DISCRIMINATION IN RELATION TO EMERGING ADULTS’ DEPRESSION AND ANXIETY: ETHNIC IDENTITY AND RUMINATION AS POTENTIAL MEDIATORS AND MODERATORS

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By

Simon Ferber

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The thesis of Simon N. Ferber is approved:

Jill Razani, Ph.D.  
Date

Gary Katz, Ph.D.  
Date

Scott W. Plunkett, Ph.D., Chair  
Date

California State University, Northridge
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ABSTRACT

DISCRIMINATION IN RELATION TO EMERGING ADULTS’ DEPRESSION AND ANXIETY: ETHNIC IDENTITY AND RUMINATION AS POTENTIAL MEDIATORS AND MODERATORS

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The purposes of this study were (1) to examine the effects of perceived ethnic discrimination on mental health (i.e., depression and anxiety) in emerging adults, (2) to examine whether the relationship between perceived ethnic discrimination and mental health was moderated by ethnic identity, and (3) to examine whether rumination would mediate the relationship between perceived ethnic discrimination and mental health. Self-report survey data were collected from 354 emerging adults from one public university in Southern California. The results indicate perceived ethnic discrimination is positively correlated with depression, anxiety, and rumination, and negatively related to ethnic identity. It was also found that in one of three models, ethnic identity lessens the impact of perceived ethnic discrimination on depression, but did not buffer the relationship between perceived ethnic discrimination and a different measure or depression or anxiety. Rumination served as a full or partial mediator between perceived ethnic discrimination and both depression and anxiety. Thus, emerging adults are more susceptible to symptoms of negative mental health when they experience perceived ethnic
discrimination and/or ruminate about their negative experiences. The findings suggest that (1) even subtle experiences of perceived ethnic discrimination can be deleterious to mental health, (2) ethnic identity can buffer the impact of perceived ethnic discrimination on levels depression, and (3) rumination partially explains the relationship between perceived ethnic discrimination and depression and anxiety. Practitioners should examine the role of perceived ethnic discrimination in their clients experiencing depression and anxiety, and may find it useful to focus on coping with perceived ethnic discrimination by discouraging rumination and encouraging ethnic identity.
CHAPTER I

INTRODUCTION

Statement of the Problem

The American Civil Rights Act of 1964 may have signified an end to institutionalized race-based discrimination. However, as psychiatrist C. Pierce (1974) pointed out, the legislation may have only signified an end to blatant and overt forms of discrimination, and introduced “the subtle, cumulative mini assault [that] is the substance of today’s racism” (p. 516). According to research by Kessler, Mickelson, and Williams (1999), 60.9% of citizens (of all ethnicities) report daily experiences of racial discrimination, indicating the problem has not died out, but is still prevalent in society. These subtle and chronic forms of discriminations have an insidious impact on mental health, and are associated with diminished mental health, such as symptoms of depression and anxiety (two commonly occurring mental health problems; American Psychiatric Association [APA], 2000).

Emerging adults are at a greater risk for developing mental health issues because emerging adults are very impressionable, engage in identity exploration, and experience many transitions and corresponding stressors (Arnett, 2011; Hill, Jackson, Roberts, Lapsley, & Brandenberger, 2011). The manners in which emerging adults cope with outside stressors (e.g., ethnic discrimination) influence their likelihood of developing mental health disorders in the future. Understanding the roles of ethnic identity (i.e., the connection an individual has with his or her own ethnic group; Phinney, 1992) and propensity for rumination (i.e., stress-triggered post-event brooding; Nolen-Hoeksema, 1991) in relation to discrimination and mental health can potentially provide helpful
information to mental health practitioners.

**Purpose**

The purposes of this study follow:

1. To examine the influence of perceived ethnic discrimination on emerging adults’ anxiety and depression;
2. To determine if ethnic identity moderates the relationship between perceived ethnic discrimination and both anxiety and depression; and
3. To determine if rumination mediates the relationship between perceived ethnic discrimination and both anxiety and depression.

The results of this study could potentially benefit therapists and community workers treating discrimination, anxiety, and/or depression to gain a better understanding of the cognitive components involved. It may also serve as an aid to future research within the field.

**Definitions**

1. Emerging adulthood is a phase of development (ages 18-29) that is characterized by distinct life events and personal struggles (Arnett, 2011). This age group shares several common life circumstances. There are two characteristics that make this group of particular relevance to the current study (Arnett, 2011). First, emerging adulthood is a time of identity exploration, in which emerging adults must figure out their own identity within the context of the larger society. And second, emerging adults often experience increased psychological stress, but they also have a strong willingness to change, indicating both a need for and openness to therapeutic intervention.
2. Depression is the most common mental disorder (APA, 2000). Depression is characterized by anhedonia, or the inability to feel pleasure. Depressed persons may experience a disturbance of sleep, significant weight loss or gain, and inability to concentrate.

3. Anxiety is a mood state characterized by hyper arousal, tension, worry, and physical symptoms such as numbness or tingling (APA, 2000). Anxiety is primarily characterized by somatic symptoms (e.g., numbness or tingling, feeling hot), but anxiety also features cognitive symptoms (e.g., worrying too much about different things).

4. Ethnic identity is defined as a person’s psychological connection within a group of people that share a common history and a common place of origin (Phinney, 992, 2000). Ethnic identity is also considered the ethnic component of social identity (Tajfel, 1981).

5. Perceived ethnic discrimination is the subjective experience of discrimination (Clark, Anderson, Clark, & Williams, 1999). In addition to the experience of flagrant racism, ethnic discrimination may also include more subtle experiences of discrimination that outside observers might not identify as discrimination.

6. Rumination is the tendency to cope with dysphoric mood by focusing on one's negative symptoms and the reasons and causes of those symptoms (Nolen-Hoeksema, 1991). According to Lyuomirsky & Nolen-Hoeksema (1995), rumination is often precipitated by traumatic events, and those individuals who ruminate have longer periods of dysphoric mood and are more likely to manifest symptoms of depression and anxiety.
Research Hypotheses

Based on the review of literature in Chapter 2, the following research hypotheses were developed.

1. Perceived ethnic discrimination would be positive related to emerging adults’ reports of anxiety and depression.

2. Ethnic identity would moderate the effects of perceived ethnic discrimination on anxiety and depression in emerging adults.

3. Propensity for rumination would mediate the relationship between perceived ethnic discrimination and emerging adults’ anxiety and depression.

Assumptions

This research study was created based upon certain assumptions. First, the university students who participated in this study did so voluntarily. Although they may be required to participate in the university’s participant pool, the students had the option of an alternative assignment if they did not wish to participate. Similarly, subjects in classrooms where data collection took place were not penalized if they decided not to participate, nor where they reward for participation.

Next, participants were expected to be able to read and understand the items on the questionnaires since the sample came from university-level students in an English-speaking country. Also, participants were expected to answer the questionnaire items completely, honestly, and to the best of their ability.

Next, it was assumed that the scales to measure the variables were appropriate for a population of emerging adults since they all have established reliability and validity.

And finally, it was assumed that no errors were made while coding and entering the data.
because of (1) the training the researchers received, and (2) the data coding and entry were all double checked for accuracy.
CHAPTER II
REVIEW OF LITERATURE

Emerging Adulthood

Emerging adulthood is the developmental period between the late teens and the thirties (Arnett, 2011). It is characterized by instability and increased responsibility, but also by increased self-awareness and willingness to change. Emerging adults often move away from their parents and the house in which they grew up. They often do not know where they will be living one year to the next, need to make critical life decisions about their future, and must begin handling the increasing pressures brought about by their newly-found self-sufficiency (Arnett, 2011; Arnett, Ramos, & Jensen, 2001). Despite the chaos of this transitional period, emerging adulthood is a distinctive period of openness to change (Arnett, 2011).

The mental health of individuals during early adulthood is critical because the manner in which individuals adapt during this period of life predicts future psychological well-being (Hill et al., 2011). Additionally, emerging adults are more willing to adapt to both positive and negative changes. According to Tanner and Arnett (2009), emerging adults often more sensitive to emotional stimuli (e.g., fear, negative events) than older adults due to less brain maturation. This sensitivity to emotional stimuli may help explain why psychiatric disorders often peak during this developmental stage (Tanner & Arnett, 2009). Two of the mostly widely recognized and prevalent mental health concerns for emerging adults are depression and anxiety; both of which are related to deleterious outcomes.
Depression and Anxiety

Depression

Research scientist and neurobiologist, Dr. Robert Sapolsky, defined depression as a “genetic/neurochemical disorder requiring a strong environmental trigger whose characteristic manifestation is an inability to appreciate sunsets” (2004, p. 272). Sapolsky was referring to depression’s primary characteristic, ahedonia, or the inability to experience pleasure. Depression accounts for over 800,000 suicides every year (“Spirit of the Age,” 2004), and its symptoms are directly linked to suicide and suicidality (Szanto, Prigerson & Reynolds, 2001).

“Depression” is a colloquial term that refers to two distinct psychiatric disorders: (1) Major Depressive Disorder (MDD), an acute and pronounced period during which a person experiences one or several depressive episodes; and (2) Dysthymic Disorder, a chronic and unrelenting period of depressed mood without the presence of a depressive episode (APA, 2000). The two may also coexist. The current study focuses on symptoms of MDD based on the nine symptoms listed in the Diagnostic and Statistical Manual of Mental Disorders IV Text Revision (DSM-IV-TR) criterion A for Major Depressive Episode, five of which overlap with DSM-IV symptoms of Dysthymic Disorder (APA, 2000).

Major depressive disorder is classified in the DSM-IV-TR as a mood disorder and is characterized primarily by anhedonia (i.e., inability to feel pleasure), feelings of worthlessness, fatigue or loss of energy, diminished ability to concentrate, and disturbance of sleep (APA, 2000). In order to be diagnosed with major depressive disorder, individuals must have experienced at least one major depressive episode
MDE). MDE is characterized as a period of 14 days or more during which depressed mood or loss of interest or pleasure is present and 5 or more of the following symptoms are present nearly every day: (1) depressed mood most of the day; (2) markedly diminished interest or pleasure in all, or almost all, activities most of the day; (3) significant weight loss when not dieting, or weight gain, or decrease or increase in appetite; (4) insomnia or hypersomnia; (5) psychomotor agitation or retardation; (6) fatigue or loss of energy; (7) feelings of worthlessness or excessive or inappropriate guilt; (8) diminished ability to think or concentrate, or indecisiveness; and/or (9) recurrent thoughts of death, recurrent suicidal ideation without a specific plan, or a suicide attempt or a specific plan for committing suicide (APA, 2000). Moreover, the mood response must cause clinically significant distress or impairment in social, occupational, or other important areas of functioning. Sleep change, loss of energy, and appetite change are the most common symptoms of MDE, and psychomotor change and feelings of worthlessness are the least common (Buschwald & Rudick-Davis, 1993). However, psychomotor change is the strongest predictor of a MDE.

As implied by the above criteria, MDD is life-threatening and debilitating. Research has shown that depression adversely affects individuals’ physical health (Egede, Nietert, & Zheng, 2005; Kanner & Palac, 2000; Salaycik, Kelly-Hayes, Beisen, 2007; Penninx, Beekman, Honig, 2001), impairs cognitive processes (Gotlib, 1997), diminishes productivity (Seligman, 1990), and negatively affects behavior (Abraham & Fava, 1999). Given the harms of depression, it is imperative to identify factors that can promote or alleviate depressive symptoms.
Anxiety

Anxiety is a physiological state that is characterized by feelings of tension, worry about the future, and physical symptoms such as sweaty palms and stomach ache (Kowalski, 2000). Anxiety is primarily characterized by feelings of tension, worried thoughts, and somatic symptoms (e.g., numbness or tingling, feeling hot, indigestion; Kowalski, 2000). People with anxiety disorders often have cognitive symptoms such as recurring intrusive thoughts or concerns (Kowalski, 2000). They may also be avoidant of situations because of their excessive worry.

The current study will focus on symptoms of Generalized Anxiety Disorder (GAD). GAD is characterized by excessive and uncontrollable worry regarding several topics that occurs more days than not for at least six months (APA, 2000). The worry causes distress or impairment and is associated with at least three of the following features: (1) feeling restless, keyed-up, or on edge; (2) being easily fatigued; (3) difficulty concentrating or having one’s mind go blank; (4) irritability; (5) muscle tension; (6) and (7) sleep disturbance (APA, 2000).

Generalized Anxiety Disorder is particularly relevant to emerging adult populations because of its typical age of onset and the circumstances that precipitate GAD. Most of those diagnosed with GAD are between the ages of 15-24 (Noyes & Hoehn-Saric, 1998). According to Noyes Hoehn-Saric, individuals diagnosed with GAD often have a hard time describing the onset of the anxiety. They typically have had several symptoms of severe anxiety for most of their life. It is believed that most people diagnosed with GAD have functioned at a sub-clinical level until their symptoms are exacerbated later on in life.
As mentioned previously, emerging adults experience frequent life stressors (Arnett, 2011). Blazer, Hughes, and George (1987) found that the occurrence of one or more negative life events increased the risk of developing GAD by 300% in the following year. Newman and Bland (1994) found that those with Generalized Anxiety Disorder reported higher scores on the life event scale for the past year than those without the disorder.

Smith, Allen, and Danley (2007) coined the term “racial battle fatigue” in order to describe the physiological, psychological, cultural, and emotional response to chronic racial microagressions (i.e., subtle and relatively minor forms of racial discrimination such as hyper-surveillance) in racially hostile or unsupportive environments. Racial battle fatigue and GAD share several symptoms: (1) constant anxiety and worry, (2) intrusive thoughts and images, (3) hypervigilance, (4) physical tension, (5) elevated heart rate and blood pressure, and (6) sleep difficulty. Furthermore, in African-American populations, experiencing race-based discrimination is associated with higher risk for GAD (Soto, Dawson-Andoh, & Blue, 2011).

**Comorbidity of Depression and Anxiety**

Depression and anxiety are frequently comorbid; so much so that researchers have proposed a separate diagnosis of “anxious depression” (Fava et al., 2000). Approximately 50-60% of individuals diagnosed with MDD at some point in their life report a lifetime history of one or more anxiety disorders (Kessler, Nelson, McGonagle, Liu, Swartz, Blazer, 1996).

Comorbid anxiety and depression are related to worse mental health outcomes than a singular diagnosis. Those with comorbid anxiety-depression experience (1) greater...
symptom severity, (2) more severe role impairment, (3) increased help-seeking behavior, and (4) higher incidence of suicidality, when compared to those with a single diagnosis of depression or anxiety (Angst, Angst, & Stassen, 1999; Roy-Byrne, Stang, Wittchen, Ustun, Walters, & Kessler, 2000).

Given the harms of depression and anxiety and the susceptibility and malleability of emerging adults, it is important to understand the risk factors for depression and anxiety, as well as the factors pertinent to treatment in emerging adults.

**Ethnic Discrimination Related to Mental Health**

One factor that has been linked to negative mental health outcomes is perceived ethnic discrimination (i.e., subjective experience of discrimination; Borders & Liang, 2011). According to Borders and Liang, ethnic discrimination includes flagrant objective events of discrimination as well as more subtle microexpressions that outside observers may not recognize as discrimination.

Perceived ethnic discrimination has long been conceptualized as a social stressor (Borders & Liang, 2011; Clark et al., 1999). Ethnic discrimination is very often ambiguous, uncontrollable, and unpredictable (Harrell, 2000). According to Sue (2010), perceived events that are ambiguous, uncontrollable, and unpredictable are the most deleterious to mental health.

Not surprisingly, ethnic discrimination has been associated with a number of negative outcomes (for a meta analyses, see Pascoe & Smart Richman, 2009). For example, studies have found that ethnic minorities reporting higher ethnic discrimination also report higher amounts of psychological distress, poorer overall physical health, and greater instances of aggressive behavior than ethnic minorities not reporting high ethnic
discrimination (Brody et al., 2006; Paradies, 2006; Pascoe & Richman, 2009; Williams & Mohammed, 2009; Williams, Neighbors, & Jackson, 2003). Additionally, longitudinal studies have shown in African-American youth and adult female populations that perceived ethnic discrimination precedes poor psychological and physical health, suggesting possible causation (Brody et al., 2008; Shulz et al., 2006).

Universally, experiences of major discriminatory events are associated with increased risk of major depression within the last 12 months, while experience of daily discriminatory treatment is associated with increased risk of generalized anxiety disorder within the last 12 months (Kessler et al., 1999). In an Asian-American sample, daily experiences of racial discrimination were shown to almost double the 12-month prevalence for eleven different psychiatric disorders (Gee, Spencer, Chen, Yip & Takeuchi, 2007). Also, daily experiences of depression have been found to exacerbate depressive symptoms in Latino adults (Torres & Ong, 2010).

Perceived ethnic discrimination has become such a chronic and distressing occurrence that researchers have coined the term “racial battle fatigue” to describe the long-term consequences of facing daily discrimination (Smith et al., 2007). Racial battle fatigue is characterized by its overlap of symptoms with generalized anxiety disorder as well as Post-Traumatic Stress Disorder. Symptoms include: (1) constant anxiety and worrying, (2) inability to sleep, (3) elevated blood pressure, (4) upset stomach or “butterflies,” (5) intrusive thoughts and images, (6) loss of self-confidence, (7) hypervigilance, and (8) frustration. These symptoms are brought out by racial microaggressions, or subtle experiences of inequality that may not immediately be recognized as overt racism, but over time take a toll one one’s mental health (Smith et al.,
2007). These racial microaggressions include recurrent indignities and irritations, unfair treatment, and minor racial slights.

**Coping With Stress Through Rumination**

Not surprisingly, perceiving discrimination triggers coping responses (Major & Townsend, 2010; Trawalter, Richeson, & Shelton, 2009). The amount of distress resulting from psychological stressors, such as discrimination, is dependent on the manner in which the individual copes (Borders & Liang, 2011). Coping strategies, often categorized as passive or active, include cognitive, affective, and behavioral attempts to deal with a psychological stressor (Lazarus & Folkman, 1984). These strategies can influence the impact of discrimination on mental health.

Passive coping strategies are those involving attempts to avoid or disengage from the stressor (Borders & Liang, 2011). Active coping strategies are those addressing the circumstances, such as seeking social support (Borders & Liang, 2011). Active coping strategies are generally related to better long-term mental health outcomes than passive coping strategies (Paradies, 2006). One type of passive coping strategy is rumination (Kiselica & Borders, 2011; Nolen-Hoeksema et al., 2008).

**Rumination**

Rumination refers to repetitive thinking about the causes, consequences, and symptoms of one’s negative affect (Nolen-Hoeksema, 1991). Rumination has widely been associated with poor mental health outcomes (Smith & Alloy, 2009). Individuals who engage in rumination often do so after the experience of a stressful or traumatic event in an attempt to problem-solve and to analyze discrepancies between current and desired status (Smith & Alloy, 2009). Yet, rumination often results in distancing the
individual from an adaptive experience of negative affect, which in-turn increases the likelihood of depressive symptoms and simultaneously decreases problem-solving behavior (Hayes et al., 1996; Wenzlaff & Wegner, 2000).

Rumination is of particular relevance to the current study for two reasons. First, rumination is triggered by stressful social interactions (Alloy, Abramson, Hogan, Whitehouse, Rose, & Robinson, 2000), such as perceived ethnic discrimination. The Stress- Reactive Model of rumination suggests that rumination generally occurs after the experience of a stressful event, and rumination consists of thoughts related to the previous stressor (Alloy et al., 2000). Smith and Alloy (2009) enumerated the triggers for rumination found in the research: (1) stressful interpersonal interactions, (2) the awareness of a difference between one’s current status and one’s target status, (3) perceptions of uncontrollability, and (4) threats to identity; all of which are relevant to perceived ethnic discrimination.

Second, those high in rumination are more likely to interpret events in their life as stressful (Lok & Bishop, 1999), resulting in higher levels of depression, social anxiety, worry, and generalized anxiety (Smith & Alloy, 2009). It is proposed that those who ruminate are avoiding stressful stimuli and attempting to analyze or eliminate the discrepancy between current and desired status. In an attempt to do so, these individuals paradoxically increase the effect of the avoided life event and may perpetuate symptoms of depression and anxiety.

It is possible that rumination can mediate the relationship between a stressor event and mental health. For example, Borders and Liang (2011) explored the role of rumination (i.e., angry rumination) as a mediator between perceived ethnic discrimination
and psychological distress. Using a college student sample (18-44 years of age, $M = 20$, 170 ethnic minority, 134 White), angry rumination served as a partial mediator between perceived ethnic discrimination and psychological distress (i.e., depressive symptoms, anger, hostility, and aggressive behavior) amongst minorities. Depressive symptoms were measured using the Center for Epidemiological Studies Depression Scale (CES-D; Radloff, 1977), which measures depressed mood and physiological symptoms of depression based on criteria for Major Depressive Disorder.

**Ethnic Identity**

Ethnic identity has been defined as the psychological connection that exists within a group of people that share a common history as well as a common place of origin (Phinney, 2000; Phinney & Ong, 2007). Although ethnic identity certainly overlaps with constructs such as race, culture, and traditions, it is not identical. Rather, it is the connection felt by group members that frequently share culture, race, etc. (Phinney, 1992; Umaña-Taylor, Diversi, & Fine, 2002). The development of ethnic identity is especially important during emerging adulthood as individuals struggle to resolve their identity (Phinney, 2006).

Prior research findings provide conflicting evidence to the role that ethnic identity plays in buffering or exacerbating the impact of discrimination on individuals’ mental health (e.g., Umaña-Taylor & Updegraff, 2006; Operario & Fiske, 2001). A large body research suggests that negative outcomes of discrimination are buffered by a strong ethnic identity (Lee, 2005; Mossakowski, 2003; Sellers, Copeland-Linder, Martin, & Lewis, 2006; Umaña-Taylor & Updegraff, 2006). These results have been supported across ethnic minority groups. For example, ethnic identity has been shown to buffer the
impact of discrimination on negative well-being in Filipino Americans (Mossakowski, 2003), Korean Americans (Lee, 2005), African Americans (Sellers et al., 2006), and Latino Americans (Umaña-Taylor & Updegraff, 2006). These effects can be explained by the increased social support and feelings of belonging associated with high ethnic identity.

However, early minority research found that identification with the minority group to be detrimental to mental health. For example, the Clark and Clark (1947) “Doll Preference Study” found that, when asked various questions regarding two dolls (one brown, one white, yet otherwise identical), African-American girls displayed a preference for the white doll. One explanation for this preference was that, given the incessant and omnipresent racism faced by African-Americans at the time, identifying with the majority group was protective. In 1978 social psychologists adopted a similar view. Belonging to a social group was thought to always have positive effects on self-concept (Tajfel, 1978). However, when examining those held in low social standing by the dominant group in society, identifying strongly was found to expose group members to a number of negative outcomes (Hogg, Abrams, & Patel, 1987; Ullah, 1985). These theorists identified ethnic identity as a unique exception to social identity theory.

Also, some studies have shown that those with high ethnic identity are more sensitive to discrimination. For example, Operario and Fiske (2001) conducted two studies that provided support to the historical claim that ethnic identity increased discrimination sensitivity. In Study 1, they found that ethnic minorities high in ethnic identity report increased personal vulnerability to discrimination. In Study 2, minorities high in ethnic identity showed a stronger reaction to subtle prejudice from a White
It is likely that different components of ethnic identity may have differential effects. For example commitment, the sense of attachment an individual has with their ethnic group, has been shown to buffer the relationship between discrimination by peers and self-esteem (Green, Way, & Pahl, 2006). However the same study found that exploration, the behavior of seeking information about one’s ethnic identity, had the opposite effect. Similarly, Torres and Ong (2012) found that ethnic identity commitment buffered the impact of discrimination on depression, while ethnic identity exploration exacerbated the relationship between discrimination and depression. It has been suggested that commitment is the main protective component of ethnic identity (Quintana, 2007), and further supported that exploration is associated with increased psychological distress within the context of discrimination (Torres, Yznaga, & Moore, 2011).

**Theoretical Model**

The current study proposes the model shown in Figure 1 (next page). First, it is proposed that there will be a positive correlation between perceived ethnic discrimination and emerging adults’ mental health (i.e., depression, anxiety). Next, it is hypothesized that ethnic identity will moderate the relationship between perceived ethnic discrimination and mental health. Considering the conflicting evidence with regard to ethnic identity’s impact on perceived ethnic discrimination sensitivity, no prediction as to the specific type of moderation was made. Next, it is predicted that rumination will mediate the relationship between perceived ethnic discrimination and mental health.
Figure 1. Theoretical Model
CHAPTER III
METHODOLOGY

Procedure

Self-report survey data were collected from California State University Northridge students ages 17-30. Participants were recruited from the school via two methods. First, participants were recruited from upper-division university courses. Students from the courses who were willing to participate were administered a consent form, read a brief instruction and description of the study, and completed a paper and pencil survey. The survey administrator was present to answer questions and to collect surveys.

Second, the student subject pool of the department of psychology was utilized. Students who chose to participate were given credit that counted towards psychology 150 and psychology 250 course requirements. Students in these courses who chose not to participate in the subject pool research could complete an alternative writing assignment in order to fulfill their course requirements. The subject pool students completed the survey online; which was created at www.qualtrics.com.

Chi-square analyses were conducted to examine whether there were differences between the samples in the online survey and the paper-pencil, classroom survey. The chi-squares found significant differences in genders (Chi-square = 21.20, p < .001; indicating a higher percentage of male participants in the online survey) and classification (Chi-square = 283.76, p < .001; showing online survey was comprised almost exclusively of lower division students, while the classroom survey was almost exclusively upper division students). Independent samples t-test indicated that online participants were
significantly younger \( t = -12.79, p < .001; \text{mean age} = 19.0 \) than classroom participants (mean age = 22.6).

After surveys were collected, data were then coded and entered into statistical software by a team of trained research assistants. Data coding and entry were verified to minimize error. Verified data were then imported to SPSS statistical software and combined with data downloaded from the online survey.

**Sample**

Analyses were conducted using self-report survey data from 354 emerging adults. The sample consisted of students aged 19-29 \( M = 20.45, SD = 2.1 \). The university classification of the sample follows: 30% freshmen, 17.4% sophomores, 26.2% juniors, 24.8% seniors, and .6% graduate students. The majority of the participants were female (i.e., 79.1%, \( n = 280 \)). The ethnic make-up of the participants are as follows: 53.1% Latino, 18.9% Caucasian, 8.9% African American, 7.7% Asian, 2.3% Persian/Middle Eastern, and 9.1% other. Accordingly, the population was 26.6% majority ethnicity, and 73.4% minority.

**Measures**

Standard fact sheet items were used to measure the demographic characteristics of the sample. Reliable and valid measures used in previous studies were used to measure the variables in the study (as outlined below).

**Perceived Ethnic Discrimination**

Emerging adults’ experiences of perceived ethnic discrimination were measured using the Everyday Discrimination Scale (Williams, Yu, Jackson, & Anderson, 1997). This scale is designed to measure chronic, routine, and relatively minor experiences of
unfair treatment. The scale asks participants to respond on a 6-point scale, ranging from never (1) to almost every day (6), about how frequently they experience routine, minor acts of discrimination. Examples include: “You are treated with less respect than other people,” “People act as if they think you are not smart,” and “You are called names or insulted.” Previously established reliability (Cronbach’s alpha) for the scale follow: .88 with 1106 white and Black adults (Williams et al., 1997), and .83 with 120 Black adolescents (Clark, Coleman, & Novak, 2004). Using data from sample in the current study, the internal consistency reliability (i.e., Cronbach’s alpha) of the scale was .93.

Rumination

Emerging adults’ rumination was assessed using a 10-item rumination scale revised from the rumination subscale of the Response Styles Questionnaire (Nolen-Hoeksema, 1991). It is derived from Response Styles Theory that conceptualizes rumination as repetitively thinking about the causes, consequences, and symptoms of one’s negative emotional state. The original 22-item rumination subscale is the most widely used and empirically supported measure of rumination. However, the scale contains items that seem to overlap with items on measures of depression (e.g., “think about how sad you feel”), and may serve to obfuscate findings that correlate depression with rumination. Treynor, Gonzalez, and Nolen-Hoeksema (2003) addressed this issue by identifying and eliminating 12 depression-related items to create a revised scale that is unconfounded with depression and focuses solely on reflective pondering and brooding. Using the revised 10-item rumination scale, participants were asked to rate the frequency of responses during periods of negative affect on a 4-point scale ranging from almost never (1) to almost always (4). A sample item follows: “think about all your
shortcomings, failings, faults, mistakes.” Treynor et al. (2003) found a Cronbach’s alpha of .89 with moderate to high test-retest reliability ($r = .80$ over 5 months, $r = .47$ for greater than 12 months). Data provided from the current study shows a coefficient alpha of .89.

**Ethnic Identity**

To assess emerging adults’ ethnic identity, a 6-item version (Phinney & Ong, 2007) of the Multigroup Ethnic Identity Measure (MEIM; Phinney, 1992) was used. Participants were asked, on a 4-point scale from *strongly disagree* (1) to *strongly disagree* (4), how strongly they agreed with a list of statements indicating high or low ethnic identity. Response choices include: “I have spent time trying to find out more about my ethnic group, such as its history, traditions, and customs.” Cronbach’s alpha for the original ethnic identity subscale ranges from .81 (Goodstein & Ponterotto, 1997; Phinney, 1992) to .92 (Taub, 1995) when used with college and high school samples. The overall reliability of the 6-item version of the MEIM was .81 (Phinney & Ong, 2007). Data from the current sample shows a coefficient alpha of .91.

**Depression**

Depression in emerging adults was assessed using the depression subscale of the Patient Health Questionnaire for Adolescents (PHQ-A; Johnson, Harris, Spitzer, & Williams, 2002). The PHQ-A depression scale consists of 9 items originally designed to assist primary care practitioners in the assessment of depression in adolescent patients. The diagnostic validity of the adolescent version (i.e., PHQ-A) is similar to that of the adult PHQ (Spitzer, Williams, Kroenke et al., 1994; Spitzer, Kroenke, & Williams, 1999) and is 92% accurate in identifying major depressive disorder and dysthymic disorder.
Thus, both scales have good predictive validity. The current study used 8 items from the PHQ-A depression scale (Kroenke, Strine, Spitzer, Williams, Berry, & Mokdad, 2009). Specifically, the last item, which inquires about suicidal ideation, was eliminated.

According to Johnson et al. (2002), the 8-item scale has the same predictive validity as the 9-item scale. The emerging adults were asked to rate the frequency of various feelings and behaviors on a 4-point scale ranging from not at all (0) to nearly every day (3). A sample item follows: “Feeling down, depressed, or hopeless.” The scores for each item range were summed to create a scale score ranging from 0-24. Reliability (Cronbach’s alpha) when used to assess depression ranges from .84-.92, with high convergence with the Beck Depression Inventory II (Dum, Pickren, Sobell, & Sobell, 2008). As used in the current study, the PHQ-A had an internal consistency alpha of .89 (Kroenke et al., 2009).

Due to researcher error, 173 participants in the current study received a questionnaire containing the PHQ-A, but were given 6 answer choices ranging from never (0) to almost every day (5) rather than 4 answer choices ranging from not at all to nearly every day (n = 185). The new measure, which will be referred to as “depression new”, had a reliability of .90, while the original depression measure had a reliability of .89.

**Generalized Anxiety**

The Generalized Anxiety Disorder 7-item scale (GAD-7) is a brief, self-report scale used to identify generalized anxiety and to assess symptom severity (Spitzer, Kroenke, Williams & Lowe, 2006). Emerging adults were asked to respond on a 4-point scale ranging from not at all (1) to nearly every day (4) regarding how often over the last 2 weeks they had been bothered by the problems in the scale (e.g., trouble relaxing; feeling nervous, anxious, or on edge). In a population of 2,149 participants aged 18-95 a
Cronbach’s alpha of .92 was found (Spitzer, et al., 2006). An internal consistency of .92 was found in the current study.
CHAPTER IV

RESULTS

Descriptive Statistics for the Variables

The range, means, and standard deviations for each variable in the study are reported in Table 1.

Table 1
Descriptive Statistics for the Variables

<table>
<thead>
<tr>
<th>Variables</th>
<th>Range</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depression (new)</td>
<td>0-5</td>
<td>2.12</td>
<td>1.44</td>
</tr>
<tr>
<td>Depression (original)</td>
<td>0-3</td>
<td>.94</td>
<td>.73</td>
</tr>
<tr>
<td>Anxiety</td>
<td>0-3</td>
<td>1.07</td>
<td>.79</td>
</tr>
<tr>
<td>Perceived Ethnic Discrimination</td>
<td>1-6</td>
<td>1.42</td>
<td>.97</td>
</tr>
<tr>
<td>Rumination</td>
<td>1-4</td>
<td>2.13</td>
<td>.70</td>
</tr>
<tr>
<td>Ethnic Identity</td>
<td>1-4</td>
<td>2.69</td>
<td>.75</td>
</tr>
</tbody>
</table>

Zero-Order Correlations

Zero-order correlations (see Table 2) were used to examine the strength and direction of the bivariate relationships between each independent variable and each dependent variable in the study. As anticipated, perceived ethnic discrimination was significantly and positively correlated with rumination, anxiety, and both measures of depression (new and original). Rumination was significantly and positively correlated with anxiety and both measures of depression. And finally, ethnic identity was
significantly and negatively related to both measures of depression, significantly and positively related to ethnic identity, but not significantly related to emerging adults’ anxiety.

Table 2

Zero-Order Correlations

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Depression (new)</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Depression (original)</td>
<td>---</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Generalized Anxiety</td>
<td>.67**</td>
<td>.79**</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Perceived Ethnic Discrimination</td>
<td>.21**</td>
<td>.42**</td>
<td>.37**</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Rumination</td>
<td>.53**</td>
<td>.52**</td>
<td>.48**</td>
<td>.24**</td>
<td>1.00</td>
</tr>
<tr>
<td>6.</td>
<td>Ethnic Identity</td>
<td>-.12*</td>
<td>-.13*</td>
<td>-.04</td>
<td>.14**</td>
<td>-.03</td>
</tr>
</tbody>
</table>

*p < .05. **p < .01.

Hierarchical Multiple Regressions: Ethnic Identity as a Potential Moderator

A series of hierarchal multiple regression equations were used to identify the variance in depression and anxiety due to the linear combinations of the predictor variables. Since one objective for the study was to examine whether ethnic identity of the emerging adult was a moderator of the relationship between perceived ethnic discrimination and each aspect of mental health (i.e., depression, anxiety), an interaction terms was created: perceived ethnic discrimination x ethnic identity. The predictor variables were centered before creating the interaction term, as recommended by Cohen,
Cohen, West, and Aiken (2003). Based on Baron and Kenny’s (1986) guidelines, moderation was tested by entering the predictor variables into the hierarchical multiple regression analyses using the following steps: (1) perceived ethnic discrimination was entered in Step 1; and (2) ethnic identity was entered in Step 2, and (3) the interaction term was entered in Step 3.

**Perceived Ethnic Discrimination, Ethnic Identity, and Depression (New)**

The results of the hierarchical multiple regression showed that perceived ethnic discrimination was significantly and positively related to depression (new); accounting for 4% of the variance in depression (see Table 3). In Step 2, perceived ethnic discrimination was still significantly related to depression. Also, ethnic identity was significantly and negatively related to depression, and contributed an additional 3% of the variance ($p < .01$) in depression. In Step 3, both perceived ethnic discrimination and ethnic identity were still significantly related to depression. The interaction term was also significant, and accounted for 2% of the variance in depression.

Table 3

*Hierarchical Multiple Regression for Depression (New) ($n = 173$)*

<table>
<thead>
<tr>
<th></th>
<th>Step 1</th>
<th>Step 2</th>
<th>Step 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceived Ethnic Discrimination</td>
<td>.21**</td>
<td>.25**</td>
<td>.27**</td>
</tr>
<tr>
<td>Ethnic Identity</td>
<td>-.18*</td>
<td>-.31*</td>
<td></td>
</tr>
<tr>
<td>Perceived Ethnic Discrimination X Ethnic Identity</td>
<td></td>
<td>-.19*</td>
<td></td>
</tr>
<tr>
<td>$\Delta R^2$</td>
<td>-.04</td>
<td>.03</td>
<td>.02</td>
</tr>
<tr>
<td>$\Delta F$ value</td>
<td>7.78**</td>
<td>5.79 **</td>
<td>3.98*</td>
</tr>
</tbody>
</table>

*p < .05. **p < .01. Standardized beta coefficients are shown.*
Next, the interaction was graphed. The graph showed that risk of depression was worse when perceived ethnic discrimination was higher and ethnic identity was lower (see Figure 2). The lowest risk of depression was when perceived ethnic discrimination was low and ethnic identity was high. Thus, ethnic identity buffered the influence of perceived ethnic discrimination on depression.

**Perceived Ethnic Discrimination, Ethnic Identity, and Depression (Original)**

In Step 1, perceived ethnic discrimination was significantly and positively related to depression; accounting for 18% of the variance in depression (see Table 4). In Step 2, perceived ethnic discrimination was still significantly related to depression. Also, ethnic identity was significantly and negatively related to depression, and contributed an additional 3% of the variance \((p < .05)\) in depression. In Step 3, both perceived ethnic discrimination and ethnic identity were still significantly related to depression. The interaction term was not significantly related to anxiety and contributed no additional unique variance.
Table 4

*Hierarchical Multiple Regression for Depression (Original) (n = 182)*

<table>
<thead>
<tr>
<th></th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceived Ethnic Discrimination</td>
<td>.42**</td>
<td>.43**</td>
<td>.43**</td>
</tr>
<tr>
<td>Ethnic Identity</td>
<td>-.16*</td>
<td>-.16*</td>
<td></td>
</tr>
<tr>
<td>Perceived Ethnic Discrimination X Ethnic Identity</td>
<td>.01</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$\Delta R^2$</td>
<td>.18</td>
<td>.03</td>
<td>.00</td>
</tr>
<tr>
<td>$\Delta F$ value</td>
<td>36.89**</td>
<td>5.40*</td>
<td>.02</td>
</tr>
</tbody>
</table>

*p < .05. **p < .01. Standardized beta coefficients are shown.

**Perceived Ethnic Discrimination, Ethnic Identity, and Generalized Anxiety**

In Step 1, perceived ethnic perceived ethnic discrimination was significantly and positively related to generalized anxiety; accounting for 13% of the variance in generalized anxiety (see Table 5 on next page). In Step 2, perceived ethnic discrimination was still significantly related to generalized anxiety. However, ethnic identity was not significantly related to generalized anxiety. In Step 3, the interaction term was not significantly related to anxiety and contributed no additional unique variance.
Table 5

Hierarchical Multiple Regression for Generalized Anxiety (n = 354)

<table>
<thead>
<tr>
<th></th>
<th>Step 1</th>
<th>Step 2</th>
<th>Step 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceived Ethnic Discrimination</td>
<td>.36**</td>
<td>.38**</td>
<td>.38**</td>
</tr>
<tr>
<td>Ethnic Identity</td>
<td></td>
<td>-.97</td>
<td>-.10</td>
</tr>
<tr>
<td>Perceived Ethnic Discrimination X Ethnic Identity</td>
<td></td>
<td>-.10</td>
<td></td>
</tr>
<tr>
<td>ΔR²</td>
<td>.13</td>
<td>.01</td>
<td>.00</td>
</tr>
<tr>
<td>Δ F value</td>
<td>53.44**</td>
<td>3.72</td>
<td>.29</td>
</tr>
</tbody>
</table>

*p < .05. **p < .01. Standardized beta coefficients are shown.

Hierarchical Multiple Regressions: Ruminatio as a Potential Mediator

Path analyses were conducted to examine the potential mediation of rumination between perceived ethnic discrimination and mental health (i.e., depression, generalized anxiety) using the procedures outlined by Baron and Kenny (1986) with multiple regression analyses. Just identified models were conducted to examine the direct and indirect effects of the predictor variables upon emerging adults’ mental health. The standardized path coefficients for each model are presented. A minimum significance level of p < .05 was used to determine the significance of the path coefficients.

Consistent with Barron and Kenny (1986), rumination will serve as a mediating variable between perceived ethnic discrimination and mental health when the following criteria are met: (1) perceived ethnic discrimination will be significantly related to the mental health variables when rumination is not in the model; (2) when rumination is added to the model, perceived ethnic discrimination will be significantly related to
rumination, and rumination will be significantly related mental health; and (3) the previously significant relationship between the perceived ethnic discrimination and mental health will no longer be significant.

**Perceived Ethnic Discrimination, Rumination, and Depression (New)**

The first model shows that perceived ethnic discrimination is significantly and positively related to depression (new), accounting for 4% of the variance in depression ($F = 7.75, p < .01$; see Figure 2, Model 1). Once rumination was added (see Figure 2, Model 2), perceived ethnic discrimination was no longer significantly related to depression. However, perceived ethnic discrimination was significantly and positively related to rumination, and rumination was significantly and positively related to depression. Thus, rumination mediated the relationship between perceived ethnic discrimination and depression. The total model accounted for 28% of the variance in depression ($F = 35.04, p < .01$).

![Figure 2. Models for depression (new). Standardized beta coefficients are presented. Dotted lines indicated non-significant paths. *$p < .05$. **$p < .01$.](image)
Perceived Ethnic Discrimination, Rumination, and Depression (Original)

Model 1 in Figure 3 shows that perceived ethnic discrimination is significantly and positively related to depression (original); accounting for 18% of the variance in depression \((F = 38.65, p < .01)\). When rumination was added to the model, perceived ethnic discrimination remained significantly related to depression. However, the path between perceived ethnic discrimination and depression decreased to .25. Since perceived ethnic discrimination was significantly and positively related to rumination, and rumination was significantly and positively related to depression, rumination partially mediated the relationship between perceived ethnic discrimination and depression. The total model accounted for 36% of the variance in depression \((F = 50.01, p < .01)\).

![Model 1 Diagram](image)

**Figure 3.** Models for depression (original). Standardized beta coefficients are presented.

\*\(p < .05\), **\(p < .01\).

Perceived Ethnic Discrimination, Rumination, and Generalized Anxiety

Model 1 in Figure 4 shows that perceived ethnic discrimination is significantly
and positively related to generalized anxiety; accounting for 13% of the variance in depression \((F = 54.98, p < .01)\). When rumination was added to the model, perceived ethnic discrimination remained significantly related to generalized anxiety. However, the path between perceived ethnic discrimination and generalized anxiety decreased from .37 to .27. Since perceived ethnic discrimination was significantly and positively related to rumination, and rumination was significantly and positively related to depression, rumination slightly mediated the relationship between perceived ethnic discrimination and anxiety. The total model accounted for 36% of the variance in generalized anxiety disorder \((F = 72.75, p < .01)\).

![Diagram](image)

**Figure 4.** Models for generalized anxiety. Standardized beta coefficients are presented.  
*p < .05. **p < .01.*
CHAPTER V
DISCUSSION

The purposes of this study were: (1) to examine the influence of perceived ethnic discrimination on emerging adults’ symptoms of anxiety and depression, (2) to determine the potential moderating effects of ethnic identity, and (3) to determine the potential mediating effects of rumination. It was proposed that perceived ethnic discrimination would be positively correlated with emerging adults’ symptoms of generalized anxiety and depression, that ethnic identity would moderate this relationship, and that rumination would mediate the relationship such that the presence of rumination would explain the effect of perceived ethnic discrimination on both depression and anxiety.

As proposed, perceived ethnic discrimination was positively related with symptoms of depression and generalized anxiety. Even relatively minor events of perceived ethnic discrimination perceived chronically (as measured in the current study) produce similar effects to those presented in studies examining the effects of major discriminatory events (e.g., Kessler et al., 1999). Perceived ethnic discrimination may influence depression by effecting the recipient’s self-concept. This finding provides support for the concept of “racial battle fatigue,” introduced by Smith et al. (2007) to describe the chronic deterioration that subtle forms discrimination can have on mental health.

The theory of the looking glass self (Cooley, 1902) explains that one’s self-concept is based, in part, upon the manner in which they are treated by others. Recipients of perceived ethnic discrimination may be more likely to develop negative self-concept, and according to Beck (1967; 1974) a key component to depression is one’s self view.
Furthermore, stressful life events have been shown to activate existing diatheses (i.e., diathesis-stress model; Bleuler, 1963; Rosenthal, 1963), thus putting recipients of perceived ethnic discrimination at greater risk for developing symptoms of anxiety. Newman and Bland (1994) found that those who reported more frequent stressful life events were more likely to develop generalized anxiety disorder.

Consistent with previous studies, ethnic identity was significantly and negatively related to depression, indicating that a strong sense of ethnic identity can diminish depression. Yet, ethnic identity was not significantly related to anxiety in either the correlations or regressions. As previously stated, self-concept is a key component of depression (Beck, 1967; 1974). Ethnic identity is a key aspect of one’s self-concept (Phinney, 1990). Thus, a negative view of ethnic identity can undermine one’s self-concept, which can increase risk of depressive symptoms. However, emerging adults may be less likely to ruminate about their ethnic identity, thus it may not contribute much to the excessive worrying associated with generalized anxiety.

When ethnic identity was tested as a possible moderator of the relationship between perceived ethnic discrimination and mental health, inconsistent results were found. In one of the moderator models (utilizing the new depression measure), ethnic identity mitigated the effects of perceived ethnic discrimination on depression. This finding indicates that ethnic identity can serve to buffer perceived ethnic discrimination’s influence on levels of depression. However, with the other mediation model (utilizing the original depression measure), ethnic identity did not function as a moderating variable. Thus, it is difficult to assess whether ethnic identity is a moderator or not. It does draw attention to the response choices used in the measure of depression. In the original scale,
the responses were not at all (1) to nearly every day (4), while in the new depression measure, the response choices were never (1) to almost every day (6). In the correlations, both measures of depression were significantly correlated in similar ways to anxiety, rumination, and ethnic identity, yet perceived ethnic discrimination was significantly less correlated to the new depression measure \((r = .21, p = .003)\) than the original depression measure \((r = .42, p < .001)\). Specifically, a Fisher r-to-z transformation was conducted to compare the two correlation sizes, which were found to be significantly different \((z = -2.20, p = .01)\). So, it is possible the response choices resulted in significantly different findings. But it is also possible the two samples resulted in different findings since the online survey (compared to the classroom survey) was significantly younger, had significantly more lower classmen, and had significantly more male participants. Future research may want to assess the impact of changing the response choices in the depression measure to see which might yield more accurate results. In our third model, ethnic identity did not interact with perceived ethnic discrimination to mitigate or amplify the effects of perceived ethnic discrimination on generalized anxiety. Thus, ethnic identity was not a moderator of generalized anxiety. These mixed findings may reflect the opposing influences of differing components of ethnic identity. Commitment and exploration, said to be the central components of ethnic identity (Ong, Fuller-Rowell, & Phinney, 2010; Phinney & Ong, 2007), have been shown to have differing moderating effects on mental health (e.g., depression; Torres & Ong, 2010). With these conflicting components at play, null findings may be a result of their push and pull. Future studies should examine various components of ethnic identity to examine their unique moderating influences.
The results showed that rumination was significantly and positively related to both depression and anxiety. Rumination is often an unhealthy and misguided attempt at sorting through one’s problems, which can increase negative views of self, future, and world, which can contribute to both depression and generalized anxiety. Inconsistent findings were found with regard to the mediating effects of rumination. Nevertheless in each of the 3 models, rumination was found to explain a portion of the effects of perceived ethnic discrimination on symptoms of mental health. With regard to depression (new), rumination was found to fully mediate the relationship between perceived ethnic discrimination and depression. For depression (original), rumination partially mediated the relationship between perceived ethnic discrimination and depression. In the last model, rumination slightly mediated the relationship between perceived ethnic discrimination and generalized anxiety. The data provide sufficient support to conclude that rumination is not a healthy means to cope with perceived ethnic discrimination, and that it may explain, at least partially, the effect perceived ethnic discrimination has on mental health (i.e., depression and anxiety).

**Limitations and Research Implications**

This thesis will add to the scientific understanding of perceived ethnic discrimination, its impact on mental health, and the manners in which individuals cope with it. However, certain limitations to the study exist, and should be taken into consideration. First, the data used in this study were cross-sectional and were collected using self-report measures. Collecting data in this manner imposes restrictions upon the type of conclusions that can be made and causality cannot be inferred from the data. Rather, the data reflect a series of relationships between variables that may or may be
causal in nature. Thus, longitudinal studies are recommended. Additionally, independent and dependent variables were measured using individual reports. Thus, shared method variance may have inflated the relationship between variables. Future studies may benefit from using clinical diagnosis of levels of depression and generalized anxiety.

Also, the study did not separate groups by gender, ethnicity, or age, and thus does not reflect any intergroup or intragroup differences that may exist. It is possible that results may be weakened or strengthened when considering subgroups that exist within the early adult population that was surveyed. Thus, future studies or analyses may want to consider these intragroup differences. Furthermore, the sample used for data collection is a unique subset of the emerging adult population (i.e., university students in the Los Angeles area), and for this reason may not generalize to the larger population of early adults. Hence, future studies may want to use a larger, more representative sample of emerging adults.

The mixed findings regarding the buffering effects of ethnic identity challenges existing findings stating ethnic identity increases perceived ethnic discrimination sensitivity, and encourages more attention be made to this area of research. In addition, the promising yet illusive results inspire further and more stringent research methods be applied to the same questions.

**Implications for Practice**

The findings of this study have several implications for parents, educators, and mental health practitioners. First, the results found regarding the effects of everyday perceived ethnic discrimination experiences on emerging adults’ mental health provide support for the conceptualization of perceived ethnic discrimination as harmful to mental
health. Parents and educators of emerging adults should understand that even subtle experiences of perceived ethnic discrimination can be insidious and contribute to symptoms of depression and anxiety. This information may be helpful to organizations such as the Center for Equal Opportunity and the International Bullying Prevention Association.

Mental health practitioners with clients displaying symptoms of depression and anxiety should explore the possibility of perceived ethnic discrimination. Clients experiencing even subtle forms of perceived ethnic discrimination should be discouraged from coping by rumination. Practitioners can help clients learn more adaptive ways to cope with perceived discrimination. It is also possible that helping clients build a connection within their ethnic group could be helpful.

**Conclusion**

The purpose of the current study was to examine the relationship between perceived ethnic discrimination and levels of depression and anxiety in emerging adults, and to examine the potential moderating effects of ethnic identity, and the potential mediating effects of rumination. The results indicate perceived ethnic discrimination is positively correlated with symptoms of depression and anxiety, and also with the two coping variables (i.e., rumination and ethnic identity). It was also found that in one of three models, ethnic identity lessens the impact of perceived ethnic discrimination on depression. In one of three models, rumination fully mediated the relationship between perceived ethnic discrimination and depression. In the other two, rumination partially mediated the relationship between perceived discrimination and depression and anxiety. The findings suggest that (1) even subtle perceived ethnic discrimination can be
deleterious to mental health, (2) ethnic identity may buffer the impact of perceived ethnic discrimination on levels depression, and (3) rumination partially explains the relationship between perceived ethnic discrimination and depression and anxiety. Practitioners should examine the role of perceived ethnic discrimination in their clients experiencing depression and anxiety, and may find it useful to focus on coping with perceived ethnic discrimination by discouraging rumination and encouraging ethnic identity.
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