

Georgia State University

ScholarWorks @ Georgia State University

---

Psychology Theses

Department of Psychology

---

8-8-2023

## Racism and Psychopathology: Investigating the Interactive Roles of Neighborhood Poverty and Racial Discrimination on Pathologized Reactive Psychological Responses among Black Women

Aliyah Sanders

Follow this and additional works at: [https://scholarworks.gsu.edu/psych\\_theses](https://scholarworks.gsu.edu/psych_theses)

---

### Recommended Citation

Sanders, Aliyah, "Racism and Psychopathology: Investigating the Interactive Roles of Neighborhood Poverty and Racial Discrimination on Pathologized Reactive Psychological Responses among Black Women." Thesis, Georgia State University, 2023.

doi: <https://doi.org/10.57709/35866804>

This Thesis is brought to you for free and open access by the Department of Psychology at ScholarWorks @ Georgia State University. It has been accepted for inclusion in Psychology Theses by an authorized administrator of ScholarWorks @ Georgia State University. For more information, please contact [scholarworks@gsu.edu](mailto:scholarworks@gsu.edu).

Racism and Psychopathology: Investigating the Interactive Roles of Neighborhood Poverty and Racial Discrimination on Pathologized Reactive Psychological Responses among Black Women

by

Aliyah S. Sanders

Under the Direction of Sierra Carter, PhD

A Thesis Submitted in Partial Fulfillment of the Requirements for the Degree of

Master of Arts

in the College of Arts and Sciences

Georgia State University

2023

## ABSTRACT

It is crucial to examine how experiences of multi-level racism interact to influence potential, overpathologized reactive responses (i.e., dissociative symptoms and psychosis-like experiences) to oppression within Black communities. The present study explored the ways multi-level forms of oppression (i.e., structural and interpersonal racism) interacted to influence psychopathological symptom presentations, which may be understood as reactive responses to multilevel racism among a community sample of trauma-exposed, Black women ( $N=382$ ). In line with hypotheses, racial discrimination predicted total dissociative symptoms, beyond the effects of age, education, and neighborhood poverty. Exploratory analyses revealed that interpersonal racism also significantly predicted four of the six dissociation subdimensions (i.e., derealization, memory disturbance, emotional constriction, and disengagement). Implications of this study may contribute to future work in this area as well as multidisciplinary avenues to conceptualize and treat diagnosed serious mental illnesses among Black women who are experiencing varying levels of interpersonal and structural racism-related stressors.

INDEX WORDS: Dissociation, Psychosis, Racism-related discrimination, Black women

Copyright by  
Aliyah Simone Sanders  
2023

Racism and Psychopathology: Investigating the Interactive Roles of Neighborhood Poverty and Racial Discrimination on Pathologized Reactive Psychological Responses among Black Women

by

Aliyah S. Sanders

Committee Chair: Sierra Carter

Committee: Isha Metzger

Khalima Bolden

Electronic Version Approved:

Office of Graduate Services

College of Arts and Sciences

Georgia State University

August 2023

## ACKNOWLEDGEMENTS

Thank you to my loving family and friends. I am immensely blessed to have a village of support that encourages me to continue striving toward my dreams. Without you all, I would not be here today. Thank you for your unwavering love, always.

A special thank you to the Black women of the Grady community that shared their time and stories with the Grady Trauma Project (GTP) team. I see and hear you. I would also like to thank the GTP team both for their efforts in collecting the data that I have been fortunate enough to use in my personal research endeavors, but also for their support for Black women.

Each of my committee members represents the best of the field, and I am truly grateful to have received, and continue to receive, their guidance and mentorship along my continued journey toward establishing my place in the field alongside them. A special thank you to my advisor, Sierra, for your patience and grace at each step along this journey.

This work was supported by a Health Resources & Services Administration (HRSA): Graduate Psychology Education (GPE) Program training grant [2 D40HP33346-04-00].

## TABLE OF CONTENTS

<b>ACKNOWLEDGEMENTS</b> .....		<b>IV</b>
<b>LIST OF TABLES</b> .....		<b>VII</b>
<b>LIST OF FIGURES</b> .....		<b>VIII</b>
<b>1 INTRODUCTION</b> .....		<b>1</b>
<b>1.1 Structural and Interpersonal Racism: Health Implications among Black People.</b>		<b>3</b>
<b>1.2 Dissociative Symptoms as a Psychological Reaction to Racism</b> .....		<b>5</b>
<b>1.3 The Psychosis-Spectrum as a Psychological Reaction to Racism</b> .....		<b>10</b>
<b>1.4 Current Study</b> .....		<b>12</b>
<i>1.4.1 Specific Aim 1</i> .....		<i>13</i>
<i>1.4.2 Specific Aim 2</i> .....		<i>13</i>
<b>2 METHOD</b> .....		<b>15</b>
<b>2.1 Sample</b> .....		<b>15</b>
<b>2.2 Procedures</b> .....		<b>16</b>
<b>2.3 Measures</b> .....		<b>17</b>
<i>2.3.1 Racial Discrimination (Interpersonal Racism)</i> .....		<i>17</i>
<i>2.3.2 Racial Discrimination (Interpersonal Racism)</i> .....		<i>17</i>
<i>2.3.3 Neighborhood Poverty (Structural Racism)</i> .....		<i>18</i>
<i>2.3.4 Dissociation</i> .....		<i>19</i>
<i>2.3.5 Psychosis</i> .....		<i>19</i>

2.3.6	<i>Control Variables</i> .....	20
3	<b>RESULTS</b> .....	20
3.1	<b>Analytic Approach</b> .....	20
3.2	<i>Bivariate Correlations and Regressions</i> .....	21
3.3	<b>Moderations</b> .....	23
4	<b>DISCUSSION</b> .....	27
4.1	<b>Limitations, Strengths, and Future Directions</b> .....	32
5	<b>CONCLUSION</b> .....	35
	<b>REFERENCES</b> .....	37



**LIST OF TABLES**

Table 3.1 Demographic Characteristics and Descriptive Statistics. ....	25
Table 3.2 Intercorrelations between all study variables.....	25
Table 3.3 Summary of hierarchical regression results examining poverty exposure and racial discrimination on total dissociative symptoms (n=106). ....	26
Table 3.4 Summary of hierarchical regression results examining poverty exposure and racial discrimination on psychosis-like experiences (n=63).....	26

**LIST OF FIGURES**

Figure 1.1 Correlation Models (Hypotheses 1a & 2a).....	14
Figure 1.2 Moderation Models (Hypotheses 1b & 2b).....	14

## 1 INTRODUCTION

Researchers have called for a reckoning with oppressive societal norms that influence diagnostic systems and care practices for marginalized groups (Riley, 2018). Although clinical researchers and psychotherapists have contributed significant insights into the ways we understand how certain experiences may be shaped by the environment, considerations of multi-level oppression on Black health outcomes remain underexamined in the literature. Influences of racism are engrained in numerous aspects of life for Black people in the United States, and its insidious effects are well-documented for both psychological and physical health outcomes (Paradies et al., 2015; Williams et al., 2019). Racism shapes the framing of psychopathology within and outside of the field of psychology, and this framing undergirds disparities-related research. Black people are less likely to receive necessary or high quality mental health services (Alegría et al., 2008; Jimenez et al., 2013; Roll et al., 2013), and although Black people are largely underrepresented in outpatient mental healthcare settings (Hamilton et al., 2015; Hu et al., 1991), evidence shows the historical and contemporary overrepresentation of Black people in inpatient psychiatric facilities (Snowden et al., 2009). Further, compared to their White counterparts during inpatient hospitalization, Black people are more likely to receive a severe psychiatric diagnosis (i.e., schizophrenia), and less likely to receive a diagnosis of a mood disorder (Barnes, 2008). Theoretical and empirical gaps exist, though, that address such trends (Thomas, 2004). The prevailing narrative that is often used to explain the aforementioned disparate findings include clinician mis-categorization of experiences and systemic mistrust (Misra et al., 2022). Yet, it is also critical to investigate how longstanding systems of oppression intersect with interpersonal experiences of racism to influence negative mental health outcomes for Black people to further understand and address these disparate outcomes.

Trawalter and colleagues (2020) describe the common effect of “psychologizing” racism as the tendency to view the broad construct of racism through a micro-level lens, without accounting for the ways “individual bias in the context of history and structures contributes to disparities.” Among these unexamined areas includes the relationship between structural racism (i.e., neighborhood-level poverty), interpersonal racial discrimination, and psychopathology (i.e., dissociation, psychosis-like experiences). Although there is a growing body of research examining the influence of racism on health, there are limited studies that examine concurrent oppressive processes that could help to explain how multi-level sources of oppression influence certain psychological outcomes that are heavily pathologized for Black people (i.e., dissociation and psychosis-like experiences). Additionally, psychopathology research among marginalized groups tends to decontextualize reactions to oppression through the employment of a deficit-based lens. Such a lens does not allow for thoughtful consideration of the ways psychopathological symptom presentations could be manifestations of well-reasoned responses to unimaginable experiences of chronic oppression.

Distortions of reality span bodies of literature as reactions to high stress, and it is not unfathomable to consider distortions of reality as reasonable reactions to the effects of high racism-related stressors. Understanding the etiology of such reactive responses to racism-related stressors is crucial, as research has consistently shown that Black people receive disproportionate diagnoses as well as misdiagnoses for severe mental illnesses, such as psychosis-spectrum disorders (Adebimpe, 1981; Gara et al., 2019; Strakowski et al., 1996). Therefore, the broad goal of the present study was to utilize a Black feminist framework, which is a framework disentangled from current Eurocentric practices, to examine how multilevel forms of racism can

influence pathologized symptom responses (i.e., dissociation and psychosis-like experiences) among Black women.

### **1.1 Structural and Interpersonal Racism: Health Implications among Black People**

Racism may be understood as beliefs, attitudes, institutional arrangements, and acts that denigrate individuals or groups because of phenotypic characteristics or ethnic group affiliation (Clark et al., 1999). In the present study, two types of racism are discussed: structural and interpersonal racism. Structural racism refers to the institutional practices and policies that differentially and adversely impact minoritized communities whereas interpersonal racism refers to individual prejudicial attitudes or behaviors toward racial/ethnic minoritized individuals. Researchers have examined the influence of interpersonal, as well as structural forms of racism on health outcomes and both are consistently recognized as major contributors to health inequities observed among Black people (Williams & Mohammed, 2013). In the United States, implications of structural racism are continuously sustained due to historical legislation and discriminatory practices at local, state, and federal levels that were created with the explicit aim to disparage Black people (Misra et al., 2022; D. R. Williams et al., 2019). As such, the racialized undertone of structural and economic decision-making has led to the creation and maintenance of poverty within cities (Wilson, 2009). This inequitable distribution of socioeconomic resources at the neighborhood-level has been associated with poor mental health outcomes for Black people (Do et al., 2019). Specifically, a recent research study on structural racism found that redlining practices strongly predicted poor mental health outcomes, and this relationship was dependent upon neighborhood socioeconomic measures (Lynch et al., 2021).

Racial residential segregation, the separation between racial groups, serves as an untiring and central mechanism through which city-level poverty rates impact and become concentrated

among neighborhoods (Massey & Denton, 1993). Racial residential segregation is multidimensional, enduring, and institutionally sustained (Massey & Denton, 1988, p. 19; White & Borrell, 2011). Racial residential segregation has been a structural instrument utilized by public and private institutions to exert dominion over Black people for generations. Consequently, such stratification greatly impacts quality of life, as it may preclude marginalized communities from accessing high quality education, transportation, healthcare, and more health-promoting and wealth-building processes (McGrew, 2018). Racial residential segregation has limited accessible resources within primarily Black neighborhoods and cemented negative intergenerational impacts on health and wellness. The complex legacies of this structural socioeconomic stratification persist today, and they have been found to predict acute and chronic psychosocial distress, while interacting with systemic issues that limit quality care for such afflictions (D. R. Williams et al., 2019). Further, trends in the United States have shown that Black people living in racially segregated metropolitan areas with high concentrations of poverty often remain in a cycle of generational socioeconomic disadvantage (Massey, 2016). A study by Do and colleagues (2019) found that the association between residential segregation and mental health differed by race and at differential levels of neighborhood poverty, such that higher residential segregation was associated with worse psychological distress for Black people living in neighborhoods with a higher concentration of poverty. Additionally, they found a deleterious “triple jeopardy” effect, suggesting that the severity of psychological stress was multiplicative for those who sat at the crux of disadvantage: Black, a resident of a high poverty community, and a resident of a highly racially segregated neighborhood. Therefore, neighborhood poverty can be considered as a proxy for structural racism; whereby neighborhood poverty is the continued aftereffect of intentional racist policies that disadvantage Black people in the United States.

In addition to the detrimental effects that neighborhood poverty have been shown to have on Black mental health outcomes, interpersonal racism or experiences of interpersonal racial discrimination have also been implicated as adverse contributors to psychological health (Williams et al., 2003; Williams & Mohammed, 2013; Williams & Williams-Morris, 2000). Interpersonal racial discrimination, or racial discrimination that occurs between individuals, is often the primary focus of racism-related research, with studies consistently demonstrating a link between experiences of interpersonal racial discrimination and a variety of mental health outcomes (Bailey et al., 2017; Britt-Spells et al., 2018; Pascoe & Richman, 2009). A review conducted by Lewis and colleagues (2015) found that interpersonal experiences of racial discrimination were positively associated with overall psychological distress, diagnoses of anxiety disorders and PTSD, and increased prevalence of psychotic experiences. Researchers have also noted that for marginalized groups, pursuing examinations that explore multilevel interaction between forms of racism (i.e., interpersonal and structural) is important for future research (Neblett, 2019). By moving beyond the sole reliance on self-reported experiences of interpersonal racism as a proxy for broader issues, the field can make long overdue strides toward more valid assertions about root mechanisms of psychological distress due to the effects of racism. In line with this understanding, it is also crucial to augment the literature by exploring how multi-level racism-related experiences influence specific types of psychological distress that are often systematically and covertly weaponized against Black people and include dissociation and psychosis-like experiences.

## **1.2 Dissociative Symptoms as a Psychological Reaction to Racism**

The association between racism and mental health outcomes has been continuously explored in dynamic ways that enhance the larger understanding of the etiology of

psychopathology and disease states. However, given that racialized structures persist beyond the control of marginalized groups, it is important to study psychological reactions to oppression that exist for individuals who experience high levels of multi-systemic racism and racial discrimination. Black women particularly experience multiple marginalization at the intersection of race and gender that distinctly position them to experience psychological distress due to chronic experiences of oppression. Additionally, although it remains unclear the extent to which Black women and Black men differ on overall levels psychological distress, research has shown that Black women are more likely to report experiencing more psychological distress than Black men (Jackson et al., 1996; Office of the Surgeon General (US) et al., 2001). Pursuing efforts to identify and convey the cumulative effects of such multilevel oppression on psychological distress may shed light on the patterns within treatment pathways that, too often, result in misdiagnosis and inadequate mental health treatments (Carrington, 2006; Gara et al., 2019; Olbert et al., 2018).

Broadly speaking, for Black people living in poverty who report experiencing high levels of interpersonal racial discrimination, their reactions and coping processes in oppressive environments could lead to mental health difficulties that are over-pathologized without contextual considerations. Lifetime stress accumulated from chronically utilizing defenses against numerous stressful and oppressive demands, over time, has been linked to negative disruptions on both physiological and psychological processes (Evans & Kim, 2010; Shields & Slavich, 2017; Sternthal et al., 2011). This is a consequence due to an individual's capacity to modulate chronic stress responses becoming overburdened due to prolonged activation of psychological and physiological systems (Utsey et al., 2000; Utsey et al., 2013). Disruptions on psychophysiological processes may trigger differential, defensive reactive responses (Orr et al.,



2004), and chronic exposure to racism-related stress may impact subsequent psychological reactive responses that are often understudied, such as dissociation and psychosis-like experiences (Anglin et al., 2021; Oh et al., 2016; Polanco-Roman et al., 2016). Examining these reactive responses that resemble symptoms of psychopathology may contextualize and elucidate mental health processes among Black people that are disproportionately diagnosed with severe mental illnesses.

The impact of chronic racism-related stressors may have differential effects on regulatory psychophysiological systems. Reactions and coping responses are likely shaped by high-stress environments, wherein historically marginalized communities are compelled to adapt and survive to pervasive structural and oppressive demands on the mind and body. Using a Black feminist lens, Carter and colleagues (2022) called upon the field of neuroscience in mental health to expand their investigative approaches to account for how cumulative stress overburdens Black women's physiological capacities to maintain equilibrium. Black feminist theory provides historical and contemporary context to Black women's experiences, and it accommodates the diverse intersectional backgrounds that may be held as truths for Black women (Collins, 2000). Howard-Hamilton (2003) discussed how "outside influences" have almost popularized the pernicious myth of inferiority that has continually left Black women subjugated in our culture. In this way, self-definition and self-expression is encouraged, challenging the containers that have erased storytelling and voices. Utilizing this framework, the current study posits that the interaction between neighborhood poverty and race is critical, such that interactions with multilevel racism-related stress may significantly exacerbate reactionary symptom responses to oppression that are often viewed negatively without context among Black women.

Considering this context, dissociative symptoms as a potential reactive response to oppression is plausible. The Diagnostic and Statistical Manual of Mental Disorders (DSM-5) defines dissociation as “a disruption of and/or discontinuity in the normal integration of consciousness, memory, identity, emotion, perception, body representation, motor control, and behavior,” (American Psychiatric Association, 2013). Dissociative symptoms are commonly framed as a set of transdiagnostic psychobiological, reactive experiences that succeed a stress-inducing event. Explained as a survival tactic within the trauma literature, dissociation is often conceptualized to be an adaptive, short-term response that reduces the emotional and physical burden of a traumatic experience (Briere, 2006). However, there are few investigations that have explored the ways in which dissociative strategies have been employed, specifically, within Black communities. Acknowledging that race does not account for cultural, religious, or many other sociocontextual factors, Douglas (2009) showed that students’ racial backgrounds moderated the association between dissociation and psychological adjustment outcomes such that Black and Asian students reported significantly higher dissociative experiences compared to White and Latino/a students. In Douglas’ (2009) study, the racially marginalized students broadly reported more adversity, and although both Black and Asian students were more likely to report higher levels of dissociative experiences, the inverse relationship between dissociation and symptoms of psychological distress outcomes was strongest among Black students. These researchers suggested that dissociation may have served as a protective mechanism from psychological maladjustment for Black people (Douglas, 2009). However, it is important to question scholarly notions that may insinuate such reactive responses are “protective,” given that this could also fall subject to issues related to stereotyping Blackness as less emotionally expressive and more tolerant of pain by way of dissociation.

In considering dissociation in terms of a momentary protective strategy, a range of normative dissociation should be considered within the larger context of racism-related experiences. Although there are no known studies that have expressly explored the association between reported exposure to neighborhood poverty and dissociation in the United States, in a study conducted in Sweden, it was found that childhood poverty was associated with higher levels of dissociative experiences (Gušić et al., 2016). This finding suggests that historical, and possibly contemporary, exposure to structural inequity (i.e., neighborhood poverty) may be linked to higher rates of dissociation. Additionally, research has shown that increased experiences of interpersonal racial discrimination are associated with higher levels of dissociation (Polanco-Roman et al., 2016). Given that Black people consistently report the highest levels of interpersonal racial discrimination, compared to other racial/ethnic groups (Krieger et al., 2005; Polanco-Roman et al., 2016), it is crucial to examine the potential functions of dissociation as a reaction to structural and interpersonal racial discrimination. This is an important step toward understanding key influences on psychological reactive processes that are often identified as individual pathologies, rather than potentially laden in socioenvironmental causes that Black people may defensively utilize in threatening settings.

Within the larger context of the dissociative and coping bodies of literature, there lacks consideration of the normative spectrum of passive, withdrawal, and avoidance experiences that Black people may report as a means to release control over seemingly unmanageable and uncontrollable situations. Black people must adapt, cope, and survive the longstanding impact of oppression in the United States, and under these challenging circumstances, dissociation may initially serve as an adaptive and protective strategy (Douglas, 2009; Polanco-Roman et al., 2016). However, the impact of prolonged dissociation could also have a maladaptive impact,

given the potential to overgeneralize indiscriminately to nonthreatening situations—disturbing long-term processes around the management of stress responses (Polanco-Roman, 2016). Culturally salient and contextually informed research is needed in order to allow space for nuanced ways to consider the meaning of dissociative symptoms experienced by Black people in the United States.

### **1.3 The Psychosis-Spectrum as a Psychological Reaction to Racism**

From a historical perspective, psychosis-spectrum disorders became medicalized and racialized during the 1960s and 1970s as a means to continue policing Black protesters through institutionalization (Metzl, 2009). As stated in Oh and Anglin (2021), compared to other racial groups in the United States, it is reported that Black people experience the highest levels of lifetime psychotic experiences, which is between 11% and 15% (Cohen & Marino, 2013, 2014). Psychosis-like experiences (PLEs) encompass the “subclinical” or “subthreshold” side of the psychosis spectrum, impacting roughly 8% of the general population (van Os et al., 2009). PLE’s are poorly understood (Lee et al., 2016), but the phenomena refers to perceptual disturbances that exist on a normative spectrum of experiences. Broadly, the prevalence of psychiatric diagnoses among Black populations remains lower than that of White populations, and when controlling for demographic factors (i.e., socioeconomic status), the gap widens between the two, such that Black people are more mentally healthy (Erving et al., 2019). However, there is a well-documented record in the literature showing Black people are two to four times more likely than White people to be diagnosed with a psychosis-spectrum disorder, even after controlling for socioeconomic status (Bresnahan et al., 2007; Schwartz & Blankenship, 2014). Unfortunately, an accurate and systematic approach to assessing diagnostic trends for psychosis has not been

implemented at the population-level, and researchers have called for more action to clarify the link between racial marginalization and psychosis (Anglin et al., 2021).

Jarvis (2007) discusses that there is inherent harm caused by controlling for variables such as socioeconomic status, given the incorrect implication that socioeconomic resources are equally dispersed among racial/ethnic groups. Black people have survived and adapted to the chronic stress associated with oppression. Instead of mitigating these effects of multilevel oppression on Black health, systemic and institutional responses have been poor.

Underwhelming societal and psychological responses have led to overpathologization, harmful misdiagnoses, limited cross-cultural measurement validity, and a general increase of self-reported psychotic symptoms across racial/ethnic groups in the general population in the United States (Jarvis, 2008). However, what is unclear are the determinants of reported psychosis-like experiences, as the experiences may be related to chronic stress caused by the effects of multi-level racism for Black individuals. Oh and colleagues (2014) found that among a non-clinical sample of racial/ethnic minoritized individuals, interpersonal racial discrimination was directly linked with an increased likelihood of reporting psychotic experiences. Anglin and colleagues (2014) also found that interpersonal racial discrimination was associated with increased attenuated positive psychotic symptoms. Additionally, there are several adolescent-focused studies that have found specific types of environmental risk factors, such as deprivation and neighborhood poverty, to be closely associated with psychosis-like experiences (Karcher et al., 2021; O'Donoghue et al., 2016). Yet, what continues to be missing from the literature is an examination into the interconnected nature of neighborhood poverty and interpersonal racial discrimination on psychosis-like experiences among Black people. Thus, it is reasonable to explore how psychosis-like experiences may be influenced by the interwoven nature of structural

and interpersonal oppression, given the immense burden of illness that Black people bear as a result of preventable mental health inequities.

#### **1.4 Current Study**

The current investigation sought to demonstrate the importance of attending to the effects of multilevel racism, as well as lend evidence for movement beyond conceptualization models that traditionally discount possibly adaptive and psychologically defensive responses to multiple forms of oppression. Thus, the current study aimed to examine the interactive role of structural racism (i.e., neighborhood poverty) and interpersonal racial discrimination on reactive response symptoms (i.e., dissociation and psychosis-like experiences) among a community sample of highly trauma-exposed Black women. In this study, three gaps from the literature were addressed. The first gap related to the overall lack of scholarly investigations that thoughtfully explore the distinct experience of Blackness in the United States when it comes to conceptualizing psychopathology without the inclusion of comparison groups that may have distorted perceptions of the Black experience. The current study aimed to utilize available tools and methodologies to carefully expand the dialogue about the importance of within-group examinations, and this was further enhanced with the pointed exploration among a sample of Black women. Secondly, there is a continued need to conduct more research on the potential contributions that multi-level racism may play on symptoms of psychopathology among Black populations, given that there is a dearth of research on how specific symptom presentations may vary by race/ethnicity. Lastly, among studies that examine the associations between forms of racism and mental health outcomes, an insufficient number have explicitly incorporated how structural racism may interact with other forms of oppression, like interpersonal racism, to exacerbate poor mental health outcomes. The current study sought to address these identified

gaps by exploring the ways that structural racism may interact with interpersonal racism to influence psychopathology.

#### ***1.4.1 Specific Aim 1***

The overall goal for Specific Aim 1 was to investigate the interactive relationship between structural racism (i.e., neighborhood poverty) and interpersonal racism (i.e., racial discrimination) on dissociative symptoms in a community sample of highly trauma-exposed Black women. Education level and age were included as covariates in all moderation analyses.

**Hypothesis 1a:** Both living in areas of greater neighborhood poverty and more experiences of racial discrimination will be associated with greater dissociative symptoms (see Figure 1.1).

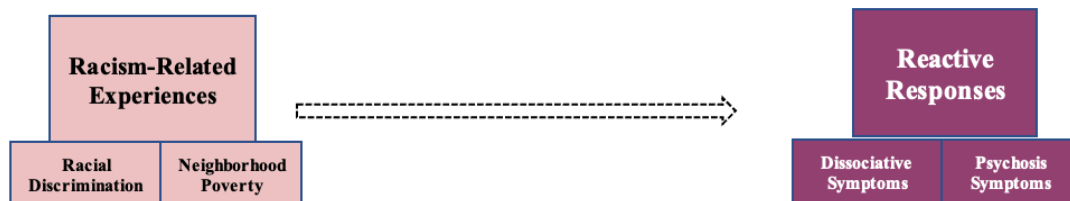
**Hypothesis 1b:** Experiences of racial discrimination will moderate the relationship between neighborhood poverty and dissociative symptoms, such that this relationship will be strongest among individuals who report more frequent experiences of racial discrimination (see Figure 1.2).

#### ***1.4.2 Specific Aim 2***

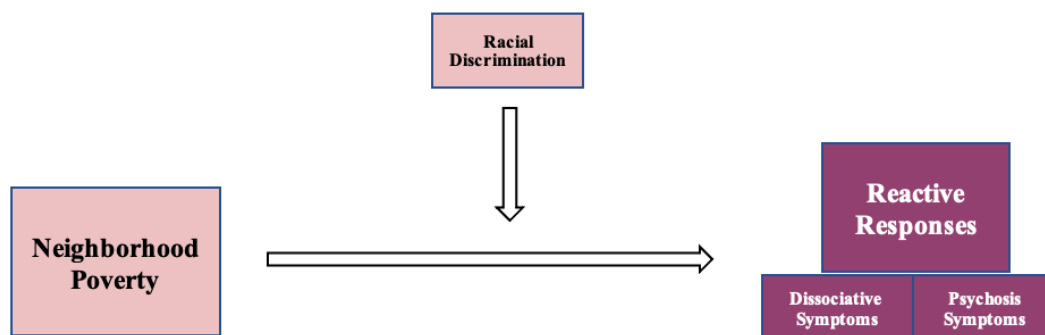
The overall goal for Specific Aim 2 was to investigate the relationship between structural racism (i.e., neighborhood poverty) and interpersonal racism (i.e., racial discrimination) on psychosis-like experiences (total endorsement of psychosis-like experiences) in a community sample of highly trauma-exposed Black women. Education level and age were included as covariates in moderation analyses.

**Hypothesis 2a:** Both living in areas of greater neighborhood poverty and more experiences of racial discrimination will be associated with greater psychosis-like experiences (see Figure 1.1).

**Hypothesis 2b:** Experiences of racial discrimination will moderate the relationship between neighborhood poverty and psychosis-like experiences, such that this relationship will be strongest among individuals who report more frequent experiences of racial discrimination (see Figure 1.2).



*Figure 1.1 Correlation Models (Hypotheses 1a & 2a).*



*Figure 1.2 Moderation Models (Hypotheses 1b & 2b).*



## 2 METHOD

The goals of the present study were achieved through secondary data analysis of a subset of data collected through the Grady Trauma Project (GTP), a large-scale research study operating out of Emory University. The GTP is funded by several grants from NIH and examines risk and resilience factors related to the development of PTSD. The GTP aims to investigate the clinical and physiological trauma characteristics of a predominantly Black population living in an urban context. Data collected reflects a community context (i.e., Atlanta, GA), and a historically understudied and misrepresented population (i.e., Black women).

### 2.1 Sample

The overall study included self-identified Black or African American adult female participants ( $N = 382$ ) aged 18-65 ( $M = 43.76$ ,  $SD = 12.70$ ). Due to limitations with when measures were incorporated into data collection at the GTP, there was a significant reduction in the study sample for measures of racial discrimination (i.e., Experiences of Discrimination Scale and Index of Race-Related Stress-Brief). Data collection began with the main study variables in 2005, and data collection using the Experiences of Discrimination Scale varied from 2010 to 2016 ( $N = 177$ ) and for the Index of Race-Related Stress from 2018 to present ( $N = 106$ ).

For the overall study through the GTP, participants complete a screening process, based on the inclusion/exclusion criteria of the larger study. In the overall study sample of 382 participants, demographic information showed that 18% of the participants completed schooling prior to the 12<sup>th</sup> grade, 32% graduated from high school, and roughly 25% completed some college or technical school. Additionally, 38% of the sample of Black women are employed, and 73% reported a monthly household income of \$1,999 or less. Therefore, for the current study the majority of participants in the study may be categorized as living under some circumstances of

poverty with relatively high levels of socioeconomic disadvantage. Exclusion criteria for the larger GTP study included signs or behaviors consistent with active psychosis, as well as intellectual disability. Only individuals who had data on measures of interest, self-identified as Black, female sex, and were between the ages of 18-65 were included in the present study.

## **2.2 Procedures**

Data for the current study were collected by a team of research assistants and staff working at the GTP. Data collection at the GTP has been ongoing since 2005, and the archival data gathered from the 382 participants involved in the current study were collected between the years of 2005 and 2021. At Grady Memorial Hospital, participants were approached at random and were recruited to their study from waiting rooms in gynecology, primary care, and diabetes medical (non-psychiatric) clinics at a publicly funded, non-profit hospital serving a mostly low-resourced population. These non-treatment seeking women were approached if they appeared to be available to talk in the waiting room. To be eligible for participation, women had to be at least 18 years old, not actively psychotic, and able to give informed consent. If willing to participate, the individual signed the informed consent approved by the university IRB and the Research Oversight Committee of Grady Memorial Hospital, and an initial interview was administered with questionnaires regarding trauma history and other psychological variables. Trained research assistants administered this interview (approximately 45-75 minutes) in private areas of the waiting rooms of the hospital. Participants were compensated \$15 for their time. Select participants were invited to complete a follow-up clinical interview as part of other ongoing research studies in the laboratory, and these interviews were typically completed within 2 to 3 hours. They were further compensated \$60 for their time. Procedures are approved by the Emory

University IRB, and data analyses for the current study were approved by the Georgia State University IRB.

## **2.3 Measures**

### ***2.3.1 Racial Discrimination (Interpersonal Racism)***

The Experiences of Discrimination (EOD) questionnaire was used to measure interpersonal racism (Krieger et al., 2005). The EOD is a psychometrically validated measure of experiences of discrimination originally developed in the context of a large, public health study that utilized a racially diverse community sample of adults. Participants were first asked, “Have you ever experienced discrimination, been prevented from doing something, or been hassled or made to feel inferior in any of the following situations because of your race, ethnicity, or color?” and then instructed to respond regarding nine different situations (e.g., school, work) using a scale of 0 (never) or 1 (happened at least once). Scores were summed to create a total score. The measure has demonstrated good psychometric properties including test-retest reliability ( $r = .70$ ) in a racially/ethnically diverse non-clinical sample of adults (Cohen & Marino, 2013). The reliability estimate for the current sample was found to be at acceptable levels ( $\alpha = .81$ ).

### ***2.3.2 Racial Discrimination (Interpersonal Racism)***

The Index of Race-Related Stress—Brief Version (IRRS-B) was developed to assess both experiences of racial discrimination and distress due to racism-related stress (Utsey, 1999). The IRRS-B comprises 22 items that explore three subdomains of racism-related stress: individual (“While shopping at a store the sales clerk assumed that you couldn't afford certain items”), institutional (“You were refused an apartment or other housing; you suspect it was because you're Black”), and cultural (“You notice that when Black people are killed by the police, the media informs the public of the victims criminal record or negative information in their

background, suggesting they got what they deserved”) racism-related stress. Items on the measure were rated on a scale ranging from 0 (this has never happened to me) to 4 (event happened and I was extremely upset). Scores greater than 0 indicated that the experience of racial discrimination occurred, and higher scores on the measure suggested greater levels of distress. Among a national sample of Black Americans, Chapman-Hilliard and colleagues (2020) evaluated the performance of the IRRS-B’s three-factor model. They suggested that it is best-suited for assessing racism-related stress in the average range, instead of evaluating such stress experienced at the low / high ends—given the measure’s somewhat inconsistent Cronbach’s  $\alpha$  ranges at the subscale levels. As the sole known self-report measure that assesses multi-level racism-related stress, the full and short-form versions of the IRRS provides the most nuanced methods of quantitatively measuring racism-related stress experienced across multiple domains for Black Americans, specifically. The IRRS-B measure was used in the present study to assess racism-related stress due to experiences of racial discrimination among the current sample, with self-reported experiences of discrimination falling in the average range. Internal validity was assessed for the current sample and was found to be very strong ( $\alpha = .94$ ).

### ***2.3.3 Neighborhood Poverty (Structural Racism)***

The American Community Survey (ACS) is an annual survey conducted by the United States Census Bureau which assesses the sociodemographic factors of different geographical areas within the United States (Bureau). The 2015-2019 ACS 5-Year Summary File was used to calculate neighborhood poverty rates. Neighborhood poverty rates (i.e., percentage of people in poverty within a zip code) were calculated by dividing the number of residents living below the poverty line in the zip code by the total number of residents living in that zip code.

#### **2.3.4 Dissociation**

The Multiscale Dissociation Inventory (MDI) is a 30-item self-report measure of dissociative symptomatology rated from the prior month, and each symptom was rated according to its frequency of occurrence on a scale of 1 (never) to 5 (very often) (Briere, 2002). It measures six subdimensions of dissociative experiences, including disengagement (“Driving or walking without noticing where you were going”), depersonalization (“Feeling like you didn’t belong in your body”), derealization (“Suddenly things around you not feeling real or familiar”), emotional constriction (“Knowing you must be upset, but not being able to feel it”), memory disturbance (“Having blank spells”), and identity dissociation (“Switching back and forth between different personalities”). For the present study, we totaled the scores on the full measure to capture overall dissociative symptomatology. The MDI is normed and standardized on trauma-exposed individuals from a non-clinical, general population. The reliability estimate for the current sample was very strong ( $\alpha = .95$ ).

#### **2.3.5 Psychosis**

The MINI International Neuropsychiatric Interview (MINI) is a structured clinical interview developed to assess psychiatric disorders according to DSM-IV-TR diagnostic criteria (Lecrubier et al., 1997; Sheehan et al., 1997). This measure was used in the GTP study to assess current and lifetime presence of psychotic disorders, alcohol and substance use disorders, and major depressive disorder. For the purposes of the current study, the psychosis items from the MINI psychosis module were summed to create a total psychosis symptom score for each participant. Specifically, 7 of the 10 total psychosis items from the MINI were included in the current study’s calculated of the psychosis score. The 7 included symptoms were self-reported, positive symptoms of psychosis; the 3 omitted symptoms were consistent with symptoms related

to cognitive and negative domains of psychosis (i.e., disorganized speech, appearance of catatonic behavior, affective flattening) and were largely based on clinician judgement.

### **2.3.6 Control Variables**

Our analyses included controls for demographic characteristics, including education level and age. These factors are often viewed and found to be related to the variables of interests in the study, including racial discrimination, dissociative symptoms, and psychosis symptom onset (Olbert et al., 2018; Oluwoye et al., 2021; Powers et al., 2015).

## **3 RESULTS**

### **3.1 Analytic Approach**

Data from study measures met the assumptions of normality, and skewness and kurtosis were found to be acceptable for the conducted analyses. Demographic characteristics and descriptive statistics can be found in Table 3.1. Table 3.2 displays the intercorrelations among main study variables (i.e., neighborhood poverty, experiences of racial discrimination, dissociative symptoms, psychosis-like experiences) and covariates (i.e., age and education).

Consistent with study hypotheses, zero-order correlations were first examined among main study variables (i.e., poverty, EOD, MDI, and psychosis). To examine whether another measure captured nuance associated with experiencing interpersonal racial discrimination, an additional measure of interpersonal racial discrimination (IRRS-B) was introduced and examined in relation to other variables of interest. Second, as an exploratory examination, two hierarchical regression models were performed to investigate the association between neighborhood poverty and racial discrimination on symptoms of dissociation and psychosis-like experiences, adjusting for covariates (i.e., age and education). Finally, to test whether racial discrimination moderated the independent association between poverty and psychopathology symptoms (i.e., dissociation

and psychosis), the PROCESS SPSS Macro (v4) (Hayes et al., 2013) was used, and age and education were included as covariates in moderation analyses. This method utilizes ordinary least squares (OLS) regression to determine whether racial discrimination served as a moderator in the association between neighborhood poverty and psychopathology symptoms. Continuous variables used to create interaction terms were mean centered. Based on a sample size that fluctuated between  $n = 63$  and  $n = 106$ , as well as two predictors, we had minimally sufficient statistical power to detect potential interaction effects. These differences in sample size are based on the number of participants who completed the measures used for analysis. Of note, within the five-year period on which the poverty measure was based, the MINI was updated to another version, and the IRRS-B was introduced into the screening battery in place of the EOD. Due to the shift in measures, there was sample variability across analyses, ranging from  $n = 63$  (moderately underpowered for the present study) to  $n = 106$ . Further, the moderation analyses were conducted while utilizing bootstrapping with 10,000 random samples to determine the 95% confidence intervals for each potential main, interaction, and conditional effect. All analyses were conducted in IBM SPSS Statistics 28.

### **3.2 Bivariate Correlations and Regressions**

Bivariate correlations revealed that living in areas of greater neighborhood poverty was not significantly associated with dissociation symptom ( $p = .26$ ). However, a significant, positive association was found between experiences of discrimination (EOD) and dissociative symptoms ( $r = .16, p = .04$ ). Further, there was a stronger association when utilizing another measure of racial discrimination, the index of race-related stress (i.e., IRRS-B), to examine the association between racial discrimination and dissociative symptoms ( $r = .27, p < .01$ ). Additionally, analyses revealed that living in areas of greater neighborhood poverty was not significantly

associated with psychosis-like experiences ( $p = .93$ ). Similarly, non-significant associations were found between both measures of racial discrimination and psychosis-like experiences (EOD:  $p = .13$ ; IRRS-B:  $p = .31$ ). During the time in which these data were being conducted, the GTP team modified their instruments for measuring racism-related stress from the EOD to the IRRS-B. Given that the IRRS-B appears to present a more valid, multilevel assessment of racial discrimination, as well as its stronger associations with the other main study variables, all subsequent analyses (i.e., regressions and moderations) were conducted using the IRRS-B as the sole racial discrimination instrument.

Results from the hierarchical regressions ultimately suggested that neighborhood poverty was not a significant predictor of psychopathology. However, the specific results were somewhat mixed. Specifically, in the first hierarchical regression with dissociative symptoms as the outcome variable, covariates (age and education) were entered in Step 1, neighborhood poverty was entered in Step 2, and IRRS-B entered in Step 3. Although the first two models were not significant, the final model (Step 3) was significant, ( $F(4, 105) = 2.63, p = .04$ ), and accounted for 9.4% of the total variance. Notably, racial discrimination ( $b = .26, 95\% \text{ CI} [.00, .08], SE = .09, p < .01$ ) predicted greater dissociative symptoms, despite age ( $b = .10, p = .48$ ), education ( $b = -1.40, p = .19$ ), and neighborhood poverty ( $b = -15.63, p = .43$ ) being non-significant predictors of dissociative symptoms. In this way, Hypothesis 1a was partially supported, given the significant association between racial discrimination and dissociative symptoms, as well as a non-significant association between neighborhood poverty and dissociative symptoms. Based on the significant association between racial discrimination and dissociative symptoms, the six subdimensions of the MDI were further probed through hierarchical regression. Accounting for age, education and neighborhood poverty in the regression model, racial discrimination



significantly predicted four of the six symptom subdimensions of dissociation: emotional constriction ( $b = .08, SE = .02, p < .001$ ), memory disturbance ( $b = .05, SE = .02, p < .01$ ), disengagement ( $b = .05, SE = .02, p < .01$ ), and derealization ( $b = .04, SE = .02, p = .03$ ). Racial discrimination experiences did not significantly predict depersonalization or identity dissociation subdimensions of dissociation.

In this sample, 71% of participants did not endorse psychosis-like experiences, and only 14% of participants endorsed experiencing one psychotic-like experience. In terms of examining whether greater psychosis-like experiences could be predicted by poverty exposure and/or experiences of racial discrimination, none of the models in the regression proved to be significant with a relatively small study sample ( $n = 63$ ). Therefore, Hypothesis 2a was not supported.

### 3.3 Moderations

In our first moderation model, we examined dissociative symptoms as the outcome when exploring the potential interactive effects of neighborhood poverty and racial discrimination while controlling for age and education. The overall model was not significant ( $F(5, 100) = 2.19, MSE = 374.85, p = .06$ ). As expected, racial discrimination did predict dissociative symptoms ( $b = .25, 95\%CI[.08, .43], SE = .09, p < .01$ ). However, neither neighborhood poverty, nor the interaction between racial discrimination and neighborhood poverty were shown to predict dissociative symptoms. Therefore, no significant moderation effects were found to support Hypothesis 1b.

The aforementioned significant regression results from the subdimensions of dissociative symptoms from the MDI prompted exploratory moderation analyses to test the potential main and interactive effects of neighborhood poverty and racial discrimination on subdimensional

symptoms of dissociation. The dissociation subdimensions that were examined included memory disturbance, emotional constriction, disengagement, and derealization. The first model examined symptoms of memory disturbance as the outcome, and the model accounted for 14.17% of the total variance in memory disturbance symptoms, ( $F(5, 100) = 3.30$ ,  $MSE = 13.38$ ,  $p < .01$ ). The second model, an examination of emotional constriction symptoms as the outcome, showed that 14.62% of the total variance in emotional constriction symptoms could be accounted for by the model, ( $F(5, 100) = 3.42$ ,  $MSE = 20.08$ ,  $p < .01$ ). Neither of the models that examined symptoms of disengagement and derealization symptoms were significant. Despite two of the overall models being significant (memory disturbance and emotional constriction), we did not observe significant interaction terms in the moderations. Therefore, no significant moderation effects were found when further probing the four subdimensions of dissociation.

A moderation analysis was also conducted to test potential main and interactive effects of neighborhood poverty and racial discrimination on overall psychosis-like experiences, despite non-significant regression results (see Table 3.4). Findings from this model revealed non-significant results when examining neighborhood poverty and racial discrimination on psychosis-like experiences, ( $F(3, 59) = .56$ ,  $MSE = 2.62$ ,  $p = .64$ ). Therefore, no significant moderation effects were found to support Hypothesis 2b.

Table 3.1 Demographic Characteristics and Descriptive Statistics.

	Mean or %	<i>SD</i>	Range
Age	43.76	12.70	18 - 65
Education Level			
Less than high school	18.1 %		
High school/GED	33 %		
Some college/tech school	24.6 %		
Completed college/tech school	19.6 %		
Graduate school	4.7 %		
Poverty Exposure	0.23	0.10	.05 - .57
Racial Discrimination (EOD)	2.51	2.48	0 - 9
Racial Discrimination (IRRS)	58.68	22.20	22 - 110
Dissociative Symptoms	51.01	19.07	30 - 139
Psychosis-like Experiences	0.61	1.25	0 - 7

Table 3.2 Intercorrelations between all study variables.

	1	2	3	4	5	6
(1) Age	-	-	-	-	-	-
(2) Education Level	0.06	-	-	-	-	-
(3) Poverty Exposure	-0.01	-0.2***	-	-	-	-
(4) Racial Discrimination (EOD)	-0.05	0.27***	-0.13	-	-	-
(5) Racial Discrimination (IRRS-B)	0.01	0.21*	-0.15	-	-	-
(6) Dissociative Symptoms	-0.03	-0.05	-0.06	0.16*	0.27**	-
(7) Psychosis-like Experiences	0.06	-0.05	-0.01	0.12	0.13	0.49***

Note. \* $p < .05$ ; \*\* $p < .01$ , \*\*\* $p < .001$

*Table 3.3 Summary of hierarchical regression results examining poverty exposure and racial discrimination on total dissociative symptoms (n=106).*

	<i>b</i>	<i>SE</i>	<i>t</i>	<i>p</i>	95%CI	R <sup>2</sup>	Δ R <sup>2</sup>
Step 1						0.01	0.01
Age	0.09	0.15	0.64	0.52	[-0.20, 0.39]		
Education Level	-0.55	1.04	-0.53	0.60	[-2.60, 1.51]		
Step 2						0.02	0.01
Age	0.10	0.15	0.70	0.49	[-0.19, 0.40]		
Education	-0.85	1.07	-0.79	0.43	[-2.97, 1.28]		
Poverty Exposure	-21.67	20.16	-1.08	0.29	[-61.65, 18.32]		
Step 3						0.09	0.08
Age	0.10	0.01	0.71	0.48	[-0.18, 0.38]		
Education	-1.40	0.04	-1.34	0.19	[-3.49, 0.68]		
Poverty Exposure	-15.63	19.56	-0.80	0.43	[-54.43, 23.16]		
Racial Discrimination	0.26	0.09	2.93**	<0.01	[0.08, 0.43]		

Note. CI = confidence interval. \*\*p < .01.

*Table 3.4 Summary of hierarchical regression results examining poverty exposure and racial discrimination on psychosis-like experiences (n=63).*

	<i>b</i>	<i>SE</i>	<i>t</i>	<i>p</i>	95%CI	R <sup>2</sup>	Δ R <sup>2</sup>
Step 1						.03	.03
Age	0.02	0.02	1.45	0.15	[-0.01, 0.05]		
Education Level	-0.01	0.11	-0.12	0.91	[-0.23, 0.21]		
Step 2						.05	.01
Age	0.02	0.02	1.48	0.14	[-0.01, 0.06]		
Education	-0.04	0.11	-0.32	0.75	[-0.26, 0.19]		
Poverty Exposure	-1.77	2.03	-0.87	0.39	[-5.83, 2.29]		
Step 3						.06	.02
Age	0.02	0.02	1.45	0.15	[-0.01, 0.06]		
Education	-0.05	0.11	-0.43	0.67	[-0.28, 0.18]		
Poverty Exposure	-1.77	2.03	-0.87	0.39	[-5.83, 2.30]		
Racial Discrimination	0.01	0.01	0.99	0.33	[-0.01, 0.03]		

Note. CI = confidence interval.

## 4 DISCUSSION

This study sought to address a gap that exists between the scientific literature and experiences of multilevel oppression among Black women who have experienced relatively high levels of trauma exposure. The results of this study highlight the importance of examining constructs of psychopathology among marginalized groups in relation to oppressive experiences that may not fit into Eurocentric theoretical frameworks. The overall aims for this study were to: (a) explore the associations between neighborhood poverty, racial discrimination, and reactive responses (dissociative symptoms and psychosis-like experiences); and (b) examine whether racial discrimination moderated the association between neighborhood poverty and psychopathology; whereby neighborhood poverty and racial interpersonal racial discrimination might interact with one another to influence Black women's reactive responses (i.e., dissociation and psychosis-like experiences).

Findings were inconsistent with the hypothesis that both living in areas of greater neighborhood poverty and more experiences of racial discrimination would be associated with greater dissociative symptoms. Despite there being an association between experiences of interpersonal racial discrimination and dissociative symptoms, a statistically significant association was not found between neighborhood poverty and dissociative symptoms. In support of the hypothesis that there would be a clear, distinct relationship between experiences of racial discrimination and dissociative symptoms, we conducted exploratory analyses utilizing hierarchical regression to determine the potential predictive nature of this relationship. Regression results indicated that interpersonal racial discrimination did predict dissociative symptoms—prompting further probing at each subdimension of dissociation. It was found that four of the six measured subdimensions of dissociation (i.e., derealization, memory disturbance,

emotional constriction, and disengagement) were predicted by interpersonal racial discrimination, above and beyond the effects of age, education, and neighborhood poverty. Such findings suggest that there are aspects of race-based oppression that have a unique effect on outcomes—specifically dissociative symptoms—that can be observed beyond the effects of age, education, and neighborhood poverty. This is in line with results from the only other study that has explored this relationship among an undergraduate sample (Polanco-Roman et al., 2016).

There were some noteworthy considerations for the observed effects at the subdimensional levels of dissociation, given that the strength of the relationship between interpersonal racial discrimination and dissociation was strongest at the subdimensional level versus the overall total dissociative symptom score. Interestingly, effects were strongest when examining results related to the emotional constriction subdomain of dissociation. Valdez and Lilly (2012) explained dissociative-related emotional constriction as, “a restricted range of affect, [and]... emotional constriction increases as a function of exposure to an upsetting event for women.” This explanation highlights both the internalizing problems that unite the transdiagnostic symptomatology surrounding emotional constriction, as well as proposes a contextual factor underlying observed gender differences in emotional constriction and sample outcomes. Among a sample of Black undergraduates who had endorsed interpersonal racism and trauma exposure, Polanco-Roman and colleagues (2016) suggested that, compared to those who expressed utilizing more active coping mechanisms when confronted with racism-related stress, the coping group that employed passive strategies (i.e., accepting racism as a fact of life and not talking about it to others) endorsed significantly higher dissociative symptoms. Taken with the findings related to the subdimensions of dissociation in the current study’s sample, the very nature of dissociative-related emotional constriction is in line with the aforementioned passive

coping strategies that were linked to increased dissociative symptomatology. Our findings suggest that there may be a complicating factor in the way that experiences of interpersonal racism and the accompanying stress may result in differential levels of dissociation as a reactive response. The bounds for “passive coping” may instead be capturing symptoms of dissociative-related emotional constriction. In this way, the risk for differential types of reactive responses may vary depending on level of racism-related stress due to interpersonal experiences of racism, and coping mechanisms should then be independently examined to parse out reactive symptomatology from momentary cognitive coping approaches. Future longitudinal and ecological momentary assessment research could aid in parsing out these nuanced considerations for Black women.

The moderation model that examined racial discrimination as a potential moderator in the relationship between neighborhood poverty and dissociative symptoms was non-significant. It is not surprising that the association between neighborhood poverty and dissociative symptoms did not prove to be statistically significant, given the non-significant bivariate correlations and hierarchical regressions that involved the neighborhood poverty proxy measure for structural racism. A reason for these non-significant findings may relate to a construct validity issue. From our knowledge, there are no studies that have explicitly explored the relationship between neighborhood poverty and dissociation, but there are investigations that have explored how structural racism influences broad mental health outcomes. Williams and colleagues (2019) detail how structural racism is widely studied by way of racial residential segregation, as it is understood to be a root cause for the racial inequities that continue to persist. Racial residential segregation acts as a longstanding process and structure that continues to foster sociopolitical injustice and socioeconomic deprivation. In considering the current study’s utilization of zip

codes in an attempt to capture the effects of neighborhood poverty, which is an outcome of racial residential segregation, zip codes alone may not capture the proximal, dynamic nature of racial residential segregation—and by extension, the structural racism construct. Sharkey and Faber (2014) discuss the importance of considering how one's dynamic residential context is pivotal for formulating more complete and valid conclusions about relationships with variables like neighborhood poverty and health outcomes. They suggest that researchers expand their questions about context to center why context matters. They call for more rigorous study about residential contexts, including theory development. Studying how individuals interacted with and experienced the various features of their setting over time (e.g., social processes over the life course; environmental characteristics) will allow researchers to draw causal inferences about context-specific mechanisms that underlie individuals' outcomes.

Bivariate correlations between experiences of racial discrimination, neighborhood poverty, and psychosis-like experiences also did not yield significant findings. Similarly, there were non-significant results from the moderation model that sought to determine whether experiences of racial discrimination served as a moderator in the relationship between neighborhood poverty and psychotic-like symptoms. These findings are inconsistent with the one known study that has investigated racial discrimination and attenuated positive psychotic symptoms among Black undergraduate students in the U.S. (Anglin et al., 2014). To our knowledge, there are no studies that have examined neighborhood poverty and psychosis within a sample of Black women with relatively high levels of trauma exposure.

As previously discussed, the non-significant findings in the current study may be partly due to construct misrepresentation, the GTP exclusion criteria for study participation, as well as issues with measurement validity. Although the current study's goal of investigating the potential



ways that multilevel racism (i.e., structural and interpersonal racism) impacts different types of psychopathological outcomes (psychosis in this case) is novel, it must be underscored that structural inequality has never been static. Geographic, familial, and local institutional factors, to name a few, may all interact and influence one's appraisal of situations involving interpersonal racism. For this reason, the use of zip codes to determine level of neighborhood poverty is limited in scope as a static measure. This could have led to construct validity issues due to the complex nature of structural racism that simply cannot be fully captured by a zip code.

The present study's absence of significant associations among multilevel racism and psychopathological outcomes—namely psychosis-like experiences—may also be due to the GTP exclusion criteria for study participation and a measurement issue in this study. During the screening process, those who were identified as experiencing active psychosis were excluded from participation in the broad study; therefore, the Black women selected for the current study likely had reduced likelihood of experiencing psychosis-like symptoms given the GTP participant screening procedures. Further, the present study calculated psychosis symptom scores based partially on clinician judgement, as well as only included the positive psychosis items on the psychosis measure. Screening for subthreshold (non-clinical) psychosis-like experiences was not utilized for the purposes of this study. Thus, for future research, it could be helpful to incorporate validated self-report screening tools for data collection with community samples that are more readily able to distinguish subthreshold from threshold experiences of psychosis across age groups and settings. Valid screening measures like the Community Assessment of Psychic Experiences (CAPE), despite the word “psychic” in its name, may offer some necessary nuance in similar investigations in the future (Stefanis et al., 2002). Screening for experiences across the

psychosis spectrum might offer useful information related to thought patterns and/or beliefs that Black women may have, but not as a useful (pre)diagnostic tool in research or clinical settings.

One last consideration is that these non-significant findings may be an accurate reflection of this sample of Black women's experiences, and these Black women who have experienced multiple forms of racism may not engage in reactionary experiences that include psychosis as it was explored in this study. As mentioned during the manuscript introduction, the over pathology of Black people's symptoms has often led to extreme conclusions about our well-being that is inaccurate. It is possible that the Black women in the present study, broadly, did not experience the types of symptoms that were asked. Black feminist theory posits that Black women's needs have long been dismissed, and Black women's knowledge is actively delegitimized. To combat these psychological attacks, Black feminist theory-driven therapy suggests that self-defined Black consciousness must be developed for Black women to walk along a path toward psychological independence from the weight of oppressive mental and environmental settings (Jones & Harris, 2019). It may be the case that among the Black women in our sample, more self-definition and/or exploration of Black consciousness has been developed. Such identity development, conceptually, serves to ground individuals, instead of drive distance between the self and reality. Research aimed at understanding Black women's life experiences in the U.S. should incorporate both risk and strength-based processes in measuring the impact of multi-level racism on mental health outcomes.

#### **4.1 Limitations, Strengths, and Future Directions**

In interpreting the current study's findings, there are several limitations to note. First, participants were not asked about temporal poverty-related stressors, in addition to racism-related distress. Such information would enable researchers to determine whether the reactive

responses (psychopathology) are related to greater levels of stress experienced over the life course. Second, our results suggested that there was potentially little variability in terms of income that was reported to the census within a given zip code, as the variable from the ACS captured percentage below the poverty line, instead of a wider spread that reflected income in a neighborhood. Based on our current sample characteristics, 23% of participants were living below the poverty line, but we do not have information about those whose income may be considered low, but not quite at the poverty level. Given what is known about geographic and demographic makeup of the city in which the data were collected, there is a possibility that interactions with multilevel systems were not present in largely homogeneous areas with relatively little demographic variability. This may serve to contextualize why our measure of neighborhood poverty is not sensitive enough to the aspects of systemic oppression that persist beyond a condensed summary of reported income within a given area. Third, the cross-sectional design of this study restricts further evaluation of the temporal relationship between experiences of racial discrimination and reactive responses (dissociative symptoms and psychosis-like experiences). Thus, we may not conclude that experiences of racial discrimination cause dissociative symptomatology, nor that vulnerability for experiencing dissociative symptomatology leads to an increased likelihood of distress when exposed to a discriminatory event. Lastly, several of our analyses were underpowered due to sample size. Given this limitation, both the interpretation of these results and future research should consider how an increased sample size might affect external validity.

Despite these limitations, the current study has a number of strengths. This study enhances the field's conceptualization of reactive responses by shifting the deficit-based approach of such symptoms of psychopathology toward one that does not penalize minoritized

individuals for their defenses against oppressive systems. Additionally, this is the first study that has shown clear associations that exist between distress related to exposure to racial discrimination and several dimensions within dissociation. Thus, this study provides some evidence that differential reactive responses—with an emphasis on dissociation—are systematically employed when exposed to racism-related stress. Lastly, the examination of Black women's experiences, alone, is a major strength to the present study. There are few studies that prioritize Black women's specific experiences; therefore, it is a privilege to explore and contextualize these findings with the goal of expanding the field's knowledge base and earnestly communicating Black women's experiences. Future research should build upon this present study's effort aimed at examining the effects of multilevel racism on reactive responses by exploring more optimal proxy measures of structural racism that represent the dynamic, temporal nature of the construct. Additionally, future research should consider taking a Black feminist approach when conducting research involving minoritized communities, and this framework has practical, multidisciplinary applications. For example, utilizing a Black feminist framework for their policy analysis, Barlow & Johnson (2021) discussed a multistep, integrative process that features tenets from a Black feminist perspective. They highlighted community-informed health equity (step 1), leading and following a strength-based approach (step 2), considerations of the role(s) of gendered racism with a community-informed plan to address the issue(s) (steps 3 and 4), uplifting Black girls' and women's experiences during decision-making processes (step 5), and asserted that recommendations must reflect and amplify the strategies already being followed by Black girls and women. Acknowledging that this type of work has and continues to be ongoing by Black women in non-academic and academic spaces, applying such a framework to the development of a screening tool that assumes a strength-based position to assess for

reactive responsiveness, may advance the goals of the present study. Members of the field must invest in community-led initiatives aimed at improving mental health outcomes for minoritized individuals to ensure that the research being produced genuinely benefits those whose voices allowed for the existence of such research endeavors.

## 5 CONCLUSION

Reactive experiences, ones that are clinically considered to be nestled within dissociation-spectrum and psychosis-spectrum constructs, may be reactive responses to exposure to the effects of multi-level racism. Special attention should be given to consider the ways that reactive responses may serve as a contextually vulnerable or adaptive role within the context of experiencing multilevel health inequity for Black women, and future, multipronged interventions should include place-based initiatives that center Black-women-specific needs.

Black women deserve peace, and Black women deserve rest. In a world where Black women's access to these stress-reducing states of being are structurally and interpersonally delimited, Black women's reactions to such treatment is judged and misrepresented. As a field, there is room to offer grace to Black women. As a field, we must choose to deny the Eurocentric lenses that frame Black women as "reactionary" people, and embrace the truth that Black women's responses to unjust ways is, likely, momentarily adaptive. Offering grace and willingness to meet Black women where they are is the *very first step* in supporting Black women to respond adaptively to this unique stress over time. This is our charge to the field. Resistance to conducting more equitable and multifaceted research only exacerbates the systemic issues that lead to overpathologization and misdiagnosis among minoritized communities (Neblett, 2023). Addressing how these reactive symptoms may present themselves, clinically,

can inform interventions and policy-driven endeavors that have implications for the quality of life for Black women living in poverty and experiencing high levels of trauma exposure.

## REFERENCES

Adebimpe, V. R. (1981). Overview: White norms and psychiatric diagnosis of Black patients. *The American Journal of Psychiatry*, *138*(3), 279–285.

<https://doi.org/10.1176/ajp.138.3.279>

Alegria, M., Chatterji, P., Wells, K., Cao, Z., Chen, C., Takeuchi, D., Jackson, J., & Meng, X.-L. (2008). Disparity in depression treatment among racial and ethnic minority populations in the United States. *Psychiatric Services (Washington, D.C.)*, *59*(11), 1264–1272.

<https://doi.org/10.1176/appi.ps.59.11.1264>

American Psychiatric Association. (2013). *Diagnostic and Statistical Manual of Mental Disorders: DSM-5* (5th ed.). American Psychiatric Association.

Anglin, D. M., Ereshefsky, S., Klaunig, M. J., Bridgwater, M. A., Niendam, T. A., Ellman, L. M., DeVlyder, J., Thayer, G., Bolden, K., Musket, C. W., Grattan, R. E., Lincoln, S. H., Schiffman, J., Lipner, E., Bachman, P., Corcoran, C. M., Mota, N. B., & van der Ven, E. (2021). From Womb to Neighborhood: A Racial Analysis of Social Determinants of Psychosis in the United States. *American Journal of Psychiatry*, *appi.ajp.2020.2*.

<https://doi.org/10.1176/appi.ajp.2020.20071091>

Anglin, D. M., Lighty, Q., Greenspoon, M., & Ellman, L. M. (2014). Racial discrimination is associated with distressing subthreshold positive psychotic symptoms among US urban ethnic minority young adults. *Social Psychiatry and Psychiatric Epidemiology; Heidelberg*, *49*(10), 1545–1555. [http://dx.doi.org.ezp-prod1.hul.harvard.edu/10.1007/s00127-](http://dx.doi.org.ezp-prod1.hul.harvard.edu/10.1007/s00127-014-0870-8)

[014-0870-8](http://dx.doi.org.ezp-prod1.hul.harvard.edu/10.1007/s00127-014-0870-8)

Bailey, Z. D., Krieger, N., Agénor, M., Graves, J., Linos, N., & Bassett, M. T. (2017). Structural racism and health inequities in the USA: Evidence and interventions. *The Lancet*, *389*(10077), 1453–1463. [https://doi.org/10.1016/S0140-6736\(17\)30569-X](https://doi.org/10.1016/S0140-6736(17)30569-X)

Barlow, J. N., & Johnson, B. M. (2021). Listen to Black Women: Do Black Feminist and Womanist Health Policy Analyses. *Women's Health Issues*, *31*(2), 91–95. <https://doi.org/10.1016/j.whi.2020.11.001>

Barnes, A. (2008). Race and Hospital Diagnoses of Schizophrenia and Mood Disorders. *Social Work*, *53*(1), 77–83. <https://doi.org/10.1093/sw/53.1.77>

Bresnahan, M., Begg, M. D., Brown, A., Schaefer, C., Sohler, N., Insel, B., Vella, L., & Susser, E. (2007). Race and risk of schizophrenia in a US birth cohort: Another example of health disparity? *International Journal of Epidemiology*, *36*(4), 751–758. <https://doi.org/10.1093/ije/dym041>

Briere, J. (2002). *MDI, Multiscale Dissociation Inventory: Professional Manual*. Psychological Assessment Resources, Incorporated.

Briere, J. (2006). Dissociative Symptoms and Trauma Exposure: Specificity, Affect Dysregulation, and Posttraumatic Stress. *The Journal of Nervous and Mental Disease*, *194*(2), 78–82. <https://doi.org/10.1097/01.nmd.0000198139.47371.54>

Britt-Spells, A. M., Sledobnik, M., Sands, L. P., & Rollock, D. (2018). Effects of Perceived Discrimination on Depressive Symptoms Among Black Men Residing in the United States: A Meta-Analysis. *American Journal of Men's Health*, *12*(1), 52–63. <https://doi.org/10.1177/1557988315624509>



Bureau, U. C. (n.d.). *American Community Survey 5-Year Data (2009-2020)*. Census.Gov. Retrieved July 9, 2022, from <https://www.census.gov/data/developers/data-sets/acs-5year.html>

Carrington, C. H. (2006). Clinical depression in African American women: Diagnoses, treatment, and research. *Journal of Clinical Psychology, 62*(7), 779–791. <https://doi.org/10.1002/jclp.20289>

Carter, S., Mekawi, Y., Sheikh, I., Sanders, A. S., Packard, G., Harnett, N. G., & Metzger, I. W. (2022). Approaching Mental Health Equity in Neuroscience for Black Women Across the Lifespan: Biological Embedding of Racism From Black Feminist Conceptual Frameworks. *Biological Psychiatry: Cognitive Neuroscience and Neuroimaging, 7*(12), 1235–1241. <https://doi.org/10.1016/j.bpsc.2022.08.007>

Chapman-Hilliard, C., Abdullah, T., Denton, E., Holman, A., & Awad, G. (2020). The Index of Race-Related Stress-Brief: Further Validation, Cross-Validation, and Item Response Theory-Based Evidence. *Journal of Black Psychology, 46*(6–7), 550–580. <https://doi.org/10.1177/0095798420947508>

Clark, R., Anderson, N., Clark, V., & Williams, D. (1999). Racism as a stressor for African Americans. A biopsychosocial model. *The American Psychologist, 54*(10), 805–814. <https://doi.org/10.1037/0003-066x.54.10.805>

Cohen, C. I., & Marino, L. (2013). Racial and Ethnic Differences in the Prevalence of Psychotic Symptoms in the General Population. *Psychiatric Services, 64*(11), 1103–1109. <https://doi.org/10.1176/appi.ps.201200348>

Cohen, C. I., & Marino, L. (2014). Prevalence of psychotic symptoms: In reply. *Psychiatric Services (Washington, D.C.)*, *65*(2), 270–271.

<https://doi.org/10.1176/appi.ps.650203r>

Collins, P. H. (2000). Gender, Black Feminism, and Black Political Economy. *The ANNALS of the American Academy of Political and Social Science*, *568*(1), 41–53.

<https://doi.org/10.1177/000271620056800105>

Do, D. P., Locklar, L. R. B., & Florsheim, P. (2019). Triple jeopardy: The joint impact of racial segregation and neighborhood poverty on the mental health of black Americans. *Social Psychiatry and Psychiatric Epidemiology*, *54*(5), 533–541. <https://doi.org/10.1007/s00127-019-01654-5>

Douglas, A. N. (2009). Racial and ethnic differences in dissociation: An examination of the dissociative experiences scale in a nonclinical population. *Journal of Trauma & Dissociation*, *10*(1), 24–37. <https://doi.org/10.1080/15299730802488452>

Erving, C. L., Thomas, C. S., & Frazier, C. (2019). Is the Black-White Mental Health Paradox Consistent Across Gender and Psychiatric Disorders? *American Journal of Epidemiology*, *188*(2), 314–322. <https://doi.org/10.1093/aje/kwy224>

Evans, G. W., & Kim, P. (2010). Multiple risk exposure as a potential explanatory mechanism for the socioeconomic status–health gradient. *Annals of the New York Academy of Sciences*, *1186*(1), 174–189. <https://doi.org/10.1111/j.1749-6632.2009.05336.x>

Gara, M. A., Minsky, S., Silverstein, S. M., Miskimen, T., & Strakowski, S. M. (2019). A Naturalistic Study of Racial Disparities in Diagnoses at an Outpatient Behavioral Health Clinic. *Psychiatric Services*, *70*(2), 130–134. <https://doi.org/10.1176/appi.ps.201800223>

Gušić, S., Cardeña, E., Bengtsson, H., & Søndergaard, H. P. (2016). Types of trauma in adolescence and their relation to dissociation: A mixed-methods study. *Psychological Trauma: Theory, Research, Practice, and Policy*, 8(5), 568–576. <https://doi.org/10.1037/tra0000099>

Hamilton, J. E., Heads, A. M., Cho, R. Y., Lane, S. D., & Soares, J. C. (2015). Racial disparities during admission to an academic psychiatric hospital in a large urban area. *Comprehensive Psychiatry*, 63, 113–122. <https://doi.org/10.1016/j.comppsy.2015.08.010>

Howard-Hamilton, M. F. (2003). Theoretical frameworks for African American women. *New Directions for Student Services*, 2003(104), 19–27. <https://doi.org/10.1002/ss.104>

Hu, T. W., Snowden, L. R., Jerrell, J. M., & Nguyen, T. D. (1991). Ethnic populations in public mental health: Services choice and level of use. *American Journal of Public Health*, 81(11), 1429–1434. <https://doi.org/10.2105/AJPH.81.11.1429>

Jackson, J. S., Brown, T. N., Williams, D. R., Torres, M., Sellers, S. L., & Brown, K. (1996). Racism and the physical and mental health status of African Americans: A thirteen year national panel study. *Ethnicity & Disease*, 6(1–2), 132–147.

Jarvis, G. E. (2007). The Social Causes of Psychosis in North American Psychiatry: A Review of a Disappearing Literature. *The Canadian Journal of Psychiatry*, 52(5), 287–294. <https://doi.org/10.1177/070674370705200503>

Jarvis, G. E. (2008). Changing psychiatric perception of African Americans with psychosis. *European Journal of American Culture*, 27(3), 227–252. [https://doi.org/10.1386/ejac.27.3.227\\_1](https://doi.org/10.1386/ejac.27.3.227_1)

Jimenez, D. E., Cook, B., Bartels, S. J., & Alegría, M. (2013). Disparities in Mental Health Service Use of Racial and Ethnic Minority Elderly Adults. *Journal of the American Geriatrics Society*, 61(1), 18–25. <https://doi.org/10.1111/jgs.12063>

Jones, L. V., & Harris, M. A. (2019). Developing a Black Feminist Analysis for Mental Health Practice: From Theory to Praxis. *Women & Therapy, 42*(3–4), 251–264.

<https://doi.org/10.1080/02703149.2019.1622908>

Karcher, N. R., Schiffman, J., & Barch, D. M. (2021). Environmental Risk Factors and Psychotic-like Experiences in Children Aged 9–10. *Journal of the American Academy of Child & Adolescent Psychiatry, 60*(4), 490–500. <https://doi.org/10.1016/j.jaac.2020.07.003>

Krieger, N., Smith, K., Naishadham, D., Hartman, C., & Barbeau, E. M. (2005). Experiences of discrimination: Validity and reliability of a self-report measure for population health research on racism and health. *Social Science & Medicine, 61*(7), 1576–1596.

<https://doi.org/10.1016/j.socscimed.2005.03.006>

Krüger, C. (2020). Culture, trauma and dissociation: A broadening perspective for our field. *Journal of Trauma & Dissociation, 21*(1), 1–13.

<https://doi.org/10.1080/15299732.2020.1675134>

Lecrubier, Y., Sheehan, D., Weiller, E., Amorim, P., Bonora, I., Harnett Sheehan, K., Janavs, J., & Dunbar, G. (1997). The Mini International Neuropsychiatric Interview (MINI). A short diagnostic structured interview: Reliability and validity according to the CIDI. *European Psychiatry, 12*(5), 224–231. [https://doi.org/10.1016/S0924-9338\(97\)83296-8](https://doi.org/10.1016/S0924-9338(97)83296-8)

Lee, K.-W., Chan, K.-W., Chang, W.-C., Lee, E. H.-M., Hui, C. L.-M., & Chen, E. Y.-H. (2016). A systematic review on definitions and assessments of psychotic-like experiences. *Early Intervention in Psychiatry, 10*(1), 3–16. <https://doi.org/10.1111/eip.12228>

Lewis, T. T., Cogburn, C. D., & Williams, D. R. (2015). SELF-REPORTED EXPERIENCES OF DISCRIMINATION AND HEALTH: SCIENTIFIC ADVANCES,

ONGOING CONTROVERSIES, AND EMERGING ISSUES. *Annual Review of Clinical Psychology*, 11, 407–440. <https://doi.org/10.1146/annurev-clinpsy-032814-112728>

Lynch, E. E., Malcoe, L. H., Laurent, S. E., Richardson, J., Mitchell, B. C., & Meier, H. C. S. (2021). The legacy of structural racism: Associations between historic redlining, current mortgage lending, and health. *SSM - Population Health*, 14, 100793. <https://doi.org/10.1016/j.ssmph.2021.100793>

Massey, D. S. (2016). Residential Segregation is the Linchpin of Racial Stratification. *City & Community*, 15(1), 4–7. <https://doi.org/10.1111/cico.12145>

Massey, D. S., & Denton, N. A. (1988). The Dimensions of Residential Segregation. *Social Forces*, 67(2), 281–315. <https://doi.org/10.2307/2579183>

Massey, D. S., & Denton, N. A. (1993). *American apartheid: Segregation and the making of the underclass*. Harvard University Press.

McGrew, T. (2018). The History of Residential Segregation in the United States, Title VIII, and the Homeownership Remedy. *The American Journal of Economics and Sociology*, 77(3–4), 1013–1048. <https://doi.org/10.1111/ajes.12243>

Metzl, J. M. (2009). *The protest psychosis: How schizophrenia became a black disease* (pp. xxi, 246). Beacon Press.

Misra, S., Etkins, O. S., Yang, L. H., & Williams, D. R. (2022). Structural Racism and Inequities in Incidence, Course of Illness, and Treatment of Psychotic Disorders Among Black Americans. *American Journal of Public Health*, 112(4), 624–632. <https://doi.org/10.2105/AJPH.2021.306631>

Neblett, E. W. (2019). Racism and health: Challenges and future directions in behavioral and psychological research. *Cultural Diversity and Ethnic Minority Psychology, 25*(1), 12–20. <https://doi.org/10.1037/cdp0000253>

Neblett, E. W. (2023). Racism measurement and influences, variations on scientific racism, and a vision. *Social Science & Medicine, 316*, 115247. <https://doi.org/10.1016/j.socscimed.2022.115247>

O'Donoghue, B., Roche, E., & Lane, A. (2016). Neighbourhood level social deprivation and the risk of psychotic disorders: A systematic review. *Social Psychiatry and Psychiatric Epidemiology, 51*(7), 941–950. <https://doi.org/10.1007/s00127-016-1233-4>

Office of the Surgeon General (US), Center for Mental Health Services (US), & National Institute of Mental Health (US). (2001). *Mental Health: Culture, Race, and Ethnicity: A Supplement to Mental Health: A Report of the Surgeon General*. Substance Abuse and Mental Health Services Administration (US). <http://www.ncbi.nlm.nih.gov/books/NBK44243/>

Oh, H., Cogburn, C. D., Anglin, D., Lukens, E., & DeVylder, J. (2016). Major discriminatory events and risk for psychotic experiences among Black Americans. *American Journal of Orthopsychiatry, 86*(3), 277–285. <https://doi.org/10.1037/ort0000158>

Olbert, C. M., Nagendra, A., & Buck, B. (2018). Meta-analysis of Black vs White racial disparity in schizophrenia diagnosis in the United States: Do structured assessments attenuate racial disparities? *Journal of Abnormal Psychology, 127*(1), 104–115. <https://doi.org/10.1037/abn0000309>

Oluwoye, O., Davis, B., Kuhney, F. S., & Anglin, D. M. (2021). Systematic review of pathways to care in the U.S. for Black individuals with early psychosis. *Npj Schizophrenia, 7*(1), Article 1. <https://doi.org/10.1038/s41537-021-00185-w>

Orr, S. P., McNally, R. J., Rosen, Gerald. M., & Shalev, A. Y. (2004). Psychophysiological reactivity: Implications for conceptualizing PTSD. In *Posttraumatic stress disorder: Issues and controversies* (pp. 101–126). John Wiley & Sons Ltd.

<https://doi.org/10.1002/9780470713570.ch6>

Paradies, Y., Ben, J., Denson, N., Elias, A., Priest, N., Pieterse, A., Gupta, A., Kelaher, M., & Gee, G. (2015). Racism as a Determinant of Health: A Systematic Review and Meta-Analysis. *PLoS ONE*, *10*(9), e0138511. <https://doi.org/10.1371/journal.pone.0138511>

Pascoe, E. A., & Richman, L. S. (2009). Perceived Discrimination and Health: A Meta-Analytic Review. *Psychological Bulletin*, *135*(4), 531–554. <https://doi.org/10.1037/a0016059>

Polanco-Roman, L., Danies, A., & Anglin, D. M. (2016). Racial discrimination as race-based trauma, coping strategies and dissociative symptoms among emerging adults.

*Psychological Trauma : Theory, Research, Practice and Policy*, *8*(5), 609–617.

<https://doi.org/10.1037/tra0000125>

Powers, A., Cross, D., Fani, N., & Bradley, B. (2015). PTSD, emotion dysregulation, and dissociative symptoms in a highly traumatized sample. *Journal of Psychiatric Research*, *61*, 174–179. <https://doi.org/10.1016/j.jpsychires.2014.12.011>

Riley, A. R. (2018). Neighborhood Disadvantage, Residential Segregation, and Beyond—Lessons for Studying Structural Racism and Health. *Journal of Racial and Ethnic Health Disparities*, *5*(2), 357–365. <https://doi.org/10.1007/s40615-017-0378-5>

Roll, J. M., Kennedy, J., Tran, M., & Howell, D. (2013). Disparities in Unmet Need for Mental Health Services in the United States, 1997–2010. *Psychiatric Services*, *64*(1), 80–82.

<https://doi.org/10.1176/appi.ps.201200071>

Schwartz, R. C., & Blankenship, D. M. (2014). Racial disparities in psychotic disorder diagnosis: A review of empirical literature. *World Journal of Psychiatry, 4*(4), 133–140.

<https://doi.org/10.5498/wjp.v4.i4.133>

Sharkey, P., & Faber, J. W. (2014). Where, When, Why, and For Whom Do Residential Contexts Matter? Moving Away from the Dichotomous Understanding of Neighborhood Effects. *Annual Review of Sociology, 40*(1), 559–579. <https://doi.org/10.1146/annurev-soc-071913-043350>

Sheehan, D., Lecrubier, Y., Harnett Sheehan, K., Janavs, J., Weiller, E., Keskiner, A., Schinka, J., Knapp, E., Sheehan, M., & Dunbar, G. (1997). The validity of the Mini International Neuropsychiatric Interview (MINI) according to the SCID-P and its reliability. *European Psychiatry, 12*(5), 232–241. [https://doi.org/10.1016/S0924-9338\(97\)83297-X](https://doi.org/10.1016/S0924-9338(97)83297-X)

Shields, G. S., & Slavich, G. M. (2017). Lifetime Stress Exposure and Health: A Review of Contemporary Assessment Methods and Biological Mechanisms. *Social and Personality Psychology Compass, 11*(8), e12335. <https://doi.org/10.1111/spc3.12335>

Snowden, L. R., Hastings, J. F., & Alvidrez, J. (2009). Overrepresentation of Black Americans in Psychiatric Inpatient Care. *Psychiatric Services, 60*(6), 779–785.

<https://doi.org/10.1176/ps.2009.60.6.779>

Stefanis, N. C., Hanssen, M., Smirnis, N. K., Avramopoulos, D. A., Evdokimidis, I. K., Stefanis, C. N., Verdoux, H., & Van Os, J. (2002). Evidence that three dimensions of psychosis have a distribution in the general population. *Psychological Medicine, 32*(2), 347–358.

<https://doi.org/10.1017/s0033291701005141>



Sternthal, M. J., Slopen, N., & Williams, D. R. (2011). RACIAL DISPARITIES IN HEALTH: How Much Does Stress Really Matter? *Du Bois Review: Social Science Research on Race*, 8(1), 95–113. <https://doi.org/10.1017/S1742058X11000087>

Strakowski, S. M., Flaum, M., Amador, X., Bracha, H. S., Pandurangi, A. K., Robinson, D., & Tohen, M. (1996). Racial differences in the diagnosis of psychosis. *Schizophrenia Research*, 21(2), 117–124. [https://doi.org/10.1016/0920-9964\(96\)00041-2](https://doi.org/10.1016/0920-9964(96)00041-2)

Thomas, V. G. (2004). The Psychology of Black Women: Studying Women's Lives in Context. *Journal of Black Psychology*, 30(3), 286–306. <https://doi.org/10.1177/0095798404266044>

Trawalter, S., Bart-Plange, D.-J., & Hoffman, K. M. (2020). A socioecological psychology of racism: Making structures and history more visible. *Current Opinion in Psychology*, 32, 47–51. <https://doi.org/10.1016/j.copsyc.2019.06.029>

Utsey, S. O. (1999). Development and Validation of a Short Form of the Index of Race-Related Stress (IRRS)—Brief Version. *Measurement and Evaluation in Counseling and Development*, 32(3), 149–167. <https://doi.org/10.1080/07481756.1999.12068981>

Utsey, S. O., Belvet, B., Hubbard, R. R., Fischer, N. L., Opare-Henaku, A., & Gladney, L. L. (2013). Development and Validation of the Prolonged Activation and Anticipatory Race-Related Stress Scale. *Journal of Black Psychology*, 39(6), 532–559. <https://doi.org/10.1177/0095798412461808>

Utsey, S., Ponterotto, J., Reynolds, A., & Cancelli, A. (2000). Racial Discrimination, Coping, Life Satisfaction, and Self-Esteem Among African Americans. *Journal of Counseling & Development*, 78, 72–80. <https://doi.org/10.1002/j.1556-6676.2000.tb02562.x>

- Valdez, C. E., & Lilly, M. M. (2012). Emotional Constriction and Risk for Posttraumatic Stress: The Roles of Trauma History and Gender. *Journal of Aggression, Maltreatment & Trauma, 21*(1), 77–94. <https://doi.org/10.1080/10926771.2012.631165>
- van Os, J., Linscott, R. J., Myin-Germeys, I., Delespaul, P., & Krabbendam, L. (2009). A systematic review and meta-analysis of the psychosis continuum: Evidence for a psychosis proneness–persistence–impairment model of psychotic disorder. *Psychological Medicine, 39*(2), 179–195. <https://doi.org/10.1017/S0033291708003814>
- White, K., & Borrell, L. N. (2011). Racial/ethnic residential segregation: Framing the context of health risk and health disparities. *Health & Place, 17*(2), 438–448. <https://doi.org/10.1016/j.healthplace.2010.12.002>
- Williams, D. R., Lawrence, J. A., & Davis, B. A. (2019). Racism and Health: Evidence and Needed Research. *Annual Review of Public Health, 40*(1), 105–125. <https://doi.org/10.1146/annurev-publhealth-040218-043750>
- Williams, D. R., & Mohammed, S. A. (2013). Racism and Health I: Pathways and Scientific Evidence. *American Behavioral Scientist, 57*(8), 1152–1173. <https://doi.org/10.1177/0002764213487340>
- Williams, D. R., Neighbors, H. W., & Jackson, J. S. (2003). Racial/Ethnic Discrimination and Health: Findings From Community Studies. *American Journal of Public Health, 93*(2), 200–208.
- Williams, D., & Williams-Morris, R. (2000). Racism and Mental Health: The African American experience. *Ethnicity & Health, 5*(3–4), 243–268. <https://doi.org/10.1080/713667453>

Wilson, D. (2009). Introduction: Racialized Poverty in U.S. Cities: Toward a Refined Racial Economy Perspective. *The Professional Geographer*, 61(2), 139–149.

<https://doi.org/10.1080/00330120902736393>