CONCEPTUALIZING THE RELATIONSHIP BETWEEN RACISM AS A PSYCHOSOCIAL STRESSOR AND THE DISPROPORTIONATE RATES OF SCHIZOPHRENIA AMONG BLACK AMERICANS USING THE DIATHESIS-STRESS MODEL

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ABSTRACT

Schizophrenia is classified as one of the most debilitating mental health disorders due to the chronicity of symptoms and the magnitude of impairments in multiple domains of the individual's life (Shetty & Bose, 2014). Research has consistently demonstrated that Black Americans, in comparison to other racial groups, have the highest prevalence rates of schizophrenia. With a paucity of empirical evidence ascertaining the etiology of schizophrenia, many scholars assert that elevated levels of stress play a critical role in the development of the disorder. This paper draws upon the diathesis-stress model to elucidate a relationship between significant levels of stress endured by Black Americans due to racism and their elevated rates of schizophrenia. The presented argument calls for further research on the impact of racism on Black Americans' disproportionately high rates of schizophrenia diagnoses.

INTRODUCTION

Racism is the menace embedded into the fabric of American culture interlaced with the propensity of predation for-profit and subjugating groups of color to perpetuate privilege in another. Historically, Black Americans have been the victims of its objective to denigrate, discriminate, and systemically disenfranchise the race as a whole, resulting in assaults to their bodies and the psyche (Utsey & Payne, 2000). In recent years, the invisible wounds of racism on the Black American psyche have been studied to elucidate a relationship with health disparities in their community (Clark, Anderson, Clark, & Williams, 1999). Of the many health conditions exacerbated by psychosocial stress and overrepresented among Black Americans, schizophrenia is identified to have especially significant implications on the person's life (Bresnahan et al., 2007). Schizophrenia is defined as a complex multidimensional psychotic syndrome, marked by hallucinations, delusions, affective dysregulation, blunted affect, interpersonal functioning, and impaired cognition (Van Os, Kenis, & Rutten, 2010; Wykes, Moghaddam, & Silverstein, 2013). Black Americans are diagnosed with schizophrenia three to five times more than their White counterparts and have the highest prevalence rates in the U.S (Mueser & McGurk, 2004; Schwartz & Blakenship, 2014).

While schizophrenia contains a genetic component, its onset is heavily influenced by the presence of environmental factors. Social defeat, a type

of social stress, has been specifically studied because of its influence on the etiology of schizophrenia, which has been consistently replicated in animal studies (Moran et al., 2016). Social defeat refers to the defeated feelings of subordination after experiencing an adverse social encounter (Moran et al., 2016). Social defeat may be triggered by a variety of racist processes that subjugate Black Americans to feelings of inferiority (Williams & Williams-Morris, 2000). Perceptions of subjugation and discrimination among Black Americans have been linked to higher levels of psychological distress, life dissatisfaction, and acts as an underlying mechanism for psychosis (Williams & Williams-Morris, 2000; Van Winkel, Stefanis, & Myin-Germeys, 2008). A 2015 Kaiser Family Foundation survey highlighted the distress experienced from social defeat, with results detailing that a third of Black Americans have been denied opportunities in employment or housing based on racial discrimination (DiJulio, Norton, Jackson, & Brodie, 2015). More than half of Black Americans report some connection to the prison system that includes being incarcerated themselves or knowing someone who has, and 45% indicated that at some point in life fearing that their life was in danger due to their race (DiJulio, Norton, Jackson, & Brodie, 2015).

In summary, Black Americans face disproportionately high levels of stress. A possible explanation is that racism causes Black Americans to experience social defeat and noxious psychological stress, which have been strongly linked to the onset of schizophrenia. This paper calls for future research to further examine this relationship between racism experienced by Black Americans and the higher rates of schizophrenia found in this community.

THE DIATHESIS-STRESS MODEL

Researchers suggest that all individuals have a level of vulnerability for mental disorders, but the degree of stress experienced by their environment plays a key role in their overall susceptibility (Abela & Hankin, 2005). The American Psychological Association has identified perceived discrimination as pivotal in contributing to chronic stress and health disparities amongst people of color (American Psychological Association, 2016). Van Os, Kennis, and Rutten (2010) suggest that holding a minority group position increases the risk of psychotic disorders. Collectively, various sources demonstrate that the stresses of racism make Black Americans more vulnerable to several psychiatric and physiological conditions. The impact of this stress is best understood through the framework of the diathesis-stress model.

The diathesis-stress model was initially developed to describe the etiology of schizophrenia when emerging evidence demonstrated that the disorder is a product of gene-environment interaction (McCutcheon, 2006). The diathesis-stress model posits that an individual with a predisposition to a specific disorder will be more likely to develop the disorder in the presence of adverse environmental stimuli inducing stress (Linehan, 1993). The diathesis to schizophrenia is supported by genetic mapping, which yields

heritability estimates of 79-83% (Green, Girshkin, Teroganova, & Quidé (2004); Hilker et al., 2018). However, heritability functions as a limited index in the etiology of schizophrenia unless it is viewed within the context of interaction with social effects (Van Os, Kenis, & Rutten, 2010). Twin studies investigating the genetic influence of schizophrenia in patients with the disorder have found that genes account for no more than 50% of the etiology, which suggests that an individual's environment is a critical factor (Moran et al., 2016).

PERCEIVED RACISM AND EXPERIENCED RACISM ELICIT DELETERIOUS STRESS

The anticipation of discrimination has the potential to increase an individual's vigilance for mistreatment, resulting in interracial mistrust, negative emotions, and depleted cognitive resources (Sawyer, Major, Casad, Townsend, & Mendes,., 2012). Persistent vigilance induced by mistrust prolongs evoked stress, causing deleterious effects on mental health (Sawyer et al., 2012). The "Stress in America: The Impact of Discrimination" survey conducted by the American Psychological Association (APA) shows that 76% of Black Americans report having experienced "everyday discrimination," such as being treated with less respect or being viewed as less intelligent (American Psychological Association, 2016). The perception of being prejudged or devalued, or the anticipation of discrimination evokes emotional distress signaling the body's stress response (Sawyer et al., 2012). The APA survey demonstrated Black and Hispanic participants also experience stress based on the anticipation of discrimination. For example, these demographics often feel a necessity to make a concerted effort on their appearance in order to receive good service at public establishments (American Psychological Association, 2016) The conscious effort exerted to prepare for forms of discrimination, and an individual's experience of perceived discrimination, is a cognitive appraisal of threat, harm, or danger (Clark et al., 1999). A perceived threat initiates a stress response by the sympathetic nervous system, prompting it to mobilize the brain and body's resources for safety (Sawyer et al. 2012; Clark et al., 1999).

ACTIVATION OF THE STRESS RESPONSE

The activation of the sympathetic nervous system is a response to sensory processing of stressful stimuli causing the hypothalamic-pituitary-adrenal (HPA) axis to secrete neurotransmitters, enzymes, and hormones in preparation for a threat (Pruessner et al., 2016). Anticipating the self as a target of discrimination or prejudice is a potential stressor that activates the HPA axis to exercise the release of hormones that prepare for defense against the threat (Sawyer et al., 2012). This biological reaction is often automatic and unconscious to perceived threats in our environment and functions as a fundamental survival mechanism in preparation of defense (Pruessner, Cullen, Aas, & Walker, 2016) During instances of stress, individuals will

notice an elevated heart rate, muscle tension, and a sudden increase in energy due to cortisol being released into the bloodstream (American Psychological Association, 2019). However, after exposure to chronic stress, such as the stress Black Americans experience with racism, the fidelity of the sympathetic nervous system's response to stress is suppressed (American Psychological Association, 2019; Clark et al., 1999). When confronted with stress, the sympathetic nervous system releases glucocorticoids and cortisol (Pruessner et al., 2016). The release of glucocorticoids and cortisol is salient in the performance of the sympathetic nervous system's ability to prepare for threats and restoring homeostasis (Pruessner et al., 2016)

Glucocorticoids (cortisol in humans) and adrenocorticotropic hormones (ACTH) are two of the hormones released during this process and have been highly researched in relation to the adverse effects they have on the brain's structure and functioning (Pruessner et al. 2016; Gubba, Netherton, & Herbert, 2000). Relative to schizophrenia, glucocorticoids have been found to modify neural functioning and elevate neurotransmitter systems activity, which is implicated in the pathophysiology of psychosis— a defining characteristic of the disorder (Pruessner et al., 2016; Stahl, 2013). Additionally, cortisol levels are found to be increased in individuals with schizophrenia compared to control groups without the disorder (Green et al., 2014). The continuous activation of the sympathetic nervous system and increased secreted hormones as a response to perceived and experienced racism is a sophisticated process that can induce the expression of a genetic vulnerability to schizophrenia (Green et al., 2014; Sawyer et al., 2012). While empirical research on the neurophysiology of schizophrenia is compelling, future research should be directed towards measuring the magnitude of stress related to racism on cortisol levels in individuals with a predisposition to schizophrenia.

CLINICIAN BIAS IN THE DIAGNOSIS OF SCHIZOPHRENIA

To date, researchers have been unable to empirically verify explanations regarding Black Americans' overrepresentation of schizophrenia (Schwartz & Blankenship, 2014). A compelling argument that dominates the literature base is clinician biases and lack of cultural competence (Schwartz & Blankenship, 2014). Professional standards of care require clinicians to assign diagnoses based upon maladaptive patterns of clinically significant emotional, psychological, and cognitive disturbances that yield distress or disability (Schwartz & Blankenship, 2014). Instead, research on racial influence in diagnostic evaluation supports that clinical measures used were developed with Euro-American samples, which present a discrepancy when applying the measure to a different race that varies in clinical presentation (Schwartz & Blankenship, 2014). A review by Neighbors et al. (1989) found misdiagnosis of disorders is often the result of a clinician's lack of sensitivity to cultural variances that are portrayed in the patient's psychopathology. In

Schwartz, Docherty, Najolia, and Cohen's 2019 study of racial diagnostic biases, Black American participants were diagnosed with schizophrenia at higher rates when assessed by White clinicians due to variances in linguistic style. The authors suggest that these variances influenced elevated schizophrenia diagnoses, which are aligned with prior research documenting notable phonological and linguistic styles in Black American culture (Schwartz et al., 2019; Wyatt, 1995). Schwartz et al. (2019) provide empirical evidence of how cultural differences and insensitivity influence misdiagnosis.

Differences in social norms and communication processes can lead to miscommunication, mistrust, attributional ambiguity, and heightened vigilance amongst minorities in the diagnostic process (Olbert, Nagendra, & Buck, 2018). Accordingly, Eack, Bahorik, Newhill, Neighbors, & Davis (2012) found that mistrust and clinician-perceived dishonesty was the strongest predictor of schizophrenia diagnoses among Black American participants, which increased the likelihood by one and half times of the sample group being diagnosed with schizophrenia.

Clinicians make the assumption that psychopathology is presented similarly and are unaware that the disorder can differ in a clinical presentation based upon race and culture (Strakowski et al. 2003). Additionally, Schwartz and Blankenship (2014) note that the assignment of psychiatric diagnosis is influenced by personal perceptions or stereotypes held by the clinician. However, without the clinician observing their obligation to test these forms of judgments, coupled with their lack of consideration for whether or not the individual is operating within their cultural norms, misdiagnoses are promoted (Schwartz & Blankenship, 2014). Gara, Minsky, Silverstein, Miskimen, & Strakowski (2019) posit that schizophrenia is a diagnosis made by exclusion of criteria, and often Major Depressive Disorder (MDD) is not ruled out. Instead, clinicians under-diagnose MDD and bipolar disorder or subjectively overemphasize deviant behavior and associate it with schizophrenia (Gara et al., 2019; Schwartz & Blankenship, 2014). Misdiagnosis of schizophrenia among Black Americans was further investigated in a study by Strakowski et al. (2003). The study uncovered a discrepancy in diagnoses among Black American participants that were assessed in-person versus assessments conducted by a different clinician using a transcript that concealed the ethnicity of participants (Strakowski et al., 2003). Results from the study yielded inflation of schizophrenia-spectrum diagnoses for Black Americans participants (Strakowski et al., 2003). These studies' findings support clinicians' lack of uniformity in the diagnostic process and an overemphasis of certain symptomatology when assessing Black Americans. Empirical evidence on biases exercised in psychiatric care such as Strakowski et al. (2003), advances the notion of race playing a critical role in social and health disparities.

PROPELLING RESILIENCY WITH ADAPTIVE COPING MECHANISMS

The role of clinician deficits in cultural competence contributing to the diagnostic inflation of schizophrenia amongst Black Americans presents an alternative hypothesis to the diathesis-stress model. However, both explanations share the basis that racism is a salient factor in the disproportionate rates of schizophrenia diagnoses amongst Black Americans. For Black Americans, racism is an everyday, chronic experience that results in adverse consequences to the psychological and somatic well being of a person (Utsey & Payne, 2000).

Researchers emphasize the importance of mitigating the stress of racism with adaptive coping mechanisms (Utsey & Payne, 2000; Pittman, 2011). Historically, Black Americans have been forced to use passive forms of coping, such as avoidance, withdrawal, silence, or laughter (Pittman, 2011). These coping styles have been shown to exacerbate stress, induce anger, decrease life satisfaction, and lower self-esteem. Clinicians can influence the health outcomes of race-related stress by equipping individuals with a broader, more adaptive set of coping mechanisms. As specialists in mental health, clinicians can influence the health outcomes of race-related stress by equipping individuals with adaptive coping mechanisms. One example is the practice of mindfulness, defined as deliberate and nonjudgmental attentiveness to present-moment experiences (Shallcross & Spruill, 2018). Mindfulness is antithetical to passive coping responses such as avoidance and withdrawal (Shallcross & Spruill, 2018). This process of awareness is a vital tool to incorporate into therapy when engaging clients' relaxation response. (Edenfield & Saeed, 2012). Mindfulness exercises help the individual to build an awareness of their psychophysiological response to racist events. (Shallcross & Spruill, 2018). As a result, Black Americans clients can better understand their experience of discrimination and how it impacts their sense of self-worth while simultaneously reducing their biological sensitivity to threats (Shallcross &Spruill, 2018).

Another possibility for clinicians is to employ the Racial Trauma Recovery model proposed by Comas-Diaz (2015). The model details a five-stage process for combating race-related stress. The model provides safety in openly discussing the racist event, teaches self-regulation, reprocesses the event, fosters resilience through psychological decolonization, and promotes engaging in social action.

Social work clinicians represent the majority of mental health professionals, making them the best-positioned to intervene, diagnose, and encourage preventative forms of psychosocial intervention that can abate the prevalence of schizophrenia (González &Colarossi, 2014; Lukens & Devylder, 2014). Clinical social workers must be aware of the etiology of schizophrenia and be prepared to provide relevant coping mechanisms in accordance with this understanding.

CONCLUSION

The present article proposes that Black Americans' disproportionate rate of schizophrenia diagnoses may be best understood through the diathesis-stress model. Under this framework, racism causes psychosocial stress that increases the risk of developing adverse health outcomes, including schizophrenia. Two hormones, glucocorticoids and adrenocorticotropic hormones, have been specifically identified for their association with both the stress of racism and the symptoms of schizophrenia. The article calls for researchers to further explore this causal pathway through empirical study. A series of adaptive coping mechanisms are also recommended for immediate use by social workers who wish to address the stress of racism among their clients.

ABOUT THE AUTHOR

KASHONDA L. DAVIS earned an MPH and MSSW in Advanced Clinical Practice from Columbia University in 2017. Her graduate education in clinical practice was fostered by a practicum at Rikers Island Correctional Facility where she learned the application of Dialectical Behavioral Therapy (DBT) and developed a research interest in the causal relationship between stress and mental health outcomes. Upon graduating from Columbia University, Kashonda was awarded a behavioral health fellowship with Harvard Vanguard Medical Associates in Boston, MA where she further honed her skills in evidenced based therapeutic practices. Today, Kashonda practices DBT at Kaiser Permanente Department of Psychiatry and leads a research study for the Center of Behavioral Health and Integration Research at Stanford University. Her clinical interests are vested in cultural adaptations of evidenced based care modalities that aid in ameliorating health disparities among minority populations.

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