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Major Depressive Disorder and Perceived Everyday Discrimination Among the Jamaican Diaspora in the United States.

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Abstract

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by

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Dissertation Submitted in Partial Fulfillment
of the Requirements for the Degree of
Doctor of Philosophy
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Abstract

Overt racial discrimination in the United States has been supplanted by subtle forms of everyday discrimination known as microaggressions. Researchers have found perceived everyday discrimination (PED) to be associated with major depressive disorder (MDD) among African Americans but have often treated the African American subpopulation as a homogeneous group. The purpose of this cross-sectional study grounded in the theory of microaggression was to illuminate probable associations between microaggressions based on weight, age, gender, ethnicity, and race and lifetime MDD among the Jamaican diaspora in the United States. Secondary data from the Collaborative Psychiatric Epidemiologic Surveys were analyzed. Statistically significant associations were found between lifetime MDD and being African American and being Afro-Caribbean ($\chi^2 = 3.8$, $p = 0.05$), but not with being Jamaican ($\chi^2 = 5.01$, $p = 0.29$). Logistic regression showed no statistically significant association between lifetime MDD and PED (Wald $\chi^2 = 0.02$, $p = 0.89$) and no effect modification by gender. There were no statistically significant associations between MDD and microaggression due to ethnicity (Wald $\chi^2 = 0.00$, $p = 0.99$), gender (Wald $\chi^2 = 2.87$, $p = 0.90$), race (Wald $\chi^2 = 0.38$, $p = 0.53$), age (Wald $\chi^2 = 0.00$, $p = 0.99$), and weight (Wald $\chi^2 = 0.00$, $p = 1.00$), compared to the unspecified microaggression category as baseline, among the Jamaican diaspora in the United States. Although no evidence was found of an association between PED and MDD among the Jamaican diaspora in the United States, the study findings may inform the development of evidence-based interventions to reduce population health disparities.

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Dedication

This is dedicated to my two princes, Darren, and Jordan; my sister and spiritual advisor, Professor Lorietta Haughton; my Falstaffian brother, Danny; and my loyal friends, Cecil Clarke, Garnet McIntosh, Dorrel Richards, Faye Samuels, Chen Chin, and Shernette Chin. They all provided encouragement and motivation at times when I wondered why I was pursuing a PhD.

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Chapter 1: Introduction to the Study

Depression is a generic term for an array of mental disorders that have physiological, behavioral, and psychological symptoms (Ahmadpanah et al., 2019). Examples of depressive disorders include dysthymia, postpartum depression, psychotic depression, seasonal affective disorder, bipolar disorder, and major depressive disorder (MDD; National Institute of Mental Health [NIMH], 2018). Epidemiologic surveys have pointed to depression as a threat to global health because of the early age of onset, high persistence, and high prevalence (Kessler, 2012). MDD is a nonchronic depressive disorder and with a lifetime prevalence of 15% is one of the most pervasive mental disorders worldwide (Kohler et al., 2019). In May 2013, world health leaders committed to tackling MDD and other mental disorders, globally (World Health Organization [WHO], 2020). MDD was the fifth leading cause of years lived with disability in 2016 (Vos et al., 2017).

MDD is one of the most common mental disorders in the United States with an estimated 15.7 million adults reportedly experiencing a major depressive episode in 2015 (Molina & James, 2016). Molina and James (2016) expressed that the prevalence of MDD in the United States was cause for concern, considering that MDD accounted for the heaviest burden of disease across all mental disorders, personally, socially, and economically. MDD impairs an individual’s physical, intellectual, and learning abilities and is associated with high rates of morbidity, comorbidity, and mortality (Ahmadpanah et al., 2019). MDD is further concerning because disproportionately high rates of the disorder have been seen in individuals subjected to frequent discrimination based on identities such as age, ethnicity, gender, race, and sexual orientation (Hayes et al., 2018).

Discrimination is an everyday experience for many people and a public health issue (American Psychological Association, 2019a). Discrimination can be defined as the prejudicial treatment of an individual or a group often stemming from fear and misunderstanding and resulting in chronic stress (American Psychological Association, 2019a). There has been a decline in the number of openly offensive expressions of racial discrimination following the enactment of the Civil Rights Act of 1964 (Perry et al., 2015). However, there was a resurgence of hate speech, gender discrimination, and violence against minority groups during the Trump administration (Veldhuis et al., 2018). With the decline of overt racial discrimination, a subtle form, referred to as aversive racism, has gradually emerged (Dovido et al., 2018; Sue, 2010).

Microaggressions are a form of aversive racism (Sue, 2010). Sue et al. (2007) defined microaggressions as verbal, behavioral, and environmental actions that convey subliminal messages intended as pejoratives to persons from a minority group. Perceived everyday discrimination (PED) is like microaggressions (Hayes et al., 2018). PED is manifested in frequent, recurring, and routine experiences of unfair treatment (HealthyPeople.gov, 2020). Approximately 63% of Americans have reported experiencing PED (Luo et al., 2012; Taylor et al., 2019). PED based on identities, such as ethnicity, age, gender, weight, sexual orientation, and socioeconomic status, have been identified as chronic stressors (Hayes et al., 2018). Lewis and colleagues (2018) called for studies on the effects of various forms of discrimination on health, especially among the African American subpopulation.

An exhaustive search of several databases revealed a handful of studies on the correlation between MDD and PED (Chae et al., 2012; Chou et al., 2012; Clark et al., 2015; Hosler et al., 2019; Lowe et al., 2019; Molina & James, 2016; Platt et al., 2016; Russell et al, 2018; Singh et al., 2017; Tobin & Moodie, 2021; Yasui et al., 2015). Far more studies were identified on the correlation between PED and depression, or depressive symptoms (Allen et al., 2017; Antonio et al., 2016; Britt-Spells et al., 2018; Cano et al., 2016; Cobb et al., 2017; Hall et al., 2019; Han & Richardson, 2015; Hunger et al., 2020; Ikram et al., 2016; Jackson et al., 2019; Kim & Park, 2018; Kim et al., 2019; Kira et al., 2017; Lyons et al., 2018; Mouzon et al., 2017; Paradies et al., 2016; Robinson et al., 2017; Incollingo et al., 2019; Spahlholz et al., 2016; Stepanikova et al., 2020; Wellman et al., 2019). Clark et al. (2015) found PED to be positively associated with MDD among African American and Caribbean Black adults and emphasized the relevance of the finding considering MDD being a leading cause of disease burden worldwide.

The dearth of studies on the association between PED and MDD is not the only gap in the literature; a gap remains in research as many studies have used depressive symptoms as the outcome instead of MDD. Although depressive symptoms reflect the risk for MDD for most of the population, this is not the case for a substantial number of Black Americans (Tobin, 2021). The literature indicates that substantial impairment exists even in individuals with depressive symptoms that do not fulfill the required diagnostic criteria for MDD (Hayes et al., 2018). It is therefore important to individuate the various types of depression and explore each separately (Hayes et al., 2018).

It is also important to understand the intricacies of the different types of discrimination as predictors of depression (Hayes et al., 2018). This is especially relevant with MDD being responsible for the greatest burden of disease among all mental disorders (Clark et al., 2015). In searching several databases for studies of the correlation, if any, between MDD and the different types of discrimination, I found only three studies on the correlation between MDD and racial discrimination (Chou et al., 2012; Russell et al., 2018; Tobin & Moodie, 2021) and one study on the association between MDD and gender (Platt et al., 2016). No studies were found whose authors had explored the association between MDD and age, weight, or ethnicity. This presents further gaps in the literature. There is research on the association between depressive symptoms and racial discrimination (Britt-Spells et al., 2018; Cano et al., 2016; Cobb et al., 2017; Mouzon et al., 2017), ethnic discrimination (Allen et al., 2017; Antonio et al., 2016; Hall et al., 2019; Ikram et al., 2016; Paradies et al., 2016), gender discrimination (Kim & Park, 2018; Kira et al., 2017; Stepanikova et al., 2020), age discrimination (Han & Richardson, 2015; Jackson et al., 2019; Kim et al., 2019; Lyons et al., 2018), and weight discrimination (Hunger et al., 2020; Robinson et al., 2017; Incollingo et al., 2019; Spahlholz et al., 2016; Wellman et al., 2019).

Several researchers have explored the association, if any, between depressive symptoms and different types of discrimination among various ethnic groups including African Americans (Clark et al., 2015; Hollingsworth et al., 2017; Lewis & Van Dyke, 2018; Mouzon et al., 2017; Nadimpalli et al., 2015; Taylor & Chatters, 2020); Chinese (Hall et al., 2019), Chinese Americans (Hou et al., 2015); Egyptians (Kira et al., 2017), Filipinas (Hall et al., 2019), Hawaiians (Antonio et al., 2016), Koreans (Kim & Park, 2018), Latinos (Cobb et al., 2017; Torres et al., 2015), and Polynesians (Allen et al., 2017). There are many issues, however, with the current literature on depression and everyday discrimination in ethnic populations. Again, many researchers have used depressive symptoms as the outcome variable and not MDD. Additionally, a search of several databases did not reveal any study concerning the effects of the association on Jamaicans living in the United States.

There is thus a lack of understanding of the association between MDD and PED among the Jamaican diaspora in the United States. To address this gap in the literature, I examined the association between the two variables in this ethnic minority group. The role of gender in the association was also examined. Information on the effects of the interactions between PED and MDD among the Jamaican diaspora in the United States can address research gaps (Williams et al., 2019) and help public health officials with designing evidence-based interventions to reduce disparities in health and promote positive social change for this minority ethnic group.

In the remainder of this chapter, I provide an overview of the study I conducted. The background to the study, the problem statement, and the purpose of the study are provided. I also outline the research questions (RQs) and hypotheses, the theoretical framework, and the nature of the study. The chapter concludes with a discussion of the assumptions, scope and delimitations, limitations, and significance of the study and a transition to Chapter 2.

Background

MDD affects over 260 million people worldwide and is a major cause of disability (James et al., 2018). Over 67% of Black Americans have reported discrimination as a major stressor (American Psychological Association, 2020b). A review of the literature by Williams et al. (2019) indicates that exposure to discrimination is negatively related to mental health, and further, that racial discrimination is an enabler of racial disparities in health. Pearl et al. (2018) argued that more information on everyday experiences of discrimination is needed to broaden the understanding of the effects of all forms of discrimination on mental health.

Lowe et al. (2019) investigated the association between major depressive symptoms and PED among 141 Muslim American college students and found that higher perceived discrimination was significantly associated with higher major depression symptoms. Singh et al. (2017) examined the associations between discrimination, legal acculturative stress, and major depression episode-lifetime among 1639 Asian American immigrants. The results indicated that both high discrimination and legal acculturative stress were associated with major depression symptoms-lifetime. Ikram et al. (2016) examined the association between MDD and PED on a multiethnic sample of 2,501 South-Asian Surinamese, 2,292 African Surinamese, 1,877 Ghanaian, 2,626 Turks, and 2,484 Moroccans. PED was positively associated with MDD, and it was estimated that 13–28% of MDD could be attributed to PED in ethnic minority groups.

Yasui et al. (2015) and Molina and James (2016) explored the association between PED and past-year MDD diagnosis. Yasui et al. included five or more of the nine *Diagnostic and Statistical Manual of Mental Disorders* (4th ed., *DSM-IV*) MDD symptoms, of which one was depressed mood or anhedonia. In the community sample of 860 African American and 620 European American adolescent girls, Yasui et al. found that perceived discrimination was positively related to MDD severity in girls from both ethnicities. Using a large sample of 4,988 adults, Molina and James demonstrated that experiences of discrimination were associated with greater likelihood of satisfying the measures for past-year MDD. By contrast, internalized racism was shown to be associated with less likelihood of satisfying the benchmark for past-year MDD in Afro-Caribbean nationals as opposed to African Americans. Molina and James drew attention to the need for research highlighting the heterogeneity within the Black population in the United States.

MDD-lifetime was one of the outcome variables utilized by Clark et al. (2015) in exploring associations with everyday discrimination across several domains. The sample comprised 3,570 African Americans, 1,623 Caribbean Blacks, and 1,006 non-Hispanic Whites. Clark et al. found a positive relationship between frequent experiences of discrimination and MDD. Individuals who had experienced universally elevated levels of discrimination were significantly more likely to meet the *DSM-IV* criteria for MDD. The findings also suggested that the relationship between discrimination and MDD varied by the type of discrimination experienced.

Chae et al. (2012) looked at the association between MDD and everyday discrimination among 2,095 Asian Americans. Controlling for sociodemographic characteristics, Chae et al. found evidence of a significant main effect of discrimination on 12-month MDD. Greater levels of self-reported discrimination were associated with higher odds of having 12-month MDD. Hosler et al. (2019) examined the association between major depressive symptoms and everyday discrimination among 434 Black, 809 White, 180 Guyanese, and 173 Hispanic adults. There was a consistent and significant independent association between everyday discrimination and major depressive symptoms in the crude model and at each step of covariate adjustment in each group. A 1-unit increase in everyday discrimination score was associated with a moderate and significant increase in the odds of major depressive symptoms in all groups.

Russell et al. (2018) and Chou et al. (2012) examined the effects of racial discrimination on MDD. Using a longitudinal study design, Russell et al. monitored a sample of 499 women with no symptoms of MDD for an 11-year period. The results of multiple logistic regression analysis showed that neighborhood-level discrimination was significantly associated with a high risk of acquiring MDD. Neighborhood-level discrimination was a stronger predictor of depression than individual reports of experiences of racially based discrimination. Among 793 Asian Americans, 951 Hispanic Americans, and 2,795 African Americans, Chou et al. demonstrated that Hispanics were more likely to report MDD symptoms than Asian Americans and were more likely to meet criteria for MDD than the African American cohort. The results of post hoc analyses comparing the degree of association between perceived racism and MDD suggested that Asian Americans were consistently least likely to report MDD, associated with perceived racism

As this review of the literature reveals, several researchers have examined the association between MDD, and even depressive symptoms, and PED in various subpopulations. However, there seems to be a paucity of information regarding the association between MDD and PED as it relates specifically to the Jamaican diaspora in the United States, as a distinct ethnic group. Everyday discrimination insidiously leads to depression, which, in extreme cases, can result in suicide (O'Keefe et al., 2015). The examination of everyday discrimination as a sociocultural risk factor for suicide is important given that certain racial and ethnic minority groups have differential suicide risk (O'Keefe et al., 2015).

Problem Statement

MDD affects some 300 million people of all ages globally (World Health Organization, 2020). Major depression is the leading cause of disability worldwide**,** based on total years lost due to disability, and contributes significantly to the global burden of disease (World Health Organization). In the United States, the economic burden of MDD was estimated at $326.2 billion per year in 2020 (Greenberg et al., 2021). In extreme cases, depression often ends in suicide (World Health Organization). The annual prevalence of the major mental disorders among American adults was as follows in 2020: anxiety disorders (19.1%), major depressive episode (8.4%), posttraumatic stress disorder (3.6%), bipolar disorder (2.8%), and schizophrenia < 1% (National Alliance on Mental Illness, 2019).

PED is a major stressor and a risk factor for MDD (Taylor & Chatters, 2020). PED may be racial or nonracial in nature (Britt-Spells et al., 2018). In one study, the researchers found racial and nonracial discrimination to be positively associated with increased risk of lifetime mood disorders, such as MDD (Williams et al., 2019). Britt-Spells et al. (2018) found that the strength of the correlation was not affected by the type of racial discrimination, the depression scales used, or whether the sample was random or nonrandom, as the effect size remained constant under all those conditions. Williams et al. (2019) demonstrated that the association between discrimination and MDD remained significant even after controlling for potential psychological confounders.

Racial and ethnic groups in the United States are often subjected to severe discrimination (National Research Council, 2020). The distinction between race and ethnicity needs to be understood although the two are often used interchangeably. Race is a social construct and so can have a different meaning across various societies (American Psychological Association, 2020a). Race is used to describe physical differences such as skin color that groups and cultures consider socially significant (American Psychological Association). Ethnicity is used to group people who identify with each other based on common cultural attributes such as nationality, cultural heritage, dialect, language, ancestry, and beliefs (American Psychological Association). Racial discrimination in the United States has disadvantaged minority ethnic groups (Jackson & Erving, 2020). Studies have shown that racial discrimination is a nascent risk factor for mental disorders and a contributor to racial disparities in health (Williams et al., 2019).

Researchers have demonstrated that PED is positively associated with MDD (Chae et al., 2012; Chou et al., 2012; Clark et al., 2015; Hosler et al., 2019; Molina & James, 2016; Lowe et al., 2019; Russell et al, 2018; Singh et al., 2017; Yasui et al., 2015). Many researchers have used depressive symptoms as a risk factor for MDD and have demonstrated this association in Blacks (Britt-Spells et al., 2018; Mouzon et al., 2017), Hispanics (Cano et al., 2016) and Asians (Chae et al., 2012). Other researchers have demonstrated the association in ethnic groups such as Chinese (Chou, 2012), Filipinas (Hall et al., 2019), and Polynesians (Allen et al., 2017). Britt-Spells et al. (2018) examined the association using an all-male sample, whereas Hall et al. (2019) used an all-female sample.

One major limitation of prior research on PED and MDD in African Americans has been the tendency to treat the African American subpopulation as a monolith (Lewis & Van Dyke, 2018). Treating the African American subpopulation as a homogeneous group does not facilitate an understanding of the differential impact of exposure to discrimination on mental health within the different ethnicities that comprise the African American community (Lewis & Van Dyke, 2018). Most often, researchers have included the Jamaica diaspora in the United States under heterogeneous groups such as African Americans, Black Americans, Afro-Caribbean, and Caribbean Blacks. Molina and James (2016) emphasized the need for research highlighting the heterogeneity within these heterogeneous subpopulations.

To highlight the heterogeneity within the African American and Afro-Caribbean subpopulations and to strengthen the research gap, I performed secondary data analysis on the Collaborative Psychiatric Epidemiology Surveys (CPES) version date, February 15, 2018. The CPES is a combination of three surveys: the National Comorbidity Survey-Replication (NCS-R), the National Survey of American Life (NSAL), and the National Latino and Asian American Study (NLAAS). The African American and Afro-Caribbean ethnicities were attributes of the variable race/ancestry. The Caribbean ethnicities comprising the Afro-Caribbean subpopulation were captured by the variable CAR5CAT, or Caribbean ethnic origin 5 categories, and included 510 Jamaicans. The independent variable selected was reason for discriminatory experiences–recoded, with the attributes national origin/ethnicity, gender or sex, race, age, height/weight, and other. The covariates chosen were age, sex, household income, years of education, and number of years in the United States. The dependent variable chosen was *DSM-IV* MDD-lifetime.

Purpose of the Study

The primary purpose of this quantitative study was to illuminate probable associations between microaggressions based on weight, age, gender, ethnicity, and race and lifetime MDD among the Jamaican diaspora in the United States. I sought to analyze the data and present the findings from the cross-sectional survey of the 510 Jamaican respondents in the CPES data set. The data in the CPES included measures of lifetime MDD and various social justice categories of PED representing different types of microaggression. The three main aims of this study were to determine the statistical significance of lifetime MDD among the Jamaican diaspora, other Caribbean nationals, and African Americans, and to explore the associations between PED and lifetime MDD among Jamaicans as an minority ethnic group in the United States. I also sought to examine whether gender was an effect modifier in the association between PED and lifetime MDD. Addressing gaps in the knowledge base regarding mental health issues within racial and ethnic minority groups is paramount (Taylor & Chatters, 2020).

This current study was intended to fill the gaps in the knowledge base by adding to the literature on the relationship between lifetime MDD and PED by analyzing a representative sample of Jamaicans living in the United States. Analyzing the data from the CPES on the 510 Jamaicans interviewed during the surveys can provide information on the probable associations between PED and lifetime MDD that is specific to the Jamaican diaspora in the United States. Alegría et al. (2016) indicated that the 510 Jamaicans in the CPES was a representative sample of this ethnic minority subpopulation in the United States. Alegría et al. affirmed that the sample size of 510 would have adequate power to explore the association between cultural and ethnic factors and depression in this subpopulation.

Research Questions and Hypotheses

RQ1: Is there an association between African Americans, Afro-Caribbean nationals in the United States, the Jamaican diaspora in the United States, and lifetime MDD?

> $H_0 1$: There is no association between African Americans, Afro-Caribbean nationals in the United States, the Jamaican diaspora in the United States, and lifetime MDD, so the variables are statistically independent.

H_a1: There is an association between African Americans, Afro-Caribbean nationals in the United States, the Jamaican diaspora in the United States, and lifetime MDD, so the variables are statistically dependent.

RQ2: What is the association between PED and lifetime MDD among the Jamaican diaspora in the United States?

$H_0$2: There is no statistically significant association between PED and lifetime MDD among the Jamaican diaspora in the United States.

H_a2: There is a statistically significant association between PED and lifetime MDD among the Jamaican diaspora in the United States.

RQ3: Does gender moderate the association between PED and lifetime MDD among the Jamaican diaspora in the United States?

$H_0$3: Gender does not moderate the association between PED and lifetime MDD among the Jamaican diaspora in the United States.

H_a3: Gender does moderate the association between PED and lifetime MDD among the Jamaican diaspora in the United States.

Theoretical Framework

The theory of microaggression formed the framework for this study. Psychiatrist Chester Pierce coined the term *microaggressions* to describe the subtle insults that were part of everyday interactions among Black and White individuals (Williams, 2020). Studies have shown that culture and group-based experiences shape worldviews and influence the perception of reality of various groups (Sue, 2010). Microaggressions are the outward and visible signs of oppressive worldviews that promote marginalization

(Sue, 2010). Microaggressions are the everyday verbal, nonverbal, and environmental insults, whether intentional or unintentional, that send hidden negative messages to marginalized persons (Sue, 2010). Although originally rooted in discrimination based on race, microaggressions now cover a wide range of identities including ethnicity, gender, age, weight, religion, and class, among other categories (Nagai, 2017).

Microaggressions can be conceptualized as manifestations of PED (Williams, 2020). PED refers to perceptions of subtle, everyday actions that result from a negative judgment of an individual or members of a group, based on race, gender, age, weight, religion, class, and other identities (Hayes et al., 2018). Like microaggressions, PED are day-to-day hidden biases that reflect the power differentials between groups (Williams, 2020). These everyday messages have a deleterious effect on the mental health of marginalized groups and negatively affect their standard of living by creating inequities in health care, education, and employment (Sue, 2010). Microaggressions invalidate the experiential reality of targeted persons, belittle them on a personal or group level, threaten and intimidate, or relegate them to inferior status and treatment (Sue, 2010).

Nature of the Study

I used a quantitative approach to inquiry (Burkholder et al., 2016) and a correlational design (Lau, 2017) to address the RQs. Burkholder et al. imparted that the quantitative approach facilitates the generation and testing of hypotheses through the collection and analysis of numeric data in the hope that the data will support the theory posited. Burkholder et al. also imparted that the quantitative approach is based on deductive reasoning and the reductionist epistemology. A correlational study involves the use of a set of variables, dependent (outcome) and independent (predictor) variables, to determine if there are differences in the characteristics of a population (Lau, 2017). Researchers conducting correlational studies take on an objectivist view that predicates that the variables can be defined, measured, and analyzed for the presence of hypothesized relationships among them (Lau). As part of the study's correlational design, I used the chi-square test and logistic regression models to determine the associations between PED and the types of microaggression as predictors, and MDD-lifetime, the outcome variable, among the 510 Jamaicans respondents in the CPES.

Definitions

Age discrimination: A process of systematic stereotyping of, and discrimination against, people because they are perceived of as old (Han & Richardson, 2015). The phenomenon is also referred to as ageism and has led to systematic discrimination that devalues older persons and frequently denies their equality (Han & Richardson).

Ethnic discrimination: A form of discrimination, also referred to as ethnicism, that represents the day-to-day experiences of overt and subtle acts of unfair treatment because of one's ethnic background (Ikram et al., 2016). It is a behavioral manifestation of racism on an interpersonal level that is commonly experienced among minority ethnic individuals and parallels a chronic social stressor like poverty (Polanco-Roman et al., 2019).

Ethnicity: The term used to describe a group of people based on shared traditions, lifestyle, language, diet, and values (Duggan et al., 2020).

Gender discrimination: The day-to-day experiences of overt and subtle acts of unfair treatment because of one's gender (Stepanikova et al., 2020). *Gender discrimination* is used interchangeably with *sexism*, although the latter is a broader concept that includes beliefs, attitudes, and social norms in addition to discriminatory practices and actions (Stepanikova et al).

Major depressive disorder (*MDD*): A mood disorder and one of the many types of depression (National Institute of Mental Health, 2018). Dysthymia, postpartum depression, psychotic depression, seasonal affective disorder, and bipolar disorder are other types of depression (National Institute of Mental Health). The *DSM-5* stipulates that to make a diagnosis of depression, the individual must experience five or more symptoms during the same 2-week period, and at least one of the symptoms should be either depressed mood or loss of interest or pleasure (American Psychiatric Association, 2013).

Major depressive disorder-lifetime (*MDD-lifetime*): A diagnosis that is based on having at least one lifetime major depressive episode without full manic, mixed, or hypomanic episodes excluding substance-induced and medical-induced disorders (Hasin et al., 2018).

Microaggressions: Everyday verbal, nonverbal, and environmental insults, whether intentional or unintentional, that send hidden negative messages to marginalized persons (Sue, 2010).

Race: The word used to describe racial categories based on physical appearance (Duggan et al., 2020). The term emerged as a sociopolitical concept both to classify humans and to justify a group's dominance over another (Duggan et al). Race is a social, and not a biological, construct (Duggan et al). For this study, the categories Black, White, Asian, Hispanic, and Native Americans were regarded as examples of race.

Racial microaggressions: The actions, practices, and behaviors of members of socially dominant groups that have a differential and negative impact on members of socially subordinate groups (Allen et al., 2017). These are seen in the everyday slights, indignities, put-downs, and insults by individuals toward people of color because they belong to a racial minority group (Allen et al). However, these behaviors are the result of deep-rooted attitudes and thoughts that are oftentimes outside of one's conscious awareness leading to unconscious manifestations of a worldview of inclusion/exclusion and superiority/inferiority (Sue, 2010).

Weight-based discrimination: A form of discrimination, which is also referred to as weight bias or weight stigma, that is defined as prejudice or discrimination targeted toward individuals who are perceived to be heavy, overweight, or obese (Incollingo et al., 2019).

Assumptions

An important assumption is that the epidemiological data on the 510 Jamaicans provided by the secondary data set, the CPES, is a representative sample of the minority ethnic Jamaican population in the United States. Generalizability of the findings of this study to the larger Jamaican population in the United States is only possible to the extent that the sample is representative of the Jamaican diaspora (Edmondson & Reimer, 2020). There is also the assumption that the data presented by the CPES is of high quality, as this can affect the results.

Scope and Delimitations

The scope of the study can be summarized as the analysis of the data on all 510 Jamaicans surveyed in the CPES version date, February 15, 2018. The scope involved the generation of descriptive analyses and logistic regression models using *DSM-IV* MDD-lifetime as the dependent variable, PED and microaggression due to race, ethnicity, gender, age, and weight as independent variables, as well as five covariates. The study was grounded in the theory of microaggression. The minority stress model, although a useful framework for understanding the relationship between perceived discrimination and depressive symptoms (Han & Richardson, 2015) was not used. Minority stress theory was developed as a conceptual framework to better understand how minority individuals experience stress and negative mental health outcomes related to stigma, prejudice, and discrimination (O’Keefe et al., 2015).

Limitations

Correlational studies face the challenges of internal and external validity (Lau, 2017). Design options, biases, confounders, controlling for confounding effects, adherence to good practices, and consistency of reporting are methodologic issues with correlational studies (Lau). The use of secondary data comes with its limitations. The protocol used to determine the reliability and validity of the instruments used to collect the data can be an issue in the analysis of secondary data (O’Connor, 2020). The characteristics and response rates of the pool of participants can hinder the construction of models to determine the correlation among the variables (O’Connor). Privacy concerns, data extraction and transformation, data quality, and possible restriction with generalizability of findings are major problems associated with the use of secondary data (Edmondson & Reimer, 2020). Completeness, correctness, and currency were the factors associated with data quality (Edmondson & Reimer).

In considering racism’s impact on MDD, it is imperative to remember that there are three levels of racism: institutionalized, personally mediated, and internalized (Molina & James, 2016). Although it is critical that all forms of racism be considered to understand their potentially relative, additive, and/or synergistic influence on depression (Molina & James), a limitation in the present study is that only access to measures of personally mediated and internalized racism were available. This was a cross-sectional study, which limits causal interpretation of the study findings (Hou et al., 2015).

Significance

Depression has deleterious individual and social impact (Britt-Spells et al., 2018) and needs to be given priority attention. Britt-Spells et al. asserted that immediate action is needed to understand and address depression within the Black American community. Black Caribbean men have unusually high rates of depression (Taylor & Chatters, 2020) and yet are often included in the broad category of Black Americans. In their comparative study of Black American and Afro-Caribbean adults on discrimination, internalized racism, and depression, Molina and James (2016) emphasized the need for research that highlights the heterogeneity within the Black American subpopulation.

Racial and ethnic disparities still exist across numerous life course outcomes, including poorer educational performance and attainment, lower labor force participation, higher rates of teenage pregnancy, arrests and incarceration, poverty, and morbidity and mortality for African Americans compared with Whites (Pew Research Center, 2013; Benner et al., 2018). Relatedly, evidence persists for differential treatment across racial/ethnic groups in health care, employment, the judicial system, financial and consumer markets, and the housing sector (Benner et al). Although much of these disparities are documented for African American (Benner et al), it is worth remembering that this is not a homogeneous group.

Clark et al. (2015) reported that the findings from their study indicates that an important extent of heterogeneity can be observed in the experiences of discrimination among African American and Caribbean Black adults. Given the health impacts of discrimination on various populations, there is an ongoing need for innovative research methods and new approaches for identifying all types of discrimination and their impact on health and health care (Healthy People.gov, 2020). Additional research is needed to increase the evidence base on the effects of discrimination on health outcomes or disparities (Healthy People.gov). This additional evidence will help facilitate public health efforts to address discrimination as a social determinant of health (Healthy People.gov).

The Black American community is rapidly increasing in size and ethnic diversity (Taylor & Chatters, 2020). The gaps in the knowledge base on mental health issues within this multiethnic minority group need to be addressed accordingly (Taylor & Chatters). Britt-Spells et al. (2018) recommended that future research explore the role of gender in the relationship between discrimination and depression within different racial and ethnic groups. Knowledge regarding modifications to this relationship due to gender would be useful in the planning of appropriate interventions for the various ethnic groups comprising the Black American community (Britt-Spells et al.). Inadequate and inappropriate responses to mental illness contribute to the already burgeoning health and economic burden (PAHO, 2019).

Summary

As I discussed in this chapter, MDD and PED are of public health interest, and the association between the two constructs needs to be better understood, especially in minority ethnic groups that are subjected to different forms of discrimination on a regular basis. The Jamaican diaspora in the United States is one such minority ethnic group. Despite the plethora of studies on the association between MDD/depressive symptoms and PED in various ethnic groups, the literature is deficient in information on the association within the Jamaican diaspora in the United States. Knowledge specific to the association within ethnic groups can help public health officials design more efficient and effective interventions and can inform policy decisions. For this quantitative study with a correlational design, I analyze data on the 510 Jamaicans included in the CPES data set. The study was grounded in the theory of microaggression. In Chapter 2, I review the literature supporting the study. The search strategies used to identify current and relevant studies and the theoretical framework are described.

Chapter 2: Literature Review

Introduction

The purpose of this study was to add to the literature regarding the association between PED and lifetime MDD (MDD-lifetime), specifically among the Jamaican diaspora in the United States. The sample was comprised of the entire 510 Jamaicans included in the CPES. I analyzed the data (a) to determine the risk of lifetime MDD and being African American or of Caribbean and Jamaican ethnicity and living in the United States and (b) to explore the probable association between PED and lifetime MDD, specifically among Jamaicans as an ethnic minority group in the United States. The study was also aimed at determining whether gender was an effect modifier in the association between PED and lifetime MDD among the Jamaican diaspora in the United States.

MDD is one of the most common mental disorders in the United States with an estimated 6.7% of the population experiencing a major depressive episode in 2015 (Molina & James, 2016). MDD causes impairment of the individual's physical, intellectual, and learning capacities and is often associated with high levels of mortality and morbidity (Ahmadpanah et al., 2019). MDD lessens a person's standard of health and well-being and often leads to premature death (Kohler et al., 2019). MDD accounts for the heaviest burden of disease across all mental disorders, personally, socially, and economically (Molina & James). As such, Molina and James expressed that the high prevalence rate of MDD in the United States required immediate attention.

Discrimination is a public health issue and an everyday experience for many people (American Psychological Association, 2019a). Discrimination has been implicated as a major stressor in the lives of more than 67% of African Americans (American Psychological Association, 2020b). PED based on identity, such as an individual’s ethnicity, age, gender, weight, sexual orientation, and socioeconomic status, has been identified as a chronic stressor (Hayes et al., 2018) and as a risk factor for major depression (Taylor & Chatters, 2020). Pearl et al. (2018) noted that the literature on everyday experiences of discrimination needed to be expanded to further the understanding of the effects of all forms of PED on mental health.

Research on the effects of all forms of PED on the health of the African American subpopulation is especially needed, according to Lewis and Van Dyke (2018). Clark et al. (2015) found PED to be positively associated with MDD among African American and Caribbean Black adults. Clark et al.’s findings also indicated that the association between PED and MDD varied by the type of PED. Although many researchers (Allen et al., 2017; Antonio et al., 2016; Britt-Spells et al., 2018; Cano et al., 2016; Cobb et al., 2017; Hall et al., 2019; Han & Richardson, 2015; Hunger et al., 2020; Ikram et al., 2016; Incollingo et al., 2019; Jackson et al., 2019; Kim & Park, 2018; Kim et al., 2019; Kira et al., 2017; Lyons et al., 2018; Mouzon et al., 2017; Paradies et al., 2016; Robinson et al., 2017; Spahlholz et al., 2016; Stepanikova et al., 2020; Wellman et al., 2019) have examined the association between PED and depressive symptoms, they have not adequately explored the association of PED with MDD, according to my review of the literature. Furthermore, many of the studies identified focused on PED as a single predictor variable without individuating the effects of the different types of PED (e.g., Chae et al., 2012; Hosler et al., 2019; Ikram et al., 2016; Molina and James, 2016). In addition, I found no study on the associations between these variables among the Jamaican diaspora in the United States as a distinct minority ethnic group. The research practice has been to include the Jamaican diaspora in the United States among the heterogeneous groups referred to as African Americans and Black Caribbean residents (see Chou et al., 2012; Clark et al., 2015; Hosler et al., 2019; Molina & James, 2016; Tobin and Moodie, 2021; Yasui et al., 2015).

In Chapter 2, I first discuss the literature search strategy I used to identify articles for this study. The theoretical framework is then revisited in greater detail; I outline the theoretical propositions, provide justification for the choice of the theory, and explain the relevance of the theory to the present study. In the literature review that follows, I review the literature related to the dependent and independent variables. The probable association between MDD-lifetime and PED and the various types of microaggression and their individual association with the MDD-lifetime are explored. The chapter ends with a summary of key points.

Literature Search Strategy

Google Scholar, PubMed, the Centers for Disease Control and Prevention, and WHO were the resources I searched to identify scholarly articles concerning the association between PED and MDD. I also accessed a few databases via the information vendors EBSCOhost and ProQuest. The major search terms used were *MDD and perceived everyday discrimination*, *MDD and weight discrimination*, *MDD and age discrimination*, *MDD and gender discrimination*, *MDD and ethnic discrimination*, and *MDD and race discrimination*. In some instances, the term *perceived everyday* *discrimination* was replaced with the term *microaggressions*, *age discrimination* with *ageism*, and *gender* with *sex*.

Whenever possible, I sought studies that were published within the 5-year time frame of 2015 to 2020. However, due to the paucity of articles on the association between MDD and PED, some articles outside the 5-year time frame were included due to their saliency. In addition, some articles that were within the desired time frame, but used depressive symptoms as the outcome variable instead of MDD, were included to better denote symptomology. The latter was especially true for articles that focused on the different types of discrimination.

Most articles on the effects of race and ethnicity on depression did not make the distinction between the two terms and instead settled for the term *racial and ethnic* or *racial/ethnic groups*. As race and ethnicity were separate attributes of the variable PED, distinguishing between race and ethnicity was imperative. I defined Black, White, Hispanic, and Asian as race for the purpose of this study and identities such as African American, Black Caribbean, Filipino, Vietnamese, Chinese, non-Latino Whites, Mexican, and Puerto Rican, among others, as ethnicities. I used a literature review matrix to organize the articles selected for the study based on the type of depression and type of PED focused on in each study.

Theoretical Framework

Microaggression theory was the theoretical framework for this study. Psychiatrist, Chester Pierce, coined the word, microaggression, to label the spontaneous and subconscious insults often experienced by Black people in their everyday interactions with White people (Williams, 2020). The theory of microaggression therefore evolved from racial discrimination and is aligned with critical race theory, which posits that racism is entrenched in the cultural, social, political, and economic systems of the United States (Nagai, 2017). With the passage of time, the concept of microaggressions evolved to include other identities such as ethnicity, gender, age, weight, religion, class, and every other category of social justice (Nagai, 2017). Microaggressions implicitly or tacitly convey bias and are more stressful because of the possibility that one's race, gender, sexual orientation, or other identity is the basis of the discrimination (Torino et al., 2018).

Derald Wing Sue has been proclaimed the greatest proponent of microaggression theory (Nagai, 2017). Sue and colleagues were the first to propose nine broad themes and three types of microaggressions (Williams, 2020). The nine themes advanced include the premise that persons of color are foreigners and not true Americans, the supposition that people of color are not as intelligent as Whites, the notion that the values and communication styles of the White culture are superior, and assumptions that people of color are servants to Whites and cannot assume high profile jobs (Sue et al., 2007). The other themes are assumption of criminal status, denial of a person of color's racial/ethnic experiences, denial of individual racism, statements that assert that people of color are given extra unfair benefits because of their race, and the presupposition that people of color do not value education (Sue et al,).

Microassault, microinsult, and microinvalidation are the three types of microaggressions that have been identified by Sue and colleagues (Torino et al., 2018). Microassaults describe the brazen verbal, nonverbal, or environmental attacks aimed at conveying discriminatory and biased sentiments (Torino et al). Berk (2017) expressed disagreement with this nomenclature, arguing that there is nothing “micro” about these “assaults,” which in his opinion should be termed *macroaggressions*. Microassaults are the most blatant, premeditated, and deliberate forms of discrimination, such as name-calling, avoidant behavior, and the use of racial epithets that are meant to drive fear and dread into the target person or persons (Berk, 2017).

Microinsults contain insolent and uncharitable messages that are often subtly displayed and may be premeditated or instinctive and deliberate or inadvertent (Berk, 2017). Microinsults discredit an individual’s or group’s identity, be it their race, ethnicity, gender, religion, or sexual orientation (Torino et al., 2018). Microinvalidations are also performed with subtlety and may also be premeditated or instinctive and deliberate or inadvertent (Berk). Microinvalidations disregard the cognitive thoughts, feelings, or lived experiences of the individual or target group (Berk). Like microinsults, they deceitfully discount one’s racial, ethnic, gender, religious, and other identities (Berk).

Critics of microaggression theory have questioned whether microaggressions are verifiable in real life (American Psychological Association, 2019b). Concerns have also been raised as to why microaggressions should be considered a different type of discrimination and whether there is objective evidence to support the claim of the causal association of microaggression with psychological outcomes (American Psychological Association). Berk (2017) questioned whether microassault should in fact be termed *macroassault*. Lui and Quezada (2019) performed a systematic review of the research literature including unpublished studies and concluded that it remains questionable whether microassault should be considered a form of microaggression.

Lilienfeld (2017) asserted that microaggression research was grounded in five unsound principles. According to Lilienfeld, researchers assumed that the term microaggression could be applied to studies like all other variables and could stand up to scientific scrutiny, that microaggressions were unanimously regarded as being negative, that microaggressions were unspoken biases with the intent being aggression, that microaggressions could be meaningfully evaluated based on the opinion of the respondent, and that microaggressions have a deleterious effect on a person's mental health. Williams (2020) rebutted the claims of Lilienfeld by showing that the term *microaggression* was well defined and could be definitively associated with prejudice in offenders and mental-health outcomes in target groups. Williams explained how the concept of microaggressions was associated with ideas about groups of people that exist to explain and justify inequalities, power structures, systemic racism, and various types of racial biases.

In a study they conducted, Flavius et al. (2018) indicated that participants reported a host of psychological responses to microaggressions such as frustration, shock, avoidance or withdrawal, disbelief, anger, aggressiveness, uncertainty or confusion, resentment, anxiety, helplessness, hopelessness, and fear. In short, microaggressions are associated with stress responses (Flavius et al.). Like microaggressions, PED conveys day-to-day hidden biases that reflect the power differentials between groups (Williams, 2020). Like PED, microaggressions are perennial in nature, and their effects accrue over time (Torino et al., 2018). PED refers to perceptions of subtle, everyday actions that result from a negative judgment of an individual member of a group and that are either real or expected (Hayes et al., 2018). Like PED, microaggressions are continual, never-ending, and cumulative in nature (Torino et al.). Marginalized group members experience them from the time they awake until they go to sleep, from the moment of birth until they die (Torino et al.). More studies are needed to illuminate the deleterious effects of PED/microaggression on the mental health of minority ethnic groups.

The independent variables for this study are PED and its attributes that represent the various types of microaggression. PED overlaps with microaggressions as the latter can be conceptualized as manifestations of PED (Williams, 2020). Microaggressions send denigrating messages to certain individuals based on group membership such as weight, age, gender, ethnicity, race, gender, culture, religion, social class, sexual orientation, and other identities (Torino et al., 2018). PED and its attributes are represented in the CPES data set as the variable V06548: Reason for discriminating experiences, with the attributes weight, age, gender, ethnicity, race, and other. Microaggression involves identities such as ethnicity, gender, age, weight, and other social justice categories which are like the attributes of PED thus making the theory of microaggression suitable for this study.

Literature Review Related to Key Variables

Literature Related to the Dependent Variable

MDD

MDD is an example of a nonchronic depressive disorder and, with a lifetime prevalence of 15% is one of the most pervasive mental disorders worldwide (Kohler et al., 2019). MDD was the fifth leading cause of years lived with disability in 2016, contributing 4·2% of total years lived with disability, globally (Vos et al., 2017). MDD remains one of the most common mental disorders in the United States, with a 1-year prevalence of 6.7% and a lifetime prevalence of 16.6% (Emmert-Aronson & Brown, 2015). Molina and James (2016) expressed concern over the significantly high rate of depression in the United States, noting that among all mental illnesses, MDD was responsible for the heaviest burden of disease, in terms of personal, social, and economic costs. MDD is more prevalent in adulthood but is being diagnosed with greater regularity in children and adolescents (National Institute of Mental Health, 2018). In 2019, the prevalence of MDD was highest among the 18 - 29 age cohort, at 21.0%, with prevalence rates in the 45 and above age cohorts at 18.4%, and with the 30 - 44 age cohort experiencing the lowest rate, at 16.8% (Villarroel & Terlizzi, 2020).

MDD is frequently found in individuals with certain social, biological, and psychological risk factors (Kim et al., 2020). Scientific data indicates that MDD is a result of the interaction of genetic, psychological, and environmental factors (National Institute of Mental Health, 2018). Boldrini et al. (2019) provided evidence indicating that MDD was genetically transmissible from parent to offspring. Han and Richardson (2015) advanced that between 16% and 33% of the variance in depressive symptoms, a risk factor for MDD among older people, could be attributed to genetic factors. Life events such as increased stress, lack of social support, and low socioeconomic status have been shown to be environmental risk factors for MDD, especially among older people (Han & Richardson). Psychological factors include irrational thoughts, overgeneralization, and any of the many examples of cognitive distortions (Han & Richardson). Postpartum depression is regarded as a specifier for MDD (Slomian et al., 2019).

Diagnosis and Symptoms. The diagnostic criteria for MDD requires that the individual had been undergoing a depressed mood or a loss of pleasure for at least 2 weeks, that represents a departure from the person’s usual daily life, plus a minimum of five of the nine identified depressive symptoms (Molina & James, 2016). Symptoms of MDD include affective, cognitive, behavioral, and somatic symptoms (Chae et al., 2012). Some symptoms include depressed mood most of the day, diminished interest/pleasure in all or most activities, significant unintentional weight loss or gain, insomnia or sleeping too much, agitation or psychomotor retardation noticed by others, and fatigue or loss of energy (Molina & James). Other symptoms include feelings of worthlessness or excessive guilt, diminished ability to think or concentrate, or indecisiveness, and recurrent thoughts of death (Molina & James).

Comorbidity. Approximately 69-76% of individuals with MDD show comorbidity with other mental conditions such as anxiety disorder, personality disorder, and substance use disorder (Emmert-Aronson & Brown, 2015). MDD in adulthood often occurs as a comorbidity with chronic conditions such as diabetes, cancer, and heart disease (National Institute of Mental Health, 2018). The presence of MDD as a comorbidity often exacerbates the effects of these chronic diseases (National Institute of Mental Health). MDD is a well-known correlate of suicide and suicidal ideation (O'keefe et al., 2015). Rogers et al. (2018) informed that the rates of suicide and MDD were currently at the highest point in the history of the United States. Disproportionately high rates of both suicide and MDD were noticed among the Latino subpopulation (Rogers et al). Early life adversity may increase the risk of MDD and suicidal behavior during adulthood (Boldrini et al., 2019).

Race/Ethnicity. Hayes et al. (2018) demonstrated MDD in 36.6% Blacks, 35.8% Hispanics, and 31.9% Whites. In contrast, Tobin (2021) found that Blacks experienced significantly lower rates of MDD (18.37%) compared to Whites (38.44%). However, among those with MDD, 46% of Blacks had chronic MDD, compared to 29% of Whites (Tobin). Tobin also demonstrated a significant interaction between distress and stress exposure suggesting that the odds of chronic MDD (lifetime and past-year prevalence) depended on the level of stress exposure for Blacks and not Whites.

Research indicates that Blacks residing in the United States may be experiencing greater severity of depression than other racial or ethnic groups (Britt-Spells et al., 2018). African Americans have been identified as being more likely to report greater disability secondary to MDD and more chronic and severe MDD than Whites and Black Caribbean residents (Britt-Spells et al). Based on these two findings, Britt-Spells et al. inferred that depression, in general, represents an especially crucial problem that needs to be urgently understood and addressed among ethnic Black Americans. The Jamaican diaspora in the United States falls under the rubric of the Black American subpopulation.

Literature Review Related to the Independent Variables

The main independent variable for this study is PED. The five attributes of PED measured in the CPES were weight, age, gender, ethnicity, and race. The five attributes represent five types of microaggression. PED and the five types of microaggression are the predictors used in the logistic regression models while controlling for five covariates.

PED

Prevalence. Hosler et al. (2016) affirmed, that objective evidence indicates that despite the progress since the 1960s, discrimination remains a significant problem in the United States. Discrimination has persisted in housing (U.S. Bureau of Labor Statistics, 2015), policing (U.S. Department of Justice Civil Rights Division & U.S. Attorney’s Office Northern District of Illinois, 2017), and medical care (Chen & Li, 2015). Boutwell et al. (2017) analyzed data from the National Representative Longitudinal Study of Adolescent to Adult Health (Add Health) and purported that only about 25% of participants, regardless of race, experienced discrimination. By contrast, Healthy People.gov. (2020), reported that discrimination is a popular occurrence in the United States, as 63% of adults reportedly experience discriminatory acts, daily.

Stress. Discrimination has been defined in many ways. The International Labor Organization defines discrimination as any distinction or exclusion based on race, color, sex, religion, political opinion, national extraction, or social origin, which negates or hinders equal opportunities in employment or occupation (Yaghmour et al., 2021). Ikram et al. (2016) defined discrimination as a social phenomenon that manifests itself in different forms in modern cultures. Abramson et al. (2015) expressed that discrimination is a socially structured action. As such, Luo et al. (2012) explained, that discrimination results from social interactions that advance the agenda of powerful and privileged groups at the demise of other groups. Discrimination in everyday life increases stress and the risk for impaired psychological and physical well-being (Pearl et al., 2018). PED is considered more damaging than other stressors because of its link to identities that are unchangeable (Stepanikova et al., 2020). It is imperative to understand the effect of discrimination as a fundamental social cause of poor mental health outcomes (Hosler et al., 2019).

Race/Ethnicity. According to the 2015 Stress in America Survey, people who have reportedly experienced discrimination rate their stress levels higher, on average, than those who reportedly have not experienced discrimination (American Psychological Association, 2019a). Research has shown that African Americans report more discrimination and unfair treatment than other ethnic groups (Everson-Rose et al., 2015). Hayes et al. (2018) observed that the proportions of those who reported at least one encounter of discrimination annually were higher in Hispanics (54.9%), Blacks (46.3%), and Whites (46.1%). The mean everyday discrimination scores were 2.6 (SD = 3.1) in Hispanics, 2.2 (SD = 3.0) in Whites, and 2.0 (SD = 2.9) in Blacks (Hayes et al.). Continuous everyday discrimination scores measure detail discriminatory experiences and the scores observed were consistent with the expected ranges in various American subpopulations reported by published studies (Hayes et al.).

How individuals perceive the reason for discrimination seems to vary greatly by their race and ethnicity (Hosler et al., 2019). Among African Caribbean people living in the United States, perceiving discrimination has been associated with increased feelings of closeness to African Americans (Molina & James, 2016). Just as the term African American does not describe a homogeneous group, the nomenclature of African Caribbean does not either. The term African Caribbean represents a heterogeneous group that comprises individuals across a broad range of religious, linguistic, racial, immigration, and geographic regional differences which limits any broad generalizations about this group (Molina & James). Future research should aim to desegregate this group that share similar characteristics with the Jamaican diaspora in the United States and further disentangle the findings for African Caribbean respondents (Molina & James).

Research. The pathway from perceived discrimination to increased stress to poor mental health has been demonstrated repeatedly in prior research related to perceived discrimination (Pearl et al., 2018). However, much of the work on addressing experiences of discrimination have tended to focus on race as a stigmatized identity (Hunger et al., 2020). Lui and Quezada (2017) called for more systematic investigations that differentiate the possible impact of various types of discrimination and pathways that relate to mental and physical health outcomes. A recent study emphasized the need to undertake an intersectional approach in investigations of discrimination as the various stigmatized identities have their own respective advantages and disadvantages, and interactions between and among them may lead to different protections and risks for health and well-being (Pearl et al.).

PED and MDD. Stressors are widely accepted as risk factors for the initiation of depression (Farrer et al., 2016). One such stressor is the experience of perceived discrimination, which can be conceptualized as the action or inaction resulting from the negative perception or judgment of an individual or a group (Hayes et al., 2018). Everyday discrimination is seen as a psychosocial stressor that increases the risk of major depression for people of color (Molina & James, 2016). Williams et al. (2017) inferred that their findings indicated that exposure to experiences of daily discrimination could be empirically linked to depressive symptomatology. Hayes et al. emphasized that all types of discrimination may serve as stressors

Microaggression embodies different types of everyday discrimination that are common, create significant distress, and impact depression independently of perceived social status (Flavius et al., 2018). Different types of everyday discrimination may be related to depression differently, with some having more detrimental effects than others depending on when they are experienced (Han & Richardson, 2015). As PED experiences become more commonplace, the negative mental health outcomes disproportionately experienced by minority individuals also become more evident (Dondanville & Possel, 2019). Williams et al. (2017) observed that everyday discrimination scores seemed to have the most influence on explaining depression and unmet need for mental healthcare.

Several researchers have examined the association between MDD and PED (Chae et al., 2012; Chou et al., 2012; Clark et al., 2015; Hosler et al., 2019; Molina & James, 2016; Lowe et al., 2019; Russell et al, 2018; Singh et al., 2017; Yasui et al., 2015). Results suggest that discrimination experience can be one of the fundamental social causes of major depression symptoms (Hosler et al., 2019). Greater levels of self-reported discrimination were associated with higher odds of having 12-month MDD (Chae et al., 2012). Our findings were consistent with previous studies that examined the link between continuous measures of discrimination and MDD and found a positive relationship between frequent experiences of discrimination and MDD (Clark et al., 2015)

Molina and James (2016) reported that the results of their study revealed that experiencing discrimination was associated with increased odds of past-year MDD. Molina and James also highlighted the finding that internalized racism was associated with a lowered risk of past-year MDD in the Afro-Caribbean and not the African American participants in the study sample. Hosler et al. (2019) demonstrated a consistent and significant independent association between everyday discrimination scores and major depressive symptoms in crude regression model and at each step of covariate adjustment in all participating groups.

Hosler et al. (2019) asserted that it may be feasible to assess discrimination experience as a risk factor for major depression in individuals of all racial and ethnic backgrounds and called for research to include a wider spectrum of racial and ethnic groups. Demographic trends have pointed to the gradual growth in the African Caribbean subpopulation in the United States (Anderson, 2015). There is a need for increased research on the marginalized African Caribbean ethnic group that continues to experience health disparities in several areas (Molina & James, 2016). However, there is a need to desegregate the various ethnicities in the African American and African Caribbean cohorts to reveal important similarities and the variations in their divergent experiences, psychosocial adaptation, and mental health profiles (Molina & James). Such research will help us better understand how to prevent, reduce, and ultimately eliminate disparities in these heterogeneous and growing populations in the United States (Molina & James).

Racial Microaggression

The shooting of Michael Brown in Ferguson, Missouri, Tamir Rice in Cleveland, Ohio, Laquan McDonald in Chicago, Illinois, and the killing of George Floyd in Minneapolis, brought the ugly specter of racial discrimination in the United States back to the forefront (Benner et al, 2018). However, it is still the popular view that flagrant racial discrimination has been on a steep gradual decline since the 1960s (O'Keefe et al., 2015). Overt racial discrimination has been replaced by the more subtle, yet pervasive racial microaggression (Wong et al., 2014). Flavius et al. (2018) cautioned that although racial microaggression is subtle and may appear innocuous it is worth remembering that it is a broader variation of overt racial discrimination.

O'Keefe et al. (2015) showed that Blacks have recorded the most experiences of racial microaggression, Native Americans the least, with only a marginal difference in the experiences of the Hispanic and Asian subpopulations. A study by Boutwell et al. (2017) on the frequency of racial discrimination in the United States attracted serious criticism from authors Lee et al. (2019). Boutwell et al. analyzed data from the National Representative Longitudinal Study of Adolescent to Adult Health and interpreted their findings as revealing that only one-quarter (25.20%) of all participants faced discrimination, regardless of race. Boutwell et al. reported prevalence rates of 31.88% for Blacks, 27.15% for Hispanics, 26.99% for mixed-race individuals, 23.53% for Whites, 18.72% for Asians, and 11.61% for American Indians. Boutwell et al. then declared that many participants who reported having experienced discrimination, attributed their experiences to situational factors other than race, gender, sexual orientation, or age.

Lee at al. (2019) emphasized that their estimates stood in stark contrast to those of Boutwell et al. (2017). Compared to the 25.20% reported by Boutwell and colleagues, Lee et al. revealed that 43.50% of participants reported experiencing discrimination from time to time or regularly. Comparing the experiences of discrimination, Lee et al. found that 63.10% of minorities experienced racial discrimination compared to 29.61% of Whites. Boutwell and colleagues had reported 28.74% and 23.53%, respectively. Prevalence rates between racial subpopulations also showed significantly different margins. Lee et al. found rates of 69.45% for Blacks, 56.59% for Asians, and 45.01% for Hispanics. The frequency of exposure to microaggression was shown to differ by race, with Black respondents reporting a significantly higher frequency of microaggression, followed in order by Hispanics, Asians, and those of mixed race (Lee et al.).

Allen et al. (2017) reminded, that racial microaggression describes the actions, practices, and behaviors of members of socially dominant groups that negatively impact members of socially subordinate groups. Racial microaggression negatively affects the psychological functioning of people of color (O’Keefe et al., 2015). Existing research shows that experiences with racial microaggression is related to suicidal ideation (Hollingsworth et al., 2017). Specifically, the results indicate that exposure to racial microaggression may lead to increased depression symptoms, which subsequently may lead to increased thoughts of suicide (O’Keefe et al.). The role of racial microaggression as a sociocultural risk factor for suicide is important because of the differential in the risk for suicide across racial minority groups (O’Keefe et al.). The study of the long-term effects of racial microaggression on mental health has been identified as an important area of research (O’Keefe et al.). Exploring the impact of racial microaggression on the mental health of various subpopulations will result in better understanding of the nuances in the experiences of each group (Shinwoo et al., 2017).

Correlation With MDD. The correlation between racial microaggression and MDD has been elucidated by the three studies found from the literature search (Chou et al., 2012; Russell et al., 2018; Tobin & Moodie, 2021). Chou et al. found that the perception of racial microaggression was associated with MDD in the three most common U.S. minority groups; Hispanics, Asians, and Blacks. Hispanics were more likely to meet the criteria for MDD than the Black cohort (Chou et al.). Asians were consistently the least likely to report MDD (Chou et al.).

In their longitudinal study, Russell et al. (2018) followed 499 women for up to eleven years and showed that neighborhood racial discrimination was a significant predictor of MDD. Neighborhood-level racial discrimination was shown to be a stronger predictor of MDD than individual reports of experiences of racially based discrimination (Russell et al.). Russell et al. noted that the latter finding was consistent with the view that when discrimination is perceived as pervasive it is seen as being more difficult to avoid. The results by Tobin and Moodie (2021) showed that early life racial discrimination (ELRD) was linked to adult MDD, even after controlling for adult discrimination. Tobin and Moodie explained that the results indicate that the impact of

ELRD on adult MDD was independent of adult exposures and that this was consistent with the notion that childhood is a sensitive period of life.

Ethnic Microaggression

Ethnic discrimination represents the day-to-day experiences of overt and subtle acts of unfair treatment because of one's ethnic background (Ikram et al., 2016). According to the ''ethnic preference'' explanation, negative social emotions are directed toward ethnic minorities who are prevented from fully sharing in equal opportunities and power (Kim & Noh, 2014). Ethnic discrimination can be regarded as physical evidence of racism on an interpersonal level, and is comparable to other chronic, social stressors (Polanco-Roman et al., 2019). It has been suggested that ethnic microaggression may lead to more severe psychological consequences than overt discrimination (Torres & Taknint, 2015).

Ethnic discrimination is said to be pervasive across Europe, as approximately 30% of ethnic minorities across Europe have reported being discriminated against because of their ethnicity (Ikram et al., 2016). A Dutch report suggested a higher rate of about 40–50 % and indicated that ethnic minorities experience discrimination mainly in public spaces and in the labor market (Ikram et al.). Social scientists noted that some ethnic minorities experience disproportionately higher levels of certain risk factors (Paradies et al., 2015). Recent studies have focused on the psychological impact of ethnic microaggression among Asian Americans and African Americans (Torres & Taknint, 2015). Lazarevic et al. (2018) observed, that with the anti-immigrant political climate in the United States, Latino immigrants have been experiencing increased instances of ethnic microaggression which has been taking a toll on their mental health. Latino young men are often portrayed negatively by the media, making them the most common target of ethnic discrimination (Lazarevic et al.).

Ikram et al. (2016) affirmed that there is growing evidence that perceived ethnic discrimination is positively associated with adverse mental health outcomes among minority ethnic groups. The literature search I conducted did not reveal any study that explored the association between perceived ethnic discrimination and MDD. However, Ikram et al. further stated that the evidence seemed to be most consistent with depressive symptoms, suggesting that higher perceived ethnic discrimination is associated with more depressive symptoms across minority ethnic groups. Ethnic minority emerging adults have reported greater experiences of ethnic discrimination and yet poorer coping skills compared to older adults (Polanco-Roman et al., 2019). Researchers have highlighted the fact that minority ethnic groups utilize different approaches in dealing with perceived ethnic discrimination (Ikram et al.). Further research is warranted to better understand the developmental consequences of ethnic discrimination as this knowledge would help public health officials improve the cultural sensitivity of currently available mental health services (Polanco-Roman et al.).

Correlation With Depressive Symptoms. The literature search I conducted did not produce any study that had examined the association between ethnic microaggression and MDD. Ikram et al. (2016) indicated that perceived ethnic discrimination was strongly associated with depressive symptoms of all adverse mental health outcomes. Therefore, I used depressive symptoms as a proxy to help with the understanding of the association between perceived ethnic discrimination and MDD. This study will add to the literature by being the first to explore the association between perceived ethnic discrimination and MDD, especially among the Jamaican diaspora in the United States.

Several studies have demonstrated an association between perceived ethnic discrimination and depressive symptoms (Cano et al., 2016; Ikram et al., 2016; Polanco-Roman et al., 2019; Thibeault et al., 2018; Torres & Taknint, 2015). Ikram et al. (2016) demonstrated the association using a large sample size of 11,780 comprising five minority ethnic groups living in the Netherlands. In support of their study hypotheses, Torres and Taknint (2015) illuminated an association between perceived ethnic discrimination and heightened traumatic stress symptoms, which in turn was predictive of increased depressive symptoms. Higher ethnic discrimination was shown to be associated with higher depression symptoms, and that self-esteem mediated the association (Cano et al., 2016). Three-way interactions demonstrated a notable buffering impact of strong affirmation/belonging on the relation between ethnic discrimination and depressive symptoms for women (Thibeault et al., 2018).

O’Keefe et al. (2015) contends that there is compelling evidence demonstrating a link between ethnic discrimination and depressive symptoms. Researchers indicate that depressive symptoms may explain the relation between ethnic discrimination and the risk for suicidal behavior (O’Keefe et al.). The claim was supported when in a nationally representative sample of Latino adults, Oh et al. (2019) demonstrated that ethnic discrimination was indirectly associated with suicidal ideation through depressive disorders. Polanco-Roman et al. (2019) also found an indirect relation through depressive symptoms in the association between ethnic discrimination and suicidal ideation.

The importance of understanding the specific context and source of ethnic discrimination is gaining recognition (Thibeault et al., 2018). Such information is of public health significance because it can provide evidence that ethnic discrimination is a sociocultural determinant that may be associated with elevated anxiety and depression (Cano et al., 2016). It would be useful to know where unfair treatment based on ethnic background occurred, under which conditions this occurred, by whom, and whether this changed contingent on the length of residency in the United States or by ethnic group (Thibeault et al.). Trend-level results have pointed to a more deleterious impact of ethnic discrimination on depressive symptoms for those with lower levels of other-group orientation (Thibeault et al.).

Gender Microaggression

Gender discrimination describes the day-to-day experiences of overt and subtle acts of unfair treatment because of one’s gender (Stepanikova et al., 2020). Transgender people experience gender-related discrimination based on their gender identities, which has led to their marginalized and minority positions, and has deprived them of fair living conditions, job opportunities, and education (Zhang et al., 2021). Sexism is often used interchangeably with gender discrimination. However, Stepanikova et al. point out that sexism encompasses broader abstractions such as beliefs, attitudes, and social norms, in addition to the regular discriminatory practices and actions.

Despite great efforts at the global level, gender discrimination is far from eliminated and remains predominant in various sectors of life (Yaghmour et al., 2021). Gender discrimination is manifested in a variety of ways, such as gender microaggressions, gender-biased policies; and inequitable treatment of females within the family and on the job (Stepanikova et al., 2020) Sexual objectification, sexist language, and notions of men being intellectually and physically superior to women are also elements of gender discrimination (Stepanikova et al.). Kim and Park (2018) affirm that gender discrimination is one of the social stressors of being a woman that negatively impacts their mental health.

Women are more likely to experience gender discrimination than men (Kim et al., 2020). A nationally representative study revealed that 79.3% of women reported experiencing discrimination regarding promotional opportunities, while only 3.9% of men reported the same; further, 58.2% of women versus 5.2% men reported experiencing gender discrimination related to income (Kim et al.). Gender discrimination in medicine was found to be the main cause of declines in work efficiency with 52% of female medical trainees reporting experiences of gender discrimination (Yaghmour et al., 2021). Gender-related discrimination was reported by 80.1% of transgender participants in the study conducted by Zhang et al. (2021).

Most studies on discrimination have focused on racial identity, hence little is known about the variables that account for and influence the association between gender discrimination and psychological consequences (Kim & Park., 2018). Social theories have implicated discrimination as a conduit through which gender inequalities impact the lives of women (Stepanikova et al., 2020). However, the adverse effects of gender inequality not only impact the health of women, but also that of men, boys, girls, and gender minorities (Darmstadt et al., 2019). Like other forms of discrimination, perceived gender discrimination is stressful for the victim (Stepanikova et al.). Gender-based comparisons have shown that women reported a higher lifetime prevalence of anxiety and mood disorders, and that perceived gender discrimination contributed to this pattern (Kim & Park). Policies are needed to completely prohibit gender discrimination while providing favorable working environments for women (Kim et al., 2020).

One area of concern regarding gender discrimination has to do with persons who do not support the notion that there are just two gender categories. Transgender and gender diverse (TGD) individuals are members of marginalized groups that do not subscribe to the binary notion of gender (Puckett et al., 2020). It is well documented that TGDs experience notably high levels of gender discrimination (McCann & Brown, 2017). Reportedly, gender minority discrimination increased for TGDs following the 2016 presidential election as TGDs reported increased exposure to hate speech, discrimination, and violence following the election (Veldhuis et al., 2018).

Correlation With MDD/Depressive Symptoms. Stepanikova et al. (2020) claimed that, to their knowledge, no study had specifically considered perceived gender discrimination in relation to health consequences such as depressive symptomatology, in a population-based sample. The literature search I conducted on the association between gender microaggression and MDD produced only one study by Platt et al. (2016). Platt et al. showed that compared to men, the odds of past-year MDD among women was 1.96 in the adjusted logistic regression model, and 1.74 in the conditional logistic regression model. Overall, these results suggest that gender discrimination may be a prominent explanation for gendered mental health disparities at the population level (Platt et al.).

I had to use research studies for which depressive symptoms was the outcome variable to assist in the understanding of the association between perceived gender discrimination and MDD. Stepanikova et al. (2020) contends that evidence on the link between gender discrimination and depressive symptoms is scant as discrimination based on gender has rarely been studied. A search of several databases seemed to support this position as I found only a few articles (Kim & Park, 2018; Kim et al., 2020; Stepanikova et al., 2020; Zhang et al., 2021) that explored the association between gender discrimination and depression. Kim and Park (2018) showed that perceived gender discrimination was positively associated with depression, suggesting that as the participants perceived gender discrimination, they reported greater depression. Kim et al. (2020) reported that women who experienced gender discrimination in the workplace had higher odds of depressive symptoms regardless of the type of the discrimination. Kim and Park also demonstrated that self-esteem mediated the relationship between perceived gender discrimination and depression, among those participants with high levels of belief in a just world.

Stepanikova et al. (2020) performed a longitudinal study on pregnant women from midway the pregnancy to eleven years after the birth of the first child. Stepanikova et al. claimed that their study offered initial evidence of significant association between women’s perceptions of gender discrimination and depressive symptoms. Perceived gender discrimination, reported by 10.7% of women, was related to higher depressive symptoms (Stepanikova et al). Depressive symptoms were significantly higher among women who reported perceived gender discrimination compared to women who did not (Stepanikova et al.). Zhang et al. (2021) demonstrated that participants who experienced gender-related discrimination and victimization showed significantly higher levels of depression than those who never experienced such unfair treatments. Besides, gender-related discrimination and resilience significantly contributed to the variance of the depression (Zhang et al.).

Exposure to discrimination among TGDs has been linked to higher rates of depression (Puckett et al., 2020). Research thus far with this community has shown that there are significant mental health disparities that exist for TGDs (Perez-Brumer et al., 2017). Puckett et al highlighted the need for urgent actions to decrease gender discrimination. Discrimination and restrictive gender norms are unethical and unjust and no effort should be spared to dismantle restrictive gender norms and eliminate gender injustices in society (Stepanikova et al., 2020).

Age Microaggression

Age discrimination is also referred to as ageism and describes discrimination against people based on age, particularly because they are perceived of as old (Han & Richardson, 2015). Age discrimination is manifested in negative attitudes towards older people, treating older people unjustly, and in policies and protocols that promote overgeneralized beliefs of older people (Lyons et al., 2018). Surveys of adults 52 years and older conducted in the United States and in the United Kingdom, revealed that 29%

of Americans and 35% of English residents experience age-related discrimination a few times annually (Jackson et al., 2019). Vulnerable groups are likely to experience more ageism and be more affected by the adverse effects of ageism, especially due to the synergistic interactions of other forms of discrimination (Kim et al., 2019).

Han and Richardson (2015) argue that age discrimination has been institutionalized and socially tolerated. According to Han and Richardson, age discrimination has resulted in systematic bias that denigrates older persons and deprive them of equal rights and justice. Age discrimination can adversely affect the mental health of older people as they try to deal with being invalidated, being treated as a burden, and coping with the many prejudices affiliated with age discrimination (Monahan et al., 2020). Among 1943 participants who reported perceived age discrimination, 1406 (72·4%) reported being treated with less respect or courtesy, 877 (45·1%) reported being treated as if they were not clever, 804 (41·4%) reported receiving poorer service or treatment in medical settings, 685 (35·3%) reported receiving poorer service in restaurants or shops, and 357 (18·4%) reported being threatened or harassed (Jackson et al., 2019). Perceived age discrimination has been shown to be associated with psychosocial well-being in older adults, but not among young persons (Han & Richardson).

Older persons are less likely to report PED than younger people (Han & Richardson, 2015). Yet, a significant number of older adults have reported experiencing age-related discrimination in everyday life (Jackson et al., 2019). Approximately 70% of older people indicated that they have experienced everyday discrimination (Han &

Richardson). The negative effects of ageism, and specifically implicit ageism, can be more devastating among older adults (Kim et al., 2019). Implicit ageism describes the unconscious and inadvertent labels and biases ascribed to old people, while explicit ageism is the analysis and valuing of one’s personal outlook toward older people (Kim et al.). Implicit ageism is more pervasive than explicit ageism across all age groups, can be precipitated by explicit ageism, and is often reinforced over time (Kim et al.).

Age discrimination is often intentionally or unintentionally perpetuated in age-biased decision-making in the healthcare domain (Lyons et al., 2018). Age-biased decision-making has been on display in the discriminatory health care practices during this Covid-19 pandemic, in the United States, and globally (Monahan et al., 2020). Older adults were assigned the lowest priority for life-saving treatment according to the Covid-19 triaging guidelines (Rosenbaum, 2020). China and Italy were two of the first nations to engage in this age-biased decision-making when confronted with the influx of patients and shortage of supplies brought on by the pandemic (Arya et al., 2020; Xie et al., 2020). The United States followed suit and disadvantaged older adults on the premise of maximizing benefits by saving the most life-years and giving priority to those expected to live longest (Emanuel et al., 2020).

Age discrimination during the pandemic was also reflected in the inadequate protections in care facilities and the wider community (Monahan et al., 2020). Mounting evidence is implicating ageism at a broader level for the slow and inadequate responses to the pandemic (Monahan et al.). Research on ageism has explored how negative stereotypes about older persons continue to stymy the equitable treatment of older people in the healthcare domain (Han & Richardson, 2015). Negative perceptions of the aged often result in subpar health care and increased tragic loss of older adults, with rippling effects on family members, friends, and society at large (Monahan et al.).

Age discrimination is pervasive in society but has not been extensively studied in public health despite a paucity of information (Jackson et al., 2019). Several theories have been found to be applicable to the study of age discrimination. The stress process model is useful in explaining the direct and mediating effects related to the mechanism of age discrimination (Kim et al., 2019). The stress process model posits that perceived discrimination is a stressor that can cause psychological distress by eroding one's self-worth, self-concept, and sense of belonging (Kim et al.). Lyons et al. (2018) found crisis competence theory applicable to their study. The crisis competence theory proposes that people who experience discrimination to certain identities during their younger years, may be better able to cope with age discrimination encountered in later life (Lyons et al.).

Kim et al. (2019) grounded their study in the theoretical frameworks of Cooley's looking-glass self, Beck's cognitive theory of depression, and Levy's stress embodiment theory to explain the mediating effect of self-perception of aging in the association between age discrimination and depression. Kim and colleagues also applied Beck's cognitive theory of depression to clarify the mediating effect of purpose in life in the same relationship. Cooley's looking-glass self suggests that if older adults are viewed as being inferior or useless due to their advanced age, then older adults may eventually subscribe to this view (Kim et al.). According to the stereotype embodiment theory, older adults who were more frequently exposed to experiences of ageism are more likely to embody the negative self-perception of aging which contributes to negative cognitive outcomes such as depression (Kim et al.). Beck's cognitive theory of depression posits that those with depression develop cognitive distortions (Kim et al.).

Correlation With Depressive Symptoms. My search of the literature produced no study that explored the association between perceived age discrimination and MDD. Once again, I had to use depressive symptoms as a proxy for MDD. Recent studies have confirmed an association between perceived age discrimination and depressive symptoms among older people (Han & Richardson, 2015; Jackson et al., 2019; Kim et al., 2019; Lyons et al., 2018). Many of these studies have been supportive of the postulate of the minority stress theory, which posits that experiences of ageism are significantly associated with depressive symptoms or other poor mental health outcomes (Lyons et al., 2018). Kim et al. (2019) was unable to demonstrate a direct relationship between perceived ageism and depressive symptoms among older adults. Instead, the relationship between perceived ageism and late-life depression was shown to be fully mediated by self-perception of aging and purpose in life (Kim et al.). Older adults who perceived ageism were likely to have negative self-perception of aging, and this negative view of their own aging was likely to increase depressive symptoms (Kim et al.).

Jackson et al. (2019) examined the association between perceived age discrimination and depression using cross-sectional and longitudinal data. The cross-sectional data indicated that participants who perceived age discrimination were more likely to self-report depressive symptoms than those who had not perceived age discrimination (Jackson et al.). The longitudinal data indicated that perceived age discrimination was associated with depressive symptoms over 6 years (Jackson et al.). Lyons et al. (2018) generated hierarchical multiple regression models to examine the association between perceived age discrimination and depression. Step 1 of the model revealed a significant effect of ageism on depression, explaining 29% of the variation (Lyons et al.). At step 2, there was a significant effect of ageism on depression, a significant ageism by age interaction, and a significant ageism by gender interaction (Lyons et al.). Perceived age discrimination was significantly related to a change in depressive symptoms over four years with self-perceptions of aging mediating the relationship (Han & Richardson, 2015).

The associations between experiences of ageism and mental health may be considered as being well-established (Lyons et al., 2018). However, less is known about the extent to which the associations vary across racial and ethnic groups (Lyons et al.). In addition, depressive symptoms among older persons may arguably be on the decline in the United States (Han & Richardson, 2015). Nevertheless, some ethnic groups remain at higher risk for depression than others in late life (Han & Richardson). This study on the Jamaican diaspora in the United States is intended to help narrow these gaps.

The findings from studies on the association between perceived age discrimination and depression can inform the development of evidence-based interventions and policies that will improve older adults’ mental health (Han & Richardson, 2015). Lyons et al. (2018) inferred that those experiences of ageism may be an important factor in the health and well-being of older adults, especially for those who are younger, male, and heterosexual. Such factors must be taken into consideration when devising strategies for supporting healthier and happier ageing (Lyons et al.) Research findings have already highlighted the need for effective interventions at the population level to confront age stigma and discrimination (Jackson et al., 2019).

Weight-Based Microaggression

Weight-based microaggression is defined as prejudice or discrimination against persons considered overweight or obese (Incollingo et al., 2019). Weight-based discrimination is not only pervasive but is also on the increase (Hunger et al., 2020). Persons deemed overweight or obese encounter discrimination in their everyday interactions in domains such as employment, education, and health care (Pearl et al 2018). Hunger et al. noted that obese persons reported experiencing discrimination even in their romantic relations. Women are more likely to experience weight discrimination than men, and there is mounting evidence that younger adults and whites may be at greatest risk of being exposed to the prejudices of weight-based discrimination (Pearl et al.).

Perceived weight discrimination is most prevalent among individuals with Class II and Class III obesity (Spahlholz et al., 2016). A survey of obese Germans indicated that 19% of participants with class II obesity, and 38% of participants with Class III obesity reported experiencing weight-based discrimination (Sikorski et al., 2016). Wellman et al. (2019) point out that weight-based discrimination is also pervasive in the United States. In a study of obese Americans, Pearl et al. (2018) demonstrated that approximately 19% of individuals with class I obesity, and 42% of individuals with class II or III obesity reported experiencing weight-based discrimination. A significant number of individuals experiencing weight-based discrimination are often simultaneously subjected to discrimination due to race, gender, ethnicity, disability, socioeconomic status, and other factors (Pearl et al.).

The negative health consequences of perceived weight discrimination are especially germane to pregnancy (Incollingo et al., 2019). Perceived weight discrimination during pregnancy can have dire consequences for women of low socioeconomic status regardless of racial and ethnic identity (Incollingo et al.). Perceived weight discrimination during pregnancy is associated with postpartum depressive symptoms and maternal physiological stress reactivity (Endres et al., 2015). Postpartum depressive symptoms and maternal physiological stress reactivity can be life-threatening and therefore have serious implications for maternal and child health, not only during pregnancy, but also during the postpartum period (Endres et al.). Public health interventions that highlight the deleterious effect of weight discrimination on pregnancy can help create healthy environments for expecting and new mothers (Incollingo et al.).

Jackson et al. (2015) highlighted the need to tackle perceived weight discrimination in society. The examination of representative samples from national data revealed a correlation between exposure to perceived weight discrimination over a protracted period, and injurious health outcomes, including death, in adult women and men (Sutin et al., 2015). In addition, multiple regression models generated by Jackson et al. showed that approximately 40% of the total effect of obesity on psychological well-being could be explained by experiences of weight discrimination. Jackson et al. suggested that public health campaigns targeting obesity might be more successful, if perceived weight discrimination becomes the focal point, and not an emphasis on coping strategies.

Correlation With Depressive Symptoms. The literature search I conducted did not reveal any study that explored the association between perceived weight discrimination and MDD. However, several studies were identified that contributed to the literature on the correlation between perceived weight discrimination and depressive symptoms (Hunger et al., 2020; Incollingo et al., 2019; Robinson et al., 2017; Spahlholz et al., 2016; Wellman et al., 2019). Spahlholz et al. (2016) reported that an estimated 59.1% of participants who experienced perceived weight discrimination reported depressive symptoms and that 16.9% met the diagnostic criteria for a depression. Avoidant coping strategies, that is, refusing to believe that the discriminatory act happened, was shown to mediate the association between perceived weight discrimination and depression (Spahlholz et al.).

Repeatability and reproducibility are important terms in research. The validity of the results from single studies has been a major concern as oftentimes successive studies have failed to reproduce research findings (Hunger et al., 2020). Hunger and colleagues duplicated their study using a more comprehensive measure of suicidal ideation and a stronger measure of depression in their second study. In both studies, perceived weight discrimination was shown to be indirectly related to greater suicidal ideation in the association between suicidal ideation and depression (Hunger et al.).

Robinson et al. (2017) triplicated their longitudinal study attempting to prove that perceived weight discrimination was associated with greater depression. In all three studies, the longitudinal data over a 4-year period showed that perceived weight discrimination predicted increases in depressive symptoms from baseline to follow-up (Robinson et al.). Perceived weight discrimination also mediated the prospective association between obesity and depressive symptoms, in all 3 studies (Robinson et al.). In an initial model unadjusted for perceived weight discrimination, individuals with all classes of obesity were shown to be at elevated risks of increased depressive symptoms from baseline to follow-up (Robinson et al.). The likelihood of future depression was shown to be greatest among persons with Class II and Class III obesity in whom perceived weight discrimination was most common (Spahlholz et al., 2016). Individuals with obesity who reported experiencing weight discrimination, compared to those who did not, had greater risk for depression (Pearl et al., 2018).

Incollingo et al. (2019) examined the correlation between perceived weight discrimination and depression using both cross-sectional and longitudinal data. Perceived weight discrimination was shown to predict more postpartum depressive symptoms at both 1 month and 1 year postpartum but was not significantly associated with postpartum depressive symptoms at 6 months postpartum (Incollingo et al.). Wellman et al. (2019) demonstrated that perceived weight discrimination was a powerful predictor of binge eating and that depression mediated this association. The finding that depression mediated the association between experiences of perceived weight discrimination and binge eating further elucidated the pathway by which perceived weight discrimination impairs psychological functioning and may be contributing to maladaptive eating behaviors (Wellman et al.).

Challenging perceived weight discrimination in all cultures is paramount, regardless of the mechanisms by which perceived weight discrimination leads to depressive symptoms (Robinson et al., 2017). The use of appropriate coping strategies in dealing with experiences of weight is also important (Spahlholz et al., 2016). Robinson et al. advocates for supporting policies in the effort to address the damaging effects of perceived weight discrimination. Greater racial diversity in the samples used and the intersectionality with other forms of discrimination also needs to be considered to provide a more comprehensive understanding of the relationship between perceived weight discrimination and mental health (Pearl et al., 2018).

Summary

Through the literature review, I provided a closer look at MDD and PED, and the association between them. I illuminated the deleterious effects of both variables, the gaps in the literature regarding both variables, and the significance of studying both variables based on the recommendations from previous works. I re-emphasized that MDD accounts for the heaviest burden of disease across all mental disorders and noted that given the continual rise of depression in the United States and the major public health implications that it carries, that there has been a concomitant increase in research aiming to uncover the contributing factors. I pointed out that despite progress since the 1960s, discrimination remains a common everyday occurrence and a significant problem in several domains in the United States. Evaluating the impacts of discrimination is vital to understanding the factors that contribute to mental health disparities for marginalized groups.

I described the literature search strategy and revisited the theoretical framework. While the association between MDD and PED was examined, I noted that the different social justice categories linked to PED may be related to outcomes differently, with some having more detrimental effects than others. Therefore, the literature review also focused on the attributes of PED that represent the various forms of microaggression. I highlighted the insidious effects of microaggression due to race, ethnicity, gender, age, and weight.

Chapter 3: Research Methods

Introduction

The purpose of this study was to investigate the associations between lifetime MDD, PED, and the social justice categories of PED that constitute various forms of microaggression among the Jamaican diaspora in the United States. In conducting the study, I sought to answer three RQs. RQ1 was aimed at comparing the prevalence and statistical significance of lifetime MDD among the Jamaican diaspora versus other Afro-Caribbean nationals in the United States, and among African Americans. RQ2 examined the probable associations between lifetime MDD and PED, as well as between lifetime MDD and five microaggression categories, among the Jamaican diaspora in the United States. RQ3 explored the role of gender as a probable effect modifier in the association between lifetime MDD and PED among the Jamaican diaspora in the United States.

In this chapter, I provide relevant information related to the methodology, the RQs, the sample, instrumentation, the data sources, data collection, and the data analysis plan. I justify the choice of research design, outline the sampling procedures, and operationalize the variables. I discuss the threats to the internal and external validity of the study results, and ethical issues relevant to the study. In closing, a summary of the chapter is provided.

Research Design and Rationale

I applied a quantitative approach to inquiry (Burkholder et al., 2016) and a correlational design (Lau, 2017) to this study to ensure alignment with the study variables and the RQs. The quantitative approach is rooted in deductive reasoning and reductionist epistemology (Burkholder et al.). The quantitative approach supports the generation and testing of hypotheses by applying various statistical methods to numeric data (Burkholder et al.). Correlational studies are grounded in the objectivist worldview (Lau). The correlational design facilitates the analysis of quantitative data for the presence of hypothesized associations between dependent and independent variables (Lau). In situations when it is difficult to control for possible factors that could be causing changes in behavior, the correlational research design is used to determine the extent to which two factors are related, not the extent to which one factor causes changes in another factor (Sagepub.com, n.d.).

Archival data are a good type of data for a correlational study design (Sagepub.com, n.d.). The CPES make up an archive of encyclopedic epidemiologic data on the distributions, correlates, and risk factors for various mental disorders (Alegría et al., 2016). Researchers collected data from the broader U.S. population to highlight the issues with mental disorders among disadvantaged minority subpopulations (Alegría et al.). The CPES provide data regarding the prevalence of mental disorders and their related disabilities and treatment patterns (Alegría et al.). The CPES also provide information regarding language use, ethnic disparities, support systems, discrimination, and assimilation thereby facilitating statistical analyses exploring possible associations between mental disorders and various sociocultural factors (Alegría et al.).

Researchers collected data between 2001 and 2004; the data are updated on a regular basis (Alegría et al., 2016). The most recent update was in February 2018. The creation of one large data set by merging the surveys from the NCS-R, the NSAL, and the

NLAAS provides adequate power for statistical analyses aimed at exploring cultural and ethnic influences on mental disorders on samples that are representative of the general U.S. population (Alegría et al.). The NCS-R, NSAL, and NLAAS are documented in the CPES in an extensive and adaptable manner that facilitate the linking of key data and scientific constructs across the individual surveys (Alegría et al.).

Study Variables

Dependent Variable

The dependent variable for this study was *DSM-IV* MDD-lifetime. It was coded as V07876 in the CPES. The researchers collected the data on MDD-lifetime at the categorial level. Participants in the surveys were assessed for lifetime MDD using the World Mental Health survey initiative's Composite International Diagnostic Interview (WMH-CIDI) (Alegría et al., 2016). *DSM-IV* MDD-lifetime is defined as at least one lifetime major depressive episode without full manic, mixed, or hypomanic episodes excluding substance-induced and medical-induced disorders (Hasin et al., 2018). The symptoms of MDD include feelings of persistent sadness, hopelessness, worthlessness, irritability, fatigue, reduced appetite, weight loss, difficulty sleeping, difficulty concentrating and making decisions, loss of interest or pleasure in daily activities, and thoughts of suicide (National Institute of Mental Health, 2018). According to the 5th edition of the *DSM* (*DSM-5*), a diagnosis of MDD can be made if an individual has been simultaneously experiencing five or more depressive symptoms over a 2-week time frame that has disrupted their normal, everyday functioning (American Psychiatric Association, 2013). In addition, at least one of the symptoms should be depressed mood or loss of interest or pleasure in once pleasurable activities (American Psychiatric Association, 2013).

Independent Variables

The main independent variable, PED, was coded as V06548 in the CPES and named, reason for discriminating experiences - recoded. The variable represented the responses to the question, “Reason for this experience/these experiences? Would you say?” The researchers collected the data on PED at the categorical level. PED is a significant life stressor (Kim et al., 2020). In the United States, PED is often studied in the context of racial/ethnic health disparities, due to its strong conceptual association with racism (Hosler et al., 2019; Taylor et al., 2019). However, PED may be based on other identities, such as ethnicity, age, gender, weight, sexual orientation, and socioeconomic status (Hayes et al., 2018). Five identities of PED were measured in the CPES and I used all five, plus an unspecified category as reference, to explore the effects of different types of microaggression on PED among the Jamaican diaspora in the United States..

Day-to-day acts of discrimination, like being treated as if inferior and less intelligent; receiving poorer service at restaurants; and being treated with less courtesy, respect, and trust, may be more common than major discriminatory events (American Psychological Association, 2019a). Such day-to-day discrimination frequently comes in the form of microaggressions (American Psychological Association). Hence, PED is like microaggressions, as it refers to perceptions of subtle, everyday actions resulting from a negative judgment of an individual or a group that are either real or expected (Hayes et al., 2018). Microaggressions are often subtle but can be just as detrimental to health and well-being as more overt acts of discrimination, as they invalidate a person’s experience (American Psychological Association).

The other independent variables or covariates were age, household income, gender, number of years of education, and number of years in the United States. The researchers collected the data on age at the continuous level and coded the variable as V07306 in the CPES. The variable provided information on the age of each participant and the unit of measurement was years. Gender (called “sex” in the data set) was coded as V09036 in the CPES and was measured as a categorical variable. The variable provided information regarding a participant’s gender and was dichotomous as there were only two options to choose from.

The researchers collected the data regarding the number of years of education as categorical data and the variable coded as V08172 in the CPES. The variable provided information regarding the number of years of education each participant had and was grouped into four categories. The researchers collected the data on household income as continuous data and coded the variable in the CPES as V08683. The unit of measurement for the variable was dollars. The mean household income was $50,182.21. The variable coded V09346 was a record of the number of years a participant had been domiciled in the United States. The researchers collected the data at the categorical level and grouped the responses in five categories. A response of 0 years represented a person born in the United States.

Research Design

Burkholder et al. (2016) observed that the quantitative approach to inquiry is based on deductive reasoning and reductionist epistemology. The quantitative approach to inquiry aligns with the generation and testing of hypotheses (Burkholder et al.). The analysis of data collected in numeric form is crucial to the quantitative approach which is centered on the testing of hypotheses (Burkholder et al.). A correlational study involves the use of a set of variables, dependent (outcome) and independent (predictor), to determine if there are differences in the characteristics of a population (Lau, 2017). Researchers conducting correlational studies take on an objectivist view and presume that the variables can be defined, measured, and analyzed for the presence of hypothesized relationships. I analyzed PED and the various types of microaggression for the presence of hypothesized relationships with lifetime MDD, while controlling for possible confounders such as age, gender, income, education, and years lived in the United States.

Methodology

Population

The CPES universe or study population was a combination of the survey populations for the NCS-R, the NSAL, and the NLAAS (Alegría et al., 2016). The study population for the NCS-R was comprised of English-speaking adults living in homes in mainland United States and who were 18 years old or more (Kessler, 2017). The study population for the NSAL consisted of White Americans and Black Americans, with the latter further divided into Black Americans of African descent and Black Americans of Caribbean descent (Jackson et al., 2016). Individuals in the three subpopulations were aged 18 years and older and occupied households located on the U.S. mainland (Jackson et al.). The study population for the NLAAS was made up individuals of Latino and non-Latino American, and Asian and Non-Asian American ethnicities (Alegría et al.). Participants were 18 years and older living in Hawaii and mainland United States (Alegría et al.).

The study population for this research project comprised African Americans and Black Americans of Caribbean descent living in the United States. A total of 4,746 African Americans participated in the CPES surveys. There were 1,598 Afro Caribbean respondents. The Afro-Caribbean participants were included in the variable RANCEST, or race/ancestry, and were subdivided into five categories under the variable CAR5CAT, or Caribbean ethnic origin 5 categories, which was coded as V09220. The five categories and their frequencies were Jamaica-510, Haiti-298, Trinidad & Tobago-170, Spanish Caribbean-180, and other-440. The targeted Caribbean ethnic group was the Jamaicans, but the other Caribbean nationals and the African American group were needed as comparison groups per the requirement of chi-square analysis that was necessary to answer the first RQ.

The Jamaican diaspora constituted, in 2015, approximately 1,700,000 Jamaicans who, although living in the United States, maintain sentimental or physical connections with their birthplace **(**Jamaica Global Online, 2018**).** Jamaicans began migrating in the early 1900s to Central and South America and other Caribbean countries seeking a better way of life through more gainful employment **(**Jamaica Global Online, 2018**).** Jamaicans then started migrating to Great Britain after the second World War, when there was a great demand for laborers to rebuild the war-ravaged country **(**Jamaica Global Online, 2018). Migration to the United States followed and thus began the formation of the Jamaican diaspora **(**Jamaica Global Online, 2018)**.** The Jamaican diaspora is one of the many minority ethnic groups in the United States.

Sampling and Sampling Procedures

The unit of observation for the CPES was individuals (Alegría et al., 2016). The researchers obtained the sample for the CPES from the study populations of the three surveys, the NCS-R, the NSAL, and the NLAAS (Alegría et al.). The samples for all three surveys were arrived at by first dividing their populations into primary sampling units based on probability sampling (Alegría et al.). A total of 252 primary sampling units were identified across the United States (Alegría et al.). Data for the three surveys were collected from the 252 primary sampling units with overlapping occurring in 50 of the primary sampling units (Alegría et al.). Census data from the entire population in the 50 overlapping primary sampling units were collected for all three surveys (Alegría et al.). There were 52 primary sampling units from which data were collected only for the NSAL and 18 from which data were collected only for the NLAAS (Alegría et al.). The latter approaches were necessary because of the racial and ethnic focus of the NSAL and the NLAAS (Alegría et al.).

The NCS-R survey included a total of 13,054 addresses (Kessler, 2017). There were 11,443 occupied housing units, but only 11,222 of these units were assessed for their eligibility for inclusion in the study (Kessler). A total of 10,622 addresses were found to be eligible household, and 9,282 adult interviews were conducted, 7,693 interviews with the head of household and 1,589 interviews with a second adult in the household (Kessler). To evaluate nonresponse bias, 554 other interviews were conducted with an abridged version of the questionnaire on a subsample of nonrespondents (Kessler). In the end, weighted response rates of 70.9 and 80.4% for primary and secondary respondents, respectively, were obtained for the NCS-R (Kessler).

The researcher interviewed 6,199 adult respondents from 11,634 eligible households for the NSAL (Jackson et al., 2016). The 6,199 adult respondents comprised 1,006 White Americans, 1,623 Caribbean Americans, and 3,570 African Americans (Jackson et al.). Two respondents in the Afro-Caribbean group were later removed when it was realized that they were duplications (Jackson et al.). In addition, 115 White adults were also removed in households where the White subsample was less than 10% of the African American density stratum (Jackson et al.). The final number of cases from the NSAL that were included in the CPES was therefore 6,082, comprising 3,570 African American, 1,621 Afro-Caribbean, and 891 non-Hispanic White respondents (Jackson et al.). The response rate for the national NSAL survey was 71.5% and 76.4% for the Caribbean Supplement version (Jackson et al.).

The total sample of addresses for the NLAAS was 27,026 (Alegría et al., 2016). The researchers identified 5,579 eligible respondents from the sample with 1,234 designated as secondary respondents (Alegría et al.). Only 83%, or 4,649, of the 5, 579 eligible respondents were interviewed, which included 1,029 secondary respondents (Alegría et al.). Response rates among main respondents were 77.6% for Latinos and 69.3% for Asians, resulting in a weighted response rate of 75.7% for main respondents

(Alegría et al.). The NLAAS achieved a weighted response rate among secondary respondents of 80.3%, 82.4% for Latinos and 73.7% for Asians (Alegría et al.).

The sample for this study comprised all 510 Jamaicans, 1088 other Caribbean nationals, and the 4746 African Americans included in the CPES. Power analyses were performed in G*Power 3.1 to determine the appropriate sample sizes required to answer each of the RQs. Table 1 shows that with a power of 0.95, a sample size of 172 was the minimum required to perform the chi-square tests needed to answer RQ1. Table 2 shows that with a given power of 0.80, a minimum sample size of 89 was required to perform the logistic regression models in response to RQ2. Table 3 show that with power maintained at 0.80, a minimum sample size of 89 was also required for the moderation analysis model in response to RQ3. The three predictors for the moderation analysis model were PED, gender, and the interaction term, PEDbyGender.

Table 1

Calculation of Sample Size for RQ1

χ^2 tests: Goodness-of-fit tests: Contingency tables	
Analysis: A priori: Compute required sample size	
Effect size w	0.3
α err prob	0.05
Power (1-β err prob)	0.95
Df	2
Non-centrality parameter λ	15.48
Critical χ^2	5.99
Total sample size	172
Actual power	0.95

Table 2

Calculation of Sample Size for RQ2

Z tests - Logistic regression	
Enumeration method, LR-test	
Tail(s)	Two
Prob(Y=1|X=1) H1	0.18
Prob(Y=1|X=1) H0	0.3
α err prob	0.05
Power (1-β err prob)	0.80
R^2 other X	0
X distribution	Normal
X parameter μ	0
X parameter σ	1
Non-centrality parameter λ	7.85
Critical χ^2	3.84
Df	1
Total sample size	89
Actual power	0.80

Table 3

Calculation of Sample Size for RQ3

Z tests - Logistic regression	
Enumeration method, LR-test	
Tail(s)	Two
Prob(Y=1|X=1) H1	0.18
Prob(Y=1|X=1) H0	0.3
α err prob	0.05
Power (1-β err prob)	0.80
R^2 other X	0
X distribution	Normal
X parameter μ	0
X parameter σ	1
Non-centrality parameter λ	7.85
Critical χ^2	3.84
Df	1
Total sample size	89
Actual power	0.80

Jamaicans are often included under the rubric of Caribbean Blacks or African Americans. Desegregation of the Jamaicans from these two groups was key to this study. The 510 Jamaicans, 1088 other Caribbean nationals, and the 4746 African Americans were needed to answer RQ1. The 510 Jamaicans were the focus of RQs 2 and 3.

Procedures for Recruitment, Participation, and Data Collection

Background of the CPES

The CPES comprised survey data collected between 2001 – 2004 (Alegría et al., 2016). The original release date of the CPES was June 14, 2007 (Alegría et al.). The data files are updated periodically with the last update recorded as February 15, 2018 (Alegría et al.). The distributors of the CPES are a list of organizations that constitute the Inter-university Consortium for Political and Social Research (Alegría et al.). Each of the three surveys that comprises the CPES, the NCS-R, the NSAL, and the NLAAS is documented in an extensive and adaptable manner that facilitates the linking of key data elements and scientific constructs across the three surveys (Alegría et al.).

NCS-R

The National Comorbidity Survey (NCS) arose out of the need to survey psychiatric disorders in the United States and was commissioned by an official order by the US congress (Kessler, 2017). The survey was intended to provide epidemiologic data on the prevalence, risk factors, and sequelae of psychiatric morbidity and comorbidity (Kessler). As a nationally representative general population survey of the United States, the NCS was the first to employ the use of a structured psychiatric interview as an instrument (Kessler). The NCS was also the first to use *DSM* 3rd ed., revised (*DSM-III-R*) diagnostic criteria for a psychiatric epidemiological survey of this magnitude in the United States (Kessler).

The NCS-R is an expansion of the NCS. Additional questions were added to the survey instrument and the more current *DSM-IV* diagnostics system was used (Kessler, 2017). Data for the NCS-R were collected between 2001-2003 using a national probability sample of 10,000 English-speaking respondents aged 18 years and older, domiciled on the US mainland (Kessler). The data were collected by in-person surveys and were conducted jointly with surveys for NCS-2 (Kessler). The NCS-R was aimed at exploring trends in several variables included in NCS-1, obtaining additional information on variables already in NCS-1, and to obtain information on new variables to be added to

NCS-1 (Kessler). The NCS-R data are available as both public-use and restricted-use files (Kessler). The management of the NCS-R falls under the purview of the National Institute of Mental Health with assistance from the National Institute of Drug Abuse (NIDA), the Substance Abuse and Mental Health Services Administration (SAMHSA), the Robert Wood Johnson Foundation, as well as a slew of supporting agencies (Kessler).

NSAL

The geographic coverage for the NSAL was the United States with the smallest geographic unit being a state (Jackson et al., 2016). The final database was a single data set of the combined adult and adolescent surveys. The overarching purpose of the surveys was to collect data on the nature and severity of, and impairment caused by, mental disorders among African American and Afro-Caribbean ethnicities in the United States (Jackson et al.). The adult and adolescent data sets both provided comprehensive data on the measures of health, social conditions, stressors, distress, racial identity, neighborhood conditions, activities and school, media, as well as social and psychological risk and protective factors for mental disorders (Jackson et al.).

The researchers collected the data for the adolescent version of the NSAL-A between 2001-2004 (Jackson et al., 2016). The data facilitate the estimation of the lifetime-to-date and current prevalence, age-of-onset distributions, course, and comorbidity of *DSM-IV* disorders (Jackson et al.). The NSAL-A was intended to be a platform for future studies aimed at identifying early signs of mental disorders in adults by providing data regarding the risk and protective factors for the onset and persistence of *DSM-IV* disorders, their patterns, and correlates of service use (Jackson et al.). The

NSAL-A also includes variables for other non-core and experimental disorders such as tobacco use, premenstrual syndrome, minor depression, recurrent brief depression, hypomania, and hypomania sub-threshold (Jackson et al.). In situations where the adult and adolescent respondents resided in the same households, the researchers integrated some variables from the adult data set into the adolescent data set (Jackson et al.).

The merging of the adult and adolescent data sets facilitated the assessment of certain measures in the adult data set for the adolescent respondents (Jackson et al., 2016). Demographic variables included age, race, ethnicity, height, weight, marital status, income, and education level (Jackson et al.). Variables such as region, urbanicity, and family income were applicable to both adult and adolescent respondents, whereas others such as years of education, marital status, and nativity (foreign-born vs. U.S. born) applied specifically to the adult respondents only (Jackson et al.). Measures related to immigration and generational status were asked of Caribbean black adult respondents only (Jackson et al.). The responsibility for the NSAL falls under the auspices of the National Institute of Mental Health in collaboration with the Office of Behavioral and Social Sciences Research at the National Institutes of Health and the University of Michigan (Jackson et al.). A slew of collaborating investigators and agencies offer supplemental assistance (Jackson et al.).

NLAAS

The NLAAS is a nationally representative community household survey providing epidemiologic data on mental disorders and mental health service utilization among Latinos and Asian Americans in the United States (Alegría et al., 2016). The

NLAAS was primarily intended to estimate the lifetime and 12-month prevalence of psychiatric disorders and the rate of utilization of mental health services using nationally representative samples of Latinos and Asian Americans (Alegría et al.). In addition, the NLAAS was intended to assess the associations among social position, environmental context, and psychosocial factors with the prevalence of psychiatric disorders and utilization rates of mental health services within the Latino and Asian American subpopulations (Alegría et al.). By extension, the NLAAS can be used to compare the lifetime and 12-month prevalence of psychiatric disorders and utilization of mental health services of Latinos and Asian Americans with nationally representative samples of non-Latino whites from the NCS-R, and African Americans in the NSAL (Alegría et al.). The NLAAS is sponsored by the National Institute of Mental Health, in collaboration with the Office of Behavioral and Social Sciences Research at the National Institutes of Health and SAMHSA (Alegría et al.). Additional support is offered by the Latino Research Program Project along with a slew of collaborating investigators (Alegría et al.).

Version Control of the CPES

The master CPES data sets are updated even when small but significant errors are detected, using the distributors new version control system (Alegría et al., 2016). The CPES is also updated as the diagnostic criteria for the various mental health disorders are altered (Alegría et al.). Public users of the CPES are informed of the updates as they occur (Alegría et al.). Alegría et al. cautions users of the CPES that it might be difficult to reproduce the findings of earlier studies due to the periodic changes to the data. The citation for the CPES was last updated on 2018-02-15 giving rise to the 2016 version of the data set (Alegría et al.). The 2016 version involves updates to the crosswalk and internal records (Alegría et al.). Since the original release on 2007-06-14, the data set was updated twice in 2007, thrice in 2008, once in 2009, four times in 2014, and twice in 2015 (Alegría et al.).

Instrumentation and Operationalization of Constructs

Alegría et al. (2016) informed that the following instruments were employed for the collection of data for the CPES data set. Computerized instrumentation included computer-assisted self-interview (CASI), audio computer-assisted self-interview (ACASI), computer-assisted personal interview (CAPI), and computer-assisted telephone interview (CATI) (Alegría et al.). Questionnaires included mail questionnaire, on-site questionnaire, personal interviews and self-administered questionnaires, self-enumerated questionnaires, and self-administered questionnaires (Alegría et al.). Interviews included face-to-face interview, paper and pencil interview, personal interviews, personal interviews and self-enumerated answer sheets (drug use), telephone audio computer-assisted self-interview, and telephone interview (Alegría et al.). Other forms of data collection instruments included coded on-site observation, coded video observation, cognitive assessment test, medical records, self-enumerated forms, and web-based surveys (Alegría et al.).

The researchers used the WMH-CIDI to diagnose psychiatric disorders over a person's lifetime and in the past 12 months, and the presence of subthreshold depressive disorder or minor depressive disorder among the respondents (Alegría et al., 2015). The WMH-CIDI is a highly detailed and reliable instrument used in the assessment of mental disorders during quantitative research (Zhong et al., 2015). The instrument is replete with the same set of questions, in the same order, for the interviewers (Zhong et al.). The assessment of mental disorders by the WMH-CIDI is based on the criteria set forth by the International Classification of Diseases-10 (ICD-10) and the *DSM-IV* (Zhong et al.). The WMH-CIDI was designed to be used by trained lay interviewers and is intended for use in epidemiological and cross-cultural studies as well as for clinical and research purposes (Harvard.edu., n.d.). The WMH-CIDI allows the investigator to measure the prevalence, severity, and burden of mental disorders as well as to assess service use, medication use, and assess who is treated, who remains untreated, and what are the barriers to treatment (Harvard.edu.).

The researchers used the WMH-CIDI to classify the pooled sample of respondents to the NLAAS, NCS-R part 2, or NSAL, into five groups (Alegría et al., 2015). The categories were (a) currently depressed respondents who meet the criteria for a past-year diagnosis of major depression or dysthymia, (b) respondents with subthreshold symptoms who did not meet the criteria for a past-year diagnosis of major depression or dysthymia, (c) lifetime depressed respondents who meet the criteria for lifetime major depression or dysthymia but who did not meet the criteria for past-year depression or dysthymia, (d) respondents who meet the past-year criteria for disorders other than depression, and the no-need group, (e) respondents who did not meet the past-year criteria for any psychiatric or substance use disorder (Alegría et al.). Different interviews may not classify major depression equivalently (Levis et al., 2019).

The different diagnostic interviews are typically considered equivalent for major depression classification in research (Levis et al., 2019). Methodological evidence collected in the WMH-CIDI field trials and later clinical calibration studies showed that all the disorders considered therein were assessed with acceptable reliability and validity both in the original CIDI and in the original version of the WMH-CIDI (Harvard.edu., 2005). Zhong et al. 2015 affirmed that the CIDI is a reliable, valid, and practical instrument which can be used cross-culturally. Researchers performed an individual participant data meta-analysis (IPDMA) controlling for participant characteristics and depressive symptom severity based on the Patient Health Questionnaire-9 (PHQ-9), and found that among fully structured interviews, the MINI classified depression about twice as often as the CIDI (Levis et al.). The results of the study conducted by Levis et al. showed that among fully structured interviews, the MINI classified depression almost four times more often than the CIDI (adjusted odds ratio = 3.72, 95% confidence interval).

Operationalization of the Variables

Independent Variable V06548: Reason for discriminating experiences - recoded. This independent variable was measured at the categorical level and was a nominal variable. The variable provided the responses to the question; Reason for this experience/these experiences? Would you say? The variable provided the reasons to which participants ascribed their experiences of discrimination. The researchers coded the values for the variable as 1 = ethnicity, 2 = gender or sex, 3 = race, 4 = age, 5 = height or weight, 6 = skin color, 10 = other, -9 = refused, and -8 = don’t know.

Independent Variable V09036: Sex. This independent variable was measured at the categorical level and was a dichotomous variable. Responses were to the question of participants' gender. The values were 1 = male, 2 = female, -9 = refused, and -8 = don't know.

Independent Variable V07306: Age. This independent variable was measured as continuous data and was an interval/ratio variable. Responses were to the question of participants' age. The unit of measurement was years, and the range of values was from 18 – 65. A higher number was indicative of an older person.

Independent Variable V08172: **Years of education 4 categories**. This independent variable was measured at the categorical level and was an ordinal variable. The variable provided information on the years of education for participants and was organized by the researchers into four categories: 1 = 0-11 years, 2 = 12 years, 3 = 13-15 years, 4 >/= 16 years. A higher number signified more years of education.

Independent Variable V08683: Household income. This variable was measured at the continuous level and was an interval/ratio variable. The unit of measurement for the variable was dollars and the variable was top coded by the researchers at $200, 000. The variable provided information on the earnings of the various households with a larger number signifying greater income. The range for the variable was 0-200, 000 dollars. The mean income was $50, 182.21.

Independent Variable V09346: Number of years in the United States (five categories). The variable was measured at the categorical level and was an ordinal variable. The variable was an indication of how long an immigrant had been living in the

United States, with zero years indicating that the participant was born in the United States. The values for the variable were 0 = U.S. born, 1 = <5years, 2 = 5-10 years, 3 = 11-20 years, and 4 = >20 years. A larger number indicated a longer time living in the US.

Dependent Variable V07876: *DSM-IV* MDD-lifetime. This variable was measured at the categorical level and was a dichotomous variable. The variable represented the responses to the question of whether a participant met the criteria for a diagnosis of MDD-lifetime or not. The attributes of the variable were coded by the researchers as 1 = endorsed and 5 = Not endorsed. Endorsed meant that the participant met the criteria for a diagnosis of MDD-lifetime.

Data Management and Cleaning

I performed the cleaning of the data in IBM SPSS version 27. I then generated descriptive statistics for the variables for all seven data sets I created to ensure the data were clean and ready for data analysis. There were no outliers to be removed from the data sets. I did not include missing data in the data analyses.

Data Access

The Inter-University Consortium for Political and Social Research (ICPSR) disseminates data to researchers, students, policymakers, and journalists around the world based on its Access Policy Framework (Alegría et al., 2018). Users at member institutions may download all data directly from the ICPSR website (Alegría et al.). Many data sets are freely available to the public through Thematic Collections (Alegría et al.). Users can download data sets and analyze them on their own computers, but many data sets can be analyzed online (Alegría et al.). Access to data is sometimes restricted in which case users are expected to adhere to the Norms for Responsible Use (Alegría et al.). Before gaining access to the data, like all users, I had to read the Responsible Use Statement (Alegría et al.). I requested the data in the name of the Dissertation Committee Chair as it is required that the investigator holds a doctoral level degree.

Data Privacy and Security

In accordance with the Norms for Responsible Use prescribed by the National Institute of Mental Health and the other distributors of the CPES, I used the data set solely for statistical analysis and reported aggregated information (Alegría et al., 2016). I carefully guarded the confidentiality of research participants, and I was always mindful that any suspected breach of the confidentiality was to be promptly reported to the ICPSR (Alegría et al.). There was no need to redistribute or sell the data to others even though written agreement to do so could be obtained from the ICPSR (Alegría et al.). I informed the Walden Institutional Review Board (IRB) that stakeholders, including the ICPSR, would be informed of the use of the data via the customary media such as articles, books, and other forms of publications. I stored the data on an encrypted drive with restricted access, and in a password protected folder. I will maintain the data for the minimum five years as required by Walden University and will destroy them, per protocol, at the soonest date permitted.

Data Analysis Plan

Data analysis was conducted by this researcher under the supervision of the Committee Chair. I performed the analysis of the data in SPSS version 27. I downloaded the original data set with its 5543 variables and 20013 cases from the CPES and labelled it Dataset1. I copied Dataset1 and removed all variables not germane to the study. The resulting data set with 20013 cases but only the nine variables relevant to the study was labelled by this researcher as Dataset2. I created Dataset3 by copying Dataset2 and then removing all cases except the 4746 African American and 1598 Afro-Caribbean cases. I created Dataset4 and Dataset5 from copies of Dataset3 such that they contained the 4746 African American and the 1598 Afro-Caribbean cases, respectively. I created Dataset6 from a copy Dataset5 with removal of all Caribbean nationals except the 510 Jamaican cases. I created Dataset7 from a copy of Dataset6 and the retention of only the 369 Jamaicans who had reportedly experienced some form of microaggression.

I generated descriptive statistics for all seven data sets to highlight the variations in the summary data of the various samples on which the analyses were performed. I displayed the summary data in tables consistent with the American Psychological Association Style showing the values associated with each variable, the frequency of each value, as well as the percentage distribution of each value. I generated inferential statistics using the chi-square test and binary logistic regression to learn about the population that the samples were thought to represent. One chi-square model was performed on Dataset3 and another on Dataset5 in response to RQ1 to determine if there were any statistically significant association between lifetime MDD and being African American, being Afro-Caribbean, and specifically being Jamaican as a member of the Afro-Caribbean subpopulation.

Logistic regression was the statistical method of choice for answering RQ2 and RQ3 as the dependent variable was dichotomous and therefore measured at the categorical level. I performed two logistic regression models in response to RQ2. The first model was between MDD and PED, while controlling for the various covariates that could confound the associations between the variables. The second model was between MDD and each of the social justice categories representing the various types of microaggression. To generate the second model, I first created dummy variables from the social justice categories with the last category, “unspecified”, coded by SPSS version 27 serving as the reference category. I explained the implications of the odds ratios for all the associations from the logistic regression models that were statistically significant.

I performed the effect modification analysis in response to RQ3 also by generating binary logistic regression models as the outcome variable was still the dichotomous *DSM-IV* MDD-lifetime. Two binary logistic regression models were generated to test for the questioned effect modification. The first model was with PED and gender as predictors. To prove effect modification, a third predictor in the form of an interaction term must be created from the two predictors in the first model. The interaction term must then be added as a third predictor to the second regression model. Accordingly, I created the interaction term, PEDbyGender and added it to the second model. The purpose of the effect modification analysis was to see if there would be any change in the outcome variable brought about by the addition of the interaction term, while holding PED constant.

Research Question 1

RQ1: Is there an association between African Americans, Afro-Caribbean nationals in the United States, the Jamaican diaspora in the United States, and lifetime MDD?

> $H_0$1: There is no association between African Americans, Afro-Caribbean nationals in the United States, the Jamaican diaspora in the United States, and lifetime MDD, so the variables are statistically independent.
>
> H_a1: There is an association between African Americans, Afro-Caribbean nationals in the United States, the Jamaican diaspora in the United States, and lifetime MDD, so the variables are statistically dependent.

To answer the first RQ, I interpreted the observed frequencies of lifetime MDD from the chi-square models for the African American and the Afro-Caribbean subpopulations, as well as the observed frequencies for the five Caribbean ethnicities comprising the Afro-Caribbean group. I then interpreted the *p*-values for the chi-square models to determine if there was any statistically significant association between a diagnosis of MDD and being African American, or being an Afro-Caribbean or Jamaican resident of the United States.

Research Question 2

RQ2: What is the association between PED and lifetime MDD among the Jamaican diaspora in the United States?

> $H_0$2: There is no statistically significant association between PED and lifetime MDD among the Jamaican diaspora in the United States.

H_a2: There is a statistically significant association between PED and lifetime MDD among the Jamaican diaspora in the United States.

To answer the second RQ, I performed two binary logistic regression analyses using Dataset6 and Dataset7. Dataset6 contained all 510 Jamaican cases and was used to determine whether there was a statistically significant association between lifetime MDD and PED in general, while holding the covariates constant. Dataset7 contained only the 369 Jamaicans that had reported experiencing some form of microaggression. I created dummy variables from the microaggression types for Dataset7 and then used the dummy variables to determine if there was any statistically significant association between lifetime MDD and the different types of microaggression among the Jamaican diaspora in the United States.

Research Question 3

RQ3: Does gender moderate the association between PED and lifetime MDD among the Jamaican diaspora in the United States?

H_03: Gender does not moderate the association between PED and lifetime MDD among the Jamaican diaspora in the United States.

H_a3: Gender does moderate the association between PED and lifetime MDD among the Jamaican diaspora in the United States.

The response to the third RQ required performing effect modification analysis. A prerequisite for the performance of the effect modification analysis was that the interaction term, PEDbyGender, first be created. I first generated a binary logistic regression model using PED and gender as the independent variables, followed by the performance of a second model with the addition of the interaction term as a third predictor. I then interpreted the coefficients for both models to determine if there was any change in the results for lifetime MDD due to the addition of the interaction term, as this would be indicative of an effect modification.

Threats to Validity

The point identification of causal effects is predicated on the supposition that a set of sufficient identification conditions are met (Breskin et al., 2019). Exchangeability is one such condition with which epidemiologists are acquainted (Breskin et al.). Internal validity is affected when there is a lack of exchangeability between treatment groups (Breskin et al.). External validity is affected by the lack of exchangeability between the study population and the target population (Breskin et al.).

External Validity

Probability sampling and a large sample size are used to ensure external validity so that research findings are generalizable to the target population. Alegría et al. (2016) indicated that the 510 Jamaicans were selected based on probability sampling. The results of the power analyses indicated that the sample sizes of 172, 146, 172, and 107 for the various statistical analyses would give the study adequate power. The final sample of 510 Jamaicans was larger than all the sample sizes indicated. The results should therefore be generalizable to the Jamaican diaspora in the United States. Generalization will not be extended to the African American subpopulation or to the wider Afro-Caribbean community in the United States.

Internal Validity

Threats to internal validity can come from improper statistical procedures or errors in data analysis. I provided documentation and justification for the statistical methods to ensure internal validity. In addition, I performed the regression models while controlling for five covariates, which could confound any association between lifetime MDD and PED. Reproducibility is an important feature of internal validity. Alegría et al. (2016) cautions that it may not always be possible to reproduce results from previous studies performed on the CPES surveys because of the periodic updates to the master CPES data sets.

Ethical Procedures

The CPES served as the primary data source for this research project. The ethical concerns regarding access to participants and the treatment of data were addressed by the National Institute of Mental Health and the other distributors of the CPES data set (Alegría et al., 2016). The public-use data files in this collection are openly available for access by the public (Alegría et al.). Access does not require affiliation with the Inter-university Consortium for Political and Social Research member institutions (Alegría et al.). I stored and maintained the data in an electronic file on a computer that was password protected and I will keep the data for a minimum of five years.

IRB approval is required for research involving human subjects. The use of secondary data for research removes the direct involvement of human participation. However, as the data for the CPES surveys were originally collected from human subjects, I did seek IRB approval from the Walden University IRB. I completed and submitted all appropriate forms and documents to the Walden University IRB before making any attempt to access the CPES data set and to conduct any data analysis. The IRB approval number for this study is 10-15-21-0749234. Once obtained, I spared no effort in keeping the data anonymous and confidential.

Summary

I started the chapter by restating the purpose of my study. I justified the use of the quantitative approach and correlational design and provided information on the variables including their operationalization. I briefly described the study population to which the research findings would be generalized, followed by a description of the study sample and how I determined the minimum sample sizes using G*Power 3.1. I then restated the RQs.

I detailed the procedures employed for data collection by the distributors of the data and mentioned the various instruments utilized in the process. I emphasized the protocols regarding data access, data security, and data privacy by highlighting the rules related to the CPES access policy framework, thematic collections, and norms for responsible use, as well as the importance of maintaining the confidentiality of participants, and the protocol for reporting potential breach of confidentiality. I explained why the choice of the chi-square test and binary logistic regression for the data analysis were commensurate with the type of data, the research design, and the level of measurement of the variables. I ended the chapter by focusing on possible threats to the validity of the research findings as well as ethical issues that could impact the study. The statistical findings from the data analysis are presented in Chapter 4.

Chapter 4: Results

Introduction

The primary purpose of this quantitative study was to examine the relationships that PED and five types of microaggression have, if any, with MDD-lifetime among the Jamaican diaspora in the United States. I also explored the relationship between lifetime MDD and three ethnicities, African American, Afro-Caribbean, and Jamaican, as well as the likely role of gender as an effect modifier. In response to the problem and purpose of this study, the following RQs and hypotheses were posited:

RQ1: Is there an association between African Americans, Afro-Caribbean nationals in the United States, the Jamaican diaspora in the United States, and lifetime MDD?

> $H_0 1$: There is no association between African Americans, Afro-Caribbean nationals in the United States, the Jamaican diaspora in the United States, and lifetime MDD, so the variables are statistically independent.
>
> $H_a 1$: There is an association between African Americans, Afro-Caribbean nationals in the United States, the Jamaican diaspora in the United States, and lifetime MDD, so the variables are statistically dependent.

RQ2: What is the association between PED and lifetime MDD among the Jamaican diaspora in the United States?

$H_0 2$: There is no statistically significant association between PED and lifetime MDD among the Jamaican diaspora in the United States.

H_a2: There is a statistically significant association between PED and lifetime MDD among the Jamaican diaspora in the United States.

RQ3: Does gender moderate the association between PED and lifetime MDD among the Jamaican diaspora in the United States?

H_03: Gender does not moderate the association between PED and lifetime MDD among the Jamaican diaspora in the United States.

H_a3: Gender does moderate the association between PED and lifetime MDD among the Jamaican diaspora in the United States.

This chapter includes a description of the data collection process. I downloaded the CPES data set to SPSS Version 27, and deleted the variables not needed for this study. I retained the nine variables needed for this study, and converted to categorical variables, age, and household income, that were continuous level variables in the CPES. I created seven smaller data sets from the original CPES data set. I generated frequencies and percentages for the nine study variables by the descriptive statistics protocol in SPSS Version 27 to summarize the data for each data set. I presented the summary data in tables and explained the percentages. I also presented the results of the chi-square analyses used to answer RQ1 and the logistic regression models used to answer RQs 2 and 3 in the relevant tables and explained the statistical findings. The statistical significance of each model was determined using the conventional 0.05 for the *p*-value.

Data Collection

The Inter-University Consortium for Political and Social Research (ICPSR) was the source of the secondary data, the CPES. The CPES data set is available for public use and for members of approved institutions such as Walden University. I obtained approval to proceed with data analysis of the CPES from the Walden University IRB. The IRB approval number for this study is 10-15-21-0749234. The researchers collected the data for the CPES between 2001 and 2004. The March 2016 edition of the data set was the latest version and resulted from a 2018 update. I downloaded the CPES data set comprising 20,013 cases to SPSS Version 27 from the ICPSR website and named it Dataset1. I copied Dataset1, deleted all but the nine variables needed for this study, and labelled this new data set, Dataset2. I created Dataset3 from a copy of Dataset2. Dataset3 comprised the nine variables and the 6,344 cases constituting the Afro-Caribbean and African American ethnicities. I created Dataset4 and Dataset5 from copies of Dataset3. Dataset4 and Dataset5 comprised the 4,746 African American and the 1,598 Afro Caribbean cases, respectively.

I created Dataset6 by first copying Dataset5 and then deleting all, but the 510 Jamaican cases needed to answer RQs 2 and 3. Dataset7 was a subset of Dataset6 which I created to help with answering RQ 2. I copied Dataset6 and deleted all the Jamaicans that had not endorsed MDD. Dataset7 contained only the 369 Jamaican respondents who had reported experiencing some form of microaggression. I further configured Dataset7 by merging, renaming, and deleting some of the attributes of the independent variable, reason for discrimination - recoded. The attribute, skin color, was merged with the attribute race, and the attribute, other, renamed unspecified. The categories, “don’t know” and “missing” were deleted. I then created dummy variables with the remaining six microaggression categories in preparation for responding to RQ 2.

Table 4 displays the summary statistics for the nine variables and 20,013 cases comprising Dataset2. Only 2,842 (14.3%) of participants were diagnosed as having lifetime MDD. A total of 7,666 (38%) participants reported experiencing some form of discrimination compared to 12,347 (62%) who reported that they had not. Race, with 3,214 (44.2%) responses, was the most popular reason cited for experiences of discrimination. Most respondents, 6,137 (57.9%), were born in the United States, but it is worth noting that 9,418 (47.0%) of participants did not give a response to the variable number of years in the United States. More women, 11,463 (57.3%), than men, 8,550 (42.7%), participated in the interviews.

Non-Latino Whites, with 7,587 (37.9%) responses, constituted the most popular ancestral category of the variable race/ancestry followed by African American, with 4,746 (23.7%) responses, Afro-Caribbean, 1,492 (7.5%) responses, and other Hispanic, 1,106 (5.5%) responses. Jamaicans at 510 (2.5%) were the leading Caribbean ethnic group, followed by the category Other, at 440 (2.2%), Haitians, 298 (1.5%), Spanish Caribbean, 180 (0.9%), and Trinidadians, 170 (0.8%). Most participants, 6,377 (31.9%), fell within the 36-50 years age cohort, followed by 4,306 (21.5%) in the 26-35 years age group. More than half of the participants, 10,530 (64.3%), were within the low-income range of $0-50,000 per annum.

Table 4

Descriptive Statistics for the Nine Study Variables for All 20,013 Cases

Variable	Value	Frequency	%
MDD-lifetime	0 = not endorsed	16,978	84.8
	1 = endorsed	2,842	14.2
	missing	193	1.0
		20,013	**100**
Ever experienced PED	1 = no	12,347	61.7
	2 = yes	7,666	38.3
		20,013	**100**
Reason for discrimination	1 = ethnicity	932	4.7
	2 = gender	370	1.8
	3 = race	3,214	16.1
	4 = age	403	2.0
	5 = weight	172	0.9
	6 = skin color	444	2.2
	10 = other	1,742	8.7
	minus9 = refused	21	0.1
	minus8 = don't know	368	1.8
	no discrimination experienced	12,347	61.7
		20,013	**100**
Number of years in US	0 = U.S. born	6,137	30.7
	1 = < 5 years	695	3.5
	2 = 5-10 years	724	3.6
	3 = 11-20 years	1,307	6.5
	4 = 20+ years	1,732	8.7
	missing	9,418	47.1
		20,013	**100**
Gender	0 = male	8,550	42.7
	1 = female	11,463	57.3
		20,013	**100**
No. of years of education	1 = 0-11 years	4,056	20.3
	2 = 12 years	5,937	29.7
	3 = 13-15 years	5,290	26.4
	4 = >=16 years	4,730	23.6
		20,013	**100**

(*table continues*)

Variable	Value	Frequency	%
Race/Ancestry	1 = Vietnamese	520	2.6
	2 = Filipino	508	2.5
	3 = Chinese	600	3.0
	4 = Other Asian	656	3.3
	5 = Cuban	577	2.9
	6 = Puerto Rican	495	2.5
	7 = Mexican	1,442	7.2
	8 = Other Hispanic	1,106	5.5
	9 = Afro-Caribbean	1,492	7.5
	10 = African American	4,746	23.7
	11 = Non-Latino Whites	7,587	37.9
	12 = other	284	1.4
		20,013	**100**
Caribbean ethnic origins	1 = Spanish Caribbean	180	0.9
	2 = Haiti	298	1.5
	3 = Jamaica	510	2.5
	4 = Trinidad & Tobago	170	0.8
	5 = other	440	2.2
	missing	18,415	92.0
		20,013	**100**
Age category	1 = 18-25 years	3,118	15.6
	2 = 26-35 years	4,306	21.5
	3 = 36-50 years	6,377	31.9
	4 = 51-65 years	3,760	18.8
	5 = 66-97 years	2,449	12.2
	missing	3	0
		20,013	**100**
Income category	1 = 0-50,000	10,530	52.6
	2 = 51,000-100,000	3,587	19.3
	3 = 101,000-150,000	1,129	5.6
	4 = 151,000-200,000	853	4.3
	missing	3,644	18.2
		20,013	**100**

Note. MDD = major depressive disorder; PED = perceived everyday discrimination.

Table 5 displays the summary statistics for the 4746 African American cases contained in Dataset4. Of the 4746 respondents, 506 (10.7%) were diagnosed with lifetime MDD compared to 4103 (86.5%) that were not. 2663 (56.1%) African Americans reported perceiving some form of everyday discrimination, with racial microaggression 1739 (36.6%) responses, being the most common reason attributed to the experience. Most African Americans, 3464 (73.0%), indicated that they were born Americans, but 1253 (26.4%) did not give a response to this question. More African American women, 3025 (63.7%) than men 1721 (36.3%) were recruited for the study. Most participants 1589 (33.5%) were in the 36-50 age cohort, followed by 1008 (21.2%) in the 26-35 age cohort, and with participants in the over 65 age cohort, 532 (11.2%) making up the smallest group. While most participants, 1728 (36.4%), reported having up to 12 years of education, and 1186 (25.0%) 13-15 years of education, socioeconomically, most participants, 3481 (73.3%) were low-income earners. 617 (13.0%) of participants were in the middle-income bracket, with a combined total of 151 (3.2%) earning upwards of $101, 000 per annum.

Table 5

Descriptive Statistics for the 4,746 African American Cases

Variable	Value	Frequency	%
MDD-lifetime	0 = not endorsed	4,103	86.5
	1 = endorsed	506	10.7
	missing	137	2.9
		4,746	**100**
Ever experienced PED	1 = No	2,083	43.9
	2 = Yes	2,663	56.1
		4,746	**100**
Reason for discrimination	1 = ethnicity	57	1.2
	2 = gender	111	2.3
	3 = race	1,739	36.6
	4 = age	93	2.0
	5 = weight	35	0.7
	6 = skin color	177	3.7
	10 = other	330	7.0
	minus9 = refused	5	0.1
	minus8 = don't know	116	2.4
	no discrimination experienced	2,083	43.9
		4,746	**100**
Number of years in US	0 = U.S. born	3,464	73.0
	1 = < 5 years	19	0.4
	2 = 5-10 years	10	0.2
	3 = 11-20 years	0	0
	4 = 20+ years	0	0
	missing	1,253	26.4
		4,746	**100**
Gender	0 = male	1,721	36.3
	1 = female	3,025	63.7
		4,746	**100**
# of years of education	1 = 0 -11 years	1,164	24.5
	2 = 12 years	1,728	36.4
	3 = 13 - 15 years	1,186	25.0
	4 = >=16 years	668	14.1

(table continues)

Variable	Value	Frequency	%
		4,746	**100**
Age category	1 = 18-25 years	750	15.8
	2 = 26-35 years	1,008	21.2
	3 = 36-50 years	1,589	33.5
	4 = 51-65 years	867	18.3
	5 = 66-97 years	532	11.2
		4,746	**100**
Income category	1 = 0-50,000	3,481	73.3
	2 = 51,000-100,000	617	13.0
	3 = 101,000-150,000	91	1.9
	4 = 151,000-200,000	60	1.3
	missing	497	10.5
		4,746	**100**

Note. MDD = major depressive; PED = perceived everyday discrimination.

Table 6 displays the summary statistics for 1595, and not 1492, Afro-Caribbean cases contained in Dataset5. The data in Table 4 indicate, under the race/ancestry variable, that there are 1492 Afro-Caribbean participants, but under the variable, Caribbean ethnic origin, the numbers add up to 1598. The discrepancy has mainly to do with the group under the variable, race/ancestry, labeled, “8=other Hispanic”. The CPES researcher placed some members of the latter group under the variable, Caribbean ethnic origin, and so I had to move them to, “9=AfroCaribbean”, under the race/ancestry variable. In addition, only 437, and not 440, participants labeled, “other”, under the variable, Caribbean ethnic origin, were identified. Therefore, the new total was 1595.

Only 144 (9.0%) of the 1595 Afro-Caribbean participants met the criteria for lifetime MDD with the vast majority, 1418 (88.9%) not doing so. 1206 (75.6%) Afro-Caribbean participants acknowledged perceiving some form of everyday discrimination. Race, with 739 (46.3%) responses, was the most popular reason ascribed to the perceived discrimination. 159 (10.0%) of PED was attributed to the nonspecific category, “other”, while 125 (7.8%) was attributed to “skin color”. Most Afro-Caribbean participants, 511 (32.0%) were not born in the Unites States but had been living in the country for more than 20 years. Those born in the United States numbered 431 (27.0%) while 363 (22.8%) had been living in the United States between 11-20 years. There were more female Afro Caribbean participants, 964 (60.4%) than male participants, 631 (39.6%) and most participants, 543 (34.0%) were in the 36-50 age cohort. This was followed by the 26-35 age cohort, 379 (23.8%), the 18-25 age cohort, 280 (17.6%), the 51-65 age cohort, 254 (15.9%) and with the smallest group being the over 65 age cohort, 139 (8.7%). The ethnic composition of the Afro-Caribbean group was the 510 (32.0%) Jamaicans, the 437 (27.4%) Other, the 298 (18.7%) Haitians, the 180 (11.3%) Spanish Caribbean nationals, and the 170 (10.7%) Trinidadians. Most of these Caribbean nationals, 1165 (73.0%) were low-income earners, with 347 (21.8%) falling in the middle-income category.

Table 6

Descriptive Statistics for the 1,595 Afro-Caribbean Cases

Variable	Value	Frequency	%
MDD-lifetime	0 = not endorsed	1,418	88.9
	1 = endorsed	144	9.0
	missing	33	2.1
		1,595	**100**
Ever experienced PED	1 = no	389	24.4
	2 = yes	1,206	75.6
		1,595	**100**
Reason for discrimination	1 = ethnicity	42	2.6
	2 = gender	32	2.0
	3 = race	739	46.3
	4 = age	43	2.7
	5 = weight	10	0.6
	6 = skin color	125	7.8
	10 = other	159	10.0
	minus9 = refused	1	0.1
	minus8 = don't know	55	3.4
	no discrimination experienced	389	24.4
		1,595	**100**
Number of years in US	0 = U.S. born	431	27.0
	1 = < 5 years	118	7.4
	2 = 5-10 years	164	10.3
	3 = 11-20 years	363	22.8
	4 = 20+ years	511	32.0
	missing	8	0.5
		1,595	**100**
Gender	0 = male	631	39.6
	1 = female	964	60.4
		1,595	**100**
# of years of education	1 = 0 -11 years	295	18.5
	2 = 12 years	472	29.6
	3 = 13 - 15 years	439	27.5
	4 = >=16 years	389	24.4

(*table continues*)

Variable	Value	Frequency	%
		1,595	**100**
Caribbean ethnic origins	1 = Spanish Caribbean	180	11.3
	2 = Haiti	298	18.7
	3 = Jamaica	510	32.0
	4 = Trinidad & Tobago	170	10.7
	5 = other	437	27.4
		1,595	**100**
Age category	1 = 18-25 years	280	17.6
	2 = 26-35 years	379	23.8
	3 = 36-50 years	543	34.0
	4 = 51-65 years	254	15.9
	5 = 66-97 years	139	8.7
		1,595	**100**
Income category	1 = 0-50,000	1,165	73.0
	2 = 51,000-100,000	347	21.8
	3 = 101,000-150,000	61	3.8
	4 = 151,000-200,000	22	1.4
		1,595	**100**

Note. MDD = major depressive; PED = perceived everyday discrimination.

Table 7 displays the summary statistics for the 510 Jamaican cases contained in Dataset6. 460 (90.2%) of the 510 Jamaicans did not meet the criteria for lifetime MDD. Consistent with the Afro-Caribbean subpopulation to which they belong, most of the 510 Jamaicans, 392 (76.9%) had perceived some form of everyday discrimination, with race, 280 (45.1%) responses also being the most popular social justice category attributed to the experience. 58 (11.4%) and 46 (9.0%) of PED were attributed to “other” and “skin color”, respectively. There were more female Jamaican participants, 309 (60.6%) than male Jamaican participants, 201 (39.4%) and most participants, 175 (34.3%) were not born in the United States but had been domiciled in the country for more than 20 years. 127 (24.9%) of the Jamaicans had been living in the United States for 11-20 years, and 103 (20.2%) reported that they were born in the United States. Despite the Jamaicans reporting 12 years of education, 156 (30.6%), more than 16 years of education, 128 (25.1%), and 13-15 years of education, 126 (24.7%), most of the Jamaicans, 352 (69.0%) were in the low-income category, with 122 (23.9 %) falling in the middle-income group. Only a combined 36 (7.1%) of the Jamaicans earned between 101-200 thousand dollars per annum. 180 (35.3%) Jamaicans were in the 36-50 age cohort, 114 (22.4%) in the 26-35 age cohort, 96 (18.8%) in the 51-65 age cohort, and 54 (10.6%) being over 65 years of age.

Table 7

Descriptive Statistics for the 510 Jamaican Cases

Variable	Value	Frequency	%
MDD-lifetime	0 = not endorsed	460	90.2
	1 = endorsed	42	8.2
	missing	8	1.6
		510	**100**
Ever experienced PED	1 = no	118	23.1
	2 = yes	392	76.9
		510	**100**
Reason for discrimination	1 = ethnicity	13	2.5
	2 = gender	8	1.6
	3 = race	230	45.1
	4 = age	13	2.5
	5 = weight	1	0.2
	6 = skin color	46	9.0
	10 = other	58	11.4
	minus8 = don't know	23	4.5
	no discrimination experienced	118	23.1
		510	**100**
Number of years in US	0 = U.S. born	103	20.2
	1 = < 5 years	40	7.8
	2 = 5-10 years	64	12.5
	3 = 11-20 years	127	24.9
	4 = 20+ years	175	34.3
	missing	1	0.2
		510	**100**
Gender	0 = male	201	39.4
	1 = female	309	60.6
		510	**100**
# of years of education	1 = 0-11 years	100	19.6
	2 = 12 years	156	30.6
	3 = 13 - 15 years	126	24.7
	4 = >= 16 years	128	25.1

(*table continues*)

Variable	Value	Frequency	%
		510	**100**
Age category	1 = 18-25 years	66	12.9
	2 = 26-35 years	114	22.4
	3 = 36-50 years	180	35.3
	4 = 51-65 years	96	18.8
	5 = 66-97 years	54	10.6
		510	**100**
Income category	1 = 0-50,000	352	69.0
	2 = 51,000-100,000	122	23.9
	3 = 101,000-150,000	24	4.7
	4 = 151,000-200,000	12	2.4
		510	**100**

Note. MDD = major depressive; PED = perceived everyday discrimination.

Table 8 displays the summary statistics for 369 Jamaicans comprising Dataset7 who reported experiencing some form of everyday discrimination. In Table 7, this number was reported as 392. However, it was deemed prudent to exclude the 23 cases under the attribute, “-8 = don’t know” to perform the statistical analysis for which Dataset7 would be used. Only 32 (8.7%) of the 369 Jamaicans were diagnosed with lifetime MDD. Race, with 276 (74,8%) responses, was the most frequent reason ascribed to the experiences of discrimination, followed by the unspecified category, other, 58 (15.7%), ethnicity and age, both 13 (3.5%), gender, 8 (2.2%), and weight, 1 (0.3%). More women 212 (57.5%) than men 157 (42.5%) reported experiencing PED. Most participants, 116 (31.4%), were not born in the United States but had been domiciled here for more than 20 years. 92 (24.9%) were born in the United States, 87 (23.6%) had resided in the country between 11 and 20 years, 49 (13.3%) for 5 – 10 years, and 24 (6.5%) for less than 5 years. Most members of this small group of Jamaicans 115 (31.2%) reported having 12 years of education, 91 (24.7%) 13-15 years of education, 90 (24.4%) more than 16 years of education, and 73 (19.8%) 0-11 years of education. The 36-50 group was the most populous age cohort, 129 (35.0%), followed by the 26-35 age cohort, 91 (24.7%), 51-65 years, 73 (19.8%), 18-25 years, 52 (14.1%), and 66-97 years, 24 (6.5%). 248 (67.2%) were in the 0-50,000 income category, 95 (25.7%) in the 51,000-100,000 category, 19 (5.1%) in the 101,000-150,000 category, and 7 (1.9%) the 151,000-200,000-income category.

Table 8

Descriptive Statistics for the 369 Jamaicans Experiencing PED

Variable	Value	Frequency	%
MDD-lifetime	0 = not endorsed	329	89.2
	1 = endorsed	32	8.7
	missing	8	2.2
		369	**100**
Reason for discrimination	0 = other	58	15.7
	1 = ethnicity	13	3.5
	2 = gender	8	2.2
	3 = race	276	74.8
	4 = age	13	3.5
	5 = weight	1	0.3
		369	**100**
Number of years in US	0 = U.S. born	92	24.9
	1 = < 5 years	24	6.5
	2 = 5-10 years	49	13.3
	3 = 11-20 years	87	23.6
	4 = 20+ years	116	31.4
	missing	1	0.3
		369	**100**
Gender	0 = male	157	42.5
	1 = female	212	57.5
		369	**100**
# of years of education	1 = 0 -11 years	73	19.8
	2 = 12 years	115	31.2
	3 = 13 - 15 years	91	24.7
	4 = >=16 years	90	24.4
		369	**100**
Age category	1 = 18-25 years	52	14.1
	2 = 26-35 years	91	24.7
	3 = 36-50 years	129	35.0
	4 = 51-65 years	73	19.8
	5 = 66-97 years	24	6.5

(*table continues*)

Variable	Value	Frequency	%
		369	**100**
Income category	1 = 0-50,000	248	67.2
	2 = 51,000-100,000	95	25.7
	3 = 101,000-150,000	19	5.1
	4 = 151,000-200,000	7	1.9
		369	**100**

Note. MDD = major depressive; PED = perceived everyday discrimination.

Results

Research Question 1

The chi-square test is an inferential statistical tool popularly used to demonstrate existing relationships with nominal and ordinal level variables based on the comparison of observed and expected frequencies (Frankfort-Nachmias & Leon-Guerrero, 2018). The chi-square test compares the actual observed frequencies in a bivariate table with the frequencies that are generated under the assumption that the two variables in the cross-tabulation are not associated with each other (Frankfort-Nachmias & Leon-Guerrero). The chi-square model is therefore a test of statistical independence (Laureate Education, 2016a). If there is no association between the variables, the observed frequencies should approximate the expected frequencies (Frankfort-Nachmias & Leon-Guerrero).

The chi-square statistic helps to determine whether the disparities between the observed and expected frequencies are large enough to convince of a genuine pattern in the population (Frankfort-Nachmias & Leon-Guerrero, 2018). If the observed and expected frequencies are very close the chi-square statistic will be small (Frankfort-Nachmias & Leon-Guerrero). The larger the chi-square statistic, the smaller will be the *p*-value, thereby providing stronger evidence to reject the null hypothesis (Frankfort-Nachmias & Leon-Guerrero).

To address RQ1, I generated two chi-square models in SPSS version 27. The first model was to determine if there was an association between MDD and ethnicity, using the Afro-Caribbean and the African American ethnicities represented in the variable, race/ancestry, as the comparison groups. The second model was to further determine if there was any association between MDD and ethnicity by focusing on the five Caribbean ethnicities within the Afro-Caribbean subpopulation which were captured in the variable, Caribbean ethnic origins-5 categories.

The descriptive statistics for the 4746 African American and the 1595 Afro-Caribbean respondents presented in Tables 5 and 6, respectively, were already discussed. I used Dataset3, which combined the 1595 Afro-Caribbean nationals, and the 4746 African Americans for the first chi-square analysis. Tables 9, 10, 11, and 12 display the results of the first chi-square model. The case processing summary, Table 9, shows a response rate of 97.3% among the 6341 respondents. The result of the crosstabulation for the model is displayed in Table 10. A higher percentage of African Americans (11.0%) than Afro-Caribbean nationals (9.2%) were diagnosed with lifetime MDD indicating that African Americans are at higher risk for lifetime MDD. The percentage differences between Afro-Caribbean nationals and African Americans for the endorsement of lifetime MDD is suggesting that there may be an association between MDD and ethnicity. If the variables are statistically independent, the percentage distribution of lifetime MDD within each category of the variable, race/ancestry, would be approximately equal (Frankfort-Nachmias & Leon-Guerrero, 2018).

The statistical significance of the relationship between race/ancestry and lifetime MDD is indicated by the chi-square result in Table 11. The critical value of 3.83 for the Pearson’s chi-square and the affiliated *p*-value of 0.05, signifies that the null hypothesis of independence can be rejected. The result indicates the existence of a statistically significant relationship between being a Caribbean National in the United States, being

African American, and lifetime MDD. However, this researcher notes that the index for the Pearson chi-square is low and the result of the *p*-value, although significant, is high. The measure of association for the model is displayed in Table 12 and shows the index for lambda as 0.00, which is indicating that there was no strength in the relationship between the variables.

Table 9

Chi-Square Case Processing Summary for Race/Ancestry and MDD

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Race/Ancestry * MDD-Lifetime	6171	97.3%	170	2.7%	6341	100.0%

Table 10

Chi-Square Crosstabulation Between Race/Ancestry and MDD

			MDD (Lifetime)		
			ENDORSED	NOT ENDORSED	Total
Race/Ancestry	AFRO-CARIBBEAN	Observed	144	1418	1562
		Expected	164.5	1397.5	1562.0
		Observed %	9.2%	90.8%	100.0%
	AFRICAN AMERICAN	Observed	506	4103	4609
		Expected	485.5	4123.5	4609.0
		Observed %	11.0%	89.0%	100.0%
Total		Observed	650	5521	6171
		Expected	650.0	5521.0	6171.0
		Observed %	10.5%	89.5%	100.0%

Table 11

Chi-Square Tests for Race/Ancestry and MDD

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	3.833	1	.050		
Continuity Correction	3.648	1	.056		
Likelihood Ratio	3.933	1	.047		
Fisher's Exact Test				.051	.027
Linear-by-Linear Association	3.832	1	.050		
N of Valid Cases	6171				

Table 12

Chi-Square Measures of Association Between Race/Ancestry and MDD

			Value	Asymptotic Standard Error[a]	Approximate T	Approximate Significance
Nominal by Nominal	Lambda	Symmetric	.000	.000	[b]	[b]
		Race/Ancestry Dependent	.000	.000	[b]	[b]
		MDD-LifeT Dependent	.000	.000	[b]	[b]
	Goodman and Kruskal tau	Race/Ancestry Dependent	.001	.001		.050[c]
		MDD-LifeT Dependent	.001	.001		.050[c]

a. Not assuming the null hypothesis.

b. Cannot be computed because the asymptotic standard error equals zero.

c. Based on chi-square approximation

Tables 13, 14, and 15 display the results of the chi-square model between MDD and the five Caribbean ethnicities. Table 13 shows a response rate of 97.9% among the 1595 respondents. The result of the crosstabulation for the model is displayed in Table 14. The observed percentages indicate that Spanish-speaking Caribbean nationals (12.0%) are at a higher risk of acquiring lifetime MDD than the category, “other” (10.7%), followed by Trinidadians (9.1%), Jamaicans (8.4%), and Haitians (6.9%). The differences in the frequencies in the cells appear large and seemingly point to an association between lifetime MDD and the various Caribbean ethnicities. However, the chi-square statistic (5.01) and the *p*-value (0.29) displayed in Table 15, indicate that the disparities between the observed and expected frequencies are not large enough, indicating the absence of a statistically significant relationship between lifetime MDD and the Caribbean ethnicities. In response to RQ1, this also means that there is no statistically significant association between lifetime MDD and the Jamaican diaspora in the Unites States.

Table 13

Chi-Square Case Processing Summary for Caribbean Ethnicities and MDD

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Caribbean Ethnicities* MDD-Lifetime	1562	97.9%	33	2.1%	1595	100.0%

Table 14

Chi-Square Crosstabulation Between Caribbean Ethnicities and MDD

			MDD (Lifetime)		
			NOT ENDORSED	ENDORSED	Total
Caribbean Ethnicities	SPANISH CARIBBEAN	Observed	154	21	175
		Expected	158.9	16.1	175.0
		Observed %	88.0%	12.0%	100.0%
	HAITI	Observed	270	20	290
		Expected	263.3	26.7	290.0
		Observed %	93.1%	6.9%	100.0%
	JAMAICA	Observed	460	42	502
		Expected	455.7	46.3	502.0
		Observed %	91.6%	8.4%	100.0%
	TRINIDAD AND TOBAGO	Observed	149	15	164
		Expected	148.9	15.1	164.0
		Observed %	90.9%	9.1%	100.0%
	OTHER	Observed	385	46	431
		Expected	391.3	39.7	431.0
		Observed %	89.3%	10.7%	100.0%
Total		Observed	1418	144	1562
		Expected	1418.0	144.0	1562.0
		Observed %	90.8%	9.2%	100.0%

Table 15

Chi-Square Tests for Caribbean Ethnicities and MDD

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	5.012	4	.286
Likelihood Ratio	5.012	4	.286
Linear-by-Linear Association	.380	1	.537
N of Valid Cases	1562		

Research Question 2

Binary logistic regression analysis was the statistical method of choice in response to RQs 2 and 3, as the dependent variable for this study, lifetime MDD, is dichotomous. Wagner (2017) informs that to generate a logistic regression model within SPSS Statistics, all the variables should be dichotomous. The variables must also be coded such that “0” connotes none of that attribute of the variable and “1” connotes the presence of an attribute of that variable (Wagner). For nominal variables with several attributes, dummy variables will need to be created to make the variable amenable to the logistic regression statistical method (Wagner).

In response to the second RQ, I generated two binary logistic regression models to examine the predictive association between MDD and PED, and between MDD and the various types of microaggression, specifically among the Jamaican diaspora in the United States. I used Dataset6 to generate the model between MDD and PED, and Dataset7, the model between MDD and various types of microaggression. Firstly, I dichotomized the relevant independent variables in Dataset6 and gave them the following new names. The new name given to reason for discrimination was experienced PED [or not] with 0 = no and 1 = yes. Number of years in the United States was renamed born in U.S. [or not] with 0 = no and 1 = yes. Gender, called sex in the data set was also recoded to 0 = female and 1 = male. Years of education was renamed college degree [or not] with 0 = no and 1 = yes. Age_Cat which was a re-coding of the original continuous variable, age, was again re-coded and given the name, working age [or not] with 0 = no and 1 = yes. The same was true for Income_Cat which was now renamed low income [or not] with 0 = no and 1

= yes. The descriptive statistics for the recoded variables in Dataset6 are shown in Table 16.

Table 16

Descriptive Statistics for the Recoded Variables in Data Set 6

Variable	Value	Frequency	%
Experienced PED [or not]	0 = no	141	27.6
	1 = yes	369	72.4
		510	**100**
Born in U.S. [or not]	0 = no	406	79.6
	1 = yes	103	20.0
	missing	1	0.2
		510	**100**
Gender	0 = female	309	60.6
	1 = male	201	39.4
		510	**100**
College degree [or not]	0 = no	256	50.2
	1 = yes	254	49.8
		510	**100**
Working age [or not]	0 = no	54	10.6
	1 = yes	456	89.4
		510	**100**
Low income [or not]	0 = no	158	31.0
	1 = yes	352	69.0
		510	**100**

I created Dataset7 from a copy of Dataset6 to generate the logistic regression model between MDD and the various types of microaggression. All Jamaicans who reported not experiencing any form of PED was removed, including those whose response was “don’t know”. Therefore, Dataset7 comprised the 369 Jamaicans who had reported experiencing PED in one of the named categories. I merged the category, skin color, with the category, race. I renamed the category, 10 = other, 6 = unspecified”. I then created dummy variables with the six categories. The root name given to the new variable was PED and so the six dummy variables were labeled, PED_1 – PED_6. The last dummy variable created in SPSS Version 27 is always designated the reference variable. Therefore, PED_6, the unspecified category, was the reference or baseline category. Table 17 displays the information on the six dummy variables created.

Table 17

Dummy Variables Created From the Variable Reason for Discrimination

Variable	Label
PED_1	V06548 = ethnicity
PED_2	V06548 = gender
PED_3	V06548 = race
PED_4	V06548 = age
PED_5	V06548 = weight
PED_6	V06548 = unspecified

Binary logistic regression is predicated on the assumptions of the absence of outliers, independence of errors, and the absence of multicollinearity. The variables in the models were all nominal hence there were no outliers. The result of the test for Variance Inflation Factors (VIFs) showed no value greater than 10 hence the assumption of the absence of multicollinearity was met. The assumption of independence of errors was considered met as the owners of the data had stated that responses were obtained from unrelated cases.

Tables 18, 19, 20, and 21 display the results of the binary logistic regression models generated in response to RQ2. Tables 18 and 19 display the results of the model between MDD and PED, while controlling for the covariates, among all 510 Jamaicans.

Table 18 shows that the Nagelkerke R Square index for the model is 0.157. Table 19 shows the variables in the equation in the model. The Nagelkerke R Square index of 0.157 in Table 18 indicates that 15.7% of the variance in MDD can be attributed to the variables in the model. This is indicative of an adequately defined model but is also suggesting that there are other more important predictors that could have been included in the model. Table 19 shows the variables in the equation in the model between MDD and PED, among the 510 Jamaicans. There was no statistically significant relationship between MDD and PED (Wald $\chi^2 = 0.02$, $p = 0.89$, ExpB = 1.06) and between MDD and working age [or not] (Wald $\chi^2 = 0.25$, $p = 0.62$, ExpB = 1.38). Statistically significant relationships were found between MDD and born in U.S. [or not] (Wald $\chi^2 = 14.19$, $p = 0.00$, ExpB = 4.02), MDD and gender (Wald $\chi^2 = 7.51$, $p = 0.01$, ExpB = 0.31), MDD and college degree [or not] (Wald $\chi^2 = 5.43$, $p = 0.02$, ExpB = 2.31), and MDD and low income [or not] (Wald $\chi^2 = 8.39$, $p = 0.00$, ExpB = 4.01). The odds ratios (ExpB) are indicating that in terms of endorsing lifetime MDD, Jamaicans born in the United States are 4 times more likely than those born abroad, Jamaicans with a college education are twice more likely than those without a college education, and Jamaicans in the low-income bracket are 4 times more likely than those in higher income brackets. The odds ratio for gender is indicating that the likelihood of endorsing MDD decreases by approximately 70% for Jamaican men compared to Jamaican women.

Table 18

Model Summary of Logistic Regression of PED on MDD

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	252.884[a]	.069	.157

a. Estimation terminated at iteration number 6 because parameter estimates changed by less than .001.

Table 19

Variables in the Equation of Logistic Regression of PED on MDD

								95% C.I.for EXP(B)	
		B	S.E.	Wald	df	Sig.	Exp(B)	Lower	Upper
Step 1[a]	Experience PED [or not]	.060	.413	.021	1	.884	1.062	.473	2.385
	Born in US [or not]	1.392	.370	14.192	1	.000	4.023	1.950	8.300
	Sex2	-.162	.424	7.508	1	.006	.313	.136	.718
	Working Age [or not]	.322	.650	.245	1	.620	1.380	.386	4.936
	College Degree [or not]	.836	.359	5.434	1	.020	2.308	1.142	4.663
	Low Income [or not]	1.398	.482	8.392	1	.004	4.045	1.571	10.413
	Constant	-4.368	.816	28.614	1	.000	.013		

a. Variable(s) entered on step 1: Experience PED [or not], Born in US [or not], Sex2, Working Age [or not], College Degree [or not], Low Income [or not].

The results of the binary logistic regression model between MDD and the different forms of microaggression represented by the dummy variables are displayed in Tables 20 and 21. The Nagelkerke R Square index of 0.047 in Table 20 indicates that only 4.7% of the variance in MDD can be attributed to the types of microaggression used to generate the model. This is indicative of a poorly defined model, suggesting that there are other more important predictors that need to be included in the model. Table 21 shows the variables in the equation in the model with PED_6, the unspecified category, as the baseline category. There were no statistically significant relationships between MDD and ethnic microaggression (Wald $\chi^2 = 0.00$, $p = 0.99$, ExpB = 0.00), MDD and gender microaggression (Wald $\chi^2 = 2.87$, $p = 0.09$, ExpB = 5.30), MDD and racial microaggression (Wald $\chi^2 = 0.38$, $p = 0.53$, ExpB = 1.41), MDD and age microaggression (Wald $\chi^2 = 0.00$, $p = 0.99$, ExpB = 0.00), and MDD and weight microaggression (Wald $\chi^2 = 0.00$, $p = 1.00$, ExpB = 0.00). Therefore, the odds ratios will not be interpreted.

Table 20

Model Summary of Logistic Regression of Dummy Variables on MDD

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	208.451[a]	.021	.047

a. Estimation terminated at iteration number 20 because maximum iterations has been reached. Final solution cannot be found.

Table 21

Variables in Equation of Logistic Regression of Dummy Variables on MDD

								95% C.I.for EXP(B)	
		B	S.E.	Wald	df	Sig.	Exp(B)	Lower	Upper
Step 1[a]	V06548=Ethnicity	-18.61	11147.52	.000	1	.99	.000	.000	.
	V06548=Gender	1.67	.98	2.871	1	.09	5.300	.770	36.486
	V06548=Race	.35	.56	.382	1	.53	1.412	.473	4.215
	V06548=Age	-18.61	11147.52	.000	1	.99	.000	.000	.
	V06548=Weight	-18.61	40192.97	.000	1	1.00	.000	.000	.
	Constant	-2.58	.519	24.834	1	.000	.075		

a. Variable(s) entered on step 1: V06548=ETHNICITY, V06548=GENDER, V06548=RACE, V06548=AGE, V06548=WEIGHT.

Research Question 3

The results of the regression models generated in response to RQ3 are displayed in Tables 22,23,24, and 25. Tables 22 and 23 display the results of the regression model between MDD, PED, and gender, and Tables 24 and 25 the results of the model between MDD, PED, gender, and the interaction term, PEDbyGender. The Nagelkerke R Square index of 0.043 seen in Table 22 indicates that 4.3% of the variance in MDD can be explained by PED and gender. This constitutes a poorly defined model, indicating that PED and gender are not good predictors of MDD. Table 23 indicates the absence of a statistically relationship between MDD and PED (Wald $\chi^2 = 0.85$, $p = 0.36$, ExpB = 1.42) but the presence of a statistically significant relationship between MDD and gender (Wald $\chi^2 = 7.60$, $p = 0.01$, ExpB = 0.33).

The Nagelkerke R Square index of 0.054 seen in Table 24 indicates that 5.4% of the variance in MDD can be explained by PED, gender, and PEDbyGender. Although not a well-specified model, the indication is that PED, gender, and PEDbyGender, together are better predictors of MDD than just PED and gender. Table 25 indicates that there are no statistically significant relationship between MDD and PED (Wald $\chi^2 = 2.16$, $p = 0.14$, ExpB = 1.92), MDD and gender (Wald $\chi^2 = 0.01$, $p = 0.93$, ExpB = 0.94), and MDD and PEDbyGender (Wald $\chi^2 = 2.67$, $p = 0.10$, ExpB = 0.24). There was no indication that gender was an effect modifier in the relationship between MDD and PED.

Table 22

Model Summary of Logistic Regression of PED and Gender on MDD

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	279.288[a]	.019	.043

a. Estimation terminated at iteration number 6 because parameter estimates changed by less than .001.

Table 23

Variables in Equation of Logistic Regression of PED and Gender on MDD

								95% C.I.for EXP(B)	
		B	S.E.	Wald	df	Sig.	Exp(B)	Lower	Upper
Step 1[a]	Experience PED [or not]	.351	.381	.851	1	.356	1.420	.674	2.994
	Sex2	-1.119	.406	7.601	1	.006	.327	.147	.724
	Constant	-2.325	.335	48.176	1	.000	.098		

a. Variable(s) entered on step 1: Experience PED [or not], Sex2.

Table 24

Model Summary of Logistic Regression of PED, Gender, and PEDbyGender on MDD

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	276.819[a]	.024	.054

a. Estimation terminated at iteration number 6 because parameter estimates changed by less than .001.

Table 25

Variables in Equation of Logistic Regression of PED, Gender, and PEDbyGender on MDD

								95% C.I.for EXP(B)	
		B	S.E.	Wald	df	Sig.	Exp(B)	Lower	Upper
Step 1[a]	Experience PED [or not]	.651	.443	2.158	1	.142	1.918	.804	4.573
	Sex2	-.061	.715	.007	1	.932	.941	.232	3.823
	PEDbyGender	-1.424	.872	2.665	1	.103	.241	.044	1.331
	Constant	-2.554	.392	42.362	1	.000	.078		

a. Variable(s) entered on step 1: Experience PED [or not], Sex2, PEDbyGender.

Summary

The primary purpose of this study was to elucidate the associations between lifetime MDD and PED, lifetime MDD and different types of microaggression, and to determine whether gender was an effect modifier in the association. A secondary purpose was to determine whether there was any statistical significance between lifetime MDD and being a Jamaican in the United States, being a Caribbean national in the United States, and being African American. I created smaller data sets from the CPES data set, converted continuous data to the categorical form, generated descriptive and inferential statistics, and presented the statistical findings. The chi-square models I generated in response to RQ1 indicated that African Americans (11.0%) were at greater risk of lifetime MDD than Afro-Caribbean nationals (9.2%). Among Afro-Caribbean nationals, Spanish Caribbean individuals (12.0%) were at greater risk of lifetime MDD than “other” (10.7%), Trinidadians (9.1%), Jamaicans (8.4%), and Haitians (6.9%).

Binary logistic regression analyses I performed in response to RQ2 showed that, among the Jamaican diaspora, there are statistically significant relationships between MDD and being born in the US, MDD and gender, MDD and having a college education, and MDD and low income, but not between MDD and PED, and MDD and being of working age. Among the Jamaican diaspora, there was also no statistically significant relationship between MDD and microaggression due to weight, age, gender, ethnicity, nor race, using the unspecified microaggression category as the baseline. The effect modification analysis I performed in response to RQ3 failed to show gender as an effect modifier in the association between PED and MDD.

In the final chapter of this dissertation, Chapter 5, I interpret the statistical findings of this study. I review the findings in the context of the current literature on the subject matter, as well as in the context of the tenets of microaggression theory which formed the theoretical framework for this study. I discuss in detail the limitations associated with the study and make recommendations for future studies. Chapter 5 ends with conclusions regarding the results of this study.

Chapter 5: Discussion, Conclusions, and Recommendations

Introduction

I conducted this study to add to the literature on the relationship between MDD-lifetime) and PED within the Jamaican diaspora in the United States. Addressing gaps in the knowledge base regarding mental health issues within racial and ethnic minority groups is paramount (Taylor & Chatters, 2020). In reviewing the literature, I found several studies on the relationship between PED and depression or depressive symptoms (e.g., Allen et al., 2017; Antonio et al., 2016; Britt-Spells et al., 2018; Cano et al., 2016; Cobb et al., 2017; Hall et al., 2019; Han & Richardson, 2015; Hunger et al., 2020; Ikram et al., 2016; Incollingo et al., 2019; Jackson et al., 2019; Kim & Park, 2018; Kim et al., 2019; Kira et al., 2017; Lyons et al., 2018; Mouzon et al., 2017; Paradies et al., 2016; Robinson et al., 2017; Spahlholz et al., 2016; Stepanikova et al., 2020; Wellman et al., 2019). I found only eleven studies that used MDD as the outcome, instead of depression or depressive symptoms. The special focus on MDD for this study was deliberate given that MDD is the greatest contributor to the personal, social, and economic burden of disease of all mental disorders in the United States (Molina & James, 2016).

There are several social justice categories of PED that represent various types of microaggression. In seven of the eleven studies (Chae et al., 2012; Clark et al., 2015; Hosler et al., 2019; Lowe et al., 2019; Molina & James, 2016; Singh et al., 2017; Yasui et al., 2015), the researchers treated PED as a monolithic independent variable. Three researchers (Chou et al., 2012; Russell et al., 2018; Tobin & Moodie, 2021) examined racial microaggression as a social justice category of PED, while one researcher (Platt et al., 2016) examined gender microaggression as a social justice category of PED, in the association with MDD. Hayes et al (2018) highlighted the importance of individuating the social justice categories of PED in research studies as the associations with MDD vary among the social justice categories.

The focus on the Jamaican diaspora in the United States was also deliberate. Most often, researchers have included the Jamaican community under the nomenclatures of African American and Afro-Caribbean (e.g., Clark et al., 2015: Molina & James, 2016). Several ethnicities make up the African American and Afro-Caribbean subpopulations. Treating these subpopulations as monoliths obscures the differential impact of the relationship between MDD and PED among the many ethnicities that comprise these subpopulations (Lewis & Van Dyke, 2018). Additionally, in reviewing the literature, I found no study that had been conducted on the association between MDD and PED among the Jamaican diaspora in the United States.

The researchers provided the data in the CPES as numerical data. The quantitative approach to inquiry, which is rooted in deductive reasoning, was therefore appropriate as it facilitated the positing and testing of hypotheses (see Burkholder et al., 2016). The correlational design was suited for this study as it facilitated the determination of differences in the characteristics of the study population using an outcome variable, MDD-lifetime, and a set of predictors, PED and the microaggression categories (Lau, 2017). The correlational design facilitated the use of the chi-square test and the logistic regression models to determine the associations between the outcome variable and the predictors.

I undertook this study because as a Jamaican I wanted to find out what effect microaggression was having on the mental health of Jamaicans living in the United States. The data analyses were to provide answers to three RQs. RQ1 was designed to determine the statistical significance of lifetime MDD among African Americans, among Afro-Caribbean nationals in the United States on a whole, and specifically Jamaicans as a subset of the Afro-Caribbean subpopulation. RQ2 was primarily focused on the Jamaican diaspora in the United States and was designed to explore the association between MDD and PED, as well as between MDD and the microaggression categories present in the data set. RQ3 was intended to determine whether gender was an effect modifier in the association, if any, between MDD and PED among the Jamaican diaspora in the United States.

Interpretation of the Findings

The first chi-square model showed that a higher percentage of African Americans (11.0%) than Afro-Caribbean nationals (9.2%) had endorsed lifetime MDD. This was an indication that African Americans have a higher risk for lifetime MDD compared to Afro-Caribbean nationals living in the United States. The critical value of 3.83 for the Pearson’s chi-square statistic and the affiliated *p*-value of 0.05 signified that the null hypothesis of independence could be rejected. The result indicates the existence of a statistically significant relationship between being a Caribbean national in the United States, being African American, and lifetime MDD.

The statistically significant relationship between MDD and the African American and Afro-Caribbean ethnicities warrants a discussion regarding statistical significance and clinical significance or meaningfulness. Statistical significance concerns the critical value of a statistic and helps with determining whether the null hypothesis is rejected or not (Jones, 2016). Meaningfulness is taking that statistic and determining its applicability in the real world (Jones, 2016). A research finding may be statistically significant, at a *p* value of 0.05 or less, but the magnitude of the effect size or strength of the relationship may make the result meaningless (Jones, 2016). Changes to policy and allocation of scarce resources could not be justified based on such a result (Jones, 2016).

The test of association as reflected by the small chi-square statistic and the large *p*-value may not be strong enough evidence to reject the null hypothesis. In fact, the Yates continuity correction, which compensates for possible errors in two-by-two tables, showed a *p*-value of 0.56, which would render the model statistically insignificant. Additionally, the index for the measure of association for the model, $\boldsymbol{\lambda} = 0.00$, indicates an absence of any strength in the association. Together, the test of association and the measure of association indicate that the association between the variables is not meaningful enough to warrant further investigation (Frankfort-Nachmias & Leon-Guerrero, 2018). So, although there may be statistical significance between the variables, there can be no assertion regarding any profound impact this relationship may have in a real-world scenario.

The result of the second chi-square model indicates that Spanish-speaking Caribbean nationals (12.0%) are at a higher risk of acquiring lifetime MDD than the category “other” (10.7%), followed by Trinidadians (9.1%), Jamaicans (8.4%), and Haitians (6.9%). The small chi-square statistic (5.01) and the large *p*-value (0.29) indicate that the disparities between the observed and expected frequencies were not large enough, which was indicative of the absence of a statistically significant relationship between lifetime MDD and the five Caribbean ethnicities. Regarding RQ1, this also means that there is no statistically significant association between lifetime MDD and the Jamaican diaspora in the United States. There was a statistically significant relationship between MDD and Caribbean ethnicity in the first chi-square model. Therefore, the expectation was that at least one or more of the five Caribbean ethnicities would have shown statistically significant relationships with MDD. The latter result could therefore be regarded as being aberrant, again calling into question the validity of the first chi-square results. The absence of any statistically significant association between MDD and the five Caribbean ethnicities could also be indicating that the associations may not be along ethnic lines but may be based on gender, years in the United States, level of education, or other variables.

The Nagelkerke R Square index for the first binary logistic regression model, generated in response to RQ2, indicates that 15.7% of the variances in lifetime MDD can be attributed to PED and the covariates used to generate the model. This is indicative of an adequately defined model but still suggesting that there may be other more important predictors that could have been included in the model. The indices for the tests of association between MDD and PED (Wald $\chi^2 = 0.02$, $p = 0.89$, ExpB = 1.06) and between MDD and working age [or not] (Wald $\chi^2 = 0.25$, $p = 0.62$, ExpB = 1.38) indicate that there are no statistically significant relationships between MDD and these two predictors. However, statistically significant relationships were found between MDD and born in

U.S. [or not] (Wald $\chi^2 = 14.19$, $p = 0.00$, ExpB = 4.02), MDD and gender (Wald $\chi^2 = 7.51$, $p = 0.01$, ExpB = 0.31), MDD and college degree [or not] (Wald $\chi^2 = 5.43$, $p = 0.02$, ExpB = 2.31), and MDD and low income [or not] (Wald $\chi^2 = 8.39$, $p = 0.00$, ExpB = 4.01).

Although the association between lifetime MDD and PED was not statistically significant, the odds ratio (ExpB) of 1.1 is indicating that feeling discriminated against does not increase the risk of lifetime MDD among the Jamaican diaspora in the United States, after adjusting for the covariates. Years in the U.S., gender, level of education, and income level are the factors significantly associated with lifetime MDD among the Jamaican diaspora in the United States. The odds ratios indicate that Jamaicans born in the United States are 4 times more likely than those born abroad to endorse lifetime MDD, the likelihood of being diagnosed with lifetime MDD decreases by approximately 70% in Jamaican men compared to Jamaican women, Jamaicans with a college education are twice more likely than those without a college education to endorse lifetime MDD, and that Jamaicans in the low-income bracket are 4 times more likely than those earning more, to endorse lifetime MDD. The finding that Jamaicans with a college education are twice more likely than those without a college education to be diagnosed with lifetime MDD contradicts what is popularly expressed in the literature across other ethnic groups.

The Nagelkerke R Square index for the second binary logistic regression model generated in response to RQ2, indicates that 4.7% of the variances in lifetime MDD can be attributed to the different forms of microaggression, using PED_6, the unspecified category, as the baseline. This is indicative of a poorly defined model, suggesting that there are more important categories of microaggression that need to be included as predictors in the model. The indices for MDD and ethnic microaggression (Wald χ^2 = 0.00, p = 0.99, ExpB = 0.0), MDD and gender microaggression (Wald χ^2 = 2.87, p = 0.09, ExpB = 5.3), MDD and racial microaggression (Wald χ^2 = 0.38, p = 0.53, ExpB = 1.4), MDD and age microaggression (Wald χ^2 = 0.00, p = 0.99, ExpB = 0.0), and MDD and weight microaggression (Wald χ^2 = 0.00, p=1.00, ExpB = 0.0) all indicate no statistically significant relationship between lifetime MDD and any of the types of microaggression used to generate the model. Although the odds ratios should not be interpreted, I would like to draw attention to the indices for the association between MDD and gender microaggression. The odds ratio for the association between MDD and gender microaggression is suggesting that compared to the baseline, Jamaicans who reported experiencing gender microaggression are 5 times more likely to endorse lifetime MDD. The p-value of 0.09 for this association was much lower than those for the other four categories, and the 95% confidence interval of 0.77 – 36.48 much wider than those of the other four categories. Further exploration of gender microaggression among the Jamaican diaspora may be warranted.

The Nagelkerke R Square index for the first binary logistic model of the effect modification analysis indicates that 4.3% of the variances in lifetime MDD can be explained by PED and gender. This constitutes a poorly defined model, which is an indication that PED and gender are not good predictors of lifetime MDD. The indices for the test of association between lifetime MDD and PED (Wald χ^2 = 0.41, p = 0.52) indicate the absence of a statistically significant relationship between the variables.

However, the indices for MDD and gender (Wald $\chi^2 = 7.60$, $p = 0.01$) indicate the presence of a statistically significant relationship. The Nagelkerke R Square index for the second model in the effect modification analysis indicates that 5.4% of the variances in lifetime MDD can be explained by PED, gender, and PEDbyGender. Although not a well-specified model, this indicates that PED, gender, and PEDbyGender, together were better predictors of lifetime MDD than just PED and gender. The indices for MDD and PED (Wald $\chi^2 = 2.16$, $p = 0.14$), MDD and gender (Wald $\chi^2 = 0.01$, $p = 0.93$), and MDD and PEDbyGender (Wald $\chi^2 = 2.67$, $p = 0.10$) all depict the absence of any statistically significant relationship. There was no indication that gender is an effect modifier in the relationship between MDD and PED, among the Jamaican diaspora in the United States.

Relationship Between the Findings and the Existing Literature

MDD is currently one of the most common mental disorders in the United States with a lifetime prevalence of 16.6% (Emmert-Aronson & Brown, 2015). The 8.4% annual prevalence of MDD ranked second only to anxiety disorders (19.1%) among mental disorders in the United States (National Alliance on Mental Illness, 2019). MDD is often accompanied with high morbidity, comorbidity, and mortality rates (Ahmadpanah et al., 2019). The high prevalence of MDD and its personal, social, and economic impact as the greatest contributor to the burden of disease of all mental disorders makes MDD a public health issue (Molina and James, 2016).

The results of the chi-square models indicated that there were significant endorsements of lifetime MDD among the African American and Afro-Caribbean communities, but not among the Jamaican diaspora in the United States. For the most part this is consistent with the literature which informs of an association between MDD and racial/ethnic groups in the United States. Hayes et al. (2018) demonstrated MDD in 36.6% Blacks, 35.8% Hispanics, and 31.9% Whites. African Americans are more likely to report more chronic and severe MDD than Whites and Black Caribbean residents (Britt-Spells et al., 2018). Blacks residing in the United States, which would include Africa Americans, Caribbean nationals, and other Black ethnic groups may be experiencing greater severity of depression than other racial or ethnic groups (Britt-Spells et al., 2018).

Britt-Spells et al. (2018) stated that all forms of depression present a public health problem that needs to be urgently understood and addressed among ethnic Black Americans. The nomenclature of Black American or African American does not represent a monolith. Future research should aim to highlight the heterogeneity within the U.S. Black population so that the differential experiences of MDD among the various ethnic groups may be illuminated (Molina and James, 2016). The result of one chi-square model indicated a statistically significant association between MDD and Afro-Caribbean people in the United States but not among Jamaicans, nor the four other Caribbean ethnic groups used for comparison. In the CPES data set, Jamaicans are included under the rubric Afro-Caribbean. These findings taken together point to the importance of desegregating the Afro-Caribbean subpopulation in the United States to illuminate the differential experiences of the various Caribbean ethnicities. Molina and James (2016) showed that internalized racism was associated with less likelihood of endorsing past-year MDD among Afro-Caribbean nationals as opposed to African Americans. Clark et al. (2015) reported that the findings from their study indicated that an important extent of heterogeneity can be observed in the experiences of discrimination among African American and Caribbean Black adults. Additional evidence will help facilitate public health efforts to address discrimination as a social determinant of health (Healthy People.gov, 2020).

PED based on identities, such as ethnicity, age, gender, weight, sexual orientation, and socioeconomic status have been identified as chronic stressors (Hayes et al., 2018). Disproportionately high rates of MDD have been seen in individuals subjected to frequent discrimination based on these and other social justice categories (Hayes et al.,). Individuals who have experienced universally elevated levels of discrimination are significantly more likely to meet the *DSM-IV* criteria for MDD (Clark et al., 2015). It was estimated that 13–28% of MDD could be attributed to PED in ethnic minority groups (Ikram et al., 2016).

Lewis et al (2013) made the call for studies that explore the effects of all forms of discrimination on health, especially among the African American subpopulation. MDD-lifetime was one of the outcome variables in the study by Clark et al. (2015) who explored associations with everyday discrimination across several domains. The sample comprised 3570 African Americans, 1623 Caribbean Blacks, and 1006 Non-Hispanic Whites. Clark et al. (2015) showed that PED was positively associated with MDD among African American and Caribbean Black adults, but Clark et al. did not desegregate the Caribbean Black adult group, nor did they individuate the categories of PED. In a sample that included 860 African American, Yasui et al. (2015) showed that PED was positively related to MDD, but they also did not individuate PED nor desegregate the African American subpopulation.

The result of the binary logistic regression analysis I performed showed that all five categories of microaggression used to generate the model had no statistically significant relationship with lifetime MDD among the Jamaican community. Boutwell et al. (2017) declared that many participants who reported experiencing discrimination, had attributed their experiences to situational factors other than race, gender, sexual orientation, or age. This could offer an explanation as to why no statistically significant relationship was found with the microaggression categories in the model I generated. The situational factors alluded to by Boutwell et al. may need to be explored among the Jamaican diaspora in the United States.

I found no statistically significant relationship between MDD and ethnic microaggression among the Jamaican diaspora in the United States. The literature search I conducted did not reveal any study that had previously explored the association between ethnic microaggression and MDD as the outcome variable. The literature also did not reveal any study on the variables among Jamaicans as an ethnic minority group in the Unites States. Therefore, the negative finding from my study is compared with the findings of studies for which depression or depressive symptoms was the outcome variable.

Lazarevic et al. (2018) observed that Latino immigrants have been experiencing ethnic microaggression amid the anti-immigrant political climate in the United States. Increasing evidence indicates that perceived ethnic discrimination is positively associated with adverse mental health outcomes among ethnic minority groups (Ikram et al., 2016). However, the evidence seems to be most consistent with depressive symptoms and not MDD (Ikram et al., 2016). In support of their study hypotheses, Torres and Taknint (2015) illuminated an association between perceived ethnic discrimination and heightened traumatic stress symptoms, which in turn was predictive of increased depressive symptoms. Three-way interactions demonstrated a notable buffering impact of a strong sense of belonging on the relation between ethnic discrimination and depressive symptoms for women (Thibeault et al., 2018). Ethnic discrimination was indirectly associated with suicidal ideation through depressive disorders (Oh et al., 2019). Polanco-Roman et al. (2019) also found an indirect relation through depressive symptoms in the association between ethnic discrimination and suicidal ideation.

Ikram et al. (2016) observed that the positive association between ethnic discrimination and mental health disorder seemed most consistent with depressive symptoms. This seems to suggest that a statistically significant relationship with ethnic microaggression may have been found among the Jamaican diaspora in the United States had the outcome variable been depressive symptoms and not MDD. Alternatively, the result could mean that ethnic microaggression and its consequences on mental health may be the lived experience of Latinos and not Jamaican immigrants. This further justifies the call to individuate the identities of PED while exploring their effects on different ethnic groups. The result of one study is never conclusive. More studies on ethnic microaggression and MDD among the Jamaican diaspora in the United States are needed.

I found no statistically significant relationship between MDD and gender microaggression among the Jamaican diaspora in the United States. The literature search I conducted revealed a single study by Platt et al (2016) that explored the association between MDD and gender discrimination. Platt et al (2016) showed that there was twice the odds of past-year MDD among women compared to men and further that the test for effect modification by gender was statistically significant. It is important to note, that the outcome variable employed by Platt et al (2016) was past-year MDD and not MDD-lifetime, and that the study population was not the Jamaican diaspora in the United States.

The literature search I conducted did not reveal any other study that used MDD as an outcome in the association with gender microaggression. No study was found that examined the association among the Jamaican diaspora in the United States. The negative finding between MDD and gender microaggression from my study is compared with the results of studies for which depression or depressive symptoms was the outcome. Perceived gender discrimination was positively associated with depression (Kim and Park, 2018). Women who experienced gender discrimination in the workplace were shown to have higher odds of depressive symptoms regardless of the type of workplace discrimination (Kim et al., 2020). Participants who experienced gender-related discrimination and victimization showed a significantly higher level of depression than those who never experienced such unfair treatments (Zhang et al., 2021). Stepanikova et al. (2020) claimed that their study offered initial evidence of significant association between women’s perceptions of gender discrimination and depressive symptoms.

Nonetheless, it cannot be denied that gender microaggression exists in the real world and has a profound impact on mental health. Platt et al. (2016) concluded that overall, their results suggest that gender discrimination may be a prominent explanation for gendered mental health disparities at the population level. Despite great efforts at the global level, gender discrimination is far from eliminated and remains predominant in various life sectors (Yaghmour et al., 2021). Gender discrimination is manifested in a variety of ways, such as gender microaggressions, gender-biased policies; and inequitable treatment of women within the family and on the job (Stepanikova et al., 2020) Sexual objectification, sexist language, and notions of men being intellectually and physically superior to women are also elements of gender discrimination (Stepanikova et al., 2020). However, the adverse effects of gender inequality not only impact the health of women, but also that of men, boys, girls, and gender minorities (Darmstadt et al., 2019).

I found no statistically significant relationship between MDD and racial microaggression among the Jamaican diaspora in the United States. I find this surprising considering the state of racial tension in the United States. This negative finding could be attributed to the period during which the data were collected, which was long before the Trump presidential era. Again, it is worth remembering that Boutwell et al. (2017) stated that many participants who reported experiencing discrimination, attributed their experiences to situational factors other than race, gender, sexual orientation, or age.

The literature search I conducted revealed three articles that examined the association between MDD and racial microaggression (Chou et al., 2012; Russell et al., 2018; Tobin & Moodie, 2021). Unlike this study, the three studies demonstrated statistically significant relationships between the variables but again the Jamaican diaspora in the United States was not the study population for these studies. Chou et al. (2012) found that the perception of racial microaggression was associated with MDD in the three most common U.S. minority groups; Hispanics, Asians, and Blacks. Neighborhood-level racial discrimination was shown to be a stronger predictor of MDD than individual reports of experiences of racially based discrimination (Russell et al., 2018). Individual reports of racial microaggression was used for my study and not neighborhood-level microaggression. The results by Tobin and Moodie (2021) showed that early life racial discrimination (ELRD) was linked to adult MDD, even after controlling for adult discrimination. No attempt was made in my study to determine the stage in life when the racial microaggression was experienced.

I found no statistically significant relationship between MDD and age microaggression among the Jamaican diaspora in the United States. The literature search I conducted did not reveal any study that explored the association between perceived age microaggression and MDD as the outcome variable and not within the Jamaican diaspora in the United States. Therefore, the negative finding from my study is compared with the results of previous studies for which depression or depressive symptoms was the outcome, and which all demonstrated significant relationships between the outcome variable and age microaggression. Kim et al. (2019) found no direct relationship between perceived ageism and depressive symptoms. Instead, the relationship between perceived ageism and late-life depression was fully mediated by self-perception of aging and purpose in life (Kim et al., 2019).

Cross-sectional data indicated that participants who perceived age discrimination were more likely to self-report depressive symptoms than those who did not perceive age discrimination (Jackson et al., 2019). Longitudinal data indicated that perceived age discrimination was associated with depressive symptoms over 6 years (Jackson et al., 2019). Step 1 of a hierarchical multiple regression model revealed a significant effect of ageism on depression, explaining 29% of the variation (Lyons et al., 2018). At step 2, there was a significant effect of ageism on depression, a significant ageism by age interaction, and a significant ageism by gender interaction (Lyons et al., 2018). Perceived age discrimination was significantly related to a change in depressive symptoms over four years with self-perceptions of aging mediating the relationship (Han & Richardson, 2015).

Although negative, the result of the analysis between MDD and age microaggression among Jamaicans living in the United States will help to narrow the gaps in the literature. The association between experiences of ageism and adverse mental health may be well-established, but less is known about variances in the magnitude of the association across racial and ethnic groups (Lyons et al., 2018). Some ethnic groups remain at higher risk for depression than others in late life (Han & Richardson, 2015). More studies on the association between age microaggression and MDD specifically, among the Jamaican diaspora as well as among other ethnic minority groups in the United States are needed to narrow the gaps in the literature.

Han and Richardson (2015) argued that age discrimination has been institutionalized and socially tolerated. Age discrimination was perpetuated in the age-biased decision-making at the start of the Covid-19 pandemic, in the United States, and around the world (Monahan et al., 2020). Older adults were assigned the lowest priority for life-saving treatment according to the Covid-19 triaging guidelines (Rosenbaum, 2020). Mounting evidence is implicating ageism at a broader level for the slow and inadequate responses to the pandemic (Monahan et al., 2020). Considering that the CPES data were collected before the pandemic started it may be interesting what data may reveal about age discrimination after the pandemic has subsided.

I found no statistically significant relationship between MDD and weight microaggression among the Jamaican diaspora in the United States. The literature search I conducted did not reveal any study that used MDD as the outcome variable in exploring the association with perceived weight discrimination. In addition, no studies were found that focused on Jamaicans as an ethnic minority group in the United States. The negative finding from my study can only be compared with studies for which depression or depressive symptoms was the outcome variable. The studies discovered from my literature search all demonstrated direct or indirect relationships between the outcome variable and weight microaggression.

Perceived weight discrimination during pregnancy was associated with postpartum depressive symptoms and maternal physiological stress reactivity (Endres et al., 2015). Perceived weight discrimination predicted more postpartum depressive symptoms at one month and one year postpartum but was not significantly associated with postpartum depressive symptoms at 6 months postpartum (Incollingo et al., 2019). Spahlholz et al. (2016) reported that an estimated 59.1% of participants who perceived weight discrimination reported depressive symptoms and that 16.9% met the diagnostic criteria for a depression. Perceived weight discrimination was indirectly related to greater suicidal ideation in the association between suicidal ideation and depression (Hunger et al. 2020). Longitudinal data showed that perceived weight discrimination predicted increases in depressive symptoms from baseline to follow-up (Robinson et al., 2017). Perceived weight discrimination also mediated the prospective association between obesity and depressive symptoms, in all 3 studies conducted (Robinson et al., 2017). Wellman et al. (2019) showed that perceived weight discrimination was a powerful predictor of binge eating and that depression mediated the association.

Weight-based discrimination is pervasive in the United States (Wellman et al., 2019). Weight-based discrimination is not only pervasive but is also on the increase (Hunger et al., 2020). Weight-based discrimination is perpetrated every day in domains such as employment, education, and health care (Pearl et al 2018). This makes weight-discrimination a public health issue requiring more research. However, greater racial/ethnic diversity in the samples and the intersectionality with other forms of discrimination are needed to provide a more comprehensive understanding of the relationship between perceived weight discrimination and mental health (Pearl et al., 2018). The result of this study is helping to narrow the gaps in the literature.

Although the findings of this study support the literature in part, the support was limited because of the use of MDD as the outcome and the focus on the Jamaican diaspora. The database searches I conducted revealed a paltry eleven studies that examined the correlation between MDD and PED (Chae et al., 2012; Chou et al., 2012;

Clark et al., 2015; Hosler et al., 2019; Lowe et al., 2019; Molina & James, 2016; Platt et al., 2016; Russell et al, 2018; Singh et al., 2017; Tobin & Moodie, 2021; Yasui et al., 2015). Seven of the eleven studies did not individuate the social justice categories of PED. None of the eleven studies offered desegregation of the African American and Caribbean ethnic groups to focus directly on Jamaicans as an ethnic minority group in the United States.

Of the eleven studies, three examined the correlation between MDD and racial discrimination (Chou et al., 2012; Russell et al., 2018; Tobin & Moodie, 2021) and one examined the association between MDD and gender discrimination (Platt et al., 2016). No studies were found that explored the association between MDD and age discrimination, MDD and weight discrimination, and MDD and ethnic discrimination. Again, none of the four studies (Chou et al., 2012; Platt et al., 2016; Russell et al., 2018; Tobin & Moodie, 2021) that examined the association between MDD and types of microaggression focused on the Jamaican diaspora in the United States. Treating the African American and Afro-Caribbean subpopulations as a being homogeneous does not facilitate an understanding of the differential impact of exposure to discrimination or the associations between PED and MDD within the different ethnicities that comprise these subpopulations (Lewis & Van Dyke, 2018). Therefore, this study may be considered as seminal work in the exploration of the association between MDD and the various forms of microaggression among the Jamaican diaspora in the United States.

Relationship Between the Findings and the Theoretical Framework

Microaggressions can be conceptualized as manifestations of PED (Williams, 2020). PED refers to perceptions of subtle insults targeted at an individual or a group because of their race, ethnicity, gender, age, weight, religion, class, and other identities (Hayes et al., 2018). The continuous onslaught of these subtle insults negatively affects the mental health of marginalized groups (Sue, 2010). Discrimination in the American society has diminished the standard of living of marginalized groups by creating inequities in health care, education, employment, and other sectors (Sue, 2010). Microassault, microinsult, and microinvalidation are the three classifications of microaggressions that were proposed by Sue and colleagues (Torino et al 2018).

The microaggression categories I explored in my study were in alignment with the classifications of microinsults and microinvalidation. Microinsults demean a person because of their race, ethnicity, gender, religion, or sexual orientation (Torino et al 2018). Microinvalidation negates the experiential reality of those discriminated against because of their racial, ethnic, gender, religious, and other identities (Berk, 2017). The absence of statistically significant relationships with the microaggression categories in this study seems to be suggesting that the Jamaican diaspora in the United States may not be experiencing acts of microinsults and microinvalidation. Racial, ethnic, gender, and other forms of discrimination are rife in the United States. This has caused a resurgence of discussions on critical race theory. Despite the negative results of the analyses for this study, it is hard to believe that in the real-world United States, Jamaicans domiciled here are not exposed to these acts of discrimination. That 118 (23.1%) of the Jamaicans in the data set reported having never experiencing discrimination in the United States is also hard to fathom. If nothing else, the negative findings from this study underscore the importance of balancing statistical significance with clinical significance or meaningfulness. The results of the binary logistic regression analyses indicated that the models were not well-defined, hence there is also the possibility that there are other more significant social justice categories that needed to have been explored among the Jamaican diaspora in the United States.

The lack of statistical significance in the association between MDD and the microaggression categories that were explored among the Jamaican diaspora in the United States lends support to the detractors of the theory of microaggression. Critics of microaggression theory have questioned whether microaggressions are verifiable in real life and whether there is objective evidence to support the claim of the causal association of microaggression with psychological outcomes (American Psychological Association, 2019b). Lui and Quezada (2019) concluded that it remains questionable whether microassault should be considered a form of microaggression. The result of this study was in alignment with microinsults and microinvalidation, but not microassault.

Lilienfeld (2017) asserted that microaggression research is grounded in five unsound principles. According to Lilienfeld (2017) it is assumed that microaggression can be defined, measured, and analyzed like other variables and can stand up to scientific scrutiny. Lilienfeld (2017) also asserted that it is assumed that microaggressions are unanimously regarded as being negative and can be meaningfully evaluated based on the opinion of the respondent. The findings of my study could be indicating that some members of the Jamaican diaspora did not see anything negative about these actions which could have led to under-reporting. Another explanation could be that because microaggression is based on perception, that is, what the victim thinks, then respondents could ascribe the wrong identity as the reason for the perceived microaggression. I would like to use myself as an example. I am Black, Jamaican, old, and overweight. In a particular situation when I perceive that I may have been discriminated against, I could easily wrongfully ascribe any of the four identities applicable to me as the reason for the perceived microaggression. As well, one instance of perceived microaggression could also be due to all four identities. It has been assumed that microaggressions have a deleterious effect on a person's mental health (Lilienfeld, 2017). The lack of any significant association between MDD-lifetime and the microaggression categories in this study did not support this notion. However, the results may have been different had depression, depressive symptoms, some other type of MDD, or some other form of mental disorder was the outcome variable.

Limitations of the Study

There are several limitations to this study inherent in the study design, the use of secondary data, the uncertainty with the quality of the data, the type of MDD used as the dependent variable, and the choice of the social justice categories representing the types of microaggression. This study was both cross-sectional and correlational in design. A cross-sectional design limits causal interpretation of study findings (Hou et al., 2015). Correlational studies face the challenges of internal and external validity (Lau, 2017). Biases, confounders, controlling for confounding effects, adherence to good practices, and consistency of reporting are all methodologic issues with correlational studies (Lau, 2017). The use of a longitudinal design may have yielded different findings.

This study was based on the analysis of secondary data. The use of secondary data comes with its inherent disadvantages. I would not be aware of biases that may have been introduced during data collection which would affect the validity of this study. My original intention was to perform multiple linear regression for the data analyses. As the dependent variable was measured at the nominal (dichotomous) level, I was therefore compelled to perform logistic regression instead. I had doubts with some of the attributes of the variable, reason for discrimination - recoded. Skin color and race were listed as separate attributes of the variable. It wasn’t clear to me whether the missing data with the same variable represented those individuals who had never experienced any form of discrimination or participants who did not respond to the question. Skin color was combined with race and the missing data treated as those individuals who had never experienced any form of discrimination. Privacy concerns, data extraction and transformation, and possible restriction with generalizability of findings are major problems associated with the use of secondary data (Edmondson & Reimer, 2020).

Uncertainty with the quality of the data being used for secondary data analysis is regarded as a limitation (O’Connor, 2020). The uncertainty with the quality of the data arises as researchers using secondary data have no control over the protocol used to determine the reliability and validity of the instruments used for data collection (O’Connor). There is also no control over characteristics and response rates of participants which can hinder the construction of models to determine the correlation among the variables (O’Connor). Completeness, correctness, and currency are the factors associated with data quality (Edmondson & Reimer, 2020).

This study was also limited by the choice of lifetime MDD. The findings might have been different had MDD-onset or past-year MDD been the dependent variable. There are many social justice categories that represent different types of microaggression. This study was limited to the five categories for which researchers collected data. The inclusion of other social justice categories may have resulted in well-defined regression models. In considering racism’s impact on lifetime MDD, it is imperative to remember that there are three levels of racism: institutionalized, personally mediated, and internalized (Molina & James, 2016). It is critical that all forms of racism be considered to understand their potentially relative, additive, and/or synergistic influence on depression (Molina & James, 2016). Another limitation to this study is that only access to measures of personally mediated and internalized racism were available.

Recommendations

MDD accounts for the highest burden of disease of all the mental disorders in the United States and often leads to suicide. PED affects the mental health of marginalized groups (Sue, 2010). The inequities resulting from all forms of discrimination in the health care, education, employment, and other sectors of the American society diminishes the standard of living of marginalized groups (Sue, 2010). There is a need for more studies exploring the relationship between MDD and PED especially among marginalized groups in the United States. The examination of everyday discrimination as a sociocultural risk factor for suicide is important given that certain racial and ethnic minority groups have differential suicide risk (O’Keefe et al., 2015). It is therefore important to focus attention on the relationship between the variables within ethnic minority groups in the United States. Future researchers are encouraged to desegregate the African American and Afro-Caribbean subgroups to provide differential information on the various ethnicities that comprise these two groups. The use of the different classes of MDD as dependent variables in a single study, along with the appropriate multivariable analysis, is also recommended.

This being the first study on the association between MDD and PED among the Jamaican diaspora in the United States, there is a need for future studies of a similar nature to address the matter of reproducibility. The collection of primary data on a representative sample is recommended for future studies. During data collection, it is suggested that respondents be asked to list all categories of microaggression that they have experienced. Future studies should further individuate the social justice categories of PED and endeavor to find other social justice categories that could result in well-defined regression models using stepwise regression. Future studies employing longitudinal research designs are also recommended. Further exploration of those associations that were statistically significant among the Jamaican diaspora in the Unites States is encouraged. While further exploring the associations with years living in the United States, gender, level of education, and household income it is suggested that effect modifications also be tested for by creating interaction terms. While other studies grounded in microaggression theory are necessary to help validate the theory, it is recommended that other appropriate theories be utilized. Intersectionality theory should be used to investigate the interplay and interdependence of the various types of microaggression as they act synergistically leading to MDD. In conjunction with a relevant theoretical framework, minority stress theory could be used to provide a conceptual framework to better illuminate how members of minority ethnic groups experiencing microaggressions progress to stress and eventually to MDD.

Implications

In the United States, discrimination has led to groups being marginalized and relegated to minority positions, while depriving them of fair living conditions, job opportunities, and education (Zhang et al., 2021). Information on the effects of the interactions between PED and MDD among the Jamaican diaspora in the United States can help with designing evidence-based interventions to reduce disparities in health, employment, and housing and promote positive social change in this minority ethnic group. Microaggression is a social injustice whether it leads to MDD specifically or to any other form of depression, or mental disorder. Microaggression may be a prominent explanation for the mental health disparities at the population level (Platt et al., 2016).

Discrimination is rife in the United States. The debate as to whether critical race theory should be taught in school rages on but there is no debating the tenet of the theory that discrimination is deeply entrenched in the various social systems of the United States. The divisive nature of discrimination was blatantly felt during the four years of the Trump administration and is being perpetuated in the efforts by republicans to reintroduce voter suppression. It is injudicious to believe that Jamaicans living in the

United States are not victims of this reality. It is hard to fathom how 118 Jamaicans in the CPES surveys reported never experiencing any form of microaggression.

The literature clearly indicates that there is an association between MDD and PED among ethnic groups in the United States. The negative findings from my study underscores the importance for researchers to balance statistical significance with clinical significance. Despite the negative findings in the associations between lifetime MDD and the various forms of microaggression among the Jamaican diaspora in the United States, there is still the urgent need for policies to completely prohibit all forms of microaggression while providing favorable working environments, fair living conditions, job opportunities, education, improved health status, and a better quality of life for minority ethnic groups in the United States (Kim et al., 2020). The Jamaican diaspora is a minority ethnic group in the United States. A better quality of life for the victims of microaggression can, by extension, improve the quality of life of their families and communities.

Conclusion

MDD is the greatest contributor to the burden of disease of all the mental disorders in the United States and often leads to suicide. PED affects the mental health of marginalized groups and diminishes their standard of living (Sue, 2010). A relationship exists between MDD and PED, but only a few studies were found that examined this relationship. Of the dearth of studies examining the relationship between MDD and PED only four explored race and gender as social justice categories of PED. No studies were found that examined the many other social justice categories of PED. In addition, studies have tended to treat the African American and Afro Caribbean communities as homogeneous groups.

Through this study, I examined MDD-lifetime as an outcome instead of depressive symptoms, I individuated some of the social justice categories of PED, and I focused on the Jamaican diaspora in the United States to offer some desegregation of the African American and Afro-Caribbean subpopulations. The chi-square test indicated that there is a statistically significant relationship between lifetime MDD and the Afro-Caribbean community in the United States. Jamaicans in the United States fall under the Afro-Caribbean rubric, but I found no statistically significant relationship between lifetime MDD and being a Jamaican in the United States. Additionally, I found no statistically significant relationships between lifetime MDD and the various forms of microaggression among the Jamaican diaspora in the United States. The negative results of the statistical analyses must be weighed against the current reality in the United States. The urgent need for policies to tackle microaggression while providing favorable working environments, fair living conditions, job opportunities, education, improved health status, and better quality of life for members of minority ethnic groups is still paramount.

References

Abramson, C. M., Hashemi, M., & Sánchez-Jankowski, M. (2015). Perceived discrimination in US healthcare: Charting the effects of key social characteristics within and across racial groups. *Preventive Medicine Reports*, 2, 615–621. https://doi.org/10.1016/j.pmedr.2015.07.006

Ahmadpanah, M., Ramezanshams, F., Ghaleiha, A., Akhondzadeh, S., Bahmani, D. S., & Brand, S. (2019). Crocus Sativus L. (saffron) versus sertraline on symptoms of depression among older people with major depressive disorders–a double-blind, randomized intervention study. *Psychiatric Research*, *282*, Article 112613. https://doi.org/10.1016/j.psychres.2019.112613

Alegría, M., Chatterji, P., Wells, K., Cao, Z., Chen, C., Takeuchi, D., Jackson, J., & Meng, X.-L. (2008). Disparity in depression treatment among racial and ethnic minority populations in the United States. *Psychiatric Services, 59*(11), 1264–1272. https://doi.org/10.1176/ps.2008.59.11.1264

Alegría, M., Jackson, J. S., Kessler, R. C., & Takeuchi, D. (2016). *Collaborative Psychiatric Epidemiology Surveys (CPES), 2001-2003* (Version 2016-03-23) [Data set]. Inter-University Consortium for Political and Social Research. https://doi.org/10.3886/ICPSR20240.v8

Allen, G. E. K., Conklin, H., & Kane, D. K. (2017). Racial discrimination and psychological health among Polynesians in the U.S. *Cultural Diversity & Ethnic Minority Psychology, 23* (3), 416-424. https://doi.org/10.1037/cdp0000133

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

American Psychological Association. (2019a). *Discrimination: What it is, and how to cope*. https://www.apa.org/topics/discrimination

American Psychological Association. (2019b). *Microaggressions: What they are, and how they are associated with adjustment outcomes*. https://www.apa.org/pubs/highlights/spotlight/issue-133

American Psychological Association. (2020a). *Racial and ethnic identity*. https://apastyle.apa.org/style-grammar-guidelines/bias-free-language/racial-ethnic-minorities

American Psychological Association. (2020b). *Racism, bias, and discrimination resources*. https://www.apa.org/topics/racism-bias-discrimination

Anderson, M. (2015). *A rising share of the U.S. Black population is foreign-born: 9 percent are immigrants; and while most are from the Caribbean, Africans drive recent growth*. Pew Research Center. https://www.pewresearch.org/social-trends/2015/04/09/a-rising-share-of-the-u-s-black-population-is-foreign-born/

Antonio, M. C. K., Ahn, H. J., Ing, C. T., Dillard, A., Cassel, K., Kekauoha, B. P., & Kaholokula, J. K. (2016). Self-reported experiences of discrimination and depression in native Hawaiians. *Hawaii Journal of Medicine & Public Health, 75*(9), 266-272.

Arya, A., Buchman, S., Gagnon, B., & Downar, J. (2020). Pandemic palliative care: Beyond ventilators and saving lives. *Canadian Medical Association Journal, 192*(15), E400 –E404. https://doi.org/10.1503/cmaj.200465

Benner, A. D., Wang, J., Shen, Y., Boyle, A. E., Polk, R., & Cheng, Y.-P. (2018). Racial/ethnic discrimination and well-being during adolescence: A meta-analytic review. *American Psychologist*, *73*(7), 855-883. https://doi.org/10.1037/amp0000204

Berk, R. A. (2017). Microaggressions trilogy: Part 1. Why do microaggressions matter? *The Journal of Faculty Development, 31*(1), 63-73.

Boldrini, M., Galfalvy, H., Dwork, A. J., Rosoklija, G. B., Trencevska-Ivanovska, I., Pavlovski, G., Hen, R., Arango, V., & Mann, J. J. (2019). Resilience is associated with larger dentate gyrus, while suicide decedents with major depressive disorder have fewer granule neurons. *Biological Psychiatry, 85*(10), 850-862. https://doi.org/10.1016/j.biopsych.2018.12.022

Boutwell, B. B., Nedelec, J. L., Winegard, B., Shackelford, T., Beaver, K. M., Vaughn, M., Barnes, J. C., & Wright, J. P. (2017). The prevalence of discrimination across racial groups in contemporary America: Results from a nationally representative sample of adults. *PLoS ONE, 12*(8), Article e0183356. https://doi.org/10.1371/journal.pone.0183356

Breskin, A., Westreich, D., Cole, S. R., & Edwards, J. K. (2019). Using bounds to compare the strength of exchangeability assumptions for internal and external validity. *American Journal of Epidemiology, 188*(7), 1355–1360. https://doi.org/10.1093/aje/kwz060

Britt-Spells, A. M., Slebodnik, M., Sands, L. P., & Rollock, D. (2018). Effects of perceived discrimination on depressive symptoms among Black men residing in the United States: A meta-analysis. *American Journal of Men's Health, 12*(1), 52–63. https://doi.org/10.1177/1557988315624509

Burkholder, G. J., Cox, K., & Crawford, L. (2016). *The scholar-practitioner's guide to research design*. Laureate Publishing.

Cano, M. A., Castro, Y., de Dios, M. A., Schwartz, S. J., Lorenzo-Blanco, E. I., Roncancio, A. M., Martinez, M. J., Sheehan, D. M., Auf, R., Piña-Watson, B. (2016). Associations of ethnic discrimination with symptoms of anxiety and depression among Hispanic emerging adults: A moderated mediation model. *Anxiety Stress Coping, 29* (6), 699-707.

Chae, D. H., Lee, S., Lincoln, K. D., & Ihara, E. S. (2012). Discrimination, family relationships, and major depression among Asian Americans. *Journal of Immigrant & Minority Health, 14* (3), 361-370

Chen, L., & Li, C. I. (2015). Racial disparities in breast cancer diagnosis and treatment by hormone receptor and HER2 status. *Cancer Epidemiology, Biomarkers & Prevention, 24*, 1666–1672. https://doi.org/10.1158/1055-9965.epi-15-0293

Chou, K. L. (2012). Perceived discrimination and depression among new migrants to Hong Kong: The moderating role of social support and neighborhood collective efficacy. *Journal of Affective Disorders, 138* (1), 63-70

Clark, T. T., Salas-Wright, C. P., Vaughn, M. G., Whitfield, K. E. (2015). Everyday discrimination and mood and substance use disorders: A latent profile analysis with African Americans and Caribbean Blacks. *Addictive Behaviors, 40*(2015), 119-125. http://dx.doi.org/10.1016/j.addbeh.2014.08.006

Cobb, C. L., Xie, D., Meca, A., & Schwartz, S. J. (2017). Acculturation, discrimination, and depression among unauthorized Latinos/as in the United States. *Cultural Diversity & Ethnic Minority Psychology, 23*(2), 258-268. https://doi.org/ 10.1037/cdp0000118

Darmstadt, G. L, Heise, L., Gupta, G. R., Henry, S., Cislaghi, B., Greene, M. E., et al. (2019). Why now for a series on gender equality, norms, and health? *Lancet 393*:2374–2377.

Dondanville, A. A., & Pössel, P. (2019). The impact of cognitive styles and depressive symptoms on the relation between perceived everyday discrimination and blood pressure in adolescents. American Psychological Association. *Translational Issues in Psychological Science, 5*(4), 335–345. http://dx.doi.org/10.1037/ tps0000206

Dovidio, J. F., Pearson, A. R., & Penner, L. A. (2018). Aversive racism, implicit bias, and microaggressions. Microaggression theory: Influence and implications. Wiley & Sons. https://doi.or/10.1002/9781119466642.ch2

Duggan, C. P., Kurpad, A., Stanford, F. C., Sunguya, B., & Wells, J. C. (2020). Race, ethnicity, and racism in the nutrition literature: An update for 2020. *The American*

Journal of Clinical Nutrition, 112(6), 1409-1414. https://doi.org/10.1093/ajcn/nqaa341

Edmondson, M., & Reimer, A. (2020). Challenges frequently encountered in the secondary use of electronic medical record data for research. *Computers, Informatics, Nursing, 38,* 338-348. https://doi.org/10.1097/CIN.0000000000000609

Emanuel, E. J., Persad, G., Upshur, R., Thome, B., Parker, M., Glickman, A., et al. (2020). Fair allocation of scarce medical resources in the time of Covid-19. *The New England Journal of Medicine, 382*, 2049 –2055. http://dx.doi.org/10.1056/NEJMsb2005114

Endres, L. K., Straub, H., McKinney, C., Plunkett, B., Minkovitz, C. S., Schetter, C. D., et al. (2015). Postpartum weight retention risk factors and relationship to obesity at 1 year. *Obstetrics and Gynecology, 125*, 144 –152. http://dx.doi.org/10.1097/AOG.0000000000000565

Everson-Rose, S. A., Lutsey, P. L., Roetker, N. S., Lewis, T. T., Kershaw, K. N., Alonso, A., & Diez Roux, A. V. (2015). Perceived discrimination and incident cardiovascular events: The multi-ethnic study of atherosclerosis. *American Journal of Epidemiology, 182*, 225–234. https://doi.org/10.1093/aje/kwv035

Farrer, L. M., Gulliver, A., Bennett, K., Fassnacht, D. B., & Griffiths, K. M. (2016). Demographic and psychosocial predictors of major depression and generalized anxiety disorder in Australian university students. *BMC Psychiatry, 16*. https://doi.org/10.1186/s12888-016-0961-z

Flavius, R. W., Owens, L. J., Bailey, T. C., & Ramirez, A. (2018). The influence of racial microaggressions and social rank on risk for depression among minority graduate and professional students. *College Student Journal,* 86-104

Forrest-Bank, S., & Jenson, J. M. (2015). Differences in experiences of racial and ethnic microaggression among Asian, Latino/Hispanic, Black, and White young adults. *Journal of Sociology and Social Welfare, 42,* 141–161.

Frankfort-Nachmias, C., & Leon-Guerrero, A. (2018). *Social statistics for a diverse society* (8th ed.). Sage Publications.

Greenberg, P. E., Fournier, A. A., Sisitsky, T., Simes, M., Berman, R., Koenigsberg, S. H., & Kessler, R. C. (2021). The economic burden of adults with major depressive disorder in the United States (2010 and 2018). *PharmacoEconomics 39*(6), 653–665. https://doi.org/10.1007/s40273-021-01019-4

Gress-Smith, J. L., Luecken, L. J., Lemery-Chalfant, K., & Howe, R. (2012). Postpartum depression prevalence and impact on infant health, weight, and sleep in low-income and ethnic minority women and infants. *Maternal and Child Health Journal, 16,* 887– 893. http://dx.doi.org/10.1007/s10995-011-0812-y

Hall, B. J., Pangan, C. A. C., Chan, E. W. W., & Huang, R. L. (2019). The effect of discrimination on depression and anxiety symptoms and the buffering role of social capital among female domestic workers in Macao, China. *Psychiatry Research, 271,*Article 11.050. https://doi.org/10.1016/j.psychres.2018.11.050

Han, J., & Richardson, V. E. (2015). The relationships among perceived discrimination, self-perceptions of aging, and depressive symptoms; A longitudinal examination of age discrimination. *Aging & Mental Health, 19*(8), 747-755. http://dx.doi.org/10.1080/13607863.2014.962007

Harvard.edu. (2005). *The World Mental Health Survey Initiative (harvard.edu)*. https://www.hcp.med.harvard.edu/wmh/

Harvard.edu. (n.d.).*WHO WMH-CIDI – The World Health Organization World Mental Health Composite International Diagnostic Interview (harvard.edu)*. https://www.hcp.med.harvard.edu/wmhcidi/

Hasin, D. S., Saryet, A. L., Meyers, J. L., Saha, T. D., Ruan, W. J., Stohl, M. & Grant, B. F. (2018). Epidemiology of adult DSM-5 major depressive disorder and its specifiers. *JAMA Psychiatry*, *75*(4), 336-346. https://doi.org/10.1001/jamapsychiatry.2017.4602

Hayes, L., Possel, P., & Roane, S. J. (2018). Perceived everyday discrimination and depressive symptoms: Does cognitive style mediate*? Journal of Counseling & Development, 97*: 427 – 436. https://doi.org/10.1002/jcad.12291

Healthy People.gov. (2020). *Discrimination.* https://www.healthypeople.gov/2020/topics-objectives/topic/social-determinants-health/interventions-resources/discrimination

Hollingsworth, D. W., Cole, A. B., O'Keefe, V. M., Tucker, R. P., Story, C. R., & Wingate, L. R. (2017). Experiencing racial microaggressions influences suicide ideation through perceived burdensomeness in African Americans. *Journal of Counseling Psychology, 64,* 104 –111. https://doi.org/10.1037/cou0000177

Hosler, A. S., Kammer, J. R., & Cong, X. (2019). Everyday discrimination experience and depressive symptoms in Urban Black, Guyanese, Hispanic, and White adults.

Journal of the American Psychiatric Nurses Association, 25(6) 445–452. https://doi.org/10.1177/1078390318814620

Hou, Y., Kim, S. Y., Wang, Y., Shen, Y., & Orozco-Lapray, D. (2015). Longitudinal reciprocal relationships between discrimination and ethnic affect or depressive symptoms among Chinese American adolescents. *Journal of Youth and Adolescence, 44*(11), 2110–2121

Hunger, J. M., & Major, B. (2015). Weight stigma mediates the association between BMI and self-reported health. *Health Psychology, 34*, 172–175. http://dx.doi.org/10.1037/hea0000106

Hunger, J. M., Dodd, D. R., & Smith, A. R. (2020). Weight-based discrimination, interpersonal needs, and suicidal ideation. *Stigma and Health, 5*(2), 217-224. http://dx.doi.org/10.1037/sah0000188

Ikram, U. Z., Snijder, M. B., De Wit, M. A. S., Schene, A. H., Stronks, K., & Kunst, A. E. (2016). Perceived ethnic discrimination and depressive symptoms: The buffering effects of ethnic identity, religion, and ethnic social network. *Social Psychiatry Psychiatric Epidemiology, 51*:679–688. https://doi.org/10.1007/s00127-016-1186-7

Incollingo Rodriguez, A. C., Tomiyama, A. J., Guardino, C. M., & Dunkel Schetter, C. (2019). Association of weight discrimination during pregnancy and postpartum with maternal postpartum health. *Health Psychology, 38*(3), 226–237. https://doi.org/10.1037/hea0000711

Jackson, J. S., Caldwell, C. H., Antonucci, T. C., & Oyserman, D. R. (2016). National Survey of American Life - Adolescent Supplement (NSAL-A), 2001-2004. Inter-university Consortium for Political and Social Research https://doi.org/10.3886/ICPSR36380.v1

Jackson, P. B., & Erving, C. L. (2020). Race-ethnicity, social roles, and mental health: A research update. *Journal of Health and Social Behavior, 61*(1), 43-59

Jackson, S. E., Beeken, R. J., & Wardle, J. (2015). Obesity, perceived weight discrimination, and psychological well-being in older adults in England. *Obesity 23*, 1105–1111. https://doi.org/10.1002/oby.21052

Jackson, S. E., Hackett, R. A., & Steptoe, A. (2019). Associations between age discrimination and health and wellbeing: Cross-sectional and prospective analysis of the English Longitudinal Study of Ageing. *The Lancet, 4*, 220-228

Jackson, S. E., Kirschbaum C., & Steptoe, A. (2016). Perceived weight discrimination and chronic biochemical stress: A population-based study using cortisol in scalp hair. *Obesity, 24*, 2515–2521.

Jamaica Global Online. (2018). Connecting the Jamaican diaspora. https://www.jamaicaglobalonline.com/connecting-the-jamaican-diaspora/

James, S. L., Abate, D., Abate, K. H., Abebe, Z., Abbafati, C., et al. (2018). Global, regional, and national incidence, prevalence, and years lived with disability for 354 diseases and injuries for 195 countries and territories, 1990-2017: A systematic analysis for the global burden of disease study 2017. *Lancet 392*:1789–1858.

Jones, M. (2016). Meaningfulness vs. Statistical Significance: Program Transcript. Laureate Education Inc. https://cdnfiles.laureate.net/2dett4d/ managed/WAL/ RSCH/8210/05/WAL_RSCH8210_05_A_EN.pdf

Kessler, R. C. (2012). The costs of depression. *Psychiatric Clinics of North America*, *35*, 1–14. https://doi.org/10.1016/j.psc.2011.11.005

Kessler, R. C. (2017). National Comorbidity Survey: Adolescent Supplement (NCS-A), 2001-2004. Inter-university Consortium for Political and Social Research. https://doi.org/10.3886/ICPSR28581.v6

Kim, E., & Park, H. (2018). Perceived gender discrimination, belief in a just world, self-esteem, and depression in Korean working women: A moderated mediation model. *Women's Studies International Forum, 69*, 143–150. https://doi.org/ 10.1016/j.wsif.2018.06.006

Kim, G., Kim, J., Lee, S-K., Sim, J., Kim, Y., Yun, B-Y., et al. (2020). Multidimensional gender discrimination in workplace and depressive symptoms. *PLoS ONE 15*(7): e0234415. https://doi.org/10.1371/journal.pone.0234415

Kim, H., Bruce, A., Munn, T., & Munn, J. C. (2019). The relationship between perceived ageism and depressive symptoms in later life: Understanding the mediating effects of self-perception of aging and purpose in life, using structural equation modeling. *Educational Gerontology, 45*(2), 105–119. https://doi.org/10.1080/ 03601277.2019.1583403

Kim, I. H., Noh, S., & Chun, H. (2016). Mediating and moderating effects in ageism and depression among Korean elderly: The roles of emotional reactions and coping responses. *Osong Public Health & Research Perspectives, 7*(1), 3-11. https://doi.org/ezp.waldenulibrary.org/10.1016/j.phrp.2015.11.012

Kira, I. A., Shuwiekh, H., & Bujold-Bugeaud, M. (2017). Toward identifying the etiologies of gender differences in authoritarianism and mental health: An Egyptian study. Peace and Conflict: *Journal of Peace Psychology, 23*(2), 183–188.

Köhler, S., Chrysanthou, S., Guhn, A., & Sterzer, P. (2019). Differences between chronic and nonchronic depression: Systematic review and implications for treatment. *Depress Anxiety, 36,* 18–30. https://doi.org/10.1002/da.22835

Lau, F. (2017). *Methods for Correlational Studies.* Handbook of e-health evaluation: An evidence-based approach. https://www.ncbi.nlm.nih.gov/books/NBK481614/

Laureate Education (Producer). (2016a). Bivariate categorical tests [Video file]. Walden University. Author.

Lazarevic, V., Crovetto, F., & Shapiro, A. F. (2018). Challenges of Latino young men and women: Examining the role of gender in discrimination and mental health. *Children and Youth Services Review, 94,* 173–179. https://doi.org/10.1016/ j.childyouth.2018.10.006

Lee, R. T., Perez, A. D., Boykin, C. M., & Mendoza-Denton, R. (2019). On the prevalence of racial discrimination in the United States. *PLoS ONE 14* (1): e0210698. https://doi.org/10.1371/journal.pone.0210698

Levis, B., McMillan, D., Sun, Y., He, C., Rice, D. B., Krishnan, A., Wu, Y., … Thombs, B. D. (2019). Comparison of major depression diagnostic classification probability using the SCID, CIDI, and MINI diagnostic interviews among women in pregnancy or postpartum: An individual participant data meta-analysis. *International Journal of Methods in Psychiatric Research*, *28*(4), e1803. https://doi.org/10.1002/mpr.1803

Lewis, T. T., Troxel, W. M., Kravitz, H. M., Bromberger, J. T., Matthews, K. A., & Hall, M. H. (2013). Chronic exposure to everyday discrimination and sleep in a multiethnic sample of middle-aged women. *Health Psychology, 32*, 810–819. https://doi.org/10.1037/a0029938

Lewis, T. T., & Van Dyke, M. E. (2018). Discrimination and the health of African Americans: The potential importance of intersectionalities. *Current Directions in Psychological Science, 27*(3) 176–182. https://doi.org/10.1177/096372141877044

Lilienfeld, S. O. (2017). Microaggressions: Strong claims, inadequate evidence. *Perspectives on Psychological Science, 12*, 138–169. https://doi.org/10.1177/1745691616659391

Lowe, S. R., Tineo, P., & Young, M. N. (2019). Perceived discrimination and major depression and generalized anxiety symptoms: In Muslim American college students, *Journal of Religion & Health, 58*(4), 1136-1145. https://doi.org/10.1007/s10943-018-0684-1

Lui, P. P., & Quezada, L. (2019). Associations between microaggression and adjustment outcomes: A meta-analytic and narrative review. *Psychological Bulletin, 145*(1), 45–78. http://dx.doi.org/10.1037/bul0000172

Luo, Y., Xu, J., Granberg, E., & Wentworth, W. M. (2012). A longitudinal study of social status, perceived discrimination, and physical and emotional health among older adults. *Research on Aging. 34*:275–301. https://doi.org/0164027511426151

Lyons, A., Alba, B., Heywood, W., Fileborn, B., Minichiello, V., et al. (2018). Experiences of ageism and the mental health of older adults. *Aging & Mental Health*, *22*(11), 1456-1464. https://doi.org/10.1080/13607863.2017.1364347

McCann, E., & Brown, M. (2017). Discrimination and resilience and the needs of people who identify as transgender: A narrative review of quantitative research studies. *Journal of Clinical Nursing, 26,* 4080–4093.

Molina, K. M., & James, D. (2016). Discrimination, internalized racism, and depression: A comparative study of African American and Afro-Caribbean adults in the US. *Group Processes & Intergroup Relations, 19*(4), 439-461. https://doi.org/10.1177/1368430216641304

Monahan, C., MacDonald, J., Lytle, A., Apriceno, M., & Levy, S. R. (2020). Covid-19 and ageism: How positive and negative responses impact older adults and society. *American Psychologist: American Psychological Association, 75*(7), 887-896. http://dx.doi.org/10.1037/amp0000699

Mouzon, D. M., Taylor, R. J., Keith, V. M., Nicklett, E. J., & Chatters, L. M. (2017). Discrimination and psychiatric disorders among older African Americans. *International Journal of Geriatric Psychiatry, 32,* 175–182. https://doi.org/10.1002/gps.4454

Nadimpalli,S. B., James, B. D., Yu, L., Cothran, F., & Barnes, L. L. (2015). The association between discrimination and depressive symptoms among older African Americans: The role of psychological and social factors. *Experimental. Aging Research, 41*(1), 1-24

Nagai, A. (2017). The pseudo-science of microaggressions. *Academic Quest, 30*, 47-57. https://doi.org/10.1007/s12129-016-9613-5

National Alliance on Mental Illness. (2022). *About mental illness: Mental health by the numbers.* https://nami.org/mhstats.

National Institute of Mental Health. (2018). *Depression.* https://www.nimh.nih.gov/health/topics/depression/index.shtml

National Research Council. (2020). *Measuring racial discrimination*. https://www.nap.edu/read/10887/chapter/7

O'Connor, S. (2020). Secondary data analysis in nursing research: A contemporary discussion. *Clinical Nursing Research, 29*(5), 279–284. https://doi.org/10.1177/1054773820927144

Oh, H., Stickley, A., Koyanagi, A., Yau, R., & DeVylder, J. E. (2019). Discrimination and suicidality among racial and ethnic minorities in the United States. *Journal of Affective Disorders, 245*, 517–523.

O'Keefe, V. M., Wingate, L. R., Cole, A. B., Hollingsworth, D. W., & Tucker, R. R. (2015). Seemingly harmless racial communications are not so harmless: Racial microaggressions lead to suicidal ideation by way of depression symptoms.

Suicide and Life-Threatening Behavior, 45(5), 567- 577. https://doi.org/ 10.1111/sltb.12150

Pan-American Health Organization. (2019). *Care for mental health conditions in Jamaica: The case for investment.* https://iris.paho.org/bitstream/handle/ 10665.2/51834/ 9789275121184_eng.pdf?sequence=5&isAllowed=y#: ~: text=The%202017%20Global%20Burden%20of,4.1%25%20have%20an%20anxiety%20disorder.

Papadopoulos, S., & Brennan, L. (2015). Correlates of weight stigma in adults with overweight and obesity: A systematic literature review. *Obesity, 23*, 1743–1760. http://dx.doi.org/10.1002/oby.21187p:

Paradies, Y., Ben, J., Denson, N., Elias, A., Priest, N., Pieterse, A., et al. (2015). *PLoS ONE, 10,* e0138511. https://doi.org/10.1371/journal.pone.0138511

Park, S. C., & Kim, Y. K. (2018). Depression in DSM-5: Changes, controversies, and future directions. In understanding depression (pp. 3-14).

Pearl, R. L., Wadden, T. A., Tronieri, J. S., Chao, A. M., Alamuddin, N., & Berkowitz, R. I. (2018). Everyday discrimination in a racially diverse sample of patients with obesity. *Clinical Obesity*, *8*(2), 140-146. https://doi.org/10.1111/cob.12235

Perez-Brumer, A., Day, J. K., Russell, S. T., & Hatzenbuehler, M. L. (2017). Prevalence and correlates of suicidal ideation among transgender youth in California: Findings from a representative, population-based sample of high school students. *Journal of the American Academy of Child and Adolescent Psychiatry, 56*, 739–746.

Pew Research Center. (2013). *King's dream remains an elusive goal; Many Americans see racial disparities*. Pew Research Center.

Pew Research Center. (2015). *Across racial lines, more say nation needs to make changes to achieve racial equality*. Pew Research Center.

Platt, J., Prins, S., Bates, L., & Keyes, K. (2016). Unequal depression for equal work? How the wage gap explains gendered disparities in mood disorders. *Social Science & Medicine 149,* 1-8

Polanco-Roman, L., Anglin, D. M., Miranda, R., & Jeglic, E. L. (2019). Racial/ethnic discrimination and suicidal ideation in emerging adults: The role of traumatic stress and depressive symptoms varies by gender not, race/ethnicity. *Journal of Youth and Adolescence, 48*, 2023–2037. https://doi.org/10.1007/s10964-019-01097-w

Puckett, J. A., Maroney, M. R., Wadsworth, L. P., Mustanski, B., & Newcomb, M. E. (2020). Coping with discrimination: The insidious effects of gender minority stigma on depression and anxiety in transgender individuals. *Journal of Clinical Psychology, 76*, 176–194. https://doi.org/10.1002/jclp.22865

Robinson, E., Sutin, A., & Daly, M. (2017). Perceived weight discrimination mediates the prospective relation between obesity and depressive symptoms in U.S. and U. K. adults. *Health Psychology, 36,* 112–121. http://dx.doi.org/10.1037/hea0000426

Rogers, A. H., Short, N. A., Robles, Z., Bakhshaie, J., Viana, H., Schmidt, N. B., et al. (2018). Identifying the role of sociodemographic factors in major depressive disorder and suicidality among Spanish-speaking Latino patients in a federally qualified health center. *Cognitive Behavior Therapy, 47*(5), 397-411. https://doi-org.ezp.waldenlibrary.org/10.1080/16506073.2018.1445123

Rosenbaum, L. (2020). Facing Covid-19 in Italy - Ethics, logistics, and therapeutics on the epidemic’s front line. *The New England Journal of Medicine, 382,* 1873–1875. http://dx.doi.org/10.1056/ NEJMp2005492

Russell, D. W., Clavel, F. D., Cutrona, C. E., Abraham, W. T., & Burzette, R. G. (2018). Neighborhood racial discrimination and the development of major depression. Journal of Abnormal Psychology, 127(2), 150-159. https://doi.org/10.1037/ abn0000336

Sagepub.com. (n. d.). Survey and correlational research designs. https://www. sagepub.com/sites/default/files/upm-binaries/57732_Chapter_8.pdf

Shinwoo, C., Lewis, J. A., Harwood, S., Mendenhall, R., & Huntt, M. B. (2017) Is ethnic identity a buffer? Exploring the relations between racial microaggressions and depressive symptoms among Asian-American individuals, *Journal of Ethnic & Cultural Diversity in Social Work, 26*:1-2, 18-29. https://doi.org/10.1080/ 15313204.2016.1263815

Sikorski, C., Spahlholz, J., Hartlev, M., Riedel-Heller, S. G. (2016). Weight-based discrimination: An ubiquitary phenomenon? *International Journal of Obesity, 40*, 333–337.

Singh, S., Schulz, A. J., Neighbors, H. W., & Griffith, D. M. (2017). Interactive effect of immigration-related factors with legal and discrimination acculturative stress in predicting depression among Asian American immigrants. *Journal of Community Mental Health, 53*(6), 638-646. https://doi.org/10.1007/s10597-016-0064-9

Slomian, J., Honvo, G., Emonts, P., Reginster, J. Y., & Bruyère, O. (2019). Consequences of maternal postpartum depression: A systematic review of maternal and infant outcomes. *Women's health (London, England), 15,* 1745506519844044. https://doi.org/10.1177/1745506519844044

Spahlholz, J., Pabst, A., Riedel-Heller, S. G., & Luck-Sikorski, C. (2016). Coping with perceived weight discrimination: testing a theoretical model for examining the relationship between perceived weight discrimination and depressive symptoms in a representative sample of individuals with obesity. *International Journal of Obesity 40*, 1915–1921. https://doi.org/10.1038/ijo.2016.164

Stepanikova, I., Acharya, S., Abdalla, S., Baker, E., Klanova, J., & Darmstadt, G. L. (2020). Gender discrimination and depressive symptoms among child-bearing women: ELSPAC-CZ cohort study. *EClinicalMedicine 20* (2020) 100297. https://doi.org/10.1016/j.eclinm.2020.1002972

Sue, D. W. (2010). *Microaggressions and marginality: Manifestations, dynamics, and impact (Chapter 1).* John Wiley & Sons.

Sue, D., Capodilupo, C. M., Torino, G. C., Bucceri, J. M., Holder, A. B., Nadal, K. L., et al. (2007). Racial microaggressions in everyday life: Implications for clinical practice. *American Psychologist, 62,* 271–286. https://doi.org/10.1037/0003-066X.62.4.271

Sutin, A. R., Stephan, Y., & Terracciano, A. (2015). Weight discrimination and risk of mortality. *Psychological Science, 26*, 1803–1811. http://dx.doi.org/10.1177/0956797615601103

Taylor, R. J., & Chatters, L. M. (2020). Psychiatric disorders among older Black Americans: Within- and between-group differences. *Innovation in Aging, 4*(3), 1–16. https://doi.org/10.1093/geroni/igaa007

Taylor, R. J., Forsythe-Brown, I., Mouzon, D. M., Keith, V. M., Chae, D. H., & Chatters, L. M. (2019). Prevalence and correlates of everyday discrimination among black Caribbeans in the United States: The impact of nativity and country of origin. *Ethnicity & health*, *24*(5), 463-483.

Thibeault, M. A., Stein, G. L., & Nelson-Gray, R. O. (2018). Ethnic identity in context of ethnic discrimination: When does gender and other-group orientation increase risk for depressive symptoms for immigrant-origin young adults? *Cultural Diversity and Ethnic Minority Psychology, 24*(2), 196 –208. http://dx.doi.org/10.1037/cdp0000174

Tobin, C. S. T. (2021). Distinguishing distress from disorder: Black-White patterns in the determinants of and links between depressive symptoms and major depression. *Journal of Affective Disorders, 15*(279), 510-517. https://doi.org/10.1016/j.jad.2020.10.035

Tobin, C. S. T., & Moodie, M. D. (2021). Does early life racial discrimination explain a mental health paradox among Black adults? *Journal of Aging and Health, 33*(5-6), 396-408. https://doi.org/10.1177/0898264320988187

Torino, G. C., Rivera, D. P., Capodilupo, C. M., Nadal, K. L., Sue, D. W. (2018). Microaggression Theory: Influence and implications. John Wiley & Sons, Inc. https://www.wiley.com/en-us/Microaggression+Theory %3A+ influence+and+ implications-p-9781119420040

Torres, L., & Taknint, J. T. (2015). Ethnic microaggressions, traumatic stress symptoms, and Latino depression: A moderated mediational model. *Journal of Counseling Psychology, 62*(3), 393– 401. http://dx.doi.org/10.1037/cou0000077

U.S. Bureau of Labor Statistics. (2015). *Highlights of women's earnings in 2014 (Report No. 1058)*. https://www.bls.gov/opub/reports/womens-earnings/archive/ highlights-of-womens-earnings-in-2014.pdf

U.S. Department of Health and Human Services. (2014). *Results from the national survey on drug use and health: Mental health findings*. Substance Abuse and Mental Health Services Administration.

U.S. Department of Justice Civil Rights Division & U.S. Attorney's Office Northern District of Illinois. (2017). *Investigation of the Chicago Police Department.* https://www.justice.gov/opa/file/925846/download

Veldhuis, C. B., Drabble, L., Riggle, E. D. B., Wootton, A. R., & Hughes, T. L. (2018). "I fear for my safety but want to show bravery for others": Violence and discrimination concerns among transgender and gender-nonconforming individuals after the 2016 presidential election. *Violence and Gender, 5*(1), 26–36. https://doi.org/10.1089/vio.2017.0032

Villarroel, M. A., & Terlizzi, E. P. (2020). *Symptoms of depression among adults: United States 2019.* National Center for Health Statistics Data Brief No. 379. https://www.cdc.gov/nchs/products/databriefs/db379.htm

Vos, T., Abajobir, A. A., Abate, K. H., Abbafati, C., Abbas, K. M., Abd-Allah, F., ... Murray, C. J. L. (2017). Global, regional, and national incidence, prevalence, and years lived with disability for 328 diseases and injuries for 195 countries, 1990–2016: A systematic analysis for the Global Burden of Disease Study 2016. *Lancet, 390* (10100), 1211 – 1259. https://doi-org.ezp.waldenulibrary.org/10.1016/S0140-6736(17)32154-2

Wagner III, W. E. (2017). *Using IBM SPSS statistics for research methods and Social Science Statistics* (6th ed.). SAGE Publications.

Wellman, J. D., Araiza, A. M., Solano, C., & Berru, E, (2019). Sex differences in the relationships among weight stigma, depression, and binge eating. *Appetite, 133,* 166-173. https://doi.org/10.1016/j.appet.2018.10.029

Williams, C. C., Curling, D., Steele, L. S., Gibson, M. F., Daley, A., et al. (2017). Depression and discrimination in the lives of women, transgender, and gender liminal people in Ontario, Canada. *Health and Social Care in the Community, 25*(3), 1139–1150. https://doi.org/10.1111/hsc.12414

Williams, D. R., Lawrence, J. A., Davis, B. A., & Vu, C. (2019). Understanding how discrimination can affect health. *Health Services Research, 54,* 1374–1388. https://doi.org/10.1111/1475-6773.13222

Williams, M. T. (2020). Microaggressions: Clarification, evidence, and impact. *Perspectives on Psychological Science, 15*(1) 3–26. https://doi.org/10.1177/ 1745691619827499

Wong, G., Derthick, A. O., David, E. R., Saw, A., & Okazaki, S. (2014). The what, the why, and the how: A review of racial microaggressions research in psychology. *Race and Social Problems, 6*, 181–200. https://doi,org/10.1007/s12552- 013-9107-9

World Health Organization. (WHO, 2008). *The global burden of disease 2004 update.* http://www.who.int/healthinfo/global_burden_disease/GBD_ report_2004update _full.pdf Accessed 16.6.2012

World Health Organization. (2012). *World suicide prevention day 2012*. http://www.who.int/mediacentre/events/annual/world_suicide_prevention_day/en/

World Health Organization. (2020). *Depression*. https://www.who.int/newsroom/ factsheets/detail/depression

World Health Organization. (2021). *Mental health and substance use*. https://www. who.int/teams/mental-health-and-substance-use/gender-and-women-s-mental-health

Xie, J., Tong, Z., Guan, X., Du, B., Qiu, H., & Slutsky, A. S. (2020). Critical care crisis and some recommendations during the COVID-19 epidemic in China. *Intensive Care Medicine, 46*, 837– 840. https://doi.org/10.1007/s00134-020-05979-7

Yaghmour, A., Alesa, A., Anbarserry, E., Abdullah Binmerdah, M., Alharbi, A., Housawi, A., Almehdar, M., Lytra, H., Alsaywid, B., & Lytras, D. M. (2021).

Challenges and obstacles faced by trainee female physicians: An integrative research on gender discrimination, stress, depression, and harassment. *Healthcare*, *9*, 160. https://doi.org/10.3390/healthcare9020160

Yasui, M., Hipwell, A. E., Stepp, S. D., & Keenan, K. (2015). Psychocultural correlates of mental health service utilization among African American and European American girls. *Administration and Policy in Mental Health, 42*(6), 756-766. https://doi.org/10.1007/s10488-014-0610-0

Zhang, J., Lo, H. H., & Au, A. M. (2021). The buffer of resilience in the relations of gender-related discrimination, rejection, and victimization with depression among Chinese transgender and gender non-conforming individuals. *Journal of Affective Disorders*, *283*, 335-343 https://doi.org/10.1016/j.jad.2021.01.059

Zhong, Q. Y., Gelaye, B., Zaslavsky, A. M., Fann, J. R., Rondon, M. B., et al. (2015. Diagnostic validity of the generalized anxiety disorder - 7 (GAD-7) among pregnant women. *PLOS ONE* 10(4): e0125096. https://doi.org/10.1371/journal.pone.0125096

Appendix: