling racial socialization because siblings may not view the transmission of such messages as an inherent part of their role as parents typically do (Cooper et al., 2020; Jones Thomas &
Blackmon, 2021; Threlfall, 2018). In this study, sibling closeness was positively associated with sibling racial socialization and dyadic characteristics like sibling gender and birth order were associated with racial socialization. Those reporting on sister-sister dyads reported significantly higher feelings of closeness than other siblings in other gender dyads.

**Racial and Ethnic Discrimination**

Carroll (1998) asserted that the stress of living in an environment rife with discrimination has a profoundly negative impact on the lives of Black Americans. The significant relationship between RED encounters and symptoms of depressive, anxiety, and stress symptoms in this study align with this notion and findings from previous studies regarding the influence of discriminatory experiences on mental health (i.e., higher levels of depression, distress, and anxiety; Carden et al., 2021; Hart et al., 2021; Thomas Tobin & Moody, 2021). Further, the findings offer support for the RED-SM which posits that these experiences (either covert or overt as reported by the young adult participants in this study) have the ability to negatively impact mental health (Study 1). Discriminatory experiences leading to and during this developmental stage, can exacerbate the connections between age-related milestones (e.g., increased autonomy, relationship formation, identity formation) and mental health challenges.

Development during a large portion of young adulthood has implications and connections to mental health. Individuals must continue with the process of identity development and often begin establishing intimate relationships (Arnett, 2000; Erikson, 1980). The process of working through these developmental milestones can contribute to negative mental health, which is further complicated by the challenges of racial and ethnic discrimination (Arnett & Brody, 2008; Arnett et al., 2014; Carmichael et al., 2015). Given the links between mental health during this developmental time, adjustment in later life, and irreparable alterations to the body’s major
response system, the HPA axis, it is imperative that researchers find ways to decrease the negative impact that these ubiquitous experiences have on young adults.

**Sibling Racial Socialization**

This study presents an innovative approach to the study of racial socialization, as it directly examines the relationship between sibling racial socialization and mental health outcomes for Black young adults. To our knowledge, no study has examined sibling racial socialization using a Black young adult sample. The RED-SM assumes that racial socialization messages can play an important role in mitigating the positive relationship between greater frequency of RED and poorer mental health outcomes. The findings of this study both extend the work conducted in Study 2 and offer additional support for the overall importance and potential for positive influence that families have in the racial socialization process. Despite research demonstrating that individuals receive racial socialization messages from various sources (Minniear & Soliz, 2019; Said & Feldmeyer, 2022), racial socialization is typically described as a transmission of knowledge from parents to children in which parents communicate cultural knowledge and prepare their children for RED (Hughes et al., 2006; Stevenson et al., 2005). This description seems to be lacking, as the findings of this study suggest that siblings are an important an influential socialization agent, whose relationship has direct implications for the mental health of young adult Black Americans. While the broader literature consistently notes that siblings are important to overall development (McHale et al., 2012) and have been found to influence the ways in which individuals receive racial socialization messages or directly transmit knowledge themselves (Caughey et al., 2011; Padilla-Walker, 2021), their centrality in research involving the socialization process is often lacking.
Black Americans must navigate development amidst systemic racism, and siblings may serve to reinforce the socialization messages from parents while also providing more generationally specific messaging. Though parents have been found to provide socialization messages as part of their parental role, siblings may be motivated in other ways, with closeness of the relationship, gendered expectations, previous RED encounters, and birth order acting as factors that may make siblings more likely to engage in this process. Exploring the reasons why siblings share messages about preparation for bias and cultural knowledge can help practitioners who work with Black American parents looking to help their children navigate RED encounters. Siblings are not only readily available, but one of the longest-lasting relationships that individuals have (Cicirelli, 1995). Similar to Study 2, sisters were reported to provide more socialization messages than siblings of other genders. This mirrors other studies that demonstrate gender differences in transmission of racial socialization messages (McHale et al., 2006). Additionally, birth order variable was also significantly related to racial socialization, so it is possible that sisters and older siblings may transmit these messages as a result of gender socialization (i.e., girls feeling more obligated to provide support) or birth order (i.e., older siblings feeling obligated to provide support because of their status). These findings shed light on the ways dyadic characteristics may lead to additional transmission of these messages; however, it is also necessary to examine other contributing factors in this process.

**Sibling Closeness**

Of interest to this study was the examination of the influence of sibling relationship closeness as a resource that influences the racial socialization process. Though researchers have found perceived relationship importance and quality to be associated with lower levels of depression, anxiety and emotional distress and reactivity (Lindell et al., 2021; Mallers et al.,
2010; Memmott-Elison et al., 2020), the decision was made to examine the influence of
closeness on racial socialization: (a) to extend the findings from Study 2 by examining potential
motivating factors for racial socialization and (b) because young adult siblings may not live close
enough to one another at this stage to provide direct support for RED or influence mental health
assessed recently (i.e., over the last 7 days). Though connections between closeness and
 provision of and availability for support may be related, sibling closeness may not serve as a
suitable proxy for emotional support, which has been found to impact mental health, as
individuals may not believe that their sibling is someone who can offer emotional support for
RED encounters. This may be especially true if individuals have more than one sibling and is
relationally close to one but shares similar views about race, ethnicity, and discrimination with
another or alternatively, in situations where a given individual may only have one sibling and
that sibling does not share their views on the subject. It was hypothesized that greater feelings of
closeness would contribute to higher levels of socialization messages, which, by their nature, are
more likely to remain with individuals even if the siblings do not live in close proximity or have
daily interactions with one another. Herein, the findings are consistent with this notion, though it
was not tested directly and would need to be explored further to state definitively.

Sibling relationships during childhood can be heavily influenced by power dynamics and
other dyadic characteristics that can influence the provision of support (Punch, 2005); however,
individuals in close relationships can reasonably expect and be expected to provide support
(Barbee & Cunningham, 1995). Without qualitative data or asking siblings why they provide
socialization messages, we cannot make causal statements based on the findings of this study,
but it would appear that sibling racial socialization is influenced, at least partially, by how close
siblings feel, which raises the question of what messages are communicated when siblings are less close or when there are high levels of conflict or hostility.

**Limitations**

This study has several limitations worth noting when considering the findings. Because the data are cross-sectional and retrospective, statements about causality cannot be made. Researchers may wish to utilize longitudinal data to assess causal relationships between the variables in this study. Additionally, the RED-SM (Study 1) posits that meaning is constructed through interactions with RED, the resources available to individuals, and messaging about race and ethnicity and discrimination; however, we did not account for this variable as no measure is currently available to assess the meaning-making outlined in the RED-SM. In future studies, researchers may wish to either utilize moderation techniques or follow-up items that ask how meaningful an item was for participants’ understanding of race, ethnicity, and discrimination.

Second, we did not examine a resource in this study. Though associations have been found between emotional support, close relationships, and mental health, and Black Americans often utilize social support in response to RED, it was determined the sibling closeness could not serve as an appropriate resource for this study as close relationships may not be a suitable proxy for emotional support for young adults, who typically spend less time with siblings during this developmental time (White, 2001). When examining sibling influences on the relationship between RED and mental health outcomes for Black Americans, future researchers may wish to use measures that assess emotional support availability and provision and examine the relationship between emotional support, sibling closeness, and racial socialization. Such findings would provide insight into the understudied area of racial socialization among not only siblings,
but within broader social networks, where racial socialization may not be considered an inherent part of that role (e.g., friends, community members).

Another limitation of this study is that we did not examine the transmission of negative racial socialization messages. Though sibling relationships do become more egalitarian over time, sibling relationships, especially in childhood, can be sources of conflict (e.g., arguing, teasing, etc.) that is typically expected in these relationships (Cicirelli, 1995). With sibling relationships not always being positive, it is important to examine the ways that siblings may transmit negative messages about race and ethnicity. Colorism (i.e., bias or consciousness regarding skin tone) is an example of the negative messages that can be transmitted in Black families (Wilder & Cain, 2011) and may provide an avenue for siblings to tease one another in the transmission process. Researchers who wish to study sibling racial socialization may wish to examine the influence of both positive and negative sibling messages.

Data were collected during the COVID-19 pandemic, a time in which younger adults have been more likely to experience poorer mental health (i.e., depression and anxiety) compared to all other age groups (MacDonald et al., 2022). Additionally, Black Americans have also been disproportionately impacted multiple factors stemming from the COVID-19 pandemic (e.g., unemployment, structural healthcare bias) which may contribute to poorer mental health (Kirksey et al., 2021). We did not ask participants in this study about their experiences with the pandemic in order to control for the influence of these experiences on mental health. Researchers may wish to measure and account for the ways that the pandemic has impacted mental health outcomes when conducting research on mental health.
Implications

The findings have important implications for Black young adults. There is limited research about sibling relationship dynamics in young adulthood, particularly for Black Americans, and the ways that siblings can mitigate the impact of greater frequency of RED experiences on mental health symptomology (i.e., depressive and stress). Siblings share similar familial history and messaging and spend considerable amounts of time together in childhood, yet siblings may transmit messages that are more generationally relevant than parents, who are typically examined in the racial socialization process. Family life educators and other professionals, like therapists, can acknowledge and draw on the benefits of socialization messaging from siblings when working with these populations. When working with Black young adults who struggle with RED encounters, practitioners can recommend processing these experiences with siblings or that young adults seek out siblings to answer questions about RED.

With sibling racial socialization operating as a significant mediator between RED and depressive and stress symptomology and the significance between sibling closeness and the transmission of racial socialization messages in this study, researchers may wish to continue to examine the motivations behind sibling socialization, particularly with qualitative methods. Though parents transmit racial socialization messages as part of their parental role, siblings may be less likely to view the intentional transmission of racial socialization messages, like cultural knowledge and preparation for bias, as part of their sibling role. A better understanding of sibling motivation to provide such information may help practitioners working with this population, and such knowledge can be provided to parents who wish to use this information to help their children navigate and support one another in these experiences. Feelings of stress can result from concerns about protecting children from RED (Mehra et al., 2022), and findings from this line of
research can help alleviate these concerns while also providing an additional tool to address these experiences.

**Conclusion**

RED encounters are ubiquitous in the lives of Black Americans with detrimental connections to mental health (Anderson, 2019; Carden et al., 2021; Hart et al., 2021; Thomas Tobin & Moody, 2021). It is necessary to not only work towards decreasing the likelihood that Black Americans will face these encounters, but to explore what factors (i.e., family messaging, emotional support) can alleviate these experiences. Racial socialization is one example; however, research in this area largely focuses on parent-child racial socialization. This study sought to expand upon current gaps in the literature by directly examining the influence of sibling racial socialization on mental health (see Study 2) and to examine the relationship between sibling closeness on the transmission of these socialization messages. The findings of this study aligned with the findings of previous research on racial socialization messages and provide additional information for the ways that siblings can help individuals, particularly Black Americans, navigate and understand difficult life events like discriminatory encounters. Such knowledge has notable implications for individuals who wish to offer help for these situations but also practitioners working with Black American young adults.
Chapter 5 - Conclusion

Pierce (1974) provided a conceptual definition for the mundane, extreme environment, an environment so permeated by ongoing and mundane racism and oppression that Black Americans experience daily micro-aggressions produced by this environment. Building on this definition, Carroll (1998) defined the stress of living in this environment as mundane, extreme environmental stress. Empirically, racial and ethnic discrimination (RED) is noted as a prevalent experience in the lives of Black Americans with connections to distress, anxiety, and depression (Anderson, 2019; Carden et al., 2021; Hart et al., 2021; Thomas Tobin & Moody, 2021). Taken together, this extensive range of findings have demonstrated a need for further examination of ways to mitigate the impact of these experiences. While many family stress models have been used consistently to examine individual- and family-level responses to stressors via messaging about stressors and resources used in response to stressor, few frameworks integrate a sociocultural context, and reconceptualized models that do so, either do not fully explain familial outcomes associated with MEES or are difficult to test statistically, limiting applicability. To expand upon this gap, Study 1 introduced the Racial and Ethnic Discrimination Stress Model (RED-SM) and described its utility in examining the (x) variations in response to the meaning attributed to: (a) racial and ethnic discrimination, (b) resources available to and used in response to such discrimination, and (c) racial socialization messages.

Study 2 tested parts of the RED-SM by examining the relationship between RED, coping strategies typically used by young adults (Wilson & Gentzler, 2021), family racial socialization, and mental health via depressive, anxiety, and stress symptomology. Further, this study integrated siblings in the racial socialization process, which is a current gap in the literature that emphasizes parent-child racial socialization. The findings of Study 2 suggest that family
socialization and coping strategy mediate the relationship between discriminatory experiences and depressive and stress symptomology. Whereas levels of positive family socialization messages that included preparation and cultural knowledge were associated with lower levels of these outcomes, coping strategy usage, particularly action-focused coping, was related to higher levels of depressive and stress symptomology.

To expand upon these findings and gaps in current literature, Study 3 examined the direct influence of sibling racial socialization on the relationship between RED and depressive, anxiety, and stress symptomology. Similar to Study 2, racial socialization from siblings significantly mediated the relationship between RED and depressive and stress symptomology, contributing to lower levels of reports of these outcomes. As siblings may be motivated to transmit preparation and cultural messages in ways that differ from parents, additional factors that contributed to racial socialization were examined, with greater feelings of closeness, birth order, and sibling gender, influencing the transmission of these messages.

Overall, this dissertation provided a framework by which to examine the influence of MEES on individual adjustment as mediated by resources and familial messaging, tested its utility using a sample of Black young adults, and directly examined the understudied role of siblings in this process. The findings suggest that the RED-SM has utility for researchers who wish to explore factors that can lessen the impact of these experiences and their related outcomes. Further, the findings also provide additional support for sibling’s positive influence for well-being, particularly for negative life events. Additional research on family socialization, coping strategies, and sibling contributions to racial socialization could provide knowledge that to inform practices and policy aimed to decrease the frequency of these experiences and help Black Americans navigate these experiences more successfully.
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Appendix A - Measures

Demographic Items

1. What is your current age?
   - [ ] 17 or younger
   - [ ] 18-24
   - [ ] 25-29
   - [ ] 30-39
   - [ ] 40-49
   - [ ] 50-59
   - [ ] 60+

2. Please enter your age. ___

3. Please enter the year that you were born. ___

4. How would you describe your ethnicity? (Select all that apply)
   - [ ] African American
   - [ ] African Ethnic group
   - [ ] Afro Caribbean
   - [ ] Other (please specify)

5. What is your gender?
   - [ ] Woman
   - [ ] Man
   - [ ] Trans man
   - [ ] Trans woman
   - [ ] Non binary
   - [ ] Other (please specify)

6. What is your sexual orientation?
   - [ ] Straight (heterosexual)
   - [ ] Gay
   - [ ] Lesbian
   - [ ] Bisexual
   - [ ] Other (please specify)

7. What is your relationship status? (Select all that apply)
8. What is the highest level of education you have completed?
   - Less than high school
   - Graduated high school (or passed a high school equivalency test)
   - Some college
   - Graduated from college with an associate degree
   - Graduated from college with a B.S., B.A., or equivalent degree
   - Postgraduate professional degree (such as M.A., M.S., Ph.D., M.D.)

9. What is your current employment status?
   - Employed full-time
   - Employed part-time
   - Out of work and looking for work
   - Out of work, but currently not looking for work
   - Stay at home parent/person
   - Student
   - Military
   - Retired
   - Unable to work

10. How would you describe the city in which you lived as a child? (Please use the city where you resided the longest)
    - Urban
    - Suburban
    - Rural

11. How would you describe the city in which you currently live?
    - Urban
    - Suburban
    - Rural

12. What is your religious affiliation?
    - Agnostic
☐ Atheist
☐ Catholic
☐ Protestant (e.g., Baptist, Methodist, Presbyterian, etc.)
☐ Jewish
☐ Muslim
☐ No religious affiliation
☐ Other (please specify) ____

13. How often do you typically attend religious services?
   ☐ At least once a week
   ☐ Once or twice a month
   ☐ A few times a year
   ☐ Seldom
   ☐ Never

**Sibling Demographic Information**

1. What is the gender of your sibling?
   ☐ Woman
   ☐ Man
   ☐ Trans woman
   ☐ Trans man
   ☐ Non binary
   ☐ Other (please specify)

2. What is the age of your sibling? ____

3. How is your sibling related to you?
   ☐ We share the same two parents
   ☐ We share only one parent (i.e., halfsiblings)
   ☐ We are siblings because our parents remarried (i.e., stepsiblings)
   ☐ Other (please specify) ____

4. How often did your siblings talk to you about what it means to be Black/of African descent?
   ☐ Never
   ☐ Rarely
   ☐ Sometimes
   ☐ Often
   ☐ Always
5. How often did your sibling talk with you about how to respond to racial and ethnic discrimination?
   - □ Never
   - □ Rarely
   - □ Sometimes
   - □ Often
   - □ Always

6. How important was your sibling in helping you to understand what it means to be Black/of African descent?
   - □ Not at all important
   - □ Slightly important
   - □ Somewhat important
   - □ Very important
   - □ Extremely important

**Daily Life Experiences-Frequency (DLE-F) Subscale**

**Scale:**
   - □ 0 = never
   - □ 1 = once
   - □ 2 = a few times
   - □ 3 = about once a month
   - □ 4 = a few times a month
   - □ 5 = once a week or more

**Instructions:** Rate how often the following have occurred within the last year.

1. Being ignored, overlooked, or not given service (in a restaurant, store, etc.)
2. Being treated rudely or disrespectfully
3. Being accused of something or treated suspiciously
4. Other reacting to you as if they were afraid or intimidated
5. Being observed or followed while in public places
6. Being treated as if you were “stupid,” being “talked down to”
7. Having your ideas ignored
8. Overhearing or being told an offensive joke
9. Being insulted, called a name, or harassed
10. Others expecting you work to be inferior (not as good as others)
11. Not being taken seriously
12. Being left out of conversations or activities
13. Being treated in “overly” friendly or superficial way
14. Other people avoiding you
15. Being stared at by strangers
16. Being laughed at, made fun of, or taunted
17. Being mistaken for someone else of you same race
18. Being disciplined unfairly because of you race

**Lifespan Sibling Relationship Scale**

**Instructions:** Please rate the following statements

**Scale**

- [ ] Strongly agree
- [ ] Agree
- [ ] Neither agree nor disagree
- [ ] Disagree
- [ ] Strongly agree

**Items**

<table>
<thead>
<tr>
<th>Subscales</th>
<th>Items</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Affect</strong></td>
<td>My sibling makes me happy</td>
</tr>
<tr>
<td></td>
<td>My sibling’s feelings are very important to me</td>
</tr>
<tr>
<td></td>
<td>I enjoy my relationship with my sibling</td>
</tr>
<tr>
<td></td>
<td>I am proud of my sibling</td>
</tr>
<tr>
<td></td>
<td>My sibling and I have a lot of fun together</td>
</tr>
<tr>
<td></td>
<td>My sibling frequently makes me very angry (R)</td>
</tr>
<tr>
<td></td>
<td>I admire my sibling</td>
</tr>
<tr>
<td></td>
<td>I like to spend time with my sibling</td>
</tr>
<tr>
<td><strong>Behavior</strong></td>
<td>I presently spend time with my sibling</td>
</tr>
<tr>
<td></td>
<td>I call or text my sibling on the telephone frequently</td>
</tr>
<tr>
<td></td>
<td>My sibling and I share secrets</td>
</tr>
<tr>
<td></td>
<td>My sibling and I do a lot of things together</td>
</tr>
<tr>
<td></td>
<td>I never talk about my problems with my sibling (R)</td>
</tr>
<tr>
<td></td>
<td>My sibling and I borrow things from each other</td>
</tr>
<tr>
<td></td>
<td>My sibling and I ‘hang out’ together</td>
</tr>
<tr>
<td></td>
<td>My sibling talks to me about personal problems</td>
</tr>
<tr>
<td><strong>Cognition</strong></td>
<td>My sibling is a good friend</td>
</tr>
<tr>
<td></td>
<td>My sibling is very important in my life</td>
</tr>
<tr>
<td></td>
<td>My sibling and I are not very close (R)</td>
</tr>
<tr>
<td></td>
<td>My sibling is one of my best friends</td>
</tr>
<tr>
<td></td>
<td>My sibling and I have a lot in common</td>
</tr>
<tr>
<td></td>
<td>I believe I am very important to my sibling</td>
</tr>
<tr>
<td></td>
<td>I know that I am one of my sibling’s best friends</td>
</tr>
<tr>
<td></td>
<td>My sibling is proud of me</td>
</tr>
</tbody>
</table>
Adolescent Racial Ethnic Socialization Scale

Scale

- Never
- A few times
- Lots of times
- Always

Instructions: How often does your sibling do the following?

<table>
<thead>
<tr>
<th>Subscale</th>
<th>Items</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Coping with racism and discrimination</strong></td>
<td>My sibling teaches me that if I work hard I can overcome barriers</td>
</tr>
<tr>
<td></td>
<td>My sibling teaches me the importance of getting a good education</td>
</tr>
<tr>
<td></td>
<td>My sibling teaches me what to do if I’m called a racist name</td>
</tr>
<tr>
<td></td>
<td>My sibling teaches me to stand up for myself</td>
</tr>
<tr>
<td><strong>Racial barrier awareness</strong></td>
<td>My sibling teaches me that racism is present in America</td>
</tr>
<tr>
<td></td>
<td>My sibling shares with me their experiences of racism and discrimination</td>
</tr>
<tr>
<td></td>
<td>My sibling teaches me that Black [people] don’t always have the same opportunities as White [people]</td>
</tr>
<tr>
<td></td>
<td>My sibling shares with me to be cautious when dealing with White people</td>
</tr>
<tr>
<td></td>
<td>My sibling teaches me to that a Black person will be harassed because they are Black</td>
</tr>
<tr>
<td></td>
<td>My sibling teaches me that because I’m Black, I have to work twice as hard as White people in order to get ahead in society</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Subscale</th>
<th>Items</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>African American history</strong></td>
<td>My sibling teaches me about slavery in this country</td>
</tr>
<tr>
<td></td>
<td>My sibling teaches me that knowing about African history is important</td>
</tr>
<tr>
<td></td>
<td>My sibling teaches me that Black slavery is important to never forget</td>
</tr>
<tr>
<td></td>
<td>My sibling encourages me to learn about the history of Black [people]</td>
</tr>
<tr>
<td><strong>African American Cultural Values</strong></td>
<td>My sibling teaches me the importance of family loyalty</td>
</tr>
<tr>
<td></td>
<td>My sibling teaches me to respect authority figures like teachers and elders.</td>
</tr>
<tr>
<td></td>
<td>My sibling teaches me that Black [people] should give back to the Black community</td>
</tr>
<tr>
<td></td>
<td>My sibling teaches me the importance of Black people helping one another</td>
</tr>
</tbody>
</table>
Ethnic Pride

My sibling teaches me to never be ashamed of my skin color
My sibling teaches me to have pride in my Black culture
My sibling encourages me to be proud of my background
My sibling teaches me that my skin color is beautiful
My sibling encourages me to be proud of accomplishments of Black [people]

Racism-Related Coping Scale (RRCS)

Scale:

- Did not use
- Used a little
- Used a lot
- Used a great deal

Instructions: Please rate how often you used each behavior to deal with memorable racial incidents that you experienced in the last 3 years.

<table>
<thead>
<tr>
<th>Subscale</th>
<th>Items</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Racially-Conscious Action</strong></td>
<td>I participated in organized efforts to combat racism and/or support Black people</td>
</tr>
<tr>
<td></td>
<td>I worked to educate others about racism</td>
</tr>
<tr>
<td></td>
<td>I sought out relationships/alliances with other people of color who are not Black</td>
</tr>
<tr>
<td></td>
<td>I made a conscious decision to try to patronize only Black-owned businesses and establishments</td>
</tr>
<tr>
<td></td>
<td>I spoke my mind about race and racism, even if others were uncomfortable</td>
</tr>
<tr>
<td></td>
<td>I participated in more activities that celebrated Blackness</td>
</tr>
<tr>
<td></td>
<td>I supported other people in similar situations</td>
</tr>
<tr>
<td></td>
<td>I surrounded myself with people who can relate to my experience</td>
</tr>
<tr>
<td></td>
<td>I started to dress or wear my hair in ways that celebrate my African heritage</td>
</tr>
<tr>
<td><strong>Hypervigilance</strong></td>
<td>I became more cautious around people in positions of authority</td>
</tr>
<tr>
<td></td>
<td>I avoided anything that might bring about a similar situation (people, places, topics of conversation, etc.)</td>
</tr>
<tr>
<td></td>
<td>I became more careful about what I say and do around people who are not Black</td>
</tr>
<tr>
<td></td>
<td>I avoided contact with White people unless absolutely necessary for a period of time</td>
</tr>
<tr>
<td>I became more sensitive or cautious about interacting with people who are not Black</td>
<td></td>
</tr>
<tr>
<td>I decided that I could not longer trust White people (or people who are not Black)</td>
<td></td>
</tr>
<tr>
<td>I withdrew from people</td>
<td></td>
</tr>
<tr>
<td>I continue to avoid contact with White people unless absolutely necessary</td>
<td></td>
</tr>
<tr>
<td>I thought constantly about why this happened to me</td>
<td></td>
</tr>
<tr>
<td>I blamed myself for trusting people who are not Black</td>
<td></td>
</tr>
<tr>
<td>I was careful to never reveal my true feelings around White people</td>
<td></td>
</tr>
</tbody>
</table>

**Confrontation**

| I talked about it with the person(s) involved in order to express my feelings |
| I talked about it with the person(s) involved in order to educate them |
| I talked about it with the person(s) involved in order to understand their perspective |
| I got into an angry verbal conflict with the person(s) involved |
| I expressed my anger to the person(s) involved |
| I confronted the person(s) involved and told them that their actions were racist |
| I told the person(s) involved off |
| I tried to defend myself in some way. |

**Depression Anxiety Stress Scales-21**

**Scale:**

- □ 0= Did not apply to me at all
- □ 1= Applied to me to some degree, or some of the time
- □ 2= Applied to me to a considerable degree or a good part of the time
- □ 3= Applied to me very much or most of the time

**Instructions:** Please read each statement and indicated how much the statement applied to you over the past week. There are no right or wrong answers. Do not spend too much time on any statement.

<table>
<thead>
<tr>
<th>Subscale</th>
<th>Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depression</td>
<td>I couldn’t seem to experience any positive feeling at all</td>
</tr>
<tr>
<td></td>
<td>I found it difficult to work up the initiative to do things</td>
</tr>
<tr>
<td></td>
<td>I felt that I had nothing to look forward to</td>
</tr>
<tr>
<td></td>
<td>I felt down-hearted and blue</td>
</tr>
<tr>
<td></td>
<td>I was unable to become enthusiastic about anything</td>
</tr>
</tbody>
</table>
I felt I wasn’t worth much as a person  
I felt that life was meaningless  

| Anxiety | I was aware of dryness of mouth  
I experienced breathing difficulty (e.g., excessively rapid breathing, breathlessness in the absence of physical exertion)  
I experienced trembling (e.g., in the hands)  
I was worried about situations in which I might panic and make a fool of myself  
I felt I was close to panic  
I was aware of action of my heart in the absence of physical exertion (e.g., sense of heart rate increase, heart missing a beat)  
I felt scared without any good reason  

| Stress | I found it hard to wind down  
I tended to over-react to situations  
I felt that I was using a lot of nervous energy  
I found myself getting agitated  
I found it difficult to relax  
I was intolerant of anything that kept me from getting on with what I was doing  
I felt that I was rather touchy |
Appendix B - IRB

TO: Anthony Ferraro
   Applied Human Sciences
   Manhattan, KS 66506

FROM: Rick Scheidt, Chair
       Committee on Research Involving Human Subjects

DATE: 01/24/2022

RE: Proposal Entitled, “Young Adults' Family Relationships, Life Experiences, and Outcomes Project.”

The Committee on Research Involving Human Subjects / Institutional Review Board (IRB) for Kansas State University has reviewed the proposal identified above and has determined that it is EXEMPT from further IRB review. This exemption applies only to the proposal - as written – and currently on file with the IRB. Any change potentially affecting human subjects must be approved by the IRB prior to implementation and may disqualify the proposal from exemption.

Based upon information provided to the IRB, this activity is exempt under the criteria set forth in the Federal Policy for the Protection of Human Subjects, 45 CFR §104(d), category: Exempt Category 2 Subsection ii.

Certain research is exempt from the requirements of HHS/OHRP regulations. A determination that research is exempt does not imply that investigators have no ethical responsibilities to subjects in such research; it means only that the regulatory requirements related to IRB review, informed consent, and assurance of compliance do not apply to the research.

Any unanticipated problems involving risk to subjects or to others must be reported immediately to the Chair of the Committee on Research Involving Human Subjects, the University Research Compliance Office, and if the subjects are KSU students, to the Director of the Student Health Center.

Electronically signed by Rick Scheidt on 01/25/2022 9:52 AM ET