

ABSTRACT

Title of Dissertation: COGNITIVE MECHANISMS OF TRAUMA
FROM POLICE ENCOUNTERS AMONG
BLACK INDIVIDUALS

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Black Americans historically have had a contentious relationship with police due to the violence they have endured at the hands of law enforcement (Nadal et al., 2017). Previous research has demonstrated the vast psychological consequences of intrusive police encounters (DeVylder et al., 2017). However, trauma is a largely understudied psychological outcome of police encounters for Black citizens (Bryant-Davis et al., 2017). Research on discrimination attributions for events has implicated cognitive attributions as an important predictor of the relationship between potentially racist incidents and mental health outcomes (Major & Dover, 2016). Additionally, cognitive appraisal has been identified as a very important mechanism of trauma (Sherrer, 2011). The current study seeks to fill the gaps in the literature by examining the relationships between intrusiveness of police encounters, cognitive appraisal, discrimination attributions, and trauma symptoms. Additionally, attitudes towards police are examined as a moderator on the relationship between intrusiveness of police encounters and discrimination attributions. Limitations, implications, and future directions are discussed.

COGNITIVE MECHANISMS OF TRAUMA FROM POLICE ENCOUNTERS
AMONG BLACK INDIVIDUALS

by

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Chapter 1: Introduction

Background

On March 3, 1991, Rodney King survived an egregious act of police brutality at the hands of the Los Angeles Police Department. Graphic footage of the beating was captured by an amateur cameraman bystander and sold to a local television station. Despite the national and global virality of this video which depicted unjust and excessive use of force, the police officers involved in the beating were acquitted. This chain of events sparked massive protests and riots in Los Angeles and throughout the United States and laid the groundwork for anti-police brutality activism in this country. As defined by Bryant-Davis and colleagues (2017), police brutality is “a form of unwarranted physical violence perpetrated by an individual or group symbolically representing a government-sanctioned, law enforcement agency as opposed to an individual perpetrator who only represents themselves” (p. 853). Three decades after the Rodney King case, we witnessed global outcry in response to the egregious public murder of George Floyd on May 25, 2020. This case and many, many others elucidate the enduring problem of public relations with the police in the United States.

In 2011, approximately one fourth of all adults in the United States had contact with the police (Flexon et al., 2019). Among these encounters with police, all include varying levels of intrusiveness, including nonfatal and fatal use of force. According to a recent special report by the U.S Department of Justice, from 2002 to 2011, approximately 75% of adults who experienced the threat or use of nonfatal force by police perceived the actions as excessive (Hyland et al., 2015). The data regarding fatal use of force is alarming. An American citizen is killed by police every seven hours (Bryant-Davis et al., 2017). This figure is considered incomplete because these killings are self-reported by law enforcement, who are not required to report them. From what we do know about police violence, racial disparities are evident. Black Americans are more likely to get stopped by police and are more likely to report having a negative experience when stopped by police than

White Americans (Flexon et al., 2019). Additionally, Black Americans are more likely than any other racial group to be killed by law enforcement and are more than twice as likely to be unarmed when killed by police as compared to White Americans (Johnson et al., 2014). In the United States from 2015-2016, approximately 30% of the individuals killed by police were Black, while Black people comprised only 13% of the population (Dukes & Kahn, 2017).

Contextual factors have been examined as antecedents of disproportionate police violence against racial/ethnic minorities. Many scholars believe these racial disparities in policing are due to implicit racial bias and structural factors like economic inequality and institutional racism (Sinyangwe, 2016). The Racially Biased Policing (RBP) hypothesis states that racial bias is the cause of greater use of force against Black suspects (Jones, 2017). Empirical research has demonstrated shooter bias where police officers are more likely to shoot unarmed Black individuals than unarmed White individuals, likely due to racial stereotypes associating Black men with violence and criminality (Dukes & Kahn, 2017). Scott et al. (2017) challenged the notion that racial disparities in policing are due to Black suspects behaving in ways which warrant more violent policing strategies. With a large archival dataset from several U.S cities, they found that after statistically controlling for racial differences in criminal activity, officers were still more likely to shoot Black suspects than White suspects, suggesting a clear racial bias in policing.

The psychological consequences of police brutality and negative police encounters have been well-documented. DeVylder and colleagues (2017) administered surveys to adult participants living in four major U.S. cities to identify the psychological correlates of police victimization, including physical and psychological violence. Among their sample, 18.6% experienced psychological victimization (i.e., threats, discriminatory slurs, etc.), and 6.1% experienced physical victimization. Racial/ethnic minorities reported greater instances of overall police victimization, which was found to be associated with psychological distress and depression. In other studies, intrusive police encounters have been found to be associated with suicidal ideation, suicide

attempts, and psychotic experiences (DeVylder et al., 2018), and the spillover effects of police violence has included greater stress, depression, and problems with emotional regulation (Bor et al., 2018). Among the many negative mental health consequences of indirect and direct police violence include symptoms of psychological trauma, a topic which has received increased attention in recent years (Bryant-Davis et al., 2017).

Racial and Psychological Trauma

Recently, police violence against Black people has been studied as a form of psychological trauma. Bryant-Davis and colleagues (2017) define psychological trauma as “an experience that threatens an individual’s life or bodily integrity, which overwhelms their ability to cope by creating feelings of hopelessness or intense fear” (p. 853). The *Diagnostic and Statistical Manual of Mental Disorders (DSM-V)* lists symptoms of trauma to include recurring distressing memories of the event, dissociative reactions, such as flashbacks, and intense psychological distress after exposure to cues that remind the survivor of the traumatic event (American Psychiatric Association, 2013). Generally, people of color, particularly Black people, have elevated trauma symptoms compared to their White counterparts (Carter et al., 2013). Racial disparities in trauma symptoms can be understood in the context of centuries of racial trauma experienced by Black people in the United States. Black people have endured state-sanctioned violence throughout all of American history, during times of enslavement, Jim Crow laws, and the Civil Rights Movement.

Throughout these periods in American history, Black individuals endured “physical, psychological, sexual, and emotional terror” (Aymer, 2016, p. 367). According to Comas-Díaz et al. (2019), *racial trauma* or *racist incident-based trauma*, is a form of race-based stress in which the victim of a racist incident (including threats of harm or witnessing harm to other people of color due to perceived racism) experiences trauma symptoms. Examples of incidents which can be classified as racial trauma include a vast number of experiences from racial profiling and abuse from police (Aymer, 2016), to various experiences of racial discrimination (Comas-Díaz et al., 2019).

Historically, trauma literature has focused on certain forms of trauma (e.g., rape or combat exposure) over other forms (e.g. racial discrimination; Grills et al., 2016). Racism as a stressor with psychological consequences is not formally recognized in psychiatric diagnostic systems, such as the *DSM* (APA, 2013; Carter, 2007; Carter et al., 2013). Post-Traumatic Stress Disorder (PTSD) and race-related stress have rarely been studied together, and trauma symptomatology has rarely been studied as a reaction to race-related stress (Carter, 2007; Carter et al., 2013). However, some scholars posit racial and psychological trauma are very closely related and cannot be parsed apart. Similar to the consequences of more “traditional” forms of trauma, racial trauma from discrimination can lead to dehumanization, feeling threatened, and feelings of hopelessness, among other PTSD-like symptoms (Comas-Díaz et al., 2019).

Some social scientists have begun to examine police violence through a trauma lens (Aymer, 2016). Using a psychological trauma lens to conceptualize police brutality against minority populations, Bryant-Davis and colleagues (2017) define it as “an act of violence or the threat of violence perpetrated by police officers against racial or ethnic minorities” (p. 854). Police brutality has been associated with trauma symptoms, including but not limited to nightmares, flashbacks, and intrusive thoughts (Aymer, 2016). Additionally, officer intrusiveness during police encounters has been associated with trauma symptoms and other negative mental health outcomes (Geller et al., 2014; Jackson et al., 2019). It is important to consider trauma when seeking to understand the harmful psychological consequences of intrusive police encounters and police violence among Black individuals, because these encounters can be contextualized within generations of trauma experienced by Black people, which can have a cumulative effect on their overall well-being (Bryant-Davis et al., 2017).

Attitudes and Cognitions

Aside from the pervasive psychological consequences of some police encounters among Black people, there are also cognitive consequences. The lived experiences of negative interactions

with police (Carr et al., 2007), knowledge of national cases of police violence (Staggers-Hakim, 2016), and other vicarious experiences, like living in an area where police violence is prevalent (Bor et al., 2018), all can lead to a generally negative disposition towards police. When people believe they are treated unfairly by police, they tend to have a more negative disposition towards police (Sunshine & Tyler, 2003). For example, if people believe they are stopped by police for no reason, are harassed, or witness dishonest police conduct, they are less likely to trust in the police (Carr et al., 2007). It is well documented that Black people and others with marginalized identities tend to have lower levels of trust in the police than individuals with more privileged identities who tend to have more positive relationships with law enforcement (Nadal et al., 2017; Sunshine & Tyler, 2003; Tyler, 2004; Tyler et al., 2015). Attitudes towards police have been found to be associated with the likelihood of calling the police in times of need and general legal cynicism (Carr et al., 2007), which has been associated with greater psychological distress (Nadal & Davidoff, 2015). Additionally, negative perceptions of police are likely to influence how an individual will interpret the cause of mistreatment from police (Nadal et al., 2017; Tyler & Wakslak, 2004).

Cognitive appraisal is the evaluative process through which an individual perceives an event or series of events in the environment as significant or insignificant to their well-being (Lazarus & Folkman, 1984). Cognitive-relational theory suggests that cognitive appraisal is a key factor in the stress process, which has implications for mental health outcomes among individuals who experience a traumatic or stressful event (Peacock & Wong, 1990). Several studies have found that cognitive appraisals mediate the relationship between traumatic events/stressors and negative mental health outcomes (Gomes et al., 2013; Mueller et al., 2008; O'Donnell et al., 2007). Cognitive appraisal has been studied extensively in the trauma literature as a mediator that can help explain an individual's positive adaption to traumatic stress, or the onset of PTSD-like symptoms (Bailey et al., 2013; Hitchcock et al., 2015; McCuaig et al., 2012; Meiser-Stedman et al., 2009; Sherrer, 2011).

However, no known studies have examined cognitive appraisal as a mediator that helps explain the trauma process of Black adults who have had intrusive encounters with police.

Cognitive attributions are the causal explanations that individuals make for events (Weiner, 1980). For instance, when an individual is pulled over by a police officer, they might attribute the cause of being stopped to the fact that they were speeding. Attributions made during police encounters will likely be impacted by an individual's preexisting attitudes towards police (Tyler & Wakslak, 2004). Cognitive attributions related to discrimination are important in understanding psychological outcomes of interpersonal encounters (Major & Dover, 2016). While some research suggests that attributing an event to discrimination has psychological benefits (Allport, 1979; Crocker & Major, 1989), other literature suggests that making discrimination attributions for perceived mistreatment leads to more negative mental health outcomes among people in marginalized groups (Branscombe et al., 1999; Goodwin et al., 2010). The present study seeks to elucidate the relationship between discrimination attributions and trauma symptoms among Black people who have intrusive encounters with the police.

The present study also examines how cognitive appraisals and cognitive attributions operate simultaneously yet distinctly within the same individual who has encountered police in the last year. While appraisals are concerned with "*How important* was this event?" attributions are concerned with "*Why* did this event happen?" Some research suggests that when individuals make discrimination attributions, they are likely to appraise the situation as more central, harmful or threatening, leading to negative mental health outcomes (Eccleston & Major, 2006; King, 2005). For instance, an individual might attribute the cause of mistreatment to discrimination, which may lead them to appraise the encounter as more significant to their well-being, which in turn may lead to increased PTSD-like symptoms. Examining both variables in relation to intrusive police encounters may give counseling psychologists insight into the underlying mechanisms involved in the development of trauma symptoms as a result of these encounters.

The Present Study

For decades, the contentious relationship between communities of color and the police has been a cause for concern. In general, Black adults are most negatively impacted by encounters with the police than any other racial group. Police brutality and police-initiated encounters with citizens have been studied through numerous social science frameworks, and yet the lens of trauma has rarely been applied to understanding the harmful consequences of intrusive police encounters among Black individuals (Bryant-Davis et al., 2017). While cognitive appraisal and cognitive attributions have been identified as potentially important variables to consider when understanding how stressful events impact psychological outcomes (Harrell, 2000), less is known about these cognitive processes in relation to intrusiveness of a police encounter and trauma symptoms in Black Americans.

The present study assesses the role of cognitive appraisal and cognitive attribution as mediators in the relationship between intrusiveness of police encounters and trauma symptoms in Black adults living in the U.S. Additionally, attitudes towards police will be examined as a potential moderator on the relationships between intrusiveness of police encounters and discrimination attributions such that negative attitudes towards police will strengthen the positive relationship between officer intrusiveness and trauma symptoms.

Participants who identify as Black or African American adults are included in the present study. These inclusion criteria are intentionally broad so as to capture the experiences of all Black adults. The literature review considers the experience of people of color, racial/ethnic minorities, Black adults, and African Americans due to the gaps in the literature as it pertains to policing and trauma.

Hypotheses

- H1: Intrusiveness of police encounters will predict trauma symptoms
- H2: Cognitive appraisal will mediate the relationship between intrusiveness of police encounters and trauma symptoms
- H3: Discrimination attributions will mediate the relationship between intrusiveness of police encounters and trauma symptoms
- H4: Cognitive appraisal will mediate the relationship between discrimination attributions and trauma symptoms
- H5: Police attitudes will moderate the relationship between intrusiveness of police encounters and discrimination attributions such that negative attitudes towards police will strengthen the relationship between officer intrusiveness and discrimination attributions

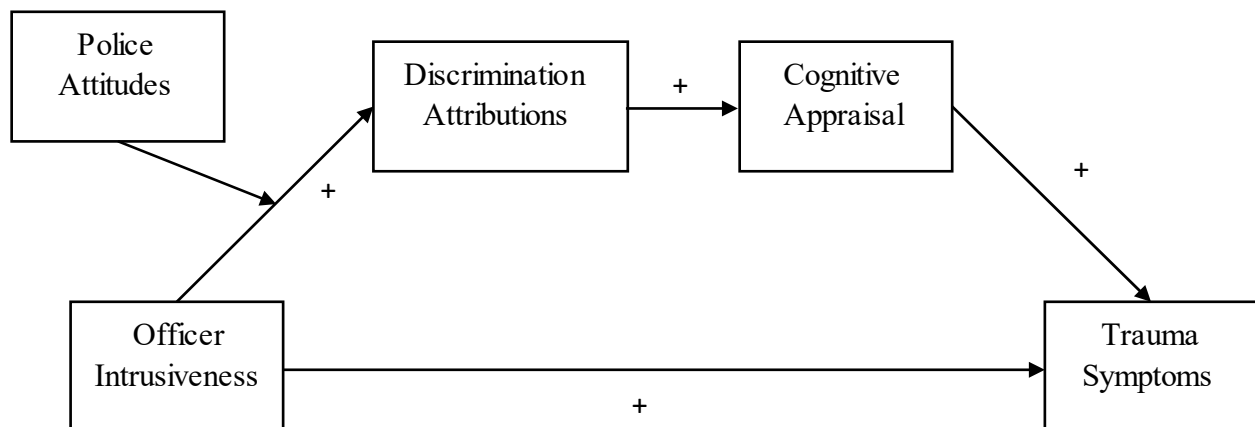


Figure 1. Hypothesized pathways between the study variables

Chapter 2: Literature Review

Trauma

Trauma Disorders

According to the *Diagnostic and Statistical Manual of Mental Disorders, fifth edition (DSM- V)*, trauma is a stressful event which includes “actual or threatened death, serious injury, or sexual violence” (American Psychiatric Association, 2013, p. 271). Within the “Trauma and Stressor-related Disorders” diagnostic category in the *DSM-V*, disorders include reactive attachment disorder, disinhibited social engagement disorder, acute stress disorder, adjustment disorders, and Post Traumatic Stress Disorder (PTSD). The *DSM-V* states that the most prominent symptoms of these disorders are anhedonia (the inability to experience pleasure), dysphoria (a low-grade but chronic depression), externalizing anger, and dissociation. How symptoms manifest after a traumatic experience often vary from person to person and depend on the nature of the traumatic experience (APA, 2013).

PTSD is perhaps one of the most recognizable disorders in the “Trauma and Stressor-related Disorders” category in the *DSM-V*. PTSD is diagnosed when an individual has a qualifying exposure to a traumatic event followed by qualifying symptoms as defined by the *DSM-V* (Pai et al., 2017). The *DSM-V* includes four types of exposure to a traumatic event considered to qualify for a PTSD diagnosis: direct exposure of trauma, witnessing trauma of others, indirect exposure to trauma experienced by loved ones, and repeated exposure to details of a traumatic event (i.e., social workers working with survivors of intimate partner violence; APA, 2013; Pai et al., 2017). Additionally, for a formal diagnosis, subsequent symptoms related to the traumatic exposure fall within the following groups: intrusion, avoidance, and alterations in cognitions, mood, arousal, and reactivity. Symptoms of PTSD include persistent negative emotional state and persistent distorted cognitions about the traumatic event (which could lead to irrational self-blame; APA, 2013; Pai et al., 2017).

Using the *DSM-IV* criteria, the *DSM-V* reported that in 2013 the prevalence of PTSD among the U.S. adult population was 3.5% (APA, 2013). In a national sample of almost 3,000 U.S. adults, 90% of respondents reported exposure to at least one traumatic event as defined by the *DSM-V* (Kilpatrick et al., 2013). In this study, disaster, accident/fire, physical or sexual assault, and death of a loved one due to a traumatic event, were the most reported traumatic events. Additionally, PTSD was found to be more common among women than among men. Environmental risk factors for PTSD include lower socioeconomic status and minority identity, including racial/ethnic status (APA, 2013). People of color experience disproportionate rates of PTSD as compared to White people, likely due to the oppression they face at the individual, institutional, and cultural levels (Bryant-Davis et al., 2017; Carter et al., 2020).

Trauma in Racial/Ethnic Minorities

A deeper understanding of how trauma impacts racially and ethnically diverse populations requires intentional consideration of the specific traumas they face as a result of their marginalized identities (Tummala-Narra, 2007). African Americans have faced physical and psychological violence for centuries, and this form of violence is experienced personally and collectively because it spans across generations (Tummala-Narra, 2007). *Race-based trauma*, also referred to as *racist incident-based trauma*, or *racial trauma*, is the negative psychological impact of racial oppression (Bryant-Davis et al., 2017). Bryant-Davis & Ocampo (2005) extend the definition of racial trauma to include implicit acts of racial discrimination, such as racial microaggressions. While different forms of racism are rarely considered by traditional trauma researchers, people of color have elevated levels of PTSD unexplained by other factors (Carter, 2007). There are many emotional, cognitive, and physical effects of racial trauma, including hypervigilance to threat, suspicion, and negative physical health outcomes (Comas-Díaz et al., 2019). These outcomes are consistent with the psychological outcomes of more traditionally recognized forms of trauma, suggesting that race must be considered in our conceptualization of trauma among minoritized groups.

There is a dearth of empirical studies examining the impact of racist incidents on trauma symptoms, which is notable because of the overlaps between racist incidents and trauma. There are many parallels between racist incidents, including police violence against racial/ethnic minorities, and what are considered as more traditional forms of trauma, like military combat. Race-based traumatic stress and PTSD symptoms were found to be significantly associated in a sample of 421 community-based adult respondents (Carter et al., 2020). The findings of this study suggested that negative race-based encounters led to PTSD-like symptoms, including dissociation, anxiety, depression, and sleep disturbance. The *DSM-V* lists witnessing the trauma of others as a qualifying traumatic event for a PTSD diagnosis (APA, 2013). In a similar vein, Dukes and Kahn (2017) emphasize how exposure to police violence against one's own racial/ethnic group can carry the same psychological consequences as personal direct experiences with police violence. Additionally, racist incidents parallel sexual assaults, a commonly recognized form of interpersonal trauma, in that they both are motivated by the imposition of power by the perpetrator (Bryant-Davis & Ocampo, 2005; Bryant-Davis, et al., 2017).

A few other studies have demonstrated the harmful psychological effects of racist incident-based trauma across various populations. Sibrava et al. (2019) explored the relationship between discrimination and PTSD symptoms among African American and Latinx adults. Instances of discrimination in one's everyday life predicted PTSD diagnostic status, and most participants still experienced symptoms during the five-year follow-up. These results suggest racist incidents play an important role in the development of PTSD symptomatology among people of color. Skews and Blume (2019) collected qualitative data from semi-structured interviews with 25 Native American people. Without prompting from the researchers about racist incidents, participants identified the daily traumas of racism and other community-wide problems as barriers to recovering from substance use disorders. Participants cited historical racial trauma their people have experienced to contextualize their struggles with substance abuse. While this study elucidates the connection

between substance use and racial discrimination and trauma among a sample of Indigenous people living in rural reservation communities, the hypothesis cannot be tested and results cannot be generalized to the broader American Indian population due to the qualitative nature of the study and the small sample size. As this study has done, more studies must examine specific types of trauma and how they uniquely impact specific marginalized populations. The current study seeks to accomplish this with intrusive police encounters among Black adults.

Trauma and Police Encounters

There is a small but emerging literature base that conceptualizes some police encounters among racial/ethnic minorities as a form of trauma (Aymer, 2016; Bryant-Davis, et al., 2017; Dukes & Kahn, 2017; Stagers-Hakim, 2016). Bryant-Davis and colleagues (2017) define racially motivated police brutality trauma as “an act of violence or the threat of violence perpetrated by police officers against racial or ethnic minorities” (p. 854). In 2014 after the killing of Michael Brown in Ferguson, Missouri, the militarized police presence to control protests was reminiscent of militarized police in the 1960s who violently beat and hosed down Black protestors during the Civil Rights Movement. Aymer (2016) and Peterson and Ward (2015) compare the trauma response of witnessing the ubiquitous killing of unarmed Black men by police in modern times to racial lynchings, a form of racialized trauma popular in the late 19th century. Racial/ethnic minorities who survive police brutality may experience symptoms of trauma, including flashbacks, avoiding cues that remind them of the trauma (i.e., running from the police), and hypervigilance (Bryant-Davis et al., 2017).

Intergenerational trauma is the accumulation of acute traumas spanning across multiple generations of racial/ethnic minorities, including institutionalized racism and segregation (Dukes & Kahn, 2017). Trauma is passed down generations through storytelling, modeled behaviors, and socialization (Bryant-Davis, 2017). Closely related, *historical trauma*, or *soul wounds*, is defined by Comas-Díaz and colleagues (2019) as “the cumulative psychological wounds that result from

historical traumatic experiences, such as colonization, genocide, slavery, dislocation, and other related trauma” (p. 2). Survivors of the Holocaust, internment camps, and enslavement have been found to experience these forms of trauma (Bryant-Davis & Ocampo, 2005). Bryant-Davis and colleagues (2017) examined police brutality through the lens of intergenerational trauma because of the historical context of police violence against racial/ethnic minorities in the United States. For example, Black parents are tasked with informing their children about potentially encountering racialized violence, including encounters with police officers (Bryant-Davis, 2017).

While there is a large body of empirical literature which focuses on how policing impacts the mental health of Black individuals (Bor et al., 2018; DeVlyder et al., 2017; Mcleod et al., 2020), a smaller number of empirical studies have examined traumatic stress as a psychological outcome of some police encounters. Geller and colleagues (2014) surveyed 1,261 young men living in New York City using a population-based phone survey. They assessed frequency of police stops, what occurred during police encounters, and the subsequent trauma responses after encounters with police. Those who had more contact with police and greater intrusiveness of the stops reported greater trauma and anxiety symptoms. Landers et al. (2011) conducted a study with a sample of 102 African American college students who completed surveys assessing their psychological reactions to police encounters. Overall, police contacts were associated with heightened stress response in their sample, although police stressors were found to be less stressful than general stressors. The authors noted that this may be due to their measure of police contact, which did not make distinctions between benign and malignant types of contact.

There is also a small body of qualitative work pertaining to trauma from policing Black individuals. Aymer (2016) utilizes a case vignette of a Black adolescent boy in therapy, who was interrupted on his way to the session by police officers who stopped him. After believing he was racially profiled by police and unjustly stopped, the boy became reluctant about continuing therapy, suggesting the trauma he experienced at the hands of police disrupted his ability to receive

psychological treatment. In his therapeutic work with the boy, Aymer (2016) uncovered symptoms of trauma that he was experiencing as a result of being chased by police, including flashbacks, nightmares, and intrusive thoughts. Other qualitative research has identified similar traumatic symptoms in Black individuals who have indirect contact with police. Staggers-Hakim (2016) conducted focus groups with Black youth from youth-based programs in Connecticut. Their thematic analysis uncovered several themes, including the youth having general awareness of the police killings of unarmed Black people, the awareness that Black males are seen as a threat to police, and the general fear of police. For example, participants emphasized the need to modify their actions and behaviors to keep themselves safe, such as removing their hood around police, generally avoiding the police, and being very slow and clear about reaching into the glove compartment for their license when pulled over. These are acts of hypervigilance, a common stress response to traumatic or life-threatening situations (Bryant-Davis & Ocampo, 2005).

There are many benefits of qualitative research, including the tendency to emphasize the personal accounts and perspectives of the individual research participants as a starting point for the research (Ritchie et al., 2013). Considering that the conceptualization of police encounters with racial/ethnic minorities as a trauma is a relatively new framework, the existing qualitative work we have is a very helpful start to begin to understand the nature of these encounters and how individuals experience them. However, the nature of the design of these studies, including small sample sizes, limits the generalizability of the findings. The quantitative studies mentioned above are conducted with concentrated populations; Gellers et al. (2014) was concentrated to a population in New York City, and Landers et al. (2011) included a sample of university students, who are relatively privileged and do not represent the experiences of the general Black population in the U.S. The present study seeks to expand upon the findings from these studies by examining the impact of policing on Black adults, including underlying mechanisms which might explain trauma symptoms that arise from these encounters.

Linley and Joseph (2004) suggest that for a comprehensive understanding of posttraumatic reactions, trauma researchers must consider positive changes, in addition to negative changes, which can occur as a result of trauma. Resilience in the context of trauma is the individual's process of returning to their original functioning after surviving a traumatic event (Tummala-Narra, 2007). *Adversarial growth*, also referred to as *posttraumatic growth*, are positive changes which can occur in an individual following a traumatic event. In their review of adversarial growth, Linley and Joseph (2004) found that cognitive appraisal variables, awareness and controllability of the event, tended to be associated with higher levels of adversarial growth. Many individuals exposed to trauma may not develop PTSD as defined by the *DSM-V* (Tummala-Narra, 2007), and attending to the factors which may be protective or explain adversarial growth is useful in therapeutic work with survivors of trauma (Linley & Joseph, 2004).

Attitudes towards Police

Tyler and colleagues (2015) put it well:

We also acknowledge that policing is a vitally important occupation and that officers are called upon to serve and protect the public under conditions that are enormously stressful, challenging, and dangerous. Police officers are routinely subjected to disrespectful and sometimes verbally or even physically abusive treatment from citizens. But because society grants police officers considerable authority, and considerable discretion in its deployment, society has a clear interest in monitoring and enforcing high standards of police conduct (p. 77).

One way to monitor how the standards of police conduct is being received by the public is to study public attitudes towards police. While some literature suggests that the public generally has a positive disposition towards the police, much of the literature on these attitudes suggests the public tends to have negative perceptions of police (Nadal & Davidoff, 2015; Nadal et al., 2017). Due to

racial disparities in police behavior, people of color tend to report lower levels of trust in the police than White people (Brunson & Miller, 2006; Nadal et al., 2017; Sunshine & Tyler, 2003).

Specifically Black Americans, who report more negative perceptions of police than any other racial group (Carr et al., 2007). There is divergent evidence about gender differences in perceptions of law enforcement, however more studies seem to suggest that there are little-to-no differences across gender (Nadal et al., 2017). Sunshine and Tyler (2003) found that older individuals are more likely to cooperate with police. The most notable and consistent disparities found in the literature regarding attitudes towards police tend to be centered on racial identity status.

Empirical studies examining attitudes towards police across race tend to focus on racial/ethnic minority attitudes compared to White attitudes, or tend to use a Black-White paradigm when studying differences in police perceptions. Wu (2014) extended the literature by conducting a study examining police attitudes among Hispanic, Asian, Black, and White Seattle residents.

Among their sample, over 70% of respondents believed that police in their neighborhoods are doing a good job. They found that Black respondents were much more likely than all other racial groups to state that racial profiling was a problem in their neighborhood, but that generally most respondents believed that the police treat people unequally based on social identity. Generally, Hispanic and Asian attitudes tended to fall in between Black and White attitudes, however Hispanics and Asians are the least likely to believe police treat poor people worse than wealthy people. This study helped expand our understanding of attitudes towards police across race, however the data was over ten years old, and their sample was limited to residents in Seattle, Washington. To address these limitations, Nadal and colleagues (2017) also conducted a study examining police attitudes across multiple racial groups. Among a sample of 543 Latinx, White, Black, Asian, and multiracial Americans (age 18-67), their study found that Black participants had statistically significantly less favorable views of the police than White (≈ 4 points less) and Latinx participants (≈ 3 points less), yet there were no significant differences between groups when

examining perception of police bias. Additionally, there were no significant differences across age or gender. These studies highlight how profoundly more negative Blacks individuals' perceptions of police are than other racial groups, however, do little to assess the cause or consequences of such attitudes.

Understanding the reasons for lack of public trust or support in the police is important for addressing the needs of the public and assisting the police in functioning effectively. The antecedents and consequences of police attitudes have been studied in the police legitimacy literature (Sunshine & Tyler, 2003; Tyler, 2004; Tyler & Wakslak, 2004). *Legitimacy* is defined as “a property of an authority or institution that leads people to feel that that authority or institution is entitled to be deferred to and obeyed” (Sunshine & Tyler, 2003, p. 514). Police legitimacy has been found to be influenced by evaluation of police performance, risk, and perceptions of the fairness of the distribution of justice across all people (Tyler & Wakslak, 2004). In a sample of university students, those who believed that they were unfairly stopped by police officers (27.7% of the sample) had negative attitudes towards them (Nadal et al., 2017). This literature suggests that the frequency, nature, and perceived fairness of police encounters all shape individual attitudes towards police. An examination of how police attitudes shape behavior and mental health outcomes is also important to understand how police encounters impact vulnerable populations.

When communities disproportionately experience police brutality and other negative police encounters, they tend to expect that they are not safe and that police will not help them. Citizens in low-income communities are reluctant to report crime (Bolger & Walters, 2019). Some research shows that youth living in high-crime neighborhoods feel reluctant to call the police in times of need due to past negative experiences with police. In one qualitative study where 147 youth living in high-crime neighborhoods were interviewed, respondents cited police harassment, police use of excessive force, and perception that police are crooked, as reasons they would not call the police in an emergency situation (Carr et al., 2007). Other research demonstrates that some individuals don't

call the police because they don't believe the police will be helpful (Brunson, 2007). Additionally, Black survivors of intimate partner violence may be reluctant to call the police because they perceive the criminal justice system to be racist (West, 2004). Negative attitudes towards police may lead to community-wide, as well as psychological consequences, among citizens.

When individuals report low levels of trust in legal institutions, they are more likely to experience psychological distress (Nadal & Davidoff, 2015). No known studies explicitly examine how police attitudes impact how an individual experiences trauma symptoms from intrusive police encounters, however some existing literature indirectly suggests this may be worthy of examination. When people have low legitimacy and overall negative attitudes towards the police, it creates "cognitive landscapes" where crime and deviance are expected (Carr et al., 2007, p. 446). When crime is constantly expected, individuals may develop hypervigilance, a common symptom of trauma, in order to keep themselves safe in their environments. Additionally, when individuals have negative perceptions of police, they are more likely to attribute police behavior to racial profiling, which has implications for mental health outcomes (Nadal et al., 2017; Tyler & Wakslak, 2004). In their recent development of the Perception of Police Scale (POPS), which measures both disposition towards police and general perception of bias of police, Nadal and Davidoff (2015) suggest that future studies use the POPS to investigate how perceptions of police are related to well-being.

Cognitive Attributions

Attribution Theory

A high school student receives a poor score on a test and thinks this happened because they didn't study enough. A Black man gets pulled over in his car by a White police officer, and believes he was pulled over due to racial discrimination. A barista is yelled at by a patron, and assumes the patron was just having a bad day. What each of these scenarios have in common is that the individual involved is making an attribution, the cognitive process through which an individual

makes a causal ascription for a behavior or an event (Weiner, 1980). These attributions or causal explanations, “constitute a person’s understanding of the causal structure of the world and therefore, are important determinants of his interaction with that world” (Kelley & Michela, 1980, p. 460). Attributions are considered in the current study due to their importance in determining mental health outcomes of events. The ubiquity of attributions and their implications has led to the formation of many theories and empirical scholarship related to attributions.

Attribution theory is the study of perceived causation of behavior or events, and subsequent behavioral, emotional, or cognitive reactions (Kelley & Michela, 1980). Attribution theory has been studied vastly in the cognitive and social psychology literature (Kelley & Michela, 1980; Weiner, 1979; Weiner, 1980). While there is a breadth of attribution theory and research, the general model used by attribution researchers is: antecedents (information, beliefs, and motivation) inform how an individual makes attributions (perceived causes of behavior) which in turn, lead to consequences (behavior, affect, expectancy; Kelley & Michela, 1980). Antecedents of attributions are the information or the factors that an individual uses to infer the cause of behavior, and consequences of attributions are the behavioral, emotional, or cognitive reactions to the attribution (Jones & Davis, 1965). This framework may be useful for the current study, which seeks to better understand how police perceptions inform how much an individual attributes police encounters to discrimination, which in turn could be associated with trauma symptoms.

Discrimination Attributions

According to Major and Dover (2016), a discrimination attribution involves believing the treatment was due to their social identity, and believing the treatment was unjust. Some research has focused on individuals from marginalized groups and how they make discrimination attributions during potentially racist incidents (Major et al., 2002). People in marginalized groups who are targets of discrimination often struggle to make attributions about the encounter because these situations are usually ambiguous and difficult to be certain as to why they occur (Crocker & Major,

1989; Major & Dover, 2016). In Allport's (1954/1979) seminal text, he discusses *intropunitive* and *extrapunitive* characteristics of individuals dealing with prejudicial-based challenges. Individuals who are *extrapunitive* tend to blame outer causes for their challenges, whereas *intropunitive* individuals tend to place the blame within themselves.

An antecedent to discrimination attributions may be salience of identity. In a study by Wang and Dovidio (2017), contextual antecedents of perceiving an event as gender discrimination were examined. Among their sample of 114 women living in the United States, women who had greater gender identity salience at the time were more likely to perceive a subtly sexist comment as more prejudiced and were more likely to intervene than those with a lower gender identity salience. In another study with 87 women undergraduate students, women with stronger gender identity were more likely to attribute a man's negative feedback to prejudice compared to women with a weaker gender identity (Major et al., 2003). Similarly, Sellers and Shelton (2003) found that in a sample of 267 African American college students, individuals with a more central racial identity reported greater instances of perceived discrimination than those who indicated that race was less central to their identity. Self-categorization theory suggests that the salience of social identity elicits an "us" versus "them" type of mentality, which is likely to make people more sensitive to being discriminated against based on social identity (Wang & Dovidio, 2017).

There are mental health implications of these characteristics, where *extrapunitive* individuals may experience "enhanced striving" and strengthened in-group ties, and *intropunitive* individuals may experience self-hate and "denial of membership in their own group" (Allport, 1954/1979, p. 160). More recent empirical research has been done to examine the mental health outcomes for minorities when they attribute negative treatment to discrimination. Some research suggests that attributing negative personal outcomes to discrimination may be protective for an individual's self-esteem. In one sample of 87 undergraduate women, those experiencing overt discrimination who made a discrimination attribution for the mistreatment were more likely to have

higher self-esteem than those who did not make a discrimination attribution (Major et al, 2003). Consistent with Allport's (1954/1979) theory, external attributions seemed to protect against the negative impacts of discrimination on self-esteem.

While some research suggests attributing an event to discrimination can protect against self-esteem, other scholars suggest discrimination attributions can lead to negative mental health outcomes. Branscombe et al. (1999) disputes the hypothesis that discrimination attributions can protect self-esteem, emphasizing the rejection and exclusion aspects of being the victim of prejudice. There is research which suggests making discrimination attributions reduces perceptions of control, however this research is dated and unreliable (Major et al., 2002; Ruggiero & Taylor, 1997). In a laboratory-based study, 614 Black and White university students experienced social ostracization in a game (Goodwin et al., 2010). Those who attributed the experience to racial prejudice emotionally recovered from being ostracized more slowly than those who did not. Results of this study suggest discrimination attributions can help explain the negative psychological consequences of a stressful event. However, using a university sample limits generalizability of the findings, and more research is needed on other types of events to better understand how discrimination attributions impact individual's mental health. Additionally, much of the preexisting literature conflates general perceived discrimination with discrimination attributions about a specific event (Major et al., 2002). The present study will address this gap in the literature by examining both general perceptions of police bias in addition to discrimination attributions about a specific encounter with the police.

Attributions for Police Behavior

Understanding how individuals make attributions about police behavior is important in determining police/public relations, public perceptions of police, and psychological outcomes of police encounters. People of color are more likely than White people to believe that the police did not have a legitimate reason for stopping them (Lundman & Kaufman, 2003). African Americans

are more likely to attribute police use of force to broader problems like racism (Haider & Joslyn, 2017). Racial attributions for police behavior (i.e., racial profiling) have been central to the conversation about policing in the United States (Nadal et al., 2017). Profiling attributions are when the actions of the police are attributed to characteristics of the person they are confronting, as opposed to behavioral attributions where the individual explains police actions based on the behavior of the civilian. This was examined in multiple studies conducted by Tyler and Wakslak (2004) in which the antecedents and consequences of attributions about police motives in encounters with Black citizens were examined. Study one examined attributions related to personal experiences with police in a sample of 1,656 diverse adults in California cities. In this study, they found that people were more likely to make profiling attributions if they believed they were treated unfairly by police, and those who made profiling attributions about police were more resistant to accept police decisions. Study two was with a sample of 721 diverse young adults, and in this sample believing that profiling is prevalent in their neighborhood, believing they were personally profiled, and believing profiling is not justified, were all negatively related to evaluations of police performance and support for the police. In a third study, in a sample of 586 registered voters in New York City, minorities were more likely to make profiling attributions about the police in general. Overall, these studies suggest that people react negatively when they make profiling attributions about police behavior.

In one study using data from national surveys asking questions about highly publicized killings of unarmed Black men by police, it was found that African Americans were significantly more likely than Whites to attribute these incidents to broader societal problems, such as systemic racism (Haider & Joslyn, 2017). Dowler and Zawilski (2007) conducted a study to investigate the impact of media consumption on attitudes towards police in a nationally representative sample of 1,011 adults living in the United States. Findings of this study revealed that frequent viewers of news were more likely to attribute misconduct to police behaviors than those who did not watch the

news as much. Additionally, African Americans and those with past experience in the criminal justice system were more likely to ascribe negative attributions to police conduct. While the limited literature on attributions about police behavior includes some information about antecedents for discrimination attributions of police, less is known about the specific consequences of making discrimination attributions about police decisions, specifically, these studies omit an exploration of the mental health consequences of profiling attributions for Black individuals who encounter the police.

Cognitive Appraisals

A large number of studies investigating the relationship between discrimination and health outcomes do not examine mediators, or the underlying processes through which people of color experience discrimination (Folkman et al., 1986; King, 2005). Lazarus and colleagues (e.g., Folkman et al., 1986; Lazarus et al., 1965) pioneered the study of cognitive appraisal in the context of stress and emotion. *Cognitive appraisal* is an individual's evaluation of an incident in terms of how significant it is to their well-being (Folkman et al., 1986; King, 2005; Lazarus et al., 1965). The more significant the evaluation, the more likely it is to result in a stress response (King, 2005). Cognitive appraisals that help predict psychological outcomes in response to stressful events include if the event is perceived as: stable (versus changing); global (versus only affecting a few aspects of life); severe (versus minor); and controllable (versus uncontrollable). The former options are likely to lead to negative mental health outcomes, such as depression (Eccleston & Major, 2006). The cognitive appraisal process has been identified as a key factor in the development of posttraumatic stress, or the resilient adaptation to trauma and other stressful events (Sherrer, 2011). Cognitive appraisal has been modeled as a mediator variable and studied vastly in the stress and trauma literature, as well as in some discrimination studies. Drawing from this literature, cognitive appraisal will be examined to determine how it informs the process through which Black individuals develop symptoms of PTSD (or not) following an encounter with a police officer.

Cognitive Appraisal Theory

An influential phenomenological model in the study of stress is Lazarus and Folkman's transactional model of stress (1984, as cited in King, 2005). In their transactional model of stress, the 3 major components are: the person-environment interaction, primary appraisal, and secondary appraisal. The *person-environment interaction* results in a stress response depending on characteristics of both the person and the environment. *Primary appraisal* is the assessment an individual makes about the event, which can be either irrelevant (not important to the individual), positive (associated with well-being), or stressful. Stressful appraisals can be categorized as *harm/loss* (the individual has experienced physical, psychological, or social damage from an incident), *threat* (the individual anticipates harm to themselves from an incident), or *challenge* (the individual perceives the experience as one they can grow from). Lastly, *secondary appraisal* is when an individual evaluates their own cognitive appraisal process (Lazarus & Folkman, 1984, as cited in Outlaw, 1993). In other words, the individual evaluates coping options, and considers if "anything can be done to overcome or prevent harm or to improve the prospects for benefit" (Folkman et al., 1986, p. 993).

The role of cognitive appraisal in PTSD after surviving a trauma has been central to some cognitive theories of PTSD (Ehler & Clark, 2000; Foa & Rothbaum, 1998; O'Donnell et al., 2007; Sherrer, 2011). One prominent cognitive theory, emotional processing theory, seeks to explain why some people recover from traumatic experiences, and others do not (Foa & Rothbaum, 1998). This is based on the idea that traumatic experiences are often cognitively and emotionally re-experienced by the individual, and that these experiences reduce in intensity over time. The individual attempts to integrate these "fear networks" into their pre-trauma worldview, and cognitive appraisal influences this process such that for those with negative appraisals, the healing process and reduction of symptoms following the trauma will take longer (Sherrer, 2011, p. 153). Drawing from Foa and her colleagues, Ehlers and Clark (2000)'s cognitive model also seeks to explain the

persistence of PTSD over time. This theory suggests that PTSD symptoms develop and persist due to negative appraisals of ongoing perceived threats (Sherrer, 2011). These frameworks will be useful to consider in exploring why some Black individuals develop trauma symptoms from police encounters and some do not.

Cognitive Appraisal as a Mediator

Exposure to stressful events themselves doesn't necessarily lead to negative mental health outcomes (Eccleston & Major, 2006). Consistent with the above theories, many studies have examined cognitive appraisal as an underlying mechanism which can help explain how traumatic or stressful events can lead to psychological distress. Studies have found that negative cognitive appraisals mediate the relationship between job stressors and burnout (Gomes et al., 2013), serious injury and PTSD symptoms (O'Donnell et al., 2007), surviving a crime and PTSD symptoms (Mueller et al., 2008), and other stressful events and trauma symptoms in people with serious mental illness (Sherrer, 2011).

Cognitive appraisal can also mediate the relationship between trauma and positive outcomes, such as resilience. Bailey and colleagues (2013) examined the relationships between cognitive appraisal, traumatic stress, and resilience in a sample of 48 Black mothers who had lost a child to gun violence. The component of cognitive appraisal used in this study was controllable-by-self, which is a component of secondary appraisal where the individual assesses the degree to which they can control aspects of the situation (e.g., "Do I have what it takes to do well in this situation?"; Peacock & Wong, 1990). This study found that a positive controllable-by-self appraisal mediated the relationship between traumatic stress and resilience, demonstrating that the more in control an individual feels about how they are handling the event, the greater the likelihood they will experience a resilient response. This highlights how appraisal can be conceptualized as a variable which results in positive outcomes as well as negative outcomes, depending on the nature of the appraisal.

Appraisals and Police Encounters

The current study will use the Stress Appraisal Measure (SAM; Peacock & Wong, 1990), to assess how the appraisal process explains trauma from police encounters among Black individuals. While there are some studies which examine cognitive appraisal in police officers experiencing stressful situations (Colwell et al., 2011), no known studies examine the role of cognitive appraisals among civilians during encounters with police officers. For Black Americans, interacting with the police can be a stressful or traumatic event based on a history of poor relations with law enforcement (Bryant-Davis et al., 2017). As cognitive appraisal has been identified as a major variable in understanding the stress process, more must be done to understand the role of cognitive appraisals of Black Americans during police encounters. The proposed study seeks to fill this gap in the literature.

Cognitive Appraisals and Discrimination

Discrimination Appraisal Models

Outlaw (1993) developed a model based on Lazarus and Folkman's (1984) cognitive appraisal framework to better understand how racism impacts cognitive appraisals of African Americans, with a focus on stressful appraisal types (they omitted the irrelevant and positive types from the original model). In Outlaw's model, it is suggested that Black individuals who make appraisals at the harm/loss level are likely to withdraw or experience depression. Threat appraisal will likely lead to anticipatory coping, such as African Americans trying to avoid the police in anticipation that they will be profiled. Challenge appraisals in African Americans experiencing racism might stimulate hope for growth in the form of religion or spirituality, because the individual may view the event as a challenge that they can handle by the word of God (Outlaw, 1993). Barrett and Swim (1998) also focused on the primary appraisal process from Lazarus and Folkman's (1984) model, emphasizing threat appraisals when an individual experiences discrimination. Since this

model was developed, some empirical studies have examined the role of cognitive appraisals in situations where Black Americans might be experiencing discrimination.

Studies

Numerous studies have implicated cognitive appraisal as an important factor in understanding oppressed individuals' experiences with discrimination. In a sample of 420 Black and Latino patients from a community health center in New York City, it was found that those who experienced greater levels of lifetime exposure to discrimination had stronger harm and threat appraisals in subsequent race-based incidents, and increased the likelihood of using suppressed anger as a coping mechanism and experiencing negative health consequences like hypertension (Brondolo et al., 2005). Another study examined the role of cognitive appraisal (severity, globality, stability, and uncontrollability) in relation to discrimination attribution and self-reported self-esteem (Eccleston & Major, 2006). In this sample of 160 Latino-American students, it was found that when individuals made discrimination attributions, they were more likely to appraise the discrimination as more stable, severe, and global, and in turn, this was associated with lower levels of self-esteem.

These findings are also consistent with findings from people of color who are immigrants. In a sample of 180 adult Korean immigrants living in Canada, cognitive appraisal was found to mediate the relationship between subtle discrimination and depression (Noh et al., 2007). Results from these studies suggest that stress appraisals play a major role in instances of discrimination, and may be helpful to study in relation to psychological outcomes for people of color. One mixed-methods study examining these variables among a sample of immigrant youth facing ambiguous discrimination found this to be the case (Pate et al., 2015). In this study, cognitive appraisal mediated the relationship between discrimination attributions and internalization of symptoms such that when individuals attributed ambiguous acts to discrimination, there were stronger appraisals of the event as serious, which predicted greater internalizing symptoms of depression and anxiety.

While valuable to our understanding of the underlying mechanisms involved in how some people of color may react to their *overall* lifetime experiences of discrimination, across these studies, discrimination is measured in ways which are limiting compared to discrimination attributions of specific events. Brondolo et al. (2005), Patel et al. (2015), and Noh et al. (2007) measured discrimination globally (i.e., general or lifetime experiences with discrimination). While the Eccleston & Major (2006) study did examine attributions to discrimination, participants were presented with hypothetical scenarios and asked to make attributions about these situations. Reactions to imagined scenarios are not likely to be as strong as actual experiences of incidents in which the individual attributes mistreatment they personally experienced to discrimination. Much of the trauma literature is based on symptomology following a specific traumatic event, and so it is important for studies examining the link between discrimination attributions and trauma symptoms to examine the individual discrimination attributions of a specific incident that they experienced on a personal level.

Only one known study has examined discrimination attributions and appraisals of a real situation. King (2005) assessed the discrimination attributions and stress appraisals of 115 African American undergraduate women who watched a tape where White men were evaluating them unfairly. The women were asked if they attributed the unfair treatment to their ethnic or gender identities, and about the centrality of their appraisals (i.e., how important this was to their well-being). Discrimination attributions were associated with centrality, and ethgender (the intersection of ethnic and gender identities) discrimination attributions were associated with increased stress. In other words, this study found that centrality appraisals mediated the relationship between discrimination attributions and stress reactions. While this study contributed to our understanding of how some African American women might respond in some ways to the stress of perceived unfair treatment, there is limited generalizability with an undergraduate sample, who are relatively

privileged compared to the general Black adult population who may experience discrimination in different ways.

These studies highlight the key role that cognitive appraisals play in the stress process when a discrimination attribution is made. While these studies demonstrate how some domains of appraisal may be associated with negative mental health outcomes for people of color, other studies suggest that cognitive appraisal may function differently in this process, potentially promoting resilience (Bailey, et al., 2013). The present study provides fresh insight into the attribution and appraisal process during police encounters among Black adults by examining attributions and appraisals of a specific event with police.

Chapter 3: Method

Participants

The final sample included 219 Black adults who also identified as Asian/Asian American (2.7%); White/European American (4.6%); Latino/a/x (3.7%); Native Hawaiian (1.4%); Middle Eastern (1.4%); and Pacific Islander (0.9%). Participants identified as cis men (65.3%); cis women (33.8%); and transgender men (0.9%). Participants ranged in age from 18 to 76, with a mean age of approximately 34.56 years ($SD = 9.05$). Most participants identified as heterosexual/straight (79%); and the remainder identified as asexual (1.8%), bisexual (15.1%), lesbian (2.3%), pansexual (0.5%), and gay (1.4%). Most participants reported that they are U.S. Citizens (97.3%). Participants' education level was assessed across six categories: high school or less (9.1%); trade school/technical school/certification (5%); associate's degree (10.5%); bachelor's degree (59.8%); professional degree (e.g., JD, MD; 3.7%); and graduate degree (e.g., MA, PhD; 11.9%). In terms of geographic region, most participants were from suburban (41.1%) or urban environments (41%), while the remaining participants resided in rural spaces (17.8%). Participants identified as lower class (3.7%); working class (27.4%); middle class (55.3%); upper middle class (10.5%); and upper class (3.2%).

Procedure

Prior to data collection, we obtained Institutional Review Board approval. Participants were recruited using Amazon's Mechanical Turk (MTurk) website. MTurk allows researchers to recruit participants to perform "human intelligence tasks" (HITs) in exchange for monetary compensation. Research participants on MTurk are a representative sample of the United States' population and are considered useful samples for social science research (Duffy et al., 2014). It is common for participants to receive \$0.25 for an average academic survey because it is understood that many participants complete surveys in-part, for personal enjoyment (Paolacci & Chandler, 2014). Eligible

participants who completed the survey received \$1 for their time. The survey took approximately 11 minutes to complete.

People on MTurk who were eligible to participate received a study link which led them to the Qualtrics web-based survey. After completing informed consent (Appendix A) on Qualtrics, participants were tasked to complete an online survey using the Qualtrics service. As part of the survey, participants first completed a number of demographic items (Appendix C), followed by several additional measures and items, including number of police-initiated encounters and police intrusiveness (Appendix D); The Perception of Police Scale (POPS; Nadal & Davidoff, 2015; Appendix E); the most notable police encounter (Appendix F); discrimination attributions (Appendix G); The Stress Appraisal Measure (SAM; Peacock & Wong, 1990; Appendix H); and The Trauma Symptom Checklist (TSC; Briere, 1989; Appendix I). Throughout the survey, there were three validity checks (e.g., “Please select ‘Strongly Disagree’ as your response to this question”), and participants who failed any validity checks were excluded from the analysis.

Measures

Demographic Measures. Participants were asked to indicate several demographic items, including age, gender identity, sexual orientation, religious affiliation, geographic location, socioeconomic status, and race/ethnicity.

Number of Police Initiated Encounters. The number of police encounters were measured by asking participants, “Thinking about the times police-initiated contact with you, how many face-to-face contacts with the police have you had during the last 12 months?” This uses almost identical language as the Police-Public Contact Survey (PPCS), as used in Flexon et al. (2019). In the original study, it asks about both police-initiated and citizen-initiated contact. The present study is primarily concerned with the number of police-initiated encounters, due to their association with negative mental health outcomes in Black individuals (Brunson & Miller, 2006). This was a

multiple-choice question with dropdown options “1 encounter”; 2-5 encounters; 5-10 encounters; 10-20 encounters; More than 20 encounters.

Police Intrusiveness. Participants were asked to think of their most notable police-initiated encounter that occurred during the last 12 months as they answered 6 questions pertaining to officer intrusiveness. Jackson and colleagues (2019) developed these items, which include “Did the officer frisk or pat you down?”; “Did the officer search your bags or pockets?” ; and “Did the officer use racial slurs?” Responses to each of these items were coded as a 1 (for yes) or a 0 (for no) and then summed for a total count of officer intrusiveness. In the current study, Cronbach's alpha coefficient was .77.

Police Attitudes. Nadal and Davidoff (2015) created the Perceptions of Police Scale (POPS) to measure general attitudes towards police and perception of police bias. The POPS has twelve items, each scored in a Likert-style from 1 (strongly disagree) to 5 (strongly agree). Nadal and Davidoff (2015) developed their scale with a diverse sample of 326 young adults and found it to be reliable ($\alpha = .94$). The 9-item subscale measuring general attitudes towards police and the 3-item subscale measuring perceptions of bias each had strong Cronbach's alpha scores of .93 and .88, respectively. Sample items include: “Police protect me”; “Police are friendly”; “Police treat people fairly”; and “Police do not discriminate.” According to the authors, “items are all written in positive language; thus, higher scores indicate more favorable perceptions of the police, while lower scores indicate less favorable perceptions of the police” (Nadal & Davidoff, 2015, p. 4). In the current study, the Cronbach's alpha coefficient was .97.

Most Notable Police Encounter. Participants will be asked to think of their most notable police-initiated encounter that occurred during the last 12 months that stood out the most in their mind, and approximately when it occurred with multiple choice options “12 months ago”; “6-12 months ago”; “3-6 months ago”; “1-3 months ago”; “In the last month.”

Discrimination Attribution. Goodwin et al. (2010) created three items to measure the extent to which people attributed social exclusion during a game to racial discrimination. These items are scored in a Likert-style from 1 (not at all) to 5 (extremely). Masten and colleagues (2011) reported the items have good reliability ($\alpha = .79$) with a sample of eighteen Black adults. The three items were slightly modified to pertain to a notable encounter with police as opposed to a game. Participants were asked to think of their most notable police-initiated encounter that occurred during the last 12 months that stood out the most in their mind as they answered the following questions: “How much do you believe the police responded to you during the encounter because of your race?”; “How much did you feel you were discriminated against by the police during this encounter?”; and “How much do you believe the police in this encounter were racist?” Responses to these items were averaged to create a composite score of discrimination attributions that had very strong reliability in the current study ($\alpha = .93$).

Stress Appraisal. Peacock and Wong (1990) created the Stress Appraisal Measure (SAM) to measure appraisal of stress. The SAM is a 28-item measure used to assess three dimensions of primary appraisal (threat, challenge, and centrality), three dimensions of secondary appraisal (controllable by self, controllable by others, controllable by anyone), and stressfulness. The items are scored in a Likert-style from 1 (not at all) to 5 (extremely). Peacock and Wong (1990) developed their scale across three studies with large samples of undergraduate students and found a good internal consistency range of .71 to .86 across almost all subscales. In their original studies, the alpha for the uncontrollable-by-anyone subscale was not strong ($\alpha = .51$), recommending that future studies collect psychometric properties of the subscales in future studies across different populations (Peacock & Wong, 1990). In a later study with a sample of 461 university students, the controllable-by-self subscale yielded stronger internal reliability ($\alpha = .88$), suggesting the reliability of the subscales depends on the population being studied (Durak & Senol-Durak, 2013). Items on the SAM include “Is the outcome of this situation uncontrollable by anyone?”; “Does this situation

have important consequences for me?"; "How eager am I to tackle this problem?" and "Is there someone or some agency I can turn to for help if I need it?" Cronbach's alpha reliability estimates for the current study included: threat ($\alpha = .87$), challenge ($\alpha = .79$), centrality ($\alpha = .89$), self ($\alpha = .84$), others ($\alpha = .89$), anyone ($\alpha = .87$), and stressfulness ($\alpha = .83$).

Trauma Symptoms. Briere (1989) created the 40-item Trauma Symptom Checklist (TSC), which assesses trauma-related symptoms of anxiety, depression, dissociation, sleep issues, and sexual dysfunction during the past 2 months. Participants responded using a 4-point Likert-type scale from 0 (never) to 3 (often). The TSC total score was calculated by summing the scores. Participants were asked to respond to the question "How often have you experienced each of the following in the last two months?" followed by a list of symptoms, including "Insomnia (trouble getting to sleep)"; "Flashbacks" (sudden, vivid, distracting memories); and "Uncontrollable crying". The TSC was developed with a sample of 195 women at a crisis intervention clinic, and results demonstrate the total scale has strong internal consistency ($\alpha = .89$), with Cronbach's alphas for subscales ranging from .66 to .75. In the current study, the Cronbach's alpha coefficient was .98.

Chapter 4: Results

Descriptive Analyses

Initially, 351 people attempted to take the survey. After screening out individuals who did not meet the inclusion criteria (i.e., did not identify as Black, did not have an encounter with the police in the last year) the final sample included 219 participants. This sample size met Weston and Gore's (2006) recommendation for at least 200 participants for path analysis and 10-20 observations per variable. There was minimal missing data (< 10% missingness) therefore a complete case analysis was used to conduct statistical analyses. Descriptive analyses were performed using IBM SPSS Statistics (version 26) predictive analytics software.

With regard to main study predictors (i.e., officer intrusiveness, police perceptions, discrimination attributions, cognitive appraisal, and trauma symptoms), mean scores of the variables were generated to examine characteristics of the sample population. A mean score of 2.34 ($SD = 1.97$) was observed for officer intrusiveness; final scores on the scale ranged from 0 to 6, with 6 indicating greater levels of intrusiveness. On the POPs scale, participants scored on average 3.07 ($SD = 1.06$), with scores ranging from 1-5 (5 indicating more favorable views of police). Discrimination attributions had a mean score of 3.10 ($SD = 1.27$), with a range 1-5, 5 indicating greater discrimination attributions. On the stressfulness appraisal subscale, the mean score was 3.19 ($SD = 1.02$), with scores ranging from 1-5, 5 indicating greater appraisals of stress. Lastly, the mean trauma score for this sample was 32.88 ($SD = 26.89$), with a range of scores from 0-90. Greater scores on this measure indicate greater endorsement of trauma symptoms.

The Pearson correlation matrix indicated significant correlations between study variables. Officer intrusiveness was positively correlated with attitudes towards police ($r = .16, p < .001$), discrimination attributions ($r = .70, p < .001$), stress appraisal ($r = .56, p < .001$), and trauma symptoms ($r = .64, p < .001$). Police attitudes were not associated with discrimination attributions or stress appraisal, but were associated with trauma symptoms ($r = .41, p < .001$). Additional

correlations between variables, means, standard deviations, and Cronbach's alphas of the variables are summarized in Table 1.

Frequency calculations were conducted to examine characteristics of the sample population. Frequencies were examined for the recency of the most notable police encounter (Table 2) and the number of police-initiated encounters (Table 3). Most participants encountered police 6-12 months ago (37.9%; n = 83) or 3-6 months ago (44.3%; n = 97) and had only one encounter with police (48.9%; n = 107) or 2-5 encounters with police (44.7%; n = 98).

Table 1

Intercorrelations, Means, Standard Deviations, and Cronbach's Alphas for Study Variables

Variable	<i>M</i>	<i>SD</i>	α	1	2	3	4	5	6	7	8	9	10	11
1. Intrusiveness	2.34	1.97	.77	—	.160*	.702**	.565**	.588**	.548**	.317**	.433**	.658**	.556**	.638**
2. POPS	3.07	1.06	.97		—	-0.09	0.00	.501**	0.08	.328**	.482**	.305**	0.01	.406**
3. Discrimination	3.10	1.27	.93			—	.657**	.495**	.648**	.322**	.290**	.609**	.679**	.497**
4. Threat	3.15	1.07	.87				—	.503**	.842**	.226**	.298**	.698**	.868**	.545**
5. Challenge	2.84	1.06	.79					—	.596**	.597**	.724**	.721**	.568**	.698**
6. Centrality	3.17	1.08	.89						—	.309**	.359**	.654**	.834**	.549**
7. Self	3.34	1.00	.84							—	.738**	.365**	.346**	.424**
8. Others	3.00	1.10	.89								—	.500**	.399**	.525**
9. Anyone	2.64	1.17	.87									—	.690**	.726**
10. Stress	3.19	1.02	.83										—	.567**
11. Trauma	32.88	26.80	.98											—

Note. * $p < 0.05$; ** $p < 0.001$

Table 2

Frequencies of Scores for Recency of Police Encounter, (N = 219)

Recency	<i>N</i>	%
In the last month	6	2.7
1-3 months ago	33	15.1
3-6 months ago	97	44.3
6-12 months ago	83	37.9
Total	219	100.0

Table 3

Frequencies of Scores for #Police Encounters, (N = 219)

# Police Encounters	<i>N</i>	%
More than 20 encounters	0	0.0
11-20 encounters	2	0.9
6-10 encounters	12	5.5
2-5 encounters	98	44.7
1 encounter	107	48.9
Total	219	100.0

Primary Analyses

We examined the hypothetical model using Mplus version 8.2 (Muthén & Muthén, 2018). We completed a moderated mediation path analysis to test the proposed hypotheses (see Figure 1, for the hypothesized model). We hypothesized that (1) intrusiveness of police encounters would predict trauma symptoms, (2) cognitive appraisal would mediate the relationship between intrusiveness of police encounters and trauma symptoms, (3) discrimination attributions would mediate the relationship between intrusiveness of police encounters and trauma symptoms, (4) cognitive appraisal would mediate the relationship between discrimination attributions and trauma symptoms, and (5) police attitudes would moderate the relationship between intrusiveness of police encounters and discrimination attributions such that negative attitudes towards police will strengthen the positive relationship between officer intrusiveness and discrimination attributions. Based on these hypotheses, the original model fit indices were not adequate (SRMR = .103; RMSEA = 0.283; CFI = 0.834; TLI = 0.601).

The original hypothesized model was modified such that the POPS was removed and as an exploratory model, the discrimination attribution scale was tested as a moderator. The Perceptions of Police Scale was removed because while past studies have examined the relationship between perceptions of police and other mental health outcomes (Nadal & Davidoff, 2015), no evidence suggests they would serve as a moderator on the relationship between intrusiveness of police and discrimination attributions. This initial hypothesis was made to directly examine the potential indirect links suggested from past studies (Nadal et al., 2017; Tyler & Waksalak, 2004), and this variable was removed when it was found to have limited associations with other study variables. Due to the various, and at times conflicting ways in which discrimination attributions have been found to be associated to psychological outcomes (Chithambo et al., 2014; (Major et al, 2003; Murry et al., 2001; Stein et al., 2016), the discrimination attribution variable was reconsidered in the

post hoc model, as well. Discrimination attribution may moderate the relationship between intrusiveness and stress because attributing mistreatment to racial bias may exacerbate the negative psychological impact of the event (Chithambo et al., 2014; Murry et al., 2001; Stein et al., 2016).

The fit indices for the new model were adequate (SRMR = .006; RMSEA = 0.111; CFI = 0.990; TLI = 0.932), as suggested by the SRMR value less than .08 (Hu & Bentler, 1999). We used bootstrapping with a resampling size of 5,000 samples. In terms of direct effects, we found that stress was positively related to trauma symptoms ($\beta = 0.35, p < .001$). Intrusiveness was also related to increased trauma symptoms ($\beta = 0.52, p < .001$) but unrelated to stress ($\beta = 0.29, p = 0.13$). On the other hand, discrimination attribution was unrelated to trauma symptoms ($\beta = -0.10, p = 0.19$) but was positively related to stress ($\beta = 0.60, p < .001$). Discrimination attribution, however, did not moderate the effects between intrusiveness and stress ($\beta = -0.16, p = 0.45$).

In terms of the indirect effects, intrusiveness was not related to trauma through stress ($\beta = 0.1, p = 0.14$). However, stress mediated the relationship between discrimination attributions and trauma symptoms ($\beta = 0.2, p < .001$).

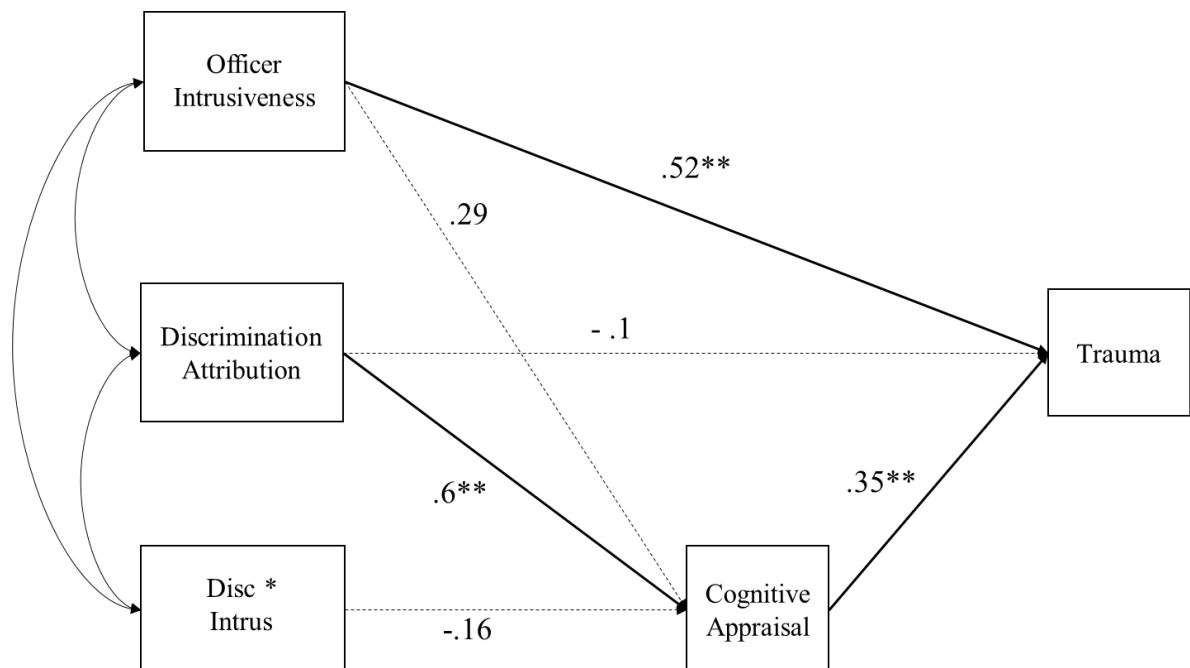


Figure 2. Final path model.

Bold lines represent significant paths and dotted lines represent nonsignificant paths. $*p < .05$, $**p < .001$.

Chapter 5: Discussion

The present study examined a path model that considered the potential role that attitudes towards police, discrimination attributions, and cognitive appraisal plays in the relationship between intrusiveness of police encounters and trauma symptoms among a sample of Black adults in the United States. First, we hypothesized that intrusiveness of police encounters would be related to greater discrimination attributions, which would be related to greater appraisal of stress, which in turn would be related to greater trauma symptoms. Next, we hypothesized that attitudes towards police would moderate the relationship between intrusiveness of police encounters and discrimination attributions, such that more favorable views of police would weaken the relationship.

The present study adds to the small but growing literature base that conceptualizes police encounters with Black adults as a form of trauma. Police brutality and police-initiated encounters with citizens have been studied vastly in psychological scholarship, and yet there remains a large gap in the psychological scholarship examining the impact that these events have on trauma symptoms among this population (Bryant-Davis et al., 2017). The present research findings are consistent with past findings associating police intrusiveness during police encounters with trauma symptoms (Geller et al., 2014; Jackson et al., 2019) and add to our knowledge from existing empirical findings by also examining the role of cognitive correlates of trauma from police encounters.

The results of the present study are also consistent with research that has linked discrimination attributions to stronger cognitive appraisals of an event (Brondolo et al., 2005; Eccleston & Major, 2006), as well as research which has suggested that cognitive appraisals mediate the relationship between discrimination and negative mental health outcomes (Noh et al., 2007; Patel et al., 2015). In other words, stronger discrimination attributions in police encounters predicted greater appraisals of stress, which in turn predicted more trauma symptoms. The present study extends our understanding of these relationships from existing studies that have examined

more global attributions of discrimination, by examining discrimination attributions of a specific incident with police. These findings are also consistent with results from a study conducted by King (2005) where they identified discrimination attributions about a specific event as a predictor of appraisals of the event among a sample of undergraduate African American women. This study expands on these findings by using a larger, more representative sample of Black Americans that is more generalizable than African American women university students.

To our knowledge, this study was the first of its kind to examine the cognitive appraisals of civilians during police encounters. As expected, cognitive appraisal was found to serve as a crucial mechanism in the trauma process among the current sample, meaning that another variable (discrimination attributions) indirectly predicted trauma symptoms through stress appraisals. This is also consistent with past research which has examined appraisal as a mediator of stressful events and trauma symptoms (King, 2005; Mueller et al., 2008; O'Donnell et al., 2007; Sherrier, 2011). We know that exposure to traumatic events does not always lead to negative mental health outcomes (Ecclston & Major, 2006), and that the ways in which individuals form appraisals about traumatic events has implications for their positive adaptation to potentially life-threatening situations (Bailey et al., 2013). Scholars have suggested that for an even more useful understanding of an individual's reactions to traumatic events, positive adaptation should also be examined (Linley & Joseph, 2004). Future studies should examine the role of cognitive appraisals of police encounters on posttraumatic growth to enhance our understanding of how appraisals also can serve as a protective factor against the harmful impacts of policing. Attitudes towards police were not found to be a significant predictor in the current model.

The existing literature that examines how attitudes towards police is related to psychological distress is limited (Nadal & Davidoff, 2015) and has not yet considered their relationship with trauma. While the present study did not find that attitudes toward police was a significant moderator of the relationship between intrusiveness of police encounters and discrimination attributions, future

research should continue to examine the potential role of the construct in this trauma process due to some of the indirect ties that have been discovered in the literature thus far (Carr et al., 2007; Nadal et al., 2017; Tyler & Waksak, 2004). Additionally, the original authors of the Perceptions of Police Scale (Nadal & Davidoff, 2015) created the scale with the intention of future studies examining how it may relate to psychological outcomes.

While racial trauma as a construct was not specifically examined in this study, the important role of discrimination attributions in the trauma process is notable. Racial trauma as a construct is unique from broader conceptualizations of trauma because it takes into consideration the ongoing individual and collective harm caused by racist incidents (Comas-Días et al., 2019). Future research should specifically examine measures of racial trauma in relation to intrusive police encounters with Black adults to further enhance our understanding of how these events impact race-based traumatic stress. Examining racial trauma specifically will deepen our understanding of the unique trauma experience of BIPOC populations when they perceive discrimination from police encounters (Tummala-Narra, 2007).

Future longitudinal research should examine the ways in which trauma symptoms from direct encounters with police, or vicarious trauma of witnessing police violence in the news or in their communities, impacts Black individuals over time. Sibrava et al. (2019) found that in a sample of BIPOC adults, every day discrimination predicted PTSD symptoms that persisted during the five-year follow-up. These findings suggest that it will be beneficial to examine the long-term and potential cumulative effects of everyday discrimination on trauma symptoms, especially in the context of police brutality which has impacted Black Americans since the inception of police (Aymer, 2016; Peterson & Ward, 2015). Additionally, vicarious exposure to trauma through witnessing race-based violence against members of one's own community has implications for the development of PTSD-like symptoms (Dukes & Kahn, 2017), and the history of violence against BIPOC populations informs and contextualizes individuals' current, individual experiences with

police (Bryant-Davis et al., 2017). The vicarious trauma from living in a time when police violence against BIPOC people is so pervasive should be studied further in the context of how policing impacts these communities over time.

Lastly, we may also consider the future development of constructs that specifically measure intergenerational trauma or historical trauma among Black people who have been directly and indirectly exposed to police-related trauma through the stories, memories, and historical accounts of their families and ancestors. While some scholarship has examined these ideas at the theoretical level (Bryant-Davis, 2017; Bryant-Davis et al., 2017), operationalizing these concepts and examining them quantitatively will provide additional insights into how collective trauma from police impacts the mental health of Black people in their day-to-day experience.

Limitations

While this study makes an important contribution to trauma research, this study is not without limitations. The first set of limitations is related to participants and how they may have engaged with the survey. Racial identity plays a significant role in the conceptualization of this study, and the eligibility criteria required that participants identify as Black or African American. These are umbrella terms that can erase ethnic identity, immigration status, and other factors which can contribute to shaping the experience of Black people in the United States. Additionally, there is likely sampling bias from the MTurk marketplace which could limit external validity of the study. Also, considering the self-report nature and the sensitive content of the survey, participants could have responded to some questions attempting to appear more socially desirable or could have experienced survey fatigue when responding to questions.

The next limitation to consider is related to the design of the study. The current study is cross-sectional in nature, which prevents firm conclusions about the directionality of the relationships between study variables (i.e., we cannot infer causal relationships). Additionally, one inclusion criterion was that participants encountered the police at least once within a year. This

means that there could be possible variation among participants regarding the length of time since the encounter, which could impact the onset of trauma symptoms among individuals in the sample.

Clinical Implications

The current study has important implications for mental health professionals. These findings highlight the importance of cognitive factors in the trauma process during police encounters with Black adults in the United States. When working with Black survivors of police brutality or intrusive police encounters, clinicians should consider the ways in which their clients are making meaning regarding the event, specifically, how they are interpreting the actions of the police in terms of potential racial bias. It is important to note, however, that while discrimination attributions have been found to be a significant indirect predictor of trauma symptoms, clinicians may consider refraining from attempting to facilitate a cognitive reframing of the event for the client to attempt to reduce trauma symptoms. It is crucial that clinicians maintain a stance of curiosity, cultural humility, and trust the lived realities of their client's experiences as they recount them.

This study also demonstrates that intrusiveness of police encounters predict trauma symptoms following the incident. In therapy, it may be useful to intentionally “unpack” various aspects of the encounter, including assessing the level of verbal and nonverbal threats to an individual's bodily autonomy (e.g., being forcibly patted down by police). A full assessment of the actions of the police with the client could help inform the clinician of the client's potential susceptibility to developing trauma symptoms following the encounter. Additionally, counseling psychologists may further serve their clients by engaging in advocacy at the systems-level as well. In recent years, counseling psychologists have become more actively engaged in trainings on allyship and social justice at the community level, and may further benefit the communities they serve through education about the impacts of police violence and participating in trainings with the police focused on de-escalation and minimizing intrusiveness of police-stops (Hargons et al., 2017).

Clinical interventions at the group level, such as consciousness-raising and support groups for Black survivors of racial trauma may also be therapeutic. Research has demonstrated that social support (Malcome et al., 2019) and consciousness-raising and collective actions (Mosley et al., 2021) not only serves to protect against racial trauma experienced by Black adults, but also enhances their resistance and liberation from racial trauma. This type of work should be implemented in conjunction with cultural sensitivity, cultural competence, and racially informed interventions by the clinicians (Comas-Díaz et al., 2017). Applying these concepts to clinical interventions focused on addressing the trauma of intrusive policing against Black clients may help facilitate resilient adaptation and healing from police-related trauma.

Conclusion

Given the prevalence of police brutality Black Americans currently and historically have faced in the United States, it is important for psychologists to consider the ways in which intrusive encounters with police impact the psychological and emotional functioning of affected individuals, specifically regarding trauma symptoms. Particularly in the sociopolitical context with which this data was collected- anti police brutality sentiment and activism skyrocketed in the year 2020 following the murder of George Floyd at the hands of police. Researchers and practitioners should be mindful of the ways in which the sociopolitical climate may impact our participants and clients, and conduct research and clinical work that is informed by the current climate. We must also expand the ways in which we are operationalizing trauma and be intentional about systems of oppression that are implicated in the trauma process. Additionally, psychologists must be engaged in advocating for change at the systemic levels for white supremacy to be dismantled.

Appendices

Appendix A. Consent Form

Project Title	Cognitive Mechanisms of Trauma of Police Encounters with Black Individuals
Purpose of the Study	This research is being conducted by Stephanie E. Yee at the University of Maryland, College Park. I am inviting you to participate in this research project because you are at least 18 years of age and have had a police-initiated encounter with police in the last 12 months. You will be asked to rate your feelings and experiences associated with police encounters you have experienced. The purpose of this research project is to better understand how Black adults experience police encounters.
Procedures	The procedure involves completing a 10-15 minute confidential one-time online survey, responding to items asking about what you thought and how you felt about your most recent police encounter and providing background information such as age, race, gender identity, etc. If you choose to participate in this study, you will be compensated \$1 by Mturk.
Potential Risks and Discomforts	There may be some risks to participating in this research study. It is possible that taking time away from other activities or answering questions about feelings and experiences associated with police encounters may cause some distress while completing the questionnaire. You may skip any question that makes you uncomfortable. There are <u>no</u> known physical or medical risks associated with participating in this research project. Please contact the investigator if you would like a list of resources to address any discomfort or distress.
Potential Benefits	This research is not designed to help you personally. However, a potential benefit of participating in this study is that you will be helping me further understand the factors that inform how Black individuals experience police encounters.
Confidentiality	<p>I will do my best to keep your personal information confidential. To help protect your confidentiality: (1) <u>a</u> generic study ID will be used to replace your name on all data collected; (2) through the use of the study ID, the researcher will be able to link your survey data to your MTurk ID; and (3) only the researcher and my advisor will have access to the identification key. If I write a report or article about this research project, your identity will be protected to the maximum extent possible as I will report results for the group – not a specific individual – so that no one will know the identity of any one study participant.</p> <p>The data will be retained for 10 years after the completion of the study,</p>

	<p>according to the University of Maryland policy on human subject files, and then will be destroyed. Your information may be shared with representatives of the University of Maryland, College Park or governmental authorities if you or someone else is in danger or if we are required to do so by law. For example, we are required to report situations in which a participant is at risk for self-harm or harm to others.</p>
Compensation	<p>You will be compensated \$1 by Mturk for completion of the survey.</p>
Right to Withdraw and Questions	<p>Your participation in this research is completely voluntary. You may choose not to take part at all. If you decide to participate in this research, you may stop participating at any time. If you decide not to participate in this study or if you stop participating at any time, you will not be penalized or lose any benefits to which you otherwise qualify. If you are an employee or student at UMD, your employment status or academic standing at UMD will not be affected by your participation or non-participation in this study.</p> <p>If you decide to stop taking part in the study, if you have questions, concerns, or complaints, or if you need to report issues related to the research, please contact the investigator, Stephanie Yee. at: (603) 545-7593 or syee1@umd.edu</p>
Participant Rights	<p>If you have questions about your rights as a research participant or wish to report a research-related injury, please contact:</p> <p style="text-align: center;"> University of Maryland College Park Institutional Review Board Office 1204 Marie Mount Hall College Park, Maryland, 20742 E-mail: irb@umd.edu Telephone: 301-405-0678 </p> <p>This research has been reviewed according to the University of Maryland, College Park IRB procedures for research involving human subjects.</p>
Statement of Consent	<p>Clicking on the “CONTINUE” button below indicates that you are at least 18 years of age; you have read this consent form or have had it read to you; your questions have been answered to your satisfaction and you voluntarily agree to participate in this research study. You may print a copy of this signed consent form.</p> <p>If you agree to participate, please click the button below.</p>

Appendix B. Recruitment Script for MTurk

We are conducting an academic survey to understand your thoughts, attitudes, and experiences related to your encounters with police. Click (or copy and paste into your browser) the link below to complete the survey. You will need your MTurk ID. At the end of the survey, you will receive a code to paste into the box below to receive credit for taking our survey.

Make sure to leave this window open as you complete the survey. When you are finished, you will return to this page to paste the code into the box.

Appendix C. Demographics

Which of the following best describes your racial or ethnic identity? (Please select all that apply)

- ☐ Asian/ Asian American (For example, Asian Indian, Chinese, Filipino, Japanese, Korean, Vietnamese, Hmong, Laotian, Thai, Pakistani, Cambodian, and so on.)
- ☐ Black/ African American (For example, African American, Haitian, Nigerian, and so on.)
- ☐ White/European American (For example, German, Irish, French, and so on.)
- ☐ Latino/a/x (Please note that this category historically has been referred to as “Hispanic,” for example, Mexican, Mexican American, Puerto Rican, Cuban, Argentinian, Colombian, Dominican, Nicaraguan, Salvadoran, and so on.)
- ☐ Native/Native American/ Indigenous People (For example, Navajo, Mayan, Tlingit, and so on.)
- ☐ Native Hawaiian
- ☐ Middle Eastern
- ☐ North African
- ☐ Pacific Islander (For example, Guamanian or Chamorro, Samoan, Fijian, Tongan, and so on.)
- ☐ I describe my racial or ethnic identity as: _____

Which of the following best describes your gender identity?

- ☐ Gender non-binary, non-conforming
- ☐ Man
- ☐ Trans man
- ☐ Trans woman
- ☐ Woman
- ☐ I describe my gender identity as: _____

How would you identify your sexual identity/sexual orientation?

- ☐ Asexual
- ☐ Bisexual
- ☐ Heterosexual/straight
- ☐ Lesbian/gay
- ☐ Pansexual
- ☐ Queer
- ☐ Questioning
- ☐ I describe my sexual orientation as: _____

What is your age? _____

Which of the following best describes your citizenship or immigration status?

- ☐ U.S. Citizen
- ☐ U.S. Permanent Resident Other Citizenship

- ☐ Other (Including undocumented, refugees, and asylum seekers) Prefer not to disclose

Please indicate your highest level of education completed:

- ☐ Did not receive high school diploma High School Diploma, GED
☐ Trade school/ technical school/certification Associate's Degree
☐ Bachelor's Degree
☐ Professional Degree (e.g. JD, MD) Graduate Degree
☐ Other (please specify): _____

Geographic Region of your primary residence:

- ☐ Rural
☐ Suburban
☐ Urban
☐ Other (please specify): _____

Is there a particular US political party with which you identify?

- ☐ Democrat
☐ Green
☐ Independent
☐ Libertarian
☐ Republican
☐ No affiliation
☐ Other (please specify): _____

What is your total yearly income?

- ☐ Less than \$10,000
☐ \$10,000 to \$19,999
☐ \$20,000 to \$29,999
☐ \$30,000 to \$39,999
☐ \$40,000 to \$49,999
☐ \$50,000 to \$59,999
☐ \$60,000 to \$69,999
☐ \$70,000 to \$79,999
☐ \$80,000 to \$89,999
☐ \$90,000 to \$99,999
☐ \$100,000 to \$149,999
☐ \$150,000 or more
☐ Prefer not to disclose

In which socio-economic class have you spent the majority of your life?

- ☐ Lower Class

- ☐ Working Class
- ☐ Middle Class
- ☐ Upper Middle Class
- ☐ Upper Class
- ☐ Other (please specify): _____

Appendix D. Police Encounters

Number of Police Initiated Encounters

Thinking about the times police-initiated contact with you, how many face-to-face contacts with the police have you had during the last 12 months?

- ☐ 1 encounter
- ☐ 2-5 encounters
- ☐ 5-10 encounters
- ☐ 10-20 encounters
- ☐ More than 20 encounters

Police Intrusiveness

Please think of your most notable police-initiated encounter that occurred during the last 12 months as you answer the following questions. Please answer yes or no to the following questions.

Did the officer...

1. Frisk you or pat you down?
2. Search your bags or pockets?
3. Use harsh language?
4. Use racial slurs?
5. Threaten physical force?
6. Use physical force?

Appendix E. Perceptions of Police Scale (POPS; Nadal & Davidoff, 2015)

On a scale from 1 to 5, with a score of 1 being “I strongly agree” and a score of 5 being “I strongly disagree”, please rate the degree to which you agree with each statement.

1. Police officers are friendly
2. Police officers protect me
3. Police officers treat all people fairly
4. I like the police
5. The police are good people
6. The police do not discriminate
7. The police provide safety
8. The police are helpful
9. The police are trustworthy
10. The police are reliable
11. Police officers are unbiased
12. Police officers care about my community

Appendix F. Most Notable Police Encounter

Please think of your most notable police-initiated encounter that occurred during the last 12 months. Approximately when did it occur?

- ☐ 12 months ago
- ☐ 6-12 months ago
- ☐ 3-6 months ago
- ☐ 1-3 months ago
- ☐ In the last month

Appendix G. Discrimination Attribution (Goodwin et al., 2010)

Please think of your most notable police-initiated encounter that occurred during the last 12 months as you answer the following questions. Please respond according to how you view this situation now. Answer each question by marking the appropriate number corresponding to the following scale.

1	2	3	4	5
Not at all	Slightly	Moderately	Considerably	Extremely

1. How much do you believe the police responded to you during the encounter because of your race?
2. How much did you feel you were discriminated against by the police during this encounter?
3. How much do you believe the police in this encounter were racist?

Appendix H. Stress Appraisal Measure (SAM; Peacock & Wong, 1990)

This questionnaire is concerned with your thoughts about various aspects of the situation identified previously. There are no right or wrong answers. Please respond according to how you view this situation right NOW. Please answer ALL questions. Answer each question by marking the appropriate number corresponding to the following scale.

1	2	3	4	5
Not at all	Slightly	Moderately	Considerably	Extremely

1. Is this a totally hopeless situation?
2. Does this situation create tension in me?
3. Is the outcome of this situation uncontrollable by anyone?
4. Is there someone or some agency I can turn to for help if I need it?
5. Does this situation make me feel anxious?
6. Does this situation have important consequences for me?
7. Is this going to have a positive impact on me?
8. How eager am I to tackle this problem?
9. How much will I be affected by the outcome of this situation?
10. To what extent can I become a stronger person because of this problem?
11. Will the outcome of this situation be negative?
12. Do I have the ability to do well in this situation?
13. Does this situation have serious implications for me?
14. Do I have what it takes to do well in this situation?
15. Is there help available to me for dealing with this problem?
16. Does this situation tax or exceed my coping resources?
17. Are there sufficient resources available to help me in dealing with this situation?
18. Is it beyond anyone's power to do anything about this situation?
19. To what extent am I excited thinking about the outcome of this situation?
20. How threatening is this situation?
21. Is the problem unresolvable by anyone?
22. Will I be able to overcome the problem?
23. Is there anyone who can help me to manage this problem?
24. To what extent do I perceive this situation as stressful?
25. Do I have the skills necessary to achieve a successful outcome to this situation?

26. To what extent does this event require coping efforts on my part?
27. Does this situation have long-term consequences for me?
28. Is this going to have a negative impact on me?

Appendix I. The Trauma Symptom Checklist (TSC-33; Briere, 1989)

How often have you experienced each of the following in the last two months?

0	1	2	3
Never	Occasionally	Fairly Often	Very Often
1. Insomnia (trouble getting to sleep)			
2. Restless sleep			
3. Nightmares			
4. Waking up early in the morning and can't get back to sleep			
5. Weight loss (without dieting)			
6. Feeling isolated from others			
7. Loneliness			
8. Low sex drive			
9. Sadness			
10. "Flashbacks" (sudden, vivid, distracting memories)			
11. "Spacing out" (going away in your mind)			
12. Headaches			
13. Stomach problems			
14. Uncontrollable crying			
15. Anxiety attacks			
16. Trouble controlling temper			
17. Trouble getting along with others			
18. Dizziness			
19. Passing out			
20. Desire to physically hurt yourself			
21. Desire to physically hurt others			
22. Sexual problems			
23. Sexual over activity			
24. Fear of men			
25. Fear of women			
26. Unnecessary or over-frequent washing			
27. Feelings of inferiority			
28. Feelings of guilt			
29. Feelings that things are "unreal"			
30. Memory problems			
31. Feelings that you are not always in your body			
32. Feeling tense all the time			
33. Having trouble breathing			

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