DEPRESSION AMONG MULTIRACIAL ADULTS: THE ROLE OF DISCRIMINATION AND SOCIAL SUPPORT

by

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DISSERTATION DEFENSE ABSTRACT

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Although it is unclear whether rates of depression differ for Multiracial individuals compared to Monoracial People of Color (MPOC) and Monoracial White (MW) individuals, Multiracial individuals could be at higher risk secondary to unique experiences with discrimination and social support. Experiencing discrimination is robustly associated with depressive symptoms, whereas social support has been shown to buffer this association in MPOC. Multiracial people often face discrimination from multiple racial groups (i.e., double rejection) and are less likely to receive the protective in-group benefits their monoracial peers report. Simultaneously, Multiracial people have reported increased ability to traverse social boundaries, which could increase their opportunities for social support. The current study examined how the variables of discrimination, social support, and depression differ across Multiracial, MW, and MPOC. The link between discrimination and depression was evaluated among Multiracial participants. Sources of social support were examined as moderators.

Multiple regression analyses conducted among the full sample (N = 1,322, M_{age} = 40.6 ± 20.5), showed that discrimination did not differ by racial group (p = .54). Social support (p < .001, p = .002), peer support (p = .002, p =.02), and family support (p = .02, p < .001) were higher for MW participants than for MPOC and Multiracial people. Depressive symptom were

higher for Multiracial participants than for MPOC participants ($p < .001$). Among Multiracial participants, discrimination was positively associated with depressive symptoms ($p < .001$). Overall social support ($p < .001$), peer support ($p = .01$), and family support ($p = .02$) were also negatively associated with depressive symptoms, but were not significant moderators.

Results suggest that Multiracial people experience higher depressive symptoms than their MPOC counterparts, and discrimination may be a contributor to these experiences. Future research should include measures better designed to capture the experiences of Multiracial adults in an effort to clarify the validity of the double rejection phenomenon. Interventions to reduce the perpetration of monoracism are needed, as are those to help Multiracial people cope with the depressive symptoms associated with these experiences.

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DEDICATION

In memory of Dr. Tasia Smith. I'll never forget meeting her on interview day and being taken aback by how bright and powerful she was, as a woman of color, existing authentically in this academic space. With her red dress, the color of her skin, and her wide smile, she looked so different from what I thought a scholar could be, but I saw myself reflected in her—and that helped me believe that I might be able to exist in this space too, that I could do a doctoral program. Then, I became even more inspired by the way she listened to and lifted up the voices of underserved community members, making real, positive change. I dedicate this dissertation to her, the person who told me, yes, you *can* do this, and whose absence and impact will be forever felt.

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CHAPTER ONE

Introduction

Defining Depression

The intent of this study is to explore several factors that may contribute to depressive symptoms in a vulnerable yet understudied population: Multiracial[1] adults. Depression is characterized by emotional and cognitive experiences that affect daily functioning such as sadness, recurring thoughts of death, insomnia, fatigue, and feelings of worthlessness or hopelessness (American Psychiatric Association, 2013). When symptoms are severe enough, Major Depressive Disorder can be diagnosed (American Psychiatric Association, 2013). Depression is associated with many negative health outcomes, including increased risk of death for all causes (Lépine & Briley, 2011; McKenna et al., 2005). It also commonly co-occurs with various mental health disorders, including anxiety, substance use, and impulse control disorders (Kessler et al., 2003). Depression is robustly associated with decreased quality of life across social, physical, and economic domains (Lépine & Briley, 2011). In this document, "depression" and "depressive symptoms" will be used interchangeably to refer to these symptoms.

Depression and Multiracial Individuals

Traditional perspectives within the behavioral sciences field have contended that Multiracial people may be at higher risk for negative psychological outcomes—like

[1] The American Psychological Association (APA) recommends capitalizing racial groups like White and Indigenous people because they are considered proper nouns, but APA recommends "multiracial" should not be capitalized (American Psychological Association, 2020). Multiracial is capitalized here to indicate the legitimacy of claiming a Multiracial racial identity similar to other racial identities.

depression—than Monoracial People of Color (MPOC)[2], primarily due to increased difficulties navigating the social world with unclear identity categories (Gaither, 2015; Shih & Sanchez, 2005). However, in contrast to this risk, new research is beginning to focus on the positive outcomes that could emerge from being Multiracial, including increased social belonging based on multiple group membership, cognitive flexibility, and multicultural competence (Jackson et al., 2013; Sanchez et al., 2009; Shih & Sanchez, 2005; Villegas-Gold & Tran, 2018). These varied psychosocial experiences could theoretically impact depressive symptoms for Multiracial individuals, yet, so far, little research has examined this hypothesis.

Important context comes from how Multiracial individuals are defined and how each individual identifies. The process of deciding who *belongs* in the group is complex—a process which, in and of itself, could impact depressive symptoms due to perceptions of validation and inclusion. The term *Multiracial* generally refers to an individual who has parents of two or more races or to an individual identifies as having *Mixed-race*, *Biracial*, or *Multiracial* heritage (Rockquemore et al., 2009; Sanchez et al., 2009; Shih & Sanchez, 2005). Notably, *Multiracial* and *Multiethnic* are overlapping terms with similarities and differences. *Ethnicity* can be broadly defined as a group of people who share biophysical traits and cultural similarities, whereas *race* is typically more narrowly defined to encompass shared biophysical and hereditary traits (Cokley, 2007). However, most modern scholars agree that race is not "real" in that it is a sociopolitical construction and not based in biology (i.e., race is not genetically discrete, reliably measured, or biologically meaningful; Smedley & Smedley, 2005). Nonetheless, because the

[2] MPOC is defined as anyone who identifies as a *singular* racial category (i.e. African American or Black, Asian or Asian American, Hispanic or Latino/a/x, Indigenous) and also does *not* identify as a non-Hispanic White person. Multiracial people are also POC; group names were selected to differentiate number of racial group affiliations.

U.S. is an oppressive, racialized society, the psychological impacts of what is commonly understood as *race* are very real (Smedley & Smedley, 2005). Therefore, Multiracial experiences, as opposed to Multiethnic experiences, are the focus of this paper due to a specific interest in understanding intersectional variables that are contextualized within a racialized society (e.g., discrimination; Gardner & Hughey, 2019; Gonzalez-Sobrino & Goss, 2019; Jacobs, 2019). Persons who are multiethnic could be of a singular racial heritage (e.g., German and Irish, Italian and Polish, or Nigerian and Jamaican), and are not the focus of the current study.

Furthermore, people of Latino/a/x or Hispanic heritage occupy a unique intersection of ethnicity and race, where they are sometimes considered an ethnic group but not a racial group distinct from non-Hispanic White or European-American people, and other times, they are defined as a unique racial group (Hitlin et al., 2007; Telles, 2018). This group is not a monolith and identifies in many different ways; in the U.S., this group includes people who have immigrated or have ancestry from more than 20 countries and territories, and speak more than six different languages (Aragones et al., 2014). For example, a person who does not speak Spanish, lives in California, and has parents who are native Mexican, might identify as Chicano, while someone who lives in Chile and whose parents have Spanish heritage might identify primarily as Chilean and Latin American. Based on American Psychological Association guidelines, the term “Latino” is recommended to be used in references to those originating from Latin America while the term “Hispanic” can refer to those who speak Spanish, so both of these individuals would be considered Latino but only the second would be considered Hispanic (American Psychological Association, 2020). However, those who identify as some form of Latino/a/x or Hispanic are consistently treated and viewed by others in a racialized way, such as legislation and media coverage that acripts negative racial characteristics for Latino/a/x and

Hispanic people as a group. (Brown et al., 2018; Jones & Brown, 2019). Therefore, the current study considers Latino/a/x or Hispanic as a unique racial group and categorizes those who identify both as Latino/a/x or Hispanic and as another race in the Multiracial identity group. Importantly, the group of people in the U.S. who identify as more than one race is growing rapidly. The 2020 U.S. census documented 33.8 million Multiracial people, a 276% increase from 2010's nine million (Jones et al., 2021). So far, the psychological literature does not reflect this change; there are still many gaps in the understanding of Multiracial experiences, especially as it relates to psychosocial interactions.

The research regarding depressive symptoms and related constructs among Multiracial samples is limited and mixed. Shih and Sanchez (2005) examined 28 qualitative studies and 15 quantitative studies including Multiracial adults and adolescents to review diverse factors related to well-being in this population. Of the quantitative studies they reviewed, Shih and Sanchez (2005) found that the degree of depressive symptoms was higher for Multiracial participants than Monoracial White or European-American (MW)[3] participants but was similar compared to MPOC individuals. Importantly, there has been no systematic review of depression among Multiracial adults since 2005. Perhaps paralleling the large growth in the Multiracial population in the U.S. (Parker et al., 2015), there has been increasing representation of this community within empirical studies. More recent studies that have explored depressive symptoms in Multiracial adults have shown mixed findings. For example, some recent studies suggest that Multiracial people experience depressive symptoms at levels similar to MPOC people (Oshin,

[3] MW is defined as anyone who identifies as the singular racial category of White or European American and who also does not identify as Latino/a/x or Hispanic. All references to White people are to non-Hispanic White people unless otherwise stated.

2017), while other studies suggest that depressive symptoms may be higher (Cheng & Lively, 2009; Subica, 2011). These differing findings likely depend on important contextual factors that appear to impact depressive symptoms for Multiracial individuals. For instance, the Multiracial group is highly diverse in a sociological context, in factors like gender, socioeconomic status (SES), and age, as well as racial identity itself, all of which have been shown to be associated with differences in depression (Evans & Erickson, 2019; Lusk et al., 2010). It is difficult to draw conclusions from such limited research studies with such differing samples. For example, Oshin (2017), Cheng and Lively (2009), and Subica (2011) all had samples of participants with different Multiracial identities (Black/White, Latino/a/x or Hispanic/Black, and Asian/White, respectively). While both Oshin (2017) and Cheng and Lively (2009) worked with a sample of Multiracial adolescents, Oshin (2017) had a much smaller sample (N =162 compared to N =90,118), and Cheng and Lively (2009) used data collected in 1995. Furthermore, Subica (2011) collected data from a sample of adult participants. Wide variations in sample characteristics could contribute to disparate findings across studies, rendering it difficult to draw conclusions about Multiracial adults' experiences with depression. Therefore, the current study seeks to address these gaps in the literature by examining recent data collected from a large sample of Multiracial adults with diverse racial heritage.

Theoretical Lens

Multiple theories regarding the etiology and maintenance of depression have been developed and studied over time (Filatova et al., 2021). However, Beck and Bredemeier's (2016) recently proposed unified model captures the common evidence-based contributors to depression that are seen across multiple models (Corveleyn et al., 2005). In particular, their model of depression is well suited for exploring the underpinnings of this mental health issue among a

Multiracial population due to its multifactorial approach, which successfully accounts for the current ecological understanding of Multiracial identity development (Rockquemore et al., 2009). Similar to this model of depression, theories with an ecological approach highlight the multifactorial contextual influences on Multiracial identity development: it is non-linear and impacted by both individual and systemic variables (Rockquemore et al., 2009).

Beck and Bredemeier's (2016) theory of depression can be conceptualized as a unified model because it encompasses biological and social aspects within a cognitive framework. They theorize that the processes by which depression occurs are responses to an individual's adaptive need to conserve energy when perceiving the loss of a vital resource. For example, losing a friendship may be perceived as a vital resource loss only if that individual considers the friendship particularly valuable and in short supply. The need to conserve energy in response to perceived loss can become maladaptive if it thwarts other key needs and resources (e.g., if the loss of one friendship leads an individual to avoid making new friendships in the future for fear of getting hurt). Therefore, Beck and Bredemeier (2016) highlight that chronic social rejection, exclusion, and degradation are some of the most potent predictors of depression due to their ability to disrupt key human needs for belonginess. Belongingness is considered a powerful human motivation and consists of two parts: 1) frequent positive or neutral social interaction, as well as 2) the perception of an interpersonal bond via social support (Baumeister & Leary, 1995). Lack of belonging is the deprivation of either or both of these factors, and it is likely to be experienced as a loss of vital resources and to place an individual at risk for experiencing depression (Baumeister & Leary, 1995; Beck & Bredemeier, 2016).

Theories suggest Multiracial people are especially at risk for feeling a lack of belonging, and this feeling is a chronic stressor that contributes to poor psychological well-being (Shih &

Sanchez, 2005). MW and MPOC people tend to report feeling more accepted by their same-race peers than Multiracial people do (Parker et al., 2015). For instance, one survey found that 62% of MW participants reported having "a lot in common" with other MW people, while just 34% of Multiracial participants reported having "a lot in common" with other Multiracial people with the same racial backgrounds (Parker et al., 2015). This percentage drops precipitously (17%) for Multiracial people of differing racial backgrounds. These findings suggest that lack of belonging could be a common psychological experience for Multiracial people. Given that lack of belonging is a robust risk factor for depression (Beck & Bredemeier, 2016; Cockshaw et al., 2013, 2014; Fowler et al., 2013), this experience could be a potent contributor to depression among Multiracial adults, specifically. Considering some studies suggest depressive symptoms are higher in this group than other racial groups (Cheng & Lively, 2009; Subica, 2011), heightened lack of belonging could be a possible explanation for these differences. Therefore, the current study seeks to examine factors that may impact belongingness and, thus, depression for this group. For example, increases in discrimination (Hussain & Jones, 2019; Wu & Finnsdottir, 2021) and decreases in social support (Hill et al., 2017; Liu et al., 2020) have been found to contribute to thwarted belonginess among diverse samples. These variables have also been found to be consistent predictors of depression in non-Multiracial samples (Alsubaie et al., 2019; Pascoe & Richman, 2009). Such findings suggest that discrimination and social support could be particularly relevant for Multiracial individuals' depressive symptoms.

Discrimination

Experiencing discrimination—whether that be based on race, gender, sexuality, or other identities—has consistently been linked to depressive symptoms and overall poorer mental health in diverse samples (Pascoe & Richman, 2009; Schmitt et al., 2014). Meta analyses (e.g.

Pascoe & Richman, 2009; Schmitt et al., 2014) have shown that, regardless of racial identity, discrimination is harmful for mental health. However, it has been hypothesized that Multiracial people may be more at risk for increased experiences of discrimination than their MPOC counterparts due to *double rejection*: experiencing discrimination from both majority and minority racial groups (Shih & Sanchez, 2005). This experience of double rejection could contribute to feeling lack of belonging, which in turn increases risk for depressive symptoms (Beck and Bredemeier, 2016). While emerging data suggest that the frequency of discrimination does not differ between MPOC people and Multiracial people (Nadal et al., 2011; Sue & Sue, 2015), there is evidence for Multiracial people experiencing unique types of discrimination, including race-related rejection from family and friends (Johnston-Guerrero et al., 2020; Nadal et al., 2011).

One form of discrimination that may contribute to a sense of double rejection for Multiracial adults is the experience of *monoracism*. Johnston and Nadal (2010) define monoracism as the "social system of psychological inequality where individuals who do not fit Monoracial categories may be oppressed on systemic and interpersonal levels because of underlying assumptions and beliefs in singular, discrete racial categories" (p. 125). Emerging evidence shows that monoracism exists and likely has significant social and psychological consequences for the Multiracial community. One study, for example, found that when researchers told participants reviewing college applications that the applicant was "Biracial," the participants perceived those applicants as less warm and less competent than their MW and MPOC counterparts (Sanchez & Bonam, 2009). Multiracial people may also experience monoracism through specific types of *microaggressions*: less overt, every day, insults or slights based on target group membership (Sue et al., 2007). In their review of the available literature,

Johnston and Nadal (2010) proposed a taxonomy of the specific types of microaggressions that Multiracial people tend to face: (1) exclusion or isolation, (2) exoticization and objectification, (3) assumption of Monoracial identity or mistaken racial identity, (4) denial of Multiracial reality, and (5) pathologizing of identity and experiences. The validity of this taxonomy was supported by follow-up qualitative and quantitative analyses (Nadal et al., 2011). Consequently, Multiracial people are at risk for experiencing various forms of microaggressions from multiple groups in which they share some racial heritage. A common reported experience for Multiracial people is the feeling that others see them as being "not enough" of one race or "too much" of another (Miville et al., 2005; Sanchez, 2010). For example, one participant in a qualitative study (Miville et al., 2005) on the experiences of Multiracial people stated this:

> I felt like I had to decide because the Indian side is looking at me like, you don't even look like you are a relative to an Indian… . And then the Black side's looking at me like—we don't like you because you are too light-skinned or cause you have "good hair". (p. 512)

This form of double rejection——experiencing identity invalidation from both groups——has been found to be positively associated with depressive symptoms (Franco & O'Brien, 2018).

Moreover, Multiracial people often report experiencing several types of discrimination from their own family members. In this way, family members may be one of the most common sources of double rejection for Multiracial people. Indeed, Multiracial people have reported common themes of feeling misunderstood or invalidated by their Monoracial family members (Nadal et al., 2011). Approximately 21% of Black/White Multiracial people report being treated badly by a family member due to being Multiracial (Parker et al., 2015). Several studies have found discrimination from family members to be particularly harmful to mental health, as

evidenced by significant and positive associations with depressive symptoms separate from discrimination from other people (Franco et al., 2021; Salahuddin & O'Brien, 2011). Franco et al. (2021) suggested family discrimination could contribute to poor family belongingness. Importantly, sense of belongingness can lessen the incorporation of negative stereotypes into one's sense of self-concept, thereby buffering against the negative impacts of discrimination in general (e.g., Pascoe & Richman, 2009). Yet, the evidence that Multiracial people are at high risk for discrimination, not only from other peers, but from their family, suggests discrimination could be a particularly relevant contributor to depression due to the risk for a thwarted sense of belongingness (Choenarom et al., 2005; Cockshaw et al., 2013). There is a clear gap in the research with regard to how experiences like family support, or lack thereof, interact with experiences of discrimination for Multiracial individuals compared to other groups—and with regard to how these experiences relate to depressive symptoms.

Social Support

Though lack of belongingness could be a risk factor for depression, experiencing social support has the potential to be a strong protective factor for Multiracial people. Social support—the feeling of being cared for and validated by the individuals within one's social group (Liu et al., 2020)—is an important component of an individual's broader sense of belongingness (Baumeister & Leary, 1995; Liu et al., 2020). Higher social support from family and friends has consistently been associated with increased well-being and decreased depressive symptoms among a variety of samples (Alsubaie et al., 2019). Only one study was located that examined this association among Multiracial individuals specifically, finding that social support was significantly and negatively associated with depressive symptoms (Chang et al., 2018). However, there have been no empirical investigations of whether perceived social support differs, on

average, across MW, MPOC and Multiracial groups. Social support in Multiracial individuals is a complex phenomenon. Some Multiracial people report an increased ability to "fit in" due to their multiple racial identities allowing access to more social groups (Miville et al., 2005; Shih & Sanchez, 2005). Indeed, Multiracial adults report having more racially diverse friendship groups than Monoracial adults (Parker et al., 2015). At the same time, the experience of double rejection, as described earlier, would suggest that Multiracial individuals may also be at risk for lower social support. Indeed, MW and MPOC samples tend to report high levels of belonging with their racial group (Barroso, 2020; Parker et al., 2015).

In addition to the potential primary benefits of social support on depressive symptoms, it may also buffer the negative effects of discrimination. For example, social support has been found to meaningfully mitigate the significant association between discrimination and depressive symptoms among immigrants (Chou, 2012), MPOC (Ajrouch et al., 2010), and transgender individuals (Trujillo et al., 2017). Furthermore, MPOC individuals commonly cope with discrimination by affirming their racial belonging and seeking social support (Brondolo et al., 2009). Among Multiracial individuals, qualitative studies indicate that developing a strong social support group is key for coping with monoracism (Jackson et al., 2013; Museus et al., 2015). But, no quantitative studies have assessed social support as a moderator of the link between discrimination and depressive symptoms for Multiracial people specifically.

Among related literature, there is a lack of attention to the potential importance of source of social support for Multiracial adults, especially given the research regarding double rejection. However, social support from family members and peers may be differentially associated with depressive symptoms and discrimination. For instance, among a sample of South Asian men, family support—but not peer support—buffered the association between discrimination and

depressive symptoms (Tummala-Narra et al., 2012). In a sample of MPOC and Multiracial college students, Juang and her colleagues (2016) found that peer support—but not family cohesion—buffered the association between discrimination and somatization (a symptom of depression). These differing findings could suggest the type of support and/or sample characteristics matter for identifying potential resilience factors. Indeed, Tummala-Narra and colleagues (2012) suggested that their sample of predominantly first generation South Asian men may be less likely to seek peer support due to cultural stigma regarding mental health issues. Juang et al. (2016) did not examine peer and family support moderator associations within the subsamples of different racial groups included in their study. Therefore, it is unclear how much the Multiracial sample contributed to the findings regarding peer support. To our knowledge, no study has compared the moderating effect of peer versus family social support within a specifically Multiracial sample. Yet, given Multiracial individuals' unique cultural experiences of social and family support (e.g. double rejection), it is important to examine how these different types of support may play a role in buffering or exacerbating the association between discrimination and depression for this specific group. Indeed, the stronger impact of family-based discrimination on depression than general discrimination (Franco et al., 2021; Salahuddin & O'Brien, 2011), suggests that family belongingness is highly important for Multiracial people. As such, the presence of family support could also be a strong protective factor against depressive symptoms when experiencing general discrimination.

Gaps and Rationale

Multiracial individuals comprise 10.2% of the population in the U.S. (N. Jones et al., 2021). Yet, they remain underrepresented in the psychological literature (Shih & Sanchez, 2005). Research indicates that depressive symptoms may be higher for Multiracial individuals than MW

individuals, though research is mixed with regard to potential differences among MPOC and Multiracial individuals (Cheng & Lively, 2009; Shih & Sanchez, 2005; Subica, 2011). Several factors are likely associated with experiences of depression among Multiracial individuals. For instance, discrimination has long been positively associated with depressive symptoms (Pascoe & Richman, 2009). Multiracial people often experience double rejection, or discrimination from both majority and minority racial groups (Shih & Sanchez, 2005). Double rejection could be contributing to specific types of experiences with discrimination and, in turn, higher depressive symptoms among Multiracial people. Furthermore, double rejection experiences could also decrease social support for Multiracial individuals. However, some research suggests that Multiracial people experience increased social support compared to MW and MPOC people due to flexible racial group membership (Miville et al., 2005). Social support is highly correlated with depressive symptoms in a diverse array of groups (Alsubaie et al., 2019), but how social support is associated with—and influences the association between—discrimination and depression among Multiracial adults has not been examined. Furthermore, how family support and peer support may interact differently for this group has also not been examined.

The current study seeks to address extant gaps in the literature by first utilizing exploratory analysis to evaluate whether discrimination, social support, and depression differ across MW, MPOC, and Multiracial individuals. This comparative aspect of the study is not intended to determine which groups have "better" or "worse" experiences, but rather to aid in increasing knowledge about a highly understudied group—Multiracial adults. Identifying potential variations in discrimination, social support, and depressive symptoms could signal underlying differences in mental health risk, which may motivate exploration of relevant identity-related factors within Multiracial adults. To that end, this study will also utilize within-

group analyses to provide additional and importance nuance that is often lost in comparative analyses. This focus is anchored in the Difference Model research approach (Oyemade & Rosser, 1980), which states that it is important to conduct within group analyses for groups that differ on major socioecological variables (like race) for several reasons. The authors assert that it is difficult to statistically control for these differences. Furthermore, they argue that comparing different groups on variables of interest can reinforce negative stereotypes rather than promote an understanding of the within-group factors that influence the behavioral and psychosocial characteristics of traditionally under-studied groups (Oyemade & Rosser, 1980). Therefore, this study will also narrow the focus of analysis to Multiracial adults and investigate several factors which may play an important and unique role in their depressive symptoms. In considering both analyses, this study can add to the literature regarding the double rejection hypothesis for Multiracial adults. For example, double rejection may be a strong factor in explaining heightened depressive symptoms for Multiracial adults if they show less social support, especially in peer and family domains, than monoracial counterparts, while also evidencing social support as a buffer for discrimination and depression.

Current Study Aims and Hypothesis

The current study will examine the association between discrimination experiences and depressive symptoms among Multiracial adults. Additionally, social support from friends and family members will be examined as putative moderators of this association. The research questions and hypotheses of this dissertation are:

Research Question 1: Do mean levels of discrimination, social support (overall, peer and family), and depressive symptoms differ across MW, MPOC, and Multiracial groups?

Hypothesis 1: Mean levels of discrimination will be significantly greater for MPOC and Multiracial participants than for MW participants. Additional comparisons within this research question are considered exploratory in light of the dearth of literature in this specific area; as such, no additional *a priori* hypotheses are presented.

Research Question 2: Within the Multiracial sample, is discrimination associated with depressive symptoms?

Hypothesis 2: Discrimination will be significantly and positively associated with depressive symptoms among Multiracial participants.

Research Question 3: How does social support influence the proposed association between discrimination and depressive symptoms for Multiracial individuals?

Hypothesis 3: Overall social support will be a significant moderator of the association between discrimination and depressive symptoms, such that higher social support scores will buffer (and lower scores will exacerbate) the proposed positive association between discrimination scores and depressive symptoms.

Research Question 4: Do peer and family social support differentially moderate, and interact with each other to moderate, the association between discrimination and depressive symptoms? In light of the dearth of literature in this specific area, analyses will be exploratory and no *a priori* hypotheses are presented.

CHAPTER TWO

Methods

Participants and Recruitment

The current dissertation is a secondary analysis from an IRB approved study which explored the physical health, mental health, and health behaviors of a large US-based sample of racially, ethnically, sexual and gender diverse (SGD) adults, as well as non-SGD adults. Participants were recruited by Qualtrics Panels and their online platform was used to deliver all study surveys remotely. The study overrecruited for individuals with diverse sexual, gender, and racial identities. Specifically, potential participants had to identify as heterosexual, gay, lesbian, bisexual, or transgender, aiming for 250 total participants from each identity group. Within each of these subgroups, efforts were made to recruit relatively equal numbers of individuals who identified as White or European-American, Latino/a/x or Hispanic, or Black/African American. Finally, up to 100 additional individuals were recruited who identified with more than one race, regardless of their gender or sexual identity. Additional inclusion criteria included being 18 years or older and being proficient in the English language. From a large pool of potential respondents, Qualtrics Panels identified individuals who met the initial study's criteria. These potential respondents were sent an email invitation (with the survey link) informing them that the current study's survey was for research purposes only, how long the survey was expected to take, and what incentives were available. Participants in Qualtrics Panels' surveys receive compensation points, which vary based on the length of the survey, their specific panelist profile, and target acquisition difficulty. Earned points for survey completion can be redeemed for a wide array of items (e.g., cash, airline miles, gift cards, sweepstakes entrance, and vouchers). To avoid self-selection bias, the survey invitation did not include specific details about the contents of the

survey. If adults were interested in participating in this study, they were directed to an online survey that started with a brief demographic survey to confirm eligibility. Participants who did not meet the proposed study's inclusion criteria were immediately directed to the end of the survey and thanked for their time. Participants who met the criteria were directed to a consent page where they were given further information about the content of the study, including the purpose of the study and the potential risks and benefits of participating. Once participants provided consent by affirming to a corresponding survey item, they completed a 20 to 30-minute online survey. Participants who completed at least 80% of the survey received compensation points and their data were included in the larger study (Dong & Peng, 2013). To ensure validity of survey responses, Qualtrics Panels excluded data from individuals who appeared to respond to survey items in invalid ways, such as duplicate text responses to different items and answers that appeared random or were indicative of machine-based responses.

Measures

Demographics

Information was gathered on the following: (a) race and ethnicity; (b) age; (c) sexual orientation (response options were: *bisexual, gay, lesbian, heterosexual,* and an open response option); (d) gender identity (response options were: *transgender man, transgender woman, cisgender man, cisgender woman, genderqueer, gender non-confirming/non-binary, agender*, and an open response option); (e) current presence of various chronic health conditions, including type 2 diabetes, hypertension, heart disease, cancer, Human Immunodeficiency Virus (HIV), and high cholesterol; (f) self-reported height and weight to calculate body mass index (BMI) in kg/m2; (g) annual income; and (h) education level.

Racial Identity

Participants identified their race by answering the following prompt, "Which of the following racial/ethnic groups best describes you? Please select all that apply." Response options were: *American Indian or Alaska Native, Asian or Asian American, White or European-American, Native Hawaiian or other Pacific Islander, Latino/a/x or Hispanic, African American or Black, Other,* and *None of the above listed races*. There was also an open response option. To create the current study's racial identity variable (Multiracial, MW, or MPOC), participants were coded as Multiracial if they identified with more than one race, including if they identified as "Latino/a/x or Hispanic" and another race. If participants identified as exclusively *White or European-American* they were coded as MW. Participants who indicated a single race that was not *White or European-American* were coded as MPOC. Participants who used the open text response option to identify in some way other than these outlined options were excluded from the analyses.

Discrimination

The 9-item Everyday Discrimination Scale (EDS) was used to capture experiences with discrimination (Forman et al., 1997). For each item, respondents were asked to indicate how often they experience certain instances of discrimination (e.g., "You receive poorer service than other people at restaurants or stores) on a Likert-type scale from 1 (*Never*) to 6 (*Almost every day*). Scores were summed, with higher scores indicating more instances of everyday discrimination. Because the full study examined experiences of SGM samples and racially diverse samples, the general discrimination scale was used to facilitate within and across group comparisons more effectively for the larger study, as well as to capture the diversity of discriminatory interactions Multiracial adults experience, whether race-related and otherwise.

Previous research has documented high reliability and construct validity for the EDS among diverse racial, gender, and sexuality groups (Berenbon, 2020; Lewis et al., 2012). However, a recent study used multigroup confirmatory factory analysis to assess the EDS for use in cross-group estimates (Bastos & Harnois, 2020). They found that when the EDS is used for assessing general discrimination, there was a lack of equivalence across racial groups. In particular, the authors identified the non-invariant threshold of item seven ("people act as if they are better than you") and item nine ("you are threatened or harassed") were responsible for the EDS's non-equivalence. Therefore, the current study has chosen to remove these items from analyses, to increase the construct validity of this measure when comparing discrimination across groups. The estimated internal consistency for this survey's items (after excluding items seven and nine) was strong across each racial group (α = .93, full sample; α = .94, MW subsample; α = .92, MPOC subsample; α = .89, Multiracial subsample)

An additional follow up item was included with the EDS regarding attribution (Williams et al., 1997). The item stated "What do you think the main reason is for these experiences? Please put a number 1 next to the biggest source of discrimination. If there is a second source of discrimination, put a number 2 next to the second biggest source of discrimination. And so on." Participants had the option of ranking up to ten different sources of discrimination: "Race", "Gender", "Sexual Orientation", "Age", "Primary language", "Appearance (e.g. hair style, clothing, facial features)", "Body size/shape too small", "Body size/shape too large", and "Physical disability", as well as an open text option.

Social Support

Social support was measured with the Multidimensional Scale of Perceived Social Support (MSPSS; Zimet et al., 1988). The MSPSS consisted of 12 items and responses were

rated on a 7-point Likert-type scale from 1 (*very strongly disagree*) to 7 (*very strongly agree*). The family support and friend support subscales each consisted of four items. An example family support item is, "I get the emotional help and support I need from my family" and an example friend support item is, "I can talk about my problems with my friends." Mean scores were calculated with higher scores indicating more overall social support. The reliability and validity of the inventory and its subscales have been demonstrated across different genders and racial groups (Osman et al., 2014; Wong et al., 2010). The estimated internal consistency for the items comprising the full scale score was high for the full sample in the current study ($\alpha = .94$), as well as for each racial group (MW $\alpha = .94$, MPOC $\alpha = .94$, Multiracial $\alpha = .92$). The estimated internal consistency was similarly high for the items comprising family and peer subscales in the full sample (family support, $\alpha = .92$, peer support, $\alpha = .92$), as well as for each racial group (MW family support $\alpha = .94$, MW peer support $\alpha = .93$, MPOC family support $\alpha = .90$, MPOC peer support $\alpha = .92$, Multiracial family support $\alpha = .94$, Multiracial peer support $\alpha = .92$).

Depressive symptoms

Depressive symptoms were assessed using the 21-item Beck Depression Inventory-II (Beck et al., 1996). For each item, participants were given the prompt to, "Pick out the ONE STATEMENT in each group that best describes the way you have been feeling during the PAST TWO WEEKS, INCLUDING TODAY." For most survey items, there was a four-point scale for each item ranging from 0 to 3. An example item was, "Sadness" and response options were 0 (*I do not feel* sad) to 3 (*I am so sad or unhappy that I cannot stand it*). For two items, there were seven options to indicate either an increase or decrease in appetite and sleep. Each of the 21 items corresponded to a symptom of depression and was summed to give a single score with higher scores indicating greater depressive symptoms. The survey items have been validated

across different genders and racial groups (Whisman et al., 2013). The estimated internal consistency for the items for this survey were high in the full sample ($\alpha = .95$), as well as for each racial group (MW $\alpha = .96$, MPOC $\alpha = .95$, Multiracial $\alpha = .94$)

CHAPTER THREE

Data Analytic Plan

Preliminary Analyses

IBM SPSS Statistics V. 28 was used for all analyses. First a review of the frequencies and pattern of missing data for all variables, including covariates, was conducted. Approaches to dealing with missing data were selected accordingly (Buhi, 2008). Next, analyses were run to assess whether assumptions for parametric tests were met. Correlations between independent variables (no correlations greater than .80); Q-Q plot, skewness and kurtosis values, and a scatter plot of residuals were reviewed respectively to assess for multicollinearity, linearity, normality, and homoscedasticity. Influential cases and outliers were also examined.

Because this study includes secondary data analyses from a larger study, a post hoc power analysis was conducted using G*Power, which is a stand-alone power analysis program (Faul et al., 2009). For all analyses, alpha levels were set to $p = .05$, and power levels were set to .80. In examining prior studies that compared depressive symptoms and a variety of forms of discrimination differences, including racial discrimination, across Multiracial and other racial groups, an average, medium, effect size of $f^2 = .26$ was observed and used in subsequent power calculations (Herman, 2004; Shih & Sanchez, 2005). No past research has examined differences in social support by racial group. To detect a medium effect size, a total sample size of 151 (50 per group) is needed. The current study's full sample consists of $N = 1{,}322$; thus, it can be concluded that the current study's first hypothesis is sufficiently powered. Subsequent hypotheses will involve analyses conducted within the Multiracial group only. Effect sizes were examined from prior studies that conducted regression analyses evaluating the association between discrimination and depressive symptoms, including one study that enrolled a Multiracial

sample (Ajrouch et al., 2010; Chang et al., 2018; Chou, 2012); in these studies, medium to large effect sizes, with an average of $f^2 = .24$, were observed. A sample of 35 would be needed to detect similar effects. Given that the Multiracial group consists of $n = 252$, it can be concluded that the current study's second hypothesis is sufficiently powered. Finally, there were no prior studies conducted with a Multiracial sample examining social support as a moderator, so a post-hoc sensitivity power analysis was run instead. The analysis was run with the current study's sample size of $n = 252$, a standard power of .08, an alpha level of $p = .05$, and up to 13 predictors (which accounts for all total potential possible covariates, main effects, and multiple interactions). With these parameters, the current study is powered to detect a small effect size of $f^2 = .03$.

Hypothesis-Testing Analyses

The first hypothesis, regarding the differences in discrimination, social support, and depressive symptoms across racial group, was evaluated using five separate analyses of covariance (ANCOVA). The independent variable for each ANCOVA analysis was racial group (Multiracial, MW, MPOC) and the dependent variables were discrimination (mean EDS scores), overall social support (mean MSPSS scores), family support (mean family subscale MSPSS scores), peer support (mean peer subscale MSPSS scores), and depressive symptoms (BDI-II sum scores). Covariates assessed in each ANCOVA analysis included variables found in prior research to be associated with each dependent variable. Only significant covariates at $p<.05$ were retained in the final ANCOVA for each dependent variable. For discrimination, control variables considered included age (Rippon et al., 2014), gender, sexual orientation (Ayhan et al., 2020), and body size (BMI was used as a measure of body size; Sutin et al., 2015). When examining social support as the dependent variable, gender (Matud et al., 2003) and sexual orientation

(Frost et al., 2016) were considered as covariates. Finally, when assessing differences in depressive symptoms by racial group, potential covariates included education, income (Evans & Erickson, 2019), access to health insurance (Fry & Sommers, 2018), age, (González et al., 2010; Kessler & Bromet, 2013), BMI (Luppino et al., 2010), sexual orientation, and gender (Marsack & Stephenson, 2017).

To test the second hypothesis, that discrimination (EDS sum) will be positively associated with depressive symptoms (BDI-II sum) within Multiracial participants, one hierarchical regression model was conducted. Covariates for consideration included education, income (Evans & Erickson, 2019), age, (González et al., 2010; Kessler & Bromet, 2013), BMI (Luppino et al., 2010), sexual orientation, and gender (Marsack & Stephenson, 2017). For the most parsimonious model, only covariates that were significant at block two of the model were retained in the final full model. Block one included significant covariates and block two included the main independent variable: discrimination. Depressive symptoms sum was the dependent variable.

To test the third hypothesis, that overall social support will moderate the association between discrimination and depressive symptoms among Multiracial participants, the regression model used to evaluate the second hypothesis was extended to include social support and its interaction term. Specifically, block one included significant covariates of those listed above for hypothesis two, block two included overall social support (MSPSS average) and discrimination (both centered on the grand mean), and block three included an interaction term between discrimination and overall social support.

Finally, a separate hierarchical regression model was used to explore the fourth research question, examining if peer and family social support independently and jointly moderate the

association between discrimination and depressive symptoms. Block one included significant covariates of those listed above for hypothesis two; block two included peer support, family support (MSPSS subscales) and discrimination (all centered on the grand mean); block three included an interaction term for discrimination and family support and an interaction term for discrimination and peer support. Then, to examine if peer and family support interacted to moderate the main association, block four included a three-way interaction term for discrimination, peer support, and family support. Notably, these social support subscales may be highly correlated. Thus, before running the proposed analyses, multicollinearity was assessed by examining a correlation matrix and computing the Variance Inflation Factor (VIF) in SPSS. Exploratory regression analyses for question four were not conducted if *r* values were above .90 and the VIF was greater than 10 (Field, 2018). Variance accounted for, as measured by change in R^2, was calculated for estimates of effect size, with $R^2 < 0.02$ considered a very small effect size, $0.02 <= R^2 < 0.13$ considered a small effect size, $0.13 <= R^2 = 0.26$ considered a medium effect size, and $R^2 >= 0.26$ considered a substantial effect size (Cohen, 1988).

CHAPTER FOUR

Results

Preliminary Analysis

For all planned regression analyses, assumptions of multicollinearity, linearity, normality, and homoscedasticity were not violated among the variables of interest within the full sample or the Multiracial sample only. All variables of interest in the full sample and Multiracial subsample were also examined for outliers. The covariate age had significant outliers within the Multiracial sample, so the Winsorizing technique was applied and outlying data values were changed (n = 24) to reflect the closest non-outlying value (Field, 2018). Regarding missing data, eight individuals were excluded from all analyses because they reported a racial identity that was unable to be classified in the determined racial categories (e.g., Jewish and White). In a review of the frequencies of missing data for all other variables of interest, including covariates, the range of percentage missing was between 0% and 0.9%. Therefore, listwise deletion was used for all missing data, an approach considered satisfactory when missing data are minimal (less than 5%) and the pattern of missingness is inconsequential (Buhi et al., 2008).

Specific to the planned ANCOVA analyses, two assumptions were violated: 1) independence of the covariates and independent variable; and 2) homogeneity of regression slopes. Specifically, an ANOVA and Chi-square tests revealed that age, gender, sexual orientation, and income all significantly different by racial group, violating the independence of covariates and independent variable assumption. Homogeneity of regression slopes were assessed by examining the significance of the interaction between covariates and each racial group on the dependent variables of interest. Gender and age violated this assumption when discrimination was the dependent variable; gender violated this assumption when family support

was the dependent variable; and income and sexual orientation violated this assumption when depression was the dependent variable. To address these issues, it is recommended that an alternative statistical approach be taken—hierarchical regression (Field, 2018). Specifically, to assess for differences in discrimination, social support, and depressive symptoms, racial group (MW, MPOC, and Multiracial) was dummy coded. A series of hierarchical regression models were then conducted for each dependent variable (discrimination, overall social support, family support, peer support, depressive symptoms) with significant covariates in block one and dummy coded racial groups in block two. The first set of models included the MW and MPOC dummy coded variables to compare differences from the Multiracial group. The second set of models included the Multiracial and MPOC dummy coded variables to compare differences between the MW and MPOC racial groups.

Participants

Data from a total of 1,322 participants were included in analyses examining Hypothesis 1. A total of 252 of these participants identified as Multiracial and were included in analyses testing Hypotheses 2-4. For the full sample, mean age was 40.56 (*SD* = 20.5 range = 18-82). Reflective of recruitment efforts to engage adults with diverse racial and ethnic identities, genders, and sexual orientations, 68.7% of participants were POC (Latino/a/x/ or Hispanic, African American/Black, or Multiracial), 42.4% of participants were cisgender women, 20.7% were gender diverse (i.e. transgender men, transgender women, and nonbinary), and 65.9% identified as gay, lesbian or bisexual. Among the Multiracial sample, the mean age was 33.45 (*SD* = 17.0, range = 18-84), 62.7% were cisgender women, 14.7% were gender diverse, and 62.3% identified as gay, lesbian, or bisexual. Please see Table 1 for detailed participant descriptive statistics (See Appendix A for all Tables). The largest racial subgroups reflected in

the Multiracial sample were those who identified as White or European-American and Latino/a/x or Hispanic (32.1%), White or European-American and African American or Black (15.9%), and African American or Black and Latino/a/x or Hispanic (9.1%). See Table 2 for detailed racial breakdown for the Multiracial subsample.

Hypothesis-Testing Analyses

H1: Racial Group Differences in Discrimination, Social Support, and Depression

Discrimination. Contrary to hypotheses, after adjusting for age and gender, there were no statistically significant differences in discrimination scores by racial group (see Table 3 and Figure 1; see Appendix B for all Figures).

Follow-Up Exploratory Analyses. When the statistical analyses were repeated for H1 after removing the gender covariate, the direction and significance of the findings did not meaningfully change (i.e., discrimination did not significantly differ across racial groups; p = .83). However, when the age covariate was removed from the analyses, significant group differences emerged. Specifically, MW participants had significantly lower discrimination scores than both MPOC participants (β = 0.26, p = <.001) and Multiracial participants (β = -0.26, p = <.001). MPOC and Multiracial participants' scores did not significantly differ from one another (p = .41; see Figure 2 for adjusted group means). Notably, racial groups differed significantly in age as well, such that MW participants were significantly older (M = 56.87, SD = 19.86) than MPOC (M = 32.95 SD = 15.53, p < .001) and Multiracial participants (M = 33.45, SD = 17.01 p < .001); the age of MPOC and Multiracial participants did not meaningfully differ from one another (p = .97).

Percentages of attribution rankings by racial group were also explored and presented in detail in Table 4. The majority of Multiracial participants (35.7%) reported that "Race" was the

number one reason they were discriminated against. “Gender” and “Appearance” were the second and third most prominent reasons that Multiracial participants said they were discriminated against (i.e., 13.9% reported “Gender” as the number one ranked attribution and 11.9% reported “Appearance” as the number one ranked attribution). Nearly half of MPOC participants also ranked “Race” as the number one attribution for discrimination (46.6%). The second and third most prominent reasons were “Sexual Orientation” (12.4%) and “Gender” (9.0%). Among MW participants, “Age” was the most prominent reason for discrimination (21.7%), followed by “Sexual Orientation” (17.1%), and “Race” (15.9%).

Social Support. After adjusting for gender and sexual orientation, there were statistically significant differences by racial group across all types of social support (See Figure 3).

Overall Social Support. After adjusting for gender and sexual orientation, MW participants had significantly higher overall social support scores than Multiracial participants (β =0.12, p = .002; see Table 5, Blocks 2a, 2b) and MPOC participants (β = 0.12, p < .001; see Table 5, Block 2b and Figure 3). Multiracial and MPOC participants did not significantly differ from one another in their reported overall social support. The effect size of social support differences was small, with racial group accounting for an additional 1% of the variance.

Peer Support. After adjusting for gender and sexual orientation, MW participants had significantly higher peer support scores than Multiracial participants (β = 0.09, p = .002; see Table 6, Blocks 2a, 2b) and MPOC participants (β = -0.10, p = .02; see Table 6, Block 2b and Figure 3). Multiracial and MPOC participants did not significantly differ from one another in their reported peer support. The effect size of peer support differences was small, with racial group accounting for an additional 1% of the variance.

Family Support. After adjusting for gender and sexual orientation, Multiracial participants had significantly lower family support scores than MW participants (β = 0.14, $p <$ .001; see Table 7, Blocks 2a, 2b). MPOC participants also had significantly lower family support scores than MW participants (β = -0.08, p = .02; see Table 7, Block 2b). Multiracial and MPOC participants did not meaningfully differ from one another on reported family support. The effect size of family support differences was small, with racial group accounting for an additional 1% of the variance.

Depressive Symptoms. After adjusting for age, income, gender, and sexual orientation, there was a statistically significant difference in depressive symptoms by racial group (see Table 8). Specifically, Multiracial participants had significantly higher depressive symptoms than MPOC participants (β = -0.11, $p <$ .001; see Table 8, Block 2a, and Figure 1). Multiracial and MW participants, as well as MW and MPOC participants, did not meaningfully differ from one another in their reported depressive symptoms. The effect size of depressive symptom differences was small, with racial group accounting for an additional 1% of the variance.

H2: Discrimination and Depressive Symptoms Among Multiracial Adults

After adjusting for age, discrimination was significantly and positively associated with depressive symptoms among Multiracial participants (β = 0.37, $p <$ .001; see Table 9, Block 2a and Figure 4). The effect size was small to moderate, with discrimination accounting for an additional 11% of the variance in depressive symptoms for Multiracial adults.

H3: Social Support as Moderator of Discrimination and Depressive Symptoms Among Multiracial Adults

Overall Social Support. After adjusting for age, overall social support was not a significant moderator of the positive association between discrimination and depressive

symptoms in Multiracial participants (p = 0.96; see Table 9, Block 3b). Notably, overall social support was significantly and negatively associated with depressive symptoms, even after adjusting for experiences with discrimination (β = -0.23, p < .001; see Table 9, Block 2b). The effect size was small, with social support accounting for an additional 6% of the variance in depressive symptoms.

H4: Peer and Family Support Differential Moderation of Discrimination and Depressive Symptoms Among Multiracial Adults

Peer Support and Family Support. Due to multicollinearity concerns between the overall social support scale and the two subscales, a separate regression model was conducted to assess the putative moderating role of peer and family support excluding overall social support. After adjusting for age, neither peer support (p = .44, see Table 9, Block 3c) nor family support (p = 0.45, see Table 9, Block 3c) were significant moderators of the association between discrimination and depressive symptoms in Multiracial participants. Additionally, peer and family support did not jointly moderate the positive association between discrimination and depressive symptoms (p = 0.92, See Table 9, Block 4c). Notably, both peer support (β = -0.14, p = .02; see Table 9, Block 2c) and family support (β = -0.14, p = .02; see Table 9, Block 2c) were significantly and negatively associated with depressive symptoms among Multiracial participants, even after adjusting for experiences with discrimination, and accounted for an additional 6% of the variance in depressive symptoms.

CHAPTER FIVE

Discussion

Some research suggests that Multiracial adults have an elevated risk for depressive symptoms (Gaither, 2015; Shih & Sanchez, 2005). Yet, the literature is mixed with regard to whether their risk is higher than their Monoracial counterparts or not (Cheng & Lively, 2009; Oshin, 2017; Shih & Sanchez, 2005; Subica, 2011). Theories suggest that Multiracial people tend to experience increased difficulties navigating their social world due to unclear racial categories (Gaither, 2015; Shih & Sanchez, 2005). These experiences, in turn, may increase a sense of lack of belonging—a potent risk factor for depression (Beck & Bredemeier, 2016). To better understand Multiracial people's experience with depression, this study explored two variables closely tied to lack of belonging: discrimination and social support.

Multiracial people's experience with discrimination may be unique in that they are the recipients of unfair treatment from both ingroup and outgroup members—a phenomenon referred to as double rejection (Shih & Sanchez, 2005). Whereas MPOC and MW people tend to cope with discrimination by seeking support from their family and friends (Brondolo et al., 2009), Multiracial people often report experiencing discrimination from those same groups (Nadal et al., 2011; Parker et al., 2015). Discrimination from family members appears particularly harmful to one's mental health as these experiences have been linked to depressive symptoms, even after adjusting for general discrimination (Franco et al., 2021; Salahuddin & O'Brien, 2011). Double rejection may also function to reduce Multiracial people's sense of social support, an important protective factor against depression symptoms (Alsubaie et al., 2019), as well as functioning to amplify discrimination's effects on depression (Ajrouch et al., 2010; Chou, 2012; Trujillo et al., 2017). At the same time, there is some evidence to suggest that Multiracial people often feel their

multiple racial identities help them more easily navigate social boundaries (Miville et al., 2005; Shih & Sanchez, 2005). Although they comprise a growing portion of the U.S. population (Parker et al., 2015), Multiracial adults are underrepresented in science and extant research with this population is mixed (Shih & Sanchez, 2005). Greater attention to this racial group's experiences with social support and discrimination may help identify important targets for future inquiries and interventions related to depression.

The purpose of this study was to address gaps in the literature regarding differences in depression across Monoracial and Multiracial groups and explore unique mental health links for the Multiracial population. Comparative and within-group analyses were used to provide important context while adding nuance to the understanding of depression in Multiracial people. This study explored putative differences in discrimination, social support (overall, peer, and family), and depressive symptoms, across MW, MPOC, and Multiracial groups. In particular, this study can provide needed clarity on whether Multiracial adults, on average, experience higher depressive symptoms than their Monoracial counterparts. Additionally, comparisons of discrimination, social support, and depression across racial groups facilitate the continued exploration of the validity of the double rejection theory. Understanding if double rejection is associated with depressive symptoms for Multiracial adults could inform needed clinical intervention. Regardless of comparisons, this study also expands on insight into factors that contribute to depression for Multiracial people, especially whether social support serves as a buffer for the proposed discrimination and depression association.

Racial Group Comparisons in Discrimination, Social Support and Depressive Symptoms

Discrimination Differences

One part of the first hypothesis was that MPOC and Multiracial people would have higher discrimination scores than the MW group. After adjusting for the significant covariates of age and gender, this hypothesis was not supported. Racial groups did not significantly differ in the average amount of discrimination reported. The absence of a difference in the frequency of discriminatory experiences between the MPOC and Multiracial group is aligned with previous research (Nadal et al., 2011; Sue & Sue, 2015). Though, some research suggests that the quality of discrimination may differ between U.S. based Multiracial and MPOC adults, and these variations may have important implications for the mental health of Multiracial individuals. For instance, Meyers et al. (2019) found that Multiracial participants and MPOC participants did not differ in reported microaggressions when a general microaggression measure was used, but Multiracial people reported higher rates of microaggressions when measured with a new survey that included discriminatory experiences unique to Multiracial individuals, such as identity invalidation and exotification. Exploratory analyses from the current study support the idea that Multiracial adults' experiences of discrimination may be qualitatively different than their MPOC peers, even if the frequency of these experiences is similar. Specifically, while both racial groups selected "Race" and "Gender" as two of the most prominent attributions for discriminatory experiences, only the Multiracial group reported "Appearance" as one of the top three most prominent reasons they experienced discrimination. One common type of monoracism is exotification and objectification, in which a Multiracial person is dehumanized or treated like an object due to how their racial phenotype leads others to regularly question and idealize their features (Johnston & Nadal, 2010; Nadal et al., 2011). For example, a participant in a qualitative study stated:

> I could go out one day and I would be Dominican…Then if I [went] to Harlem, I'm a light-skinned Black girl…it's [like that] all the time… I get, "Well, what are you exactly?" I mean, "You're just, you are so fair" and "Your features are hard to [classify]. (Miville et al., 2005, p. 510)

This quote exemplifies how connected appearance and monoracism are for Multiracial people. Another Multiracial person summarized the difficulty and complexity of appearance for this group succinctly, stating: "I think mixed people who look mixed suffer that way the most, that the system makes you have to be one or the other" (Johnston-Guerrero et al., 2020, p. 28). Future research could explore how phenotypical differences impact Multiracial people's experiences with discrimination and whether potential qualitative differences have unique implications for health and well-being. For instance, researchers could examine if appearance-based discrimination is more likely than other types of discrimination to lead to body image and disordered eating difficulties for Multiracial people.

Importantly, the lack of meaningful differences in everyday experiences with discrimination between the MW and other racial groups is not in line with previous research conducted in the U.S. (Potter et al., 2018). There are several potential explanations for these unexpected findings. One reason could be that White participants in this sample are reporting more discrimination than previous research would suggest because of notable societal changes occurring during this study's data collection period. Data for the current study were collected between June 2021 and December 2021, a time in the U.S. that was marked by incredible social unrest. Racial division and sociopolitical polarization were particularly prominent due to the recent publicized killings of George Floyd and other Black people (Starks, 2022), as well as the COVID-19 pandemic (Ares et al., 2021; Druckman et al., 2021; Hart et al., 2020). It is certainly

possible that these social changes have significantly impacted how different racial groups perceive and experience discrimination. For example, some attribute the increase in U.S. political polarization and far right movements in recent years to the increase in White people's beliefs that they face discrimination in a society that is shifting to favor POC (Earle & Hodson, 2020). Relative deprivation theory (Starks, 2022) and other theories focused on social dominance (Marshburn et al., 2022) suggest that White people may be more likely to report discrimination under these circumstances due to a zero sum belief with regard to discrimination, whereby the *decrease* in discrimination of one group—as was fought for so impactfully in this time period by amplifications of social movements like the Black Lives Matter campaign—means that discrimination must *increase* for another group (Norton & Sommers, 2011). Indeed, White people are more likely to perceive discrimination as a zero-sum game than Black people (Norton & Sommers, 2011) and to perceive anti-White bias to be increasing (Peacock & Biernat, 2023). Though the perception of increasing anti-White bias is likely distressing for some White people, it is important to note that this perception is inaccurate (Earle & Hodson, 2020). So, while subjective experiences for this group should be attended to, the impact of the objective experiences of those facing systemic and interpersonal racism are likely more harmful to their overall health and should be a continued public health and clinical concern. (T. H. Brown, 2018; Ong, Comandom, et al., 2020; Ong, Wong, et al., 2020).

Intersectionality complexities related to age and race may offer another explanation for the lack of significant findings in discrimination differences by racial group. In adjusted analyses, age was a significant covariate, with younger people reporting more discrimination, on average, than older people. The directionality of this association was the same across all racial groups. Additional exploratory analyses in this study revealed that when age was removed as a

covariate, the differences in discrimination were as expected—the MW participants reported significantly less discrimination, on average, than the MPOC and Multiracial groups. Simultaneously, the MW group was significantly older on average, by over 20 years, than the other two groups. Considered in conjunction, these findings suggest that age has an equalizing effect. That is, when adjusting for participants' age on cross racial examinations of reported discrimination, group level experiences in discrimination are not meaningfully different. However, this clearly masks age related variations in experiences with discrimination, such that younger White people reported more discrimination experiences and older White people reported less.

There may be several reasons why general discrimination reports may be higher in younger people compared to older. One reason could be because of actual differences in amount of discrimination experiences. Socioemotional selectivity theory posits that as people age, their social groups become smaller and more pruned to avoid interactions with strangers and others who might be more likely to commit acts of discrimination (Carden et al., 2022; Carstensen et al., 2003). In other words, aging can insulate and protect people from being exposed to experiences that would put them at risk for experiencing discrimination. One study (Kessler et al., 1999) also found that young people are more likely to experience certain types of discrimination, such as being hassled by the police. Another reason for higher discrimination reports in younger people could be because younger cohorts are simply more likely to recognize interpersonal interactions as discriminatory than older cohorts (Carden et al., 2022; Kessler et al., 1999), regardless of actual differences in discrimination. These age-related differences in perception may be due to increased cultural education and awareness, though there does not appear to be research examining this specifically. These findings highlight the need to consider

lifespan perspectives and a developmental approach when examining discrimination. Age appears to be an important factor in discriminatory experiences, and a better understanding of why younger people are reporting more discrimination could aid in improving efforts to reduce these experiences and improve the health and well-being of those reporting discrimination.

Social Support Differences

No a priori hypotheses were presented regarding differences in social support across racial groups due to the dearth of literature, but exploratory analyses revealed significant differences. MW participants had higher overall social support, peer support and family support than MPOC and MW participants. MPOC and Multiracial participants did not differ significantly in any areas of social support. Several older studies have indicated that White people may experience more social support than other racial groups in the U.S. (Eggebeen & Hogan, 1990; Marsden, 1987; Roschelle, 1997). A more recent study also found that White people had the largest support networks compared to other racial groups (Schafer & Vargas, 2016). The authors suggest this difference may be more so related to differences in social capital than lack of supportive networks overall. Whereby, systemic inequality enforces a *maintenance gap* in which those in lower status groups must seek out disposable ties—need-based, short-lived relationships—and may have less time and access to maintain resourceful ties in their social network. MW people having higher social support, then, may be another consequence of systemic racism.

Lower social support, especially family support, for the Multiracial group compared to the MPOC group was expected because of the discussed double rejection phenomenon. From this perspective, it was anticipated that more rejection experiences from family might be reflected in lower perceived social support scores; yet, Multiracial people did not show

significantly lower social support than MPOC. However, the lack of difference between MPOC and Multiracial groups in social support is aligned with research which shows some Multiracial people qualitatively report an increased ability to "fit in" due to their multiple racial identities increasing their ability to navigate social borders (Miville et al., 2005; Shih & Sanchez, 2005). Given the group's historical difficulties with belonging, it is encouraging to see a relative lack of difference in social support across MPOC and Multiracial groups. Perhaps the absence of lower social support for Multiracial relative to MPOC people is related to Salahuddin and O'Brien's (2011) finding that appreciation of human differences was a notable resilience factor for Multiracial people, and this common trait was significantly correlated with social connectedness. Researchers could further explore how factors like appreciation of human differences could contribute to increased social support for Multiracial people.

Depression Differences and Links with Discrimination

A key aim of this study was to explore if Multiracial people experience higher depressive symptoms than their Monoracial counterparts, however no *a priori* hypotheses were presented due to the mixed nature of the extant literature. This study did find significant differences in depressive symptoms by racial group. Specifically, Multiracial adults had significantly higher depressive symptom scores than MPOC participants, but neither of these groups differed from their MW counterparts. The meaningful differences between the Multiracial and MPOC adults is aligned with some previous studies (Cheng & Lively, 2009; Shih & Sanchez, 2005; Subica, 2011) and not others (Oshin, 2017). Much of research on this topic is conducted with limited samples of Multiracial people. This is the first study to include such a large and diverse Multiracial group and compare depression symptoms between MW and MPOC groups, instead of just between Multiracial and Monoracial groups, which may alter or disguise important

differences. Notably, the Multiracial group had a mean score of 21.27, which is considered in the moderate range, while MW and MPOC groups mean scores of 19.2 and 18.05, respectively, were in the Mild range (Beck et al., 1996), suggesting an overall clinical difference between the Multiracial and Monoracial groups that mental health providers should be mindful of assessing for when seeing Multiracial clients.

The predominate theory regarding why Multiracial people have higher depression scores than MPOC is due to a lower sense of belonging—a broader concept that is closely related to, but different from, social support. A reduced sense of belonging can stem from several intersecting experiences, including discrimination, identity development issues, and double rejection, which representing some of the most prominent themes in extant literature (Shih & Sanchez, 2005). Consistent with hypotheses and extant research (Pascoe & Richman, 2009; Schmitt et al., 2014), more reported experiences of everyday discrimination were associated with higher depressive symptoms within the Multiracial sample, and this effect was small to moderate. This finding is aligned with many past studies among groups with a variety of different social identities that are discriminated against (Pascoe & Richman, 2009; Schmitt et al., 2014). This finding further affirms that Multiracial adults specifically, along with many other groups, experience this association of discrimination and depression. Regardless of racial group comparisons, discrimination is harmful to the mental health of Multiracial people, and it should be attended to as an important point of intervention.

Multiracial people's experience with depression may also be influenced by their racial identity, and others' reactions to it. Multiracial people, for example, may be at particular risk for developing an unstable racial identity, referring to the tendency to shift identity based on context (Gaither, 2015; Root, 1996). Though the research is mixed and dependent on cognitive strategies

and social contexts, having an unstable racial identity could be more likely to lead to depressive symptoms; theories suggest an unstable racial identity could reflect a lack of integration of self as well as greater internalization of societal pressures (Coleman-Cowger & Carter, 2007). Importantly, regardless of how a Multiracial person identifies privately, feeling forced to choose one monoracial identity—a form of identity invalidation—seems to consistently be associated with depression for Multiracial adults (Johnston & Nadal, 2010; Nadal et al., 2011; Sanchez, 2010). Future research could explore if lack of belonging mediates the association between identity invalidation and depressive symptoms.

A third proposed contributor to Multiracial adults' experiences of higher depressive symptoms, on average, was double rejection. As described above, Multiracial adults did not differ in their sense of family social support relative to their MPOC peers, nor did they differ in their experiences with discrimination. This pattern of findings does not align with the double rejection hypothesis. This lack of alignment may be explained, in part, by construct validity considerations. Specifically, social rejection, especially from family or peers, as a form of monoracism was not explicitly captured with the current study's measure of general social support. Family rejection as it relates to Multiracial identity and experiences might be better captured by a multifaceted measure of discrimination. Salahuddin and O'Brien (2011) found that discrimination from family members loaded onto a unique factor separate from general discrimination experiences: "Lack of Family Acceptance". For example, the item from this subscale, "A member of my family treated me like an outsider because I am multiracial", is likely a better fit for evaluating painful, double rejection-related family experiences than items on the family support scale, such as "I get the emotional help and support I need from my family". Indeed, previous research shows monoracism and discrimination from family to be

particularly painful for Multiracial adults (Franco et al., 2021; Johnston & Nadal, 2010; Meyers et al., 2019; Nadal et al., 2013; Salahuddin & O'Brien, 2011), and therefore, more likely than a measure of social support or general discrimination to vary across racial groups in a pattern similar to the variance in depressive symptoms. To better understand depression in Multiracial adults, and especially to further examine the double rejection hypothesis, future research would benefit from using measures designed specifically to assess for family and peer rejection based on racial identity, such as Salahuddin & O'Brien's (2011) "Lack of Family Acceptance" subscale. Further investigations could also explore how different types of discrimination, such as monoracist experiences based on appearance, and different sources of discrimination, such as family members, differentially impact depression for Multiracial adults. Notably, the effect size of racial group differences in depression, as well as social support, were considered very small (i.e., change in $R^2 < 0.02$; Cohen, 1988), highlighting the importance of understanding each group's unique mental health experiences regardless of racial group differences.

Social Support as Moderator

The final hypotheses, proposing that social support from family and friends would moderate the positive association between discrimination and depressive symptoms in Multiracial participants, were not supported. The lack of significant findings is not aligned with past research (Ajrouch et al., 2010; Chou, 2012, Trujillo et al., 2017). However, and importantly, all types of social support were independently and negatively associated with depressive symptoms for Multiracial adults. Though no studies have examined this quantitatively with Multiracial adults, qualitative studies would suggest Multiracial adults seek out social support as a key coping mechanism when experiencing discrimination (Jackson et al., 2013; Museus et al., 2015). One reason social support may not have acted as a moderator of the association between

discrimination and depression could be related to being underpowered to detect an effect. No past studies have examined social support as a moderator among Multiracial people, which complicates the process of assessing what an expected effect size might be. Post hoc power analysis indicated that the study was powered to detect a small to medium effect size. It is possible social support functions as a moderator for Multiracial individuals, but it is a smaller effect than the sample size was powered to detect.

It is also possible that social support simply does not function as a moderator for this group. Due to the limited amount of research with Multiracial adults on this specific topic, it is difficult to make assertations about why social support may function differently than it does for other racial groups. The impact of social support does appear to be particularly complex for Multiracial people, especially when examining the literature regarding double rejection (Franco & O'Brien, 2018) paired with some studies showing increased social belonging (Miville et al., 2005; Shih & Sanchez, 2005). Affirming group belonging is an evidenced based intervention for coping with discrimination (Allwood et al., 2022), but given the seemingly complicated nature of social support for Multiracial people, it is possible that seeking group membership affirmation could help or hurt an individual's depression depending on their unique context (for example, how is seeking group belonging from a Monoracial family member complicated if an individual's family is supportive, or not, of their Multiracial identity?); and this important nuance is not captured in the general social support measures used in this study. Ultimately, it appears social support for Multiracial people is an important psychosocial construct to attend to but more within-group exploration is needed to better understand such complexities.

Strengths and Limitations

There are several strengths and limitations for this study. Multiracial people are still an understudied and underserved group, and this research adds much needed data to understanding shared Multiracial experiences. Furthermore, many studies with Multiracial people have a limited sample, such as collapsing groups into the Monoracial/Multiracial binary, or examining only one subset of the Multiracial group, most commonly Black and White Biracial people. This study explores differences in the Monoracial group, both POC and White, as well as working with a Multiracial sample that comprised over 15 unique Multiracial identities. The full sample was also diverse across many sociological categories, including race, income, age, and location. The diversity of the sample also includes higher proportions of understudied identities than is common in psychological research, such as large numbers of individuals with minoritized sexual and gender identities.

However, the overrepresentation in the sample of individuals with minoritized sexual and gender identities could be considered a limitation when it comes to overall generalizability, as the sample does not reflect the average U.S. population. Additionally, the survey was not provided in Spanish, which further limits the generalizability of the findings. For instance, discrimination based on language usage and proficiency in the U.S. is common (Cobas & Feagin, 2008; Nelson et al., 2016), and it is possible the discriminatory experiences for Latino/a/x and Hispanic participants would be higher if those who spoke predominantly Spanish had been able to complete the current study. Another notable limitation is the validity of the measures used in the study. Although all the measures were validated for use with a variety of racial groups, none were developed and validated for use with a specific Multiracial sample. Therefore, they may not capture the nuances of Multiracial experiences, especially subtle forms of monoracism that could be missed by traditional measures of social support and discrimination. A general measure of

discrimination was used to aid in cross-racial group comparisons, but this measure only shows frequency of discrimination and does not allow for examination of important differences in discriminatory experiences for each group. Likewise, this measure does not capture intersectional experiences with discrimination, such as those experienced by someone who is both Multiracial and transgender. Measures specific to gender, sexuality and racial discrimination, as well as measures identifying sources of discrimination, would aid in understanding the unique experiences of each group. Additionally, although the sample is racially diverse overall, the MPOC group is missing some racial groups, further limiting generalizability of the results. Monoracial Asian and American Indian adults, for example, were not included due to limits in funding needed to recruit these populations. Finally, the data are cross-sectional, therefore conclusions about causation and directionality cannot be determined.

Furthermore, it is important to discuss the incredible heterogeneity of the Multiracial group. Due to limited sample size and the scope of this analyses, this study did not examine differences by unique Multiracial groups. Yet, emerging data indicate that different combinations of racial heritage lead to both shared and unique psychological experiences (Gaither, 2015; Parker et al., 2015; Shih & Sanchez, 2005, 2009). For example, groups who are White and POC likely face different discriminatory experiences than those who hold multiple racially minoritized identities (Gaither, 2015). Furthermore, differences in phenotypic appearance likely impacts the variables of interest, such that being perceived as racially ambiguous has been shown to correlate both with how an individual is socialized and how they racially identify (Gonzales-Backen & Umaña-Taylor, 2011; Tran et al., 2015). Deeper understanding of Multiracial mental health would be aided by collecting a larger sample size to enable more in-depth within-group analyses across the Multiracial subgroups, highlighting important nuances in different groups experiences.

However, while this group is very heterogeneous, feeling a sense of shared experiences and belonging are important for mental health, and Multiracial people are often denied these experiences (Gaither, 2015; Shih & Sanchez, 2005). Therefore, there may be validation from the existence of this study, in and of itself, because it could allow Multiracial people to read about a perspective that considers the mutuality of their own group.

Summary and Potential Clinical Implications

To summarize, Multiracial adults had significantly higher depressive symptoms than their MPOC counterparts and lower peer, family, and overall social support than their MW counterparts. Importantly, the Multiracial group's mean depression score was in the "moderate" depressive symptoms range, which is a relatively high average for non-clinical sample. Although the causes of theses disparities are unclear, and more nuanced measures of family rejection and identity development are needed, results from the current study highlight the potential harmful roles of discrimination and social support. Indeed, discrimination was moderately and positively associated with depressive symptoms for this group, while overall, family, and peer support were weakly and negatively associated with depressive symptoms. Better understanding of the mechanisms that cause this higher risk should be prioritized in future research, which may consider focusing on discrimination, given the relatively higher effect size for this association. For instance, do higher depressive symptoms cause Multiracial people to isolate and perceive lower social support, or does social support itself cause higher depressive symptoms? Are double rejection and other types of monoracist experiences significant causes of depression for this group, and how much can they account for the increased risk? How do factors like Multiracial identity development interact with sense of belonging and social support to encourage well-being? Longitudinal studies and randomized controlled trials should examine the casual

mechanisms of how social support and discrimination are associated with depression for this group. Ultimately, discrimination and social support accounted for 17% of the variance in depressive symptoms, suggesting additional factors (perhaps identity development) should also be explored as factors associated with depression for this group.

While there is limited research regarding clinical interventions for the treatment of depression among Multiracial people, several themes from the existing literature emerge, including the idea that attending to identity development and related concerns is critical for this group, as well as coping with discrimination and bolstering family support (Cooper, 1999; Ecklund & Brad Johnson, 2007; Franco & McElroy-Heltzel, 2019; Gibbs, 1987; Gibbs & Moskowitz-Sweet, 1991). In particular, Franco and McElroy-Hetzel (2018) found that Multiracial people had lower depressive symptoms if their parents had adopted cultural humility (e.g., openness and respect toward varied racial experiences) as a racial socialization strategy, and the association was partially explained by experiencing less challenges to Multiracial identity. The cultural humility strategy was especially helpful for those experiencing the most challenges to their racial identity. The authors state that if their results are replicated, clinicians can recommend that caregivers of Multiracial children and young adults adopt a stance of cultural humility to aid in their children's identity development and their mental health. Additionally, another study found preliminary evidence that internal family systems treatment is an effective way to foster healthy Multiracial identity development in adults (Cooper, 1999). Several researchers have highlighted that clinicians should focus on thorough cultural assessments of each Multiracial client's own identity experiences and family support (Ecklund & Brad Johnson, 2007; Gibbs, 1987; Gibbs & Moskowitz-Sweet, 1991). Thorough assessment is

especially important given the possibly complicated nature of family interactions for Multiracial people.

The results of the current study are aligned with these recommendations, given that family support is negatively associated with depression and discrimination is positively associated with depression. However, clinicians should attend to the possibility that discrimination could be coming from family members and the ways that may impact intervention strategies. Peer and overall social support were also negatively associated with depression in the current study, and clinical interventions could also explore connecting Multiracial adults to these types of support, especially if family relationships are particularly fraught. Given that discrimination was most strongly associated with depressive symptoms, interventions for coping with these experiences should be highly prioritized. Clinical interventions and future research should consider the importance of belonging for this group, the vitality of which is highlighted by the first statement in the Multiracial Bill of Rights (Root, 1996, p. 7), “I have the right not to justify my existence in this world.”

APPENDICES

Appendix A – Tables

Table 1

Sample Demographics

		Racial Group											
		Full sample (N = 1322)			MW (n = 415; 31.4%)			MPOC (n = 655, 49.5%)			Multiracial (n = 252; 19.1%)		
		%	M	SD(R)	%	M	SD(R)	%	M	SD(R)	%	M	SD(R)
Race	White/ European-American	31.4											
	Latino/a/x or Hispanic	29.3						59.1					
	African American/ Black	20.3						40.9					
	Multiracial	19.1											
Annual Income	<29,999	35.6			23.0			42.2			39.4		
	30,000-59,999	28.9			26.9			31.7			25.1		
	>60,000	35.4			50.1			26.0			35.5		
Education	≤Highschool	29.6			20.0			34.0			33.7		
	College	53.4			49.9			55.7			53.2		
	Graduate School	17.0			30.1			10.2			13.1		
Age**			40.6	20.5(18-82)		56.9	19.9(18-92)		33.0	15.5(18-84)		33.5	17.0(18-84)
Sexuality	Heterosexual	34.0			35.4			31.8			37.7		
	Gay	19.8			32.5			15.6			9.9		
	Lesbian	14.6			11.6			16.9			13.5		
	Bisexual	31.5			20.5			35.7			38.9		
Gender	Cisgender	79.3			81.4			75.6			85.3		
	Male	36.9			55.9			30.2			22.6		
	Female	42.4			25.5			45.3			62.7		
	Gender Diverse†	20.7			18.6			24.4			14.7		

Note. MW = Monoracial White or European-American; MPOC = Monoracial People of Color.

** MW group had significantly higher mean age than both MPOC and Multiracial group ($p < .001$)

†Gender diverse participants include transgender men, transgender women, and nonbinary people.

Table 2

Multiracial Participants Reported Racial Identities

Multiracial Racial Identities	%
White or European-American and Latino/a/x or Hispanic	32.1
White or European-American and African American or Black	15.9
African American or Black and Latino/a/x or Hispanic	9.1
Asian or Asian American and White or European-American	6.3
≥4 racial groups	4.4
Native American-Indigenous and White or European-American and African American or Black	4.0
Native American-Indigenous and White or European-American	3.6
Native American-Indigenous and Latino/a/x or Hispanic	3.2
Native American-Indigenous and White or European-American and Latino/a/x or Hispanic	3.2
White or European-American and African American or Black and Latino/a/x or Hispanic	1.6
Asian or Asian American and Latino/a/x or Hispanic	2.4
African American or Black and Native American-Indigenous	2.0
African American or Black and Asian or Asian American	2.0
Native American-Indigenous and African American or Black and Latino/a/x or Hispanic	1.6
Asian or Asian American and Native Hawaiian or other Pacific Islander	1.2

Table 3

Racial Group Differences in Discrimination

Block	Variable Entered	*B* (*p*)	*SE*	β (*p*)	R^2 (*p*)	ΔR^2 (*p*)
1a					0.26** (<.001)	0.27** (<.001)
	Age	-0.32** (<.001)	0.02	-0.50** (<.001)		
	Cisgender Men	-1.43* (.02)	0.75	-0.05* (.02)		
	Transgender and Nonbinary	3.63** (<.001)	0.85	0.11** (<.001)		
	Cisgender Women	--	--	--		
2b					0.26 (.54)	0.001 (.54)
	MW (Multiracial comparison group)	-1.28 (.37)	1.03	-0.05 (.37)		
	MPOC (Multiracial comparison group)	-1.26 (.29)	0.86	-0.05 (.29)		
2b					0.26 (.54)	0.01 (.54)
	Multiracial (MW comparison group)	1.28 (.37)	1.03	0.04 (.37)		
	MPOC (MW comparison group)	0.02 (.98)	0.85	0.00 (.98)		

Note. Table Blocks 2a-2b reflect results from two separate regression models with the same covariates.
Block 1 data reflect statistical values before Block 2 variables were entered.
MW =Monoracial White or European American; MPOC =Monoracial People of Color.
*$p < .05$; **$p < .001$

Table 4

Discrimination Attribution Ranking by Racial Group

		Racial Group		
		MW (%)	MPOC (%)	Multiracial (%)
Attribution	Ranking			
Race				
	1	15.9	46.6	35.7
	2	5.1	11.9	12.3
	3	4.8	5.2	5.2
Gender				
	1	9.4	9.0	13.9
	2	15.9	21.8	24.6
	3	4.3	7.8	7.9
Sexual Orientation				
	1	17.1	12.4	8.7
	2	11.3	16.2	9.5
	3	6.3	11.8	14.7
Age				
	1	21.7	6.3	7.1
	2	14.2	7.0	10.7
	3	4.8	7.9	8.7
Income				
	1	2.4	1.8	5.2
	2	3.9	5.0	6.0
	3	6.0	3.5	3.2
Language				
	1	0.5	3.8	1.6
	2	0.7	4.0	0.8
	3	1.4	2.6	0.4
Appearance				
	1	8.4	5.6	11.5
	2	8.4	9.2	10.7
	3	5.5	5.5	7.5
Small Body Size				
	1	2.2	0.9	1.6
	2	4.1	3.5	4.0
	3	2.7	3.5	4.0
Large Body Size				
	1	4.8	3.8	5.6
	2	5.1	4.9	4.8
	3	3.9	4.9	6.3
Physical Disability				
	1	1.9	1.4	1.6
	2	1.0	1.2	2.0
	3	2.7	0.8	0.4

Note. MW= Monoracial White or European American; MPOC = Monoracial People of Color.

Table 5

Racial Group Differences in Overall Social Support

Block	Variable Entered	*B* (*p*)	*SE*	β (*p*)	R^2 (*p*)	ΔR^2 (*p*)
1a					0.04**(<.001)	0.04**(<.001)
	Cisgender Men	0.30* (.002)	0.10	0.10* (.002)		
	Transgender and Nonbinary	-0.11 (.30)	0.11	-0.03 (.30)		
	Cisgender Women	--	--	--		
	Heterosexual	0.55**(<.001)	0.10	0.18**(<.001)		
	Lesbian	0.21 (.10)	0.13	0.05 (.10)		
	Gay	0.17 (.15)	0.12	0.05 (.15)		
	Bisexual	--	--	--		
2a					0.05* (.001)	0.01* (.001)
	MW (Multiracial comparison group)	0.40* (.002)	0.12	0.12* (.002)		
	MPOC (Multiracial comparison group)	0.01 (.89)	0.10	0.01 (.89)		
2b					0.05**(<.001)	0.01**(<.001)
	Multiracial (MW comparison group)	-0.36* (.002)	0.12	-0.10* (.002)		
	MPOC (MW comparison group)	-0.35**(<.001)	0.09	-0.12**(<.001)		

Note. Table Blocks 2a-2b reflect results from two separate regression models with the same covariates.
Block 1 data reflect statistical values before Block 2 variables were entered.
MW =Monoracial White or European American; MPOC = Monoracial People of Color.
*$p < .05$; **$p < .00$

Table 6

Racial Group Differences in Peer Support

Block	Variable Entered	*B* (*p*)	*SE*	β (*p*)	R^2 (*p*)	ΔR^2 (*p*)
1a					0.01*(.002)	0.01*(.002)
	Cisgender Men	0.26*(.02)	0.11	0.08*(.02)		
	Transgender and Nonbinary	0.04 (.72)	0.12	0.01 (.72)		
	Cisgender Women	--	--	--		
	Heterosexual	0.32*(.004)	0.12	0.10*(.004)		
	Lesbian	0.13 (.35)	0.14	0.03 (.35)		
	Gay	0.21 (.13)	0.14	0.05 (.13)		
	Bisexual	--	--	--		
2a					0.02*(.005)	0.01*(.005)
	MW (Multiracial comparison group)	0.31* (.02)	0.13	0.09* (.02)		
	MPOC (Multiracial comparison group)	-0.02 (.90)	0.12	-0.01 (.90)		
2b					0.02*(.005)	0.01*(.005)
	Multiracial (MW comparison group)	-0.36*(.02)	0.12	-0.10*(.02)		
	MPOC (MW comparison group)	-0.33*(.002)	0.10	-0.10*(.002)		

Note. Table Blocks 2a-2b reflect results from two separate regression models with the same covariates.
Block 1 data reflect statistical values before Block 2 variables were entered.
MW =Monoracial White or European American; MPOC = Monoracial People of Color.
*$p < .05$; **$p < .001$

Table 7

Racial Group Differences in Family Support

Block	Variable Entered	*b* (*p*)	*SE*	β (*p*)	R^2 (*p*)	ΔR^2 (*p*)
1a					0.07**(<.001)	0.07**(<.001)
	Cisgender Men	0.47**(<.001)	0.12	0.13**(<.001)		
	Transgender and Nonbinary	-0.16 (.21)	0.13	-0.04 (.21)		
	Cisgender Women	--	--	--		
	Heterosexual	0.84**(<.001)	0.12	0.23**(<.001)		
	Lesbian	0.18 (.22)	0.15	0.04 (.22)		
	Gay	-0.003 (.98)	0.14	-0.001 (.98)		
	Bisexual	--	--	--		
2a					0.08**(<.001)	0.01**(<.001)
	MW (Multiracial comparison group)	0.50**(<.001)	0.14	0.14**(<.001)		
	MPOC (Multiracial comparison group)	0.24 (.054)	0.13	0.07 (.054)		
2b					0.08**(<.001)	0.01**(<.001)
	Multiracial (MW comparison group)	-0.50**(<.001)	0.14	-0.11**(<.001)		
	MPOC (MW comparison group)	-0.26* (.02)	0.11	-0.08* (.02)		

Note. Table Blocks 2a-2b reflect results from two separate regression models with the same covariates.
Block 1 data reflect statistical values before Block 2 variables were entered.
MW = Monoracial White or European American; MPOC = Monoracial People of Color.
*$p < .05$; **$p < .001$

Table 8

Racial Group Differences in Depressive Symptoms

Block	Variable Entered	*B* (*p*)	*SE*	B (*p*)	R^2 (*p*)	ΔR^2(*p*)
1a					0.29** (<.001)	0.20** (<.001)
	Age	-0.29** (<.001)	0.02	-0.39** (<.001)		
	Low Income (≤29,000 annual income)	2.27* (.01)	0.89	0.07* (.01)		
	Middle Income (29,001-59,999 annual income)	--	--	--		
	High Income (≥60,000 annual income)	1.62 (.07)	0.90	0.05 (.07)		
	Cisgender Men	-2.66* (.006)	0.96	-0.09* (.006)		
	Transgender and Nonbinary	1.35 (.17)	0.98	0.04 (.17)		
	Cisgender Women	--	--	--		
	Heterosexual	-6.46** (<.001)	0.95	-0.20** (<.001)		
	Lesbian	-2.25 (.06)	1.18	-0.05 (.06)		
	Gay	-2.12 (.06)	1.13	-0.06 (.06)		
	Bisexual	--	--	--		
2a					0.29* (.004)	0.01* (.004)
	MW (Multiracial comparison group)	-2.07 (.08)	1.17	-0.06 (.08)		
	MPOC (Multiracial comparison group)	-3.22** (<.001)	0.97	-0.11** (<.001)		
2b					0.29* (.004)	0.01* (.004)
	Multiracial (MW comparison group)	2.07 (.08)	1.17	0.05 (.08)		
	MPOC (MW comparison group)	-1.15 (.23)	0.97	-0.04 (.23)		

Note. Blocks 2a-2b reflect results from two separate regression models with the same covariates.
Block 1 data reflect statistical values before Block 2 variables were entered.
MW= Monoracial White or European-American; MPOC = Monoracial People of Color.
*$p < .05$; **$p < .001$

Table 9

Associations with Depressive Symptoms for Discrimination and Social Support in Multiracial Adults

Block	Variable Entered	*b* (*p*)	*SE*	β (*p*)	R^2 (*p*)	ΔR^2 (*p*)
1a					0.20**(<.001)	0.20**(<.001)
	Age	-0.42**(<.001)	0.05	-0.45**(<.001)		
2a					0.32**(<.001)	0.11**(<.001)
	Discrimination	0.55**(<.001)	0.09	0.37 (<.001)		
Block	Variable Entered	*b* (*p*)	*SE*	β (*p*)	R^2 (*p*)	ΔR^2 (*p*)
1b					0.20**(<.001)	0.20**(<.001)
	Age	-0.42** (<.001)	0.05	-0.45**(<.001)		
2b					0.36**(<.001)	0.17**(<.001)
	Discrimination	0.47**(<.001)	0.09	0.32**(<.001)		
	Overall Social Support	-2.32**(<.001)	0.53	-0.23**(<.001)		
3b					0.36 (.96)	.000 (.96)
	Discrimination x Overall Social Support	-0.003 (.96)	0.05	-0.003 (.96)		
Block	Variable Entered	*b*	*SE*	β	R^2	ΔR^2
1c					0.20**(<.001)	0.20**(<.001)
	Age	-0.42**(<.001)	0.05	-0.45**(<.001)		
2c					0.37**(<.001)	0.17**(<.001)
	Discrimination	0.48**(<.001)	0.09	0.32**(<.001)		
	Peer Support	-1.18* (.01)	0.48	-0.14* (.01)		
	Family Support	-1.06* (.02)	0.45	-0.14* (.02)		
3c					0.35 (.68)	0.002 (.68)
	Discrimination x Peer Support	-0.04 (.44)	0.05	-0.05 (.44)		
	Discrimination x Family Support	0.04 (.45)	0.05	-0.05 (.45)		

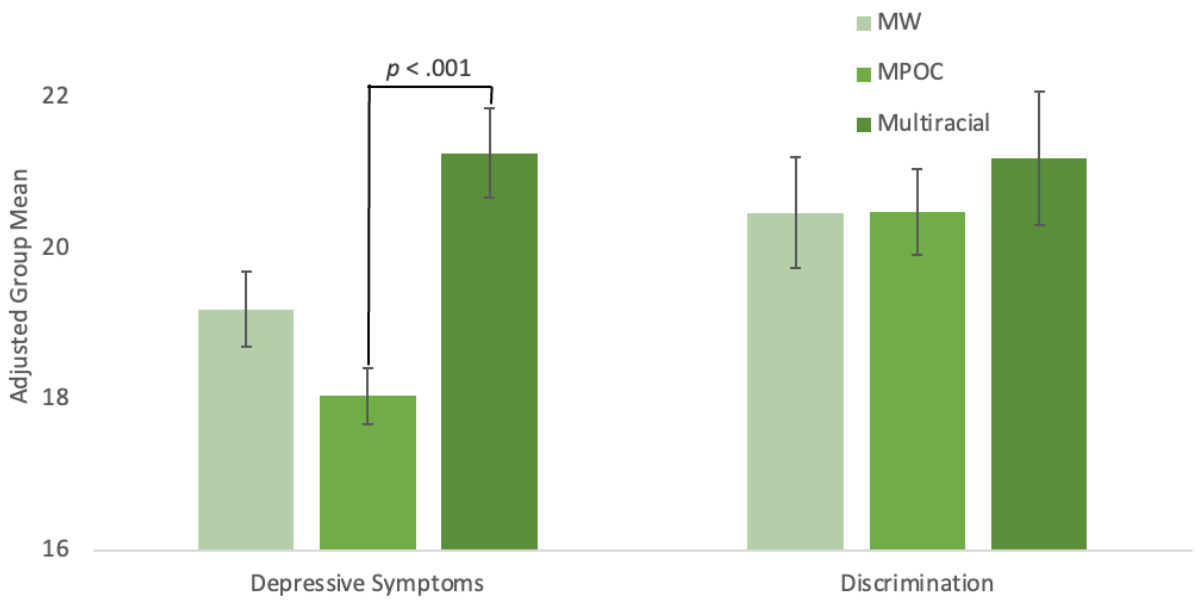
4c					0.35 (.92)	0.000 (.92)
	Discrimination x Family Support x Peer Support	0.003 (.92)	0.03	0.02 (.92)		

Note. Table Blocks 1a-3a and Blocks 1b-4b reflect results from two separate regression models.
Block 1 data reflect statistical values before Block 2 variables were entered; Block 2 data reflect statistical values before Block 3 values were entered.
*$p < .05$; **$p < .001$

Appendix B – Figures

Figure 1

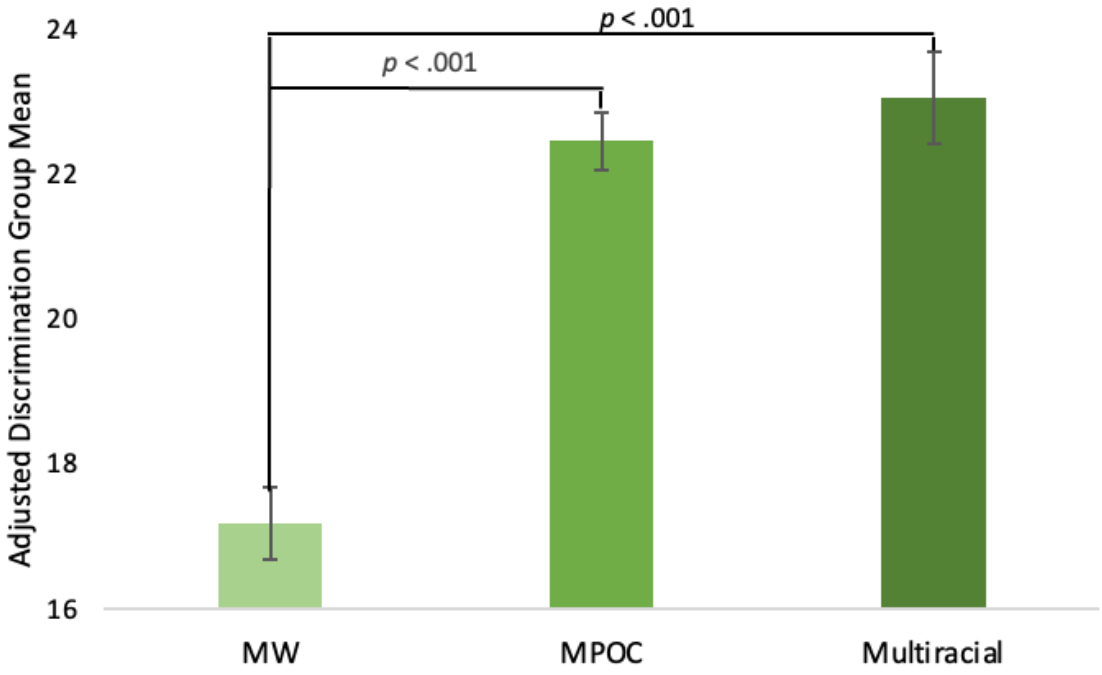
Adjusted Mean Differences in Depressive Symptoms and Discrimination by Racial Group



Note. MW =Monoracial White or European American; MPOC = Monoracial People of Color.

Figure 2

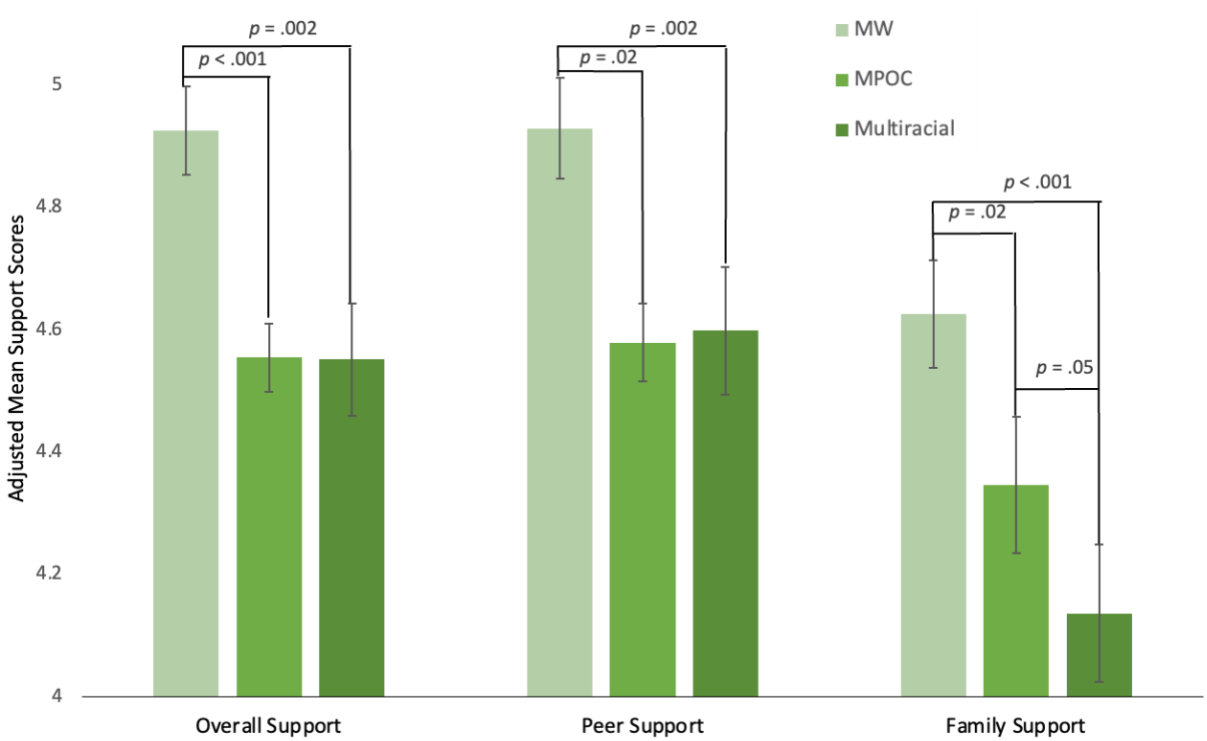
Gender Adjusted Mean Differences in Discrimination without Age Covariate



Note. MW =Monoracial White or European American; MPOC = Monoracial People of Color.

Figure 3

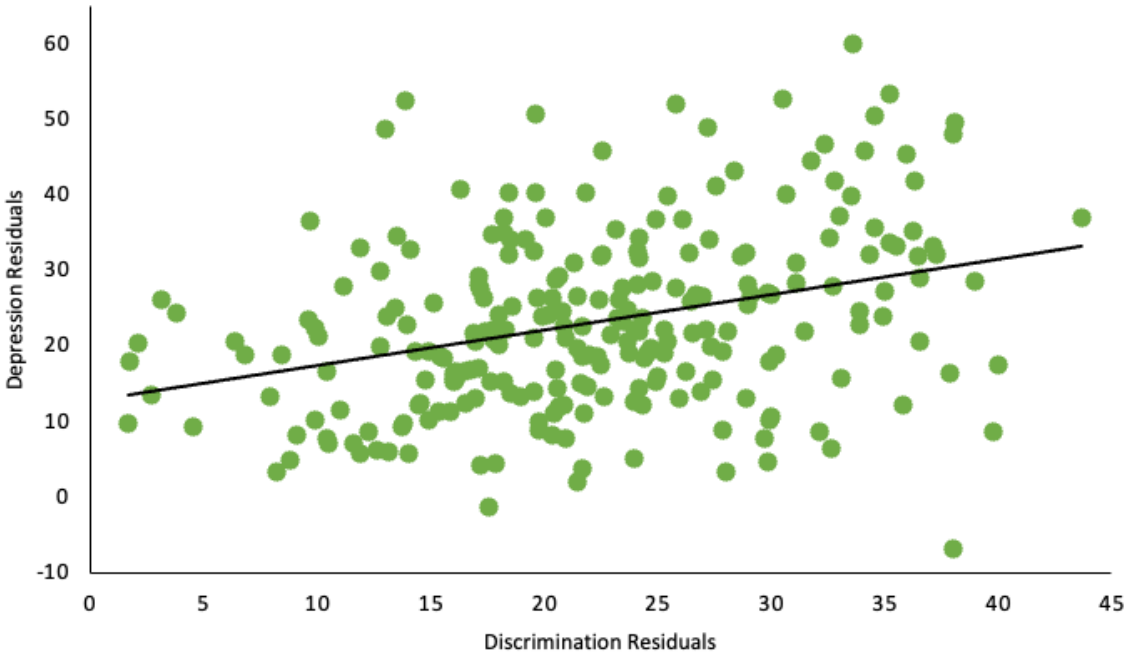
Adjusted Mean Differences in Types of Social Support by Racial Group



Note. MW = Monoracial White or European American; MPOC =Monoracial People of Color

Figure 4

Adjusted Association between Discrimination and Depressive Symptoms among Multiracial Participants



Note: Plot residuals account for all significant variables in regression (i.e. Age and Overall Social Support)

References

American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). https://doi.org/10.1176/appi.books.9780890425596

American Psychological Association. (2020). *Publication manual of the American Psychological Association 2020: the official guide to APA style* (7th ed.). American Psychological Association.

Ajrouch, K. J., Reisine, S., Lim, S., Sohn, W., & Ismail, A. (2010). Perceived everyday discrimination and psychological distress: Does social support matter? *Ethnicity & Health*, *15*(4), 417–434. https://doi.org/10.1080/13557858.2010.484050

Allwood, M., Ghafoori, B., Salgado, C., Slobodin, O., Kreither, J., Waelde, L. C., Larrondo, P., & Ramos, N. (2022). Identity-based hate and violence as trauma: Current research, clinical implications, and advocacy in a globally connected world. *Journal of Traumatic Stress*, *35*(2), 349–361. https://doi.org/10.1002/jts.22748

Alsubaie, M. M., Stain, H. J., Webster, L. A. D., & Wadman, R. (2019). The role of sources of social support on depression and quality of life for university students. *International Journal of Adolescence and Youth*, *24*(4), 484–496. https://doi.org/10.1080/02673843.2019.1568887

Aragones, A., Hayes, S. L., Chen, M. H., González, J., & Gany, F. M. (2014). Characterization of the Hispanic or Latino Population in Health Research: A Systematic Review. *Journal of Immigrant and Minority Health*, *16*(3), 429–439. https://doi.org/10.1007/s10903-013-9773-0

Ares, M., Bürgisser, R., & Häusermann, S. (2021). Attitudinal polarization towards the redistributive role of the state in the wake of the COVID-19 crisis. *Journal of Elections, Public Opinion and Parties*, *31*(sup1), 41–55. https://doi.org/10.1080/17457289.2021.1924736

Ayhan, C. H. B., Bilgin, H., Uluman, O. T., Sukut, O., Yilmaz, S., & Buzlu, S. (2020). A systematic review of the discrimination against sexual and gender minority in health care settings. *International Journal of Health Services*, *50*(1), 44–61. https://doi.org/10.1177/0020731419885093

Barroso, A. (2020). *Most black adults say race is central to their identity and feel connected to a broader black community* (Black Americans). Pew Research Center. https://www.pewresearch.org/fact-tank/2020/02/05/most-black-adults-say-race-is-central-to-their-identity-and-feel-connected-to-a-broader-black-community/

Bastos, J. L., & Harnois, C. E. (2020). Does the Everyday Discrimination Scale generate meaningful cross-group estimates? A psychometric evaluation. *Social Science & Medicine*, *265*, 113321. https://doi.org/10.1016/j.socscimed.2020.113321

Baumeister, R. F., & Leary, M. R. (1995). The need to belong: Desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin, 117*(3), 497. https://doi.org/10.1037/0033-2909.117.3.497

Beck, A. T., & Bredemeier, K. (2016). A unified model of depression: Integrating clinical, cognitive, biological, and evolutionary perspectives. *Clinical Psychological Science, 4*(4), 596–619. https://doi.org/10.1177/2167702616628523

Beck, A. T., Steer, R. A., & Brown G K. (1996). *Beck Depression Inventory—Second Edition: Manual*. Psychological Corporation.

Berenbon, R. F. (2020). Using Rasch analysis to investigate the validity of the Everyday Discrimination Scale in a national sample. *Journal of Health Psychology, 25*(13–14), 2388–2395. https://doi.org/10.1177/1359105318800788

Brondolo, E., Brady ver Halen, N., Pencille, M., Beatty, D., & Contrada, R. J. (2009). Coping with racism: A selective review of the literature and a theoretical and methodological critique. *Journal of Behavioral Medicine*, *32*(1), 64–88. https://doi.org/10.1007/s10865-008-9193-0

Brown, H. E., Jones, J. A., & Becker, A. (2018). The Racialization of Latino Immigrants in New Destinations: Criminality, Ascription, and Countermobilization. *RSF: The Russell Sage Foundation Journal of the Social Sciences*, *4*(5), 118–140. https://doi.org/10.7758/RSF.2018.4.5.06

Brown, T. H. (2018). Racial Stratification, Immigration, and Health Inequality: A Life Course-Intersectional Approach. *Social Forces*, *96*(4), 1507–1540. https://doi.org/10.1093/sf/soy013

Buhi, E. (2008). Out of sight, not out of mind: Strategies for handling missing data. *American Journal of Health Behavior*, *32*(1). https://doi.org/10.5993/AJHB.32.1.8

Carden, K. D., McDuffie, D. L., Murry, K., Bui, C., & Allen, R. S. (2022). Minority stress process among older Black Americans: The role of age, perceived discrimination, and anxiety. *Aging & Mental Health*, *26*(4), 852–859. https://doi.org/10.1080/13607863.2021.1904380

Carstensen, L. L., Fung, H. H., & Charles, S. T. (2003). Socioemotional Selectivity Theory and the Regulation of Emotion in the Second Half of Life. *Motivation and Emotion*, *27*(2), 103–123. https://doi.org/10.1023/A:1024569803230

Chang, E., Chang, O., Lee, J., Lucas, A., Li, M., Castro, K., Pham, S., Cho, G., Purmasir, Y., Yu, E., Wu, K., Lui, P. P., Rollock, D., Kwon, P., Chen, X., Hirsch, J., & Jeglic, E. (2018). Going beyond ethnoracial discrimination and social support in accounting for psychological adjustment: Evidence for the importance of hope as a positive psychological construct in multiethnoracial adults. *The Journal of Positive Psychology*, *14*. https://doi.org/10.1080/17439760.2018.1510023

Cheng, S., & Lively, K. J. (2009). Multiracial self-identification and adolescent outcomes: A social psychological approach to the marginal man theory. *Social Forces*, *88*(1), 61–98. https://doi.org/10.1353/sof.0.0243

Choenarom, C., Williams, R. A., & Hagerty, B. M. (2005). The role of sense of belonging and social support on stress and depression in individuals with depression. *Archives of Psychiatric Nursing*, *19*(1), 18–29. https://doi.org/10.1016/j.apnu.2004.11.003

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. https://doi.org/10.1016/j.jad.2011.12.029

Cobas, J. A., & Feagin, J. R. (2008). Language oppression and resistance: The case of middle class latinos in the United States. *Ethnic and Racial Studies*, *31*(2), 390–410. https://doi.org/10.1080/01419870701491945

Cockshaw, W. D., Shochet, I. M., & Obst, P. L. (2013). General belongingness, workplace belongingness, and depressive symptoms. *Journal of Community & Applied Social Psychology*, *23*(3), 240–251. https://doi.org/10.1002/casp.2121

Cockshaw, W. D., Shochet, I. M., & Obst, P. L. (2014). Depression and belongingness in general and workplace contexts: A cross-lagged longitudinal investigation. *Journal of Social and Clinical Psychology*, *33*(5), 448–462. https://doi.org/10.1521/jscp.2014.33.5.448

Cokley, K. (2007). Critical issues in the measurement of ethnic and racial identity: A referendum on the state of the field. *Journal of Counseling Psychology*, *54*(3), 224. https://doi.org/10.1037/0022-0167.54.3.224

Coleman-Cowger, V., & Carter, M. (2007). Biracial Self-Identification: Impact on Trait Anxiety, Social Anxiety, and Depression. *IDENTITY: AN INTERNATIONAL JOURNAL OF THEORY AND RESEARCH*, *7*, 103–114. https://doi.org/10.1080/15283480701326018

Cooper, B. A. (1999). The use of internal family systems therapy to treat issues of biracial identity development [Psy.D., United States International University]. In *ProQuest Dissertations and Theses*. https://www.proquest.com/docview/304540084/abstract/78D8CD6640A8497DPQ/1

Corveleyn, J., Luyten, P., Blatt, S. J., & Lens-Gielis, H. (2005). *The Theory and Treatment of Depression: Towards a Dynamic Interactionism Model*. Taylor & Francis Group. http://ebookcentral.proquest.com/lib/uoregon/detail.action?docID=1433909

Dong, Y., & Peng, C.-Y. J. (2013). Principled missing data methods for researchers. *SpringerPlus*, *2*(1), 222. https://doi.org/10.1186/2193-1801-2-222

Druckman, J. N., Klar, S., Krupnikov, Y., Levendusky, M., & Ryan, J. B. (2021). How Affective Polarization Shapes Americans' Political Beliefs: A Study of Response to the COVID-19 Pandemic. *Journal of Experimental Political Science*, *8*(3), 223–234. https://doi.org/10.1017/XPS.2020.28

Earle, M., & Hodson, G. (2020). Questioning white losses and anti-white discrimination in the United States. *Nature Human Behaviour*, *4*(2), Article 2. https://doi.org/10.1038/s41562-019-0777-1

Ecklund, K., & Brad Johnson, W. (2007). The Impact of a Culture-Sensitive Intake Assessment on the Treatment of a Depressed Biracial Child. *Clinical Case Studies*, *6*(6), 468–482. https://doi.org/10.1177/1534650106296939

Eggebeen, D. J., & Hogan, D. P. (1990). Giving between generations in American families. *Human Nature*, *1*(3), 211–232. https://doi.org/10.1007/BF02733984

Evans, C. R., & Erickson, N. (2019). Intersectionality and depression in adolescence and early adulthood: A MAIHDA analysis of the national longitudinal study of adolescent to adult health, 1995–2008. *Social Science & Medicine*, *220*, 1–11. https://doi.org/10.1016/j.socscimed.2018.10.019

Faul, F., Erdfelder, E., Buchner, A., & Lang, A.-G. (2009). Statistical power analyses using G*Power 3.1: Tests for correlation and regression analyses. *Behavior Research Methods*, *41*(4), 1149–1160. https://doi.org/10.3758/BRM.41.4.1149

Field, A. (2018). *Discovering statistics using IBM SPSS statistics* (5th ed.). Sage Publications, Inc.

Filatova, E. V., Shadrina, M. I., & Slominsky, P. A. (2021). Major depression: One brain, one disease, one set of intertwined processes. *Cells*, *10*(6), 1283. https://doi.org/10.3390/cells10061283

Forman, T. A., Williams, D. R., Jackson, J. S., & Gardner, C. (1997). *Perspectives on Social Problems*. JAI Press.

Fowler, K., Wareham-Fowler, S., & Barnes, C. (2013). Social context and depression severity and duration in Canadian men and women: Exploring the influence of social support and sense of community belongingness. *Journal of Applied Social Psychology*, *43*(S1), E85–E96. https://doi.org/10.1111/jasp.12050

Franco, M., Durkee, M., & McElroy-Heltzel, S. (2021). Discrimination comes in layers: Dimensions of discrimination and mental health for multiracial people. *Cultural Diversity and Ethnic Minority Psychology*. https://doi.org/10.1037/cdp0000441

Franco, M. G., & O'Brien, K. M. (2018). Racial identity invalidation with multiracial individuals: An instrument development study. *Cultural Diversity and Ethnic Minority Psychology*, *24*(1), 112–125. https://doi.org/10.1037/cdp0000170

Franco, M., & McElroy-Heltzel, S. (2019). Let me choose: Primary caregiver cultural humility, racial identity, and mental health for multiracial people. *Journal of Counseling Psychology*, *66*, 269–279. https://doi.org/10.1037/cou0000317

Frost, D. M., Meyer, I. H., & Schwartz, S. (2016). Social support networks among diverse sexual minority populations. *American Journal of Orthopsychiatry*, *86*, 91–102. https://doi.org/10.1037/ort0000117

Fry, C., & Sommers, B. D. (2018). Effect of Medicaid expansion on health insurance coverage and access to care among adults with depression. *Psychiatric Services (Washington, D.C.)*, *69*(11), 1146–1152. https://doi.org/10.1176/appi.ps.201800181

Gaither, S. E. (2015). "Mixed" results: Multiracial research and identity explorations. *Current Directions in Psychological Science*, *24*(2), 114–119. https://doi.org/10.1177/0963721414558115

Gardner, S. K., & Hughey, M. W. (2019). Still the tragic mulatto? Manufacturing multiracialization in magazine media, 1961–2011. *Ethnic and Racial Studies*, *42*(4), 645–665. https://doi.org/10.1080/01419870.2017.1380212

Gibbs, J. T. (1987). IDENTITY AND MARGINALITY: Issues in the Treatment of Biracial Adolescents. *American Journal of Orthopsychiatry*, *57*(2), 265–278. https://doi.org/10.1111/j.1939-0025.1987.tb03537.x

Gibbs, J. T., & Moskowitz-Sweet, G. (1991). Clinical and Cultural Issues in the Treatment of Biracial and Bicultural Adolescents. *Families in Society*, *72*(10), 579–592. https://doi.org/10.1177/104438949107201001

Gonzales-Backen, M. A., & Umaña-Taylor, A. J. (2011). Examining the role of physical appearance in Latino adolescents' ethnic identity. *Journal of Adolescence*, *34*(1), 151–162. https://doi.org/10.1016/j.adolescence.2010.01.002

González, H. M., Tarraf, W., Whitfield, K. E., & Vega, W. A. (2010). The epidemiology of major depression and ethnicity in the United States. *Journal of Psychiatric Research*, *44*(15), 1043–1051. https://doi.org/10.1016/j.jpsychires.2010.03.017

Gonzalez-Sobrino, B., & Goss, D. R. (2019). Exploring the mechanisms of racialization beyond the black–white binary. *Ethnic and Racial Studies, 42*(4), 505–510. https://doi.org/10.1080/01419870.2018.1444781

Hart, P. S., Chinn, S., & Soroka, S. (2020). Politicization and Polarization in COVID-19 News Coverag. *Science Communication*, *42*(5), 679–697.

Herman, M. (2004). Forced to choose: Some determinants of racial identification in multiracial adolescents. *Child Development, 75*(3), 730–748. https://doi.org/10.1111/j.1467-8624.2004.00703.x

Hill, R. M., Rooney, E. E., Mooney, M. A., & Kaplow, J. B. (2017). Links between social support, thwarted belongingness, and suicide ideation among lesbian, gay, and bisexual college students. *Journal of Family Strengths, 17*(2), 6.

Hitlin, S., Brown, J. S., & Elder, G. H., Jr. (2007). Measuring Latinos: Racial vs. Ethnic Classification and Self-Understandings. *Social Forces*, *86*(2), 587–611. https://doi.org/10.1093/sf/86.2.587

Hussain, M., & Jones, J. M. (2019). Discrimination, diversity, and sense of belonging: Experiences of students of color. *Journal of Diversity in Higher Education*, *14*(1), 63. https://doi.org/10.1037/dhe0000117

Jackson, K. F., Wolven, T., & Aguilera, K. (2013). Mixed resilience: A study of multiethnic Mexican American stress and coping in arizona. *Family Relations*, *62*(1), 212–225.

Jacobs, M. R. (2019). Resisting and reifying racialization among urban American Indians. *Ethnic and Racial Studies, 42*(4), 570–588. https://doi.org/10.1080/01419870.2017.1403034

Johnston, M. P., & Nadal, K. L. (2010). Multiracial microaggressions: Exposing monoracism in everyday life and clinical practice. In *Microaggressions and marginality: Manifestation, dynamics, and impact* (pp. 123–144). John Wiley & Sons Inc.

Johnston-Guerrero, M. P., Tran, V. T., & Combs, L. (2020). Multiracial identities and monoracism: Examining the influence of oppression. *Journal of College Student Development*, *61*(1), 18–33. https://doi.org/10.1353/csd.2020.0001

Jones, J. A., & Brown, H. E. (2019). American federalism and racial formation in contemporary immigration policy: A processual analysis of Alabama's HB56. *Ethnic and Racial Studies*, *42*(4), 531–551. https://doi.org/10.1080/01419870.2017.1403033

Jones, N., Marks, R., Ramirez, R., & Rios-Vargas, M. (2021, August 12). Improved Race and Ethnicity Measures Reveal U.S. Population Is Much More Multiracial [United States Census Bureau]. *2020 Census Illuminates Racial and Ethnic Composition of the Country*. https://www.census.gov/library/stories/2021/08/improved-race-ethnicity-measures-reveal-united-states-population-much-more-multiracial.html

Juang, L., Ittel, A., Hoferichter, F., & Miriam Gallarin, M. (2016). Perceived racial/ethnic discrimination and adjustment among ethnically diverse college students: Family and peer support as protective factors. *Journal of College Student Development*, *57*(4), 380–394. https://doi.org/10.1353/csd.2016.0048

Kessler, R. C., Berglund, P., Demler, O., Jin, R., Koretz, D., Merikangas, K. R., Rush, A. J., Walters, E. E., & Wang, P. S. (2003). The Epidemiology of Major Depressive Disorder: Results From the National Comorbidity Survey Replication (NCS-R). *JAMA*, *289*(23), 3095–3105. https://doi.org/10.1001/jama.289.23.3095

Kessler, R. C., & Bromet, E. J. (2013). The epidemiology of depression across cultures. *Annual Review of Public Health*, *34*(1), 119–138. https://doi.org/10.1146/annurev-publhealth-031912-114409

Kessler, R. C., Mickelson, K. D., & Williams, D. R. (1999). The Prevalence, Distribution, and Mental Health Correlates of Perceived Discrimination in the United States. *Journal of Health and Social Behavior*, *40*(3), 208–230. https://doi.org/10.2307/2676349

Lépine, J.-P., & Briley, M. (2011). The increasing burden of depression. *Neuropsychiatric Disease and Treatment*, *7*(Suppl 1), 3–7. https://doi.org/10.2147/NDT.S19617

Lewis, T. T., Yang, F. M., Jacobs, E. A., & Fitchett, G. (2012). Racial/Ethnic differences in responses to the Everyday Discrimination Scale: A differential item functioning analysis. *American Journal of Epidemiology*, *175*(5), 391–401. https://doi.org/10.1093/aje/kwr287

Liu, S., Xiao, W., Fang, C., Zhang, X., & Lin, J. (2020). Social support, belongingness, and value co-creation behaviors in online health communities. *Telematics and Informatics*, *50*, 101398. https://doi.org/10.1016/j.tele.2020.101398

Luppino, F. S., de Wit, L. M., Bouvy, P. F., Stijnen, T., Cuijpers, P., Penninx, B. W. J. H., & Zitman, F. G. (2010). Overweight, obesity, and depression: A systematic review and meta-analysis of longitudinal studies. *Archives of General Psychiatry*, *67*(3), 220–229. https://doi.org/10.1001/archgenpsychiatry.2010.2

Lusk, E. M., Taylor, M. J., Nanney, J. T., & Austin, C. C. (2010). Biracial identity and its relation to self-esteem and depression in mixed black/white biracial individuals. *Journal of Ethnic & Cultural Diversity in Social Work*, *19*(2), 109–126. https://doi.org/10.1080/15313201003771783

Marsack, J., & Stephenson, R. (2017). Sexuality-based stigma and depression among sexual minority individuals in rural United States. *Journal of Gay & Lesbian Mental Health*, *21*(1), 51–63. https://doi.org/10.1080/19359705.2016.1233164

Marsden, P. V. (1987). Core Discussion Networks of Americans. *American Sociological Review*, *52*(1), 122–131. https://doi.org/10.2307/2095397

Marshburn, C. K., Reinkensmeyer, B. A., & Knowles, E. D. (2022). Dominance motivated delusions: Whites with high social dominance orientation perceive equal amounts of institutional racism between Blacks and Whites. *Group Processes & Intergroup Relations*, 13684302221103984. https://doi.org/10.1177/13684302221103984

Matud, M. P., Ibáñez, I., Bethencourt, J. M., Marrero, R., & Carballeira, M. (2003). Structural gender differences in perceived social support. *Personality and Individual Differences*, *35*(8), 1919–1929. https://doi.org/10.1016/S0191-8869(03)00041-2

McKenna, M. T., Michaud, C. M., Murray, C. J., & Marks, J. S. (2005). Assessing the burden of disease in the United States using disability-adjusted life years. *American Journal of Preventive Medicine*, *28*(5), 415–423. https://doi.org/S0749-3797(05)00067-X [pii] 10.1016/j.amepre.2005.02.009

Meyers, C., Aumer, K., Schoniwitz, A., Janicki, C., Pauker, K., Chang, E. C., Gaither, S. E., & Williams, A. (2019). Experiences with microaggressions and discrimination in racially diverse and homogeneously white contexts. *Cultural Diversity and Ethnic Minority Psychology*, *26*(2), 250. https://doi.org/10.1037/cdp0000293

Miville, M., Constantine, M., Baysden, M., & So-Lloyd, G. (2005). Chameleon changes: An exploration of racial identity themes of multiracial people. *Journal of Counseling Psychology*, *52*(4), 507–516.

Museus, S. D., Sariñana, S. A. L., & Ryan, T. K. (2015). A qualitative examination of multiracial students' coping responses to experiences with prejudice and discrimination in college. *Journal of College Student Development*, *56*(4), 331–348. https://doi.org/10.1353/csd.2015.0041

Nadal, K. L., Wong, Y., Griffin, K., Sriken, J., Vargas, V., Wideman, M., & Kolawole, A. (2011). Microaggressions and the multiracial experience. *International Journal of Humanities and Social Sciences*, *1*(7), 36-44.

Nadal, K. L., Sriken, J., Davidoff, K. C., Wong, Y., & McLean, K. (2013). Microaggressions Within Families: Experiences of Multiracial People. *Family Relations*, *62*(1), 190–201. https://doi.org/10.1111/j.1741-3729.2012.00752.x

Nelson, L. R., Signorella, M. L., & Botti, K. G. (2016). Accent, Gender, and Perceived Competence. *Hispanic Journal of Behavioral Sciences*, *38*(2), 166–185. https://doi.org/10.1177/0739986316632319

Norton, M. I., & Sommers, S. R. (2011). Whites See Racism as a Zero-Sum Game That They Are Now Losing. *Perspectives on Psychological Science*, *6*(3), 215–218.

Ong, P., Comandom, A., DiRago, N., & Harper, L. (2020). *COVID-19 Impacts on Minority Businesses and Systemic Inequality*. https://escholarship.org/uc/item/5jz7c4vd

Ong, P., Wong, K., & Gonzalez, S. R. (2020). *Systemic Racial Inequality and the COVID-19 Homeowner Crisis*. https://escholarship.org/uc/item/2z99b26v

Oshin, L. A. (2017). *Mixed Signals: Examining Ethnic Affirmation as a Factor in the Discrimination-Depression Relationship with Multiracial and Monoracial Minority Adolescent Girls* (Publication No. 1052). [Masters dissertation, University of Connecticut]. Open Commons.

Osman, A., Lamis, D. A., Freedenthal, S., Gutierrez, P. M., & McNaughton-Cassill, M. (2014). The Multidimensional Scale of Perceived Social Support: Analyses of internal reliability, measurement invariance, and correlates across gender. *Journal of Personality Assessment*, *96*(1), 103–112. https://doi.org/10.1080/00223891.2013.838170

Parker, K., Menasce Horowitz, J., Morin, R., & Hugo Lopez, M. (2015). *Multiracial in America: Proud, Diverse and Growing in Numbers*. https://www.pewresearch.org/social-trends/2015/06/11/multiracial-in-america/

Pascoe, E. A., & Richman, L. S. (2009). Perceived discrimination and health: A meta-analytic review. *Psychological Bulletin*, *135*(4), 531–554. https://doi.org/10.1037/a0016059

Peacock, N., & Biernat, M. (2023). Race, politics, and perceptions of anti-Black and anti-White discrimination over time. *Group Processes & Intergroup Relations*, *26*(1), 157–179. https://doi.org/10.1177/13684302211040107

Potter, L., Zawadzki, M. J., Eccleston, C. P., Cook, J. E., Snipes, S. A., Sliwinski, M. J., & Smyth, J. M. (20180517). The intersections of race, gender, age, and socioeconomic status: Implications for reporting discrimination and attributions to discrimination. *Stigma and Health*, *4*(3), 264. https://doi.org/10.1037/sah0000099

Rippon, I., Kneale, D., de Oliveira, C., Demakakos, P., & Steptoe, A. (2014). Perceived age discrimination in older adults. *Age and Ageing*, *43*(3), 379–386. https://doi.org/10.1093/ageing/aft146

Rockquemore, K. A., Brunsma, D. L., & Delgado, D. J. (2009). Racing to theory or retheorizing race? Understanding the struggle to build a multiracial identity theory. *Journal of Social Issues*, *65*(1), 13–34. https://doi.org/10.1111/j.1540-4560.2008.01585.x

Root, M. P. P. (1996). *The Multiracial Experience: Racial Borders as the New Frontier*. SAGE.

Roschelle, A. R. (1997). *No More Kin*. SAGE.

Salahuddin, N. M., & O'Brien, K. M. (2011). Challenges and resilience in the lives of urban, multiracial adults: An instrument development study. *Journal of Counseling Psychology*, *58*(4), 494. https://doi.org/10.1037/a0024633

Sanchez, D. T. (2010). How do forced-choice dilemmas affect multiracial people? The role of identity autonomy and public regard in depressive symptoms. *Journal of Applied Social Psychology*, *40*(7), 1657–1677. https://doi.org/10.1111/j.1559-1816.2010.00634.x

Sanchez, D. T., & Bonam, C. M. (2009). To disclose or not to disclose biracial identity: The effect of biracial disclosure on perceiver evaluations and target responses. *Journal of Social Issues*, *65*(1), 129–149. https://doi.org/10.1111/j.1540-4560.2008.01591.x

Sanchez, D. T., Shih, M., & Garcia, J. A. (2009). Juggling multiple racial identities: Malleable racial identification and psychological well-being. *Cultural Diversity and Ethnic Minority Psychology*, *15*(3), 243. https://doi.org/10.1037/a0014373

Schafer, M. H., & Vargas, N. (2016). The Dynamics of Social Support Inequality: Maintenance Gaps by Socioeconomic Status and Race? *Social Forces*, *94*(4), 1795–1822. https://doi.org/10.1093/sf/sow024

Schmitt, M., Branscombe, N., Postmes, T., & Garcia, A. (2014). The Consequences of Perceived Discrimination for Psychological Well-Being: A Meta-Analytic Review. *Psychological Bulletin*, *140*. https://doi.org/10.1037/a0035754

Shih, M., & Sanchez, D. (2005). Perspectives and research on the positive and negative implications of having multiple racial identities. *Psychological Bulletin*, *131*(4), 569–591.

Smedley, A., & Smedley, B. D. (2005). Race as biology is fiction, racism as a social problem is real: Anthropological and historical perspectives on the social construction of race. *American Psychologist*, *60*(1), 16–26. https://doi.org/10.1037/0003-066X.60.1.16

Starks, G. L. (2022). Explaining Antithetical Movements to the Black Lives Matter Movement Based on Relative Deprivation Theory. *Journal of Black Studies*, *53*(4), 346–365. https://doi.org/10.1177/00219347211072874

Subica, A. M. (2011). *Investigating ethnic identity, acculturation, self-esteem, trait anxiety, and depressive symptomatology across biracial Asian-White and monoracial Asian American and White American individuals* [Ph.D., University of Hawai'i at Manoa]. https://www.proquest.com/docview/952710040/abstract/AE3C7747F3A34413PQ/1

Sue, D. W., Capodilupo, C. M., Torino, G. C., Bucceri, J. M., Holder, A. M. B., Nadal, K. L., & Esquilin, M. (2007). Racial microaggressions in everyday life: Implications for clinical practice. *American Psychologist*, *62*(4), 271. https://doi.org/10.1037/0003-066X.62.4.271

Sue, D. W., & Sue, D. (2015). Counseling Multiracial Individuals. In *Counseling the Culturally Diverse: Theory and Practice*. John Wiley & Sons, Incorporated. http://ebookcentral.proquest.com/lib/uoregon/detail.action?docID=4189578

Sutin, A. R., Stephan, Y., & Terracciano, A. (2015). Weight discrimination and risk of mortality. *Psychological Science*, *26*(11), 1803–1811. https://doi.org/10.1177/0956797615601103

Telles, E. (2018). Latinos, Race, and the U.S. Census. *The Annals of the American Academy of Political and Social Science*, *677*, 153–164.

Tran, A. G. T. T., Miyake, E., Martinez-Morales, V., & Csizmadia, A. (20150316). "What are you?" Multiracial individuals' responses to racial identification inquiries. *Cultural Diversity and Ethnic Minority Psychology*, *22*(1), 26. https://doi.org/10.1037/cdp0000031

Trujillo, M. A., Perrin, P. B., Sutter, M., Tabaac, A., & Benotsch, E. G. (2017). The buffering role of social support on the associations among discrimination, mental health, and suicidality in a transgender sample. *The International Journal of Transgenderism*, *18*(1), 39–52. https://doi.org/10.1080/15532739.2016.1247405

Tummala-Narra, P., Alegria, M., & Chen, C.-N. (2012). Perceived discrimination, acculturative stress, and depression among South Asians: Mixed findings. *Asian American Journal of Psychology*, *3*(1), 3–16. https://doi.org/10.1037/a0024661

Villegas-Gold, R., & Tran, A. G. T. T. (2018). Socialization and well-being in multiracial individuals: A moderated mediation model of racial ambiguity and identity. *Journal of Counseling Psychology*, *65*(4), 413–422. https://doi.org/10.1037/cou0000277

Whisman, M. A., Judd, C. M., Whiteford, N. T., & Gelhorn, H. L. (2013). Measurement invariance of the Beck Depression Inventory–Second Edition (BDI-II) across gender, race, and ethnicity in college students. *Assessment*, *20*(4), 419–428. https://doi.org/10.1177/1073191112460273

Williams, D. R., Yan Yu, null, Jackson, J. S., & Anderson, N. B. (1997). Racial Differences in Physical and Mental Health: Socio-economic Status, Stress and Discrimination. *Journal of Health Psychology*, *2*(3), 335–351. https://doi.org/10.1177/135910539700200305

Wong, S. T., Nordstokke, D., Gregorich, S., & Pérez-Stable, E. J. (2010). Measurement of social support across women from four ethnic groups: Evidence of factorial invariance. *Journal of Cross-Cultural Gerontology*, *25*(1), 45–58. https://doi.org/10.1007/s10823-010-9111-0

Wu, Z., & Finnsdottir, M. (2021). Perceived racial and cultural discrimination and sense of belonging in Canadian society. *Canadian Review of Sociology*, *58*(2), 229–250. https://doi.org/10.1111/cars.12339

Zimet, G. D., Dahlem, N. W., Zimet, S. G., & Farley, G. K. (1988). The Multidimensional Scale of Perceived Social Support. *Journal of Personality Assessment*, *52*(1), 30–41. https://doi.org/10.1207/s15327752jpa5201_2