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Ethnic and Racial Group Differences in Attitudes towards Undocumented Latino Immigrants

Juan M. Pena
University of New Mexico

Juan Manuel Peña
Candidate

Psychology
Department

This thesis is approved, and it is acceptable in quality and form for publication:

Approved by the Thesis Committee:

Steven P. Verney, Chairperson

Kamilla Venner

Gabriel R. Sanchez

Thierry Devos

ETHNIC AND RACIAL GROUP DIFFERENCES IN ATTITUDES TOWARDS UNDOCUMENTED LATINO IMMIGRANTS

BY

JUAN MANUEL PEÑA

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Dedico todos mis logros a mis padres, Miguel Peña y Guadalupe Peña. Gracias por ser mi fortaleza y motivación durante tiempos buenos y difíciles. De ningún modo olvidaré sus sacrificios y apoyo que me siguen brindando en mi viaje académico.

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M.S., Psychology, University of New Mexico, 2018

ABSTRACT

Tensions towards Latino immigrants in the United States have been a growing concern. As the largest ethnic/racial and immigrant group, Latinos/Hispanics often experience discrimination from majority groups. Perceived discrimination has been linked to worse mental and health outcomes among ethnic minority groups. Measures of implicit and explicit attitudes have been used to identify positive and negative attitudes towards Latinos. Intercultural sensitivity, the ability to understand and appreciate different cultures, is theorized to be linked to implicit and explicit attitudes towards undocumented Latino immigrants. Two-hundred eighty-eight college students, 18 years of age or older (M = 21, SD = 5) completed online questionnaires and two Implicit Association Tests (IATs). Sixty-nine percent of participants identified as female. Thirty-eight percent self-identified as Mexican or Chicano, 38% identified as non-Hispanic White, and 24% as Hispanic or Spanish. Significant mean differences among ethnic and racial groups were found on total immigrant scores; IAT Immigrant and Race IAT *D*

scores; and perceived discrimination scores. The overall hierarchical regression models predicting implicit and explicit attitudes towards undocumented Latino immigrants were significant. Intercultural sensitivity was a significant predictor of explicit, but not implicit attitudes. Hispanics had more negative explicit attitudes than the Mexican/Chicano group. Whereas, Non-Hispanic Whites had more negative implicit attitudes. An increase in intercultural sensitivity predicted a decrease in explicit attitudes towards undocumented Latino immigrants, which suggests that it may be an important factor in understanding attitudes and behavior. However, further research with a more representative sample and methodological rigor is warranted.

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CHAPTER 1 INTRODUCTION

Immigrant Populations in the United States

The U.S. has seen a substantial growth in the size of immigrant populations. Between 1970 and 2015, the immigrant population increased from 9.6 million to 43.3 million, thus, now accounting for more than 13% of the population living in the U.S. (Zong, Batalova, & Hallock, 2018). Migration to the U.S. is a stressful experience that is influenced by demand push and pull factors. Push factors such as, extreme poverty and violence, limited educational and work opportunities drive immigrants out of their country. Pull factors are factors that attract or influence the movement to another country, which includes family reunification, and higher wages (Garcini et al., 2016). Recently, most immigrants arrive from countries where English is not primarily spoken or learned, therefore, upon arrival to the U.S., they are faced with language barriers in employment, educational and health systems. Additionally, depending on the state that immigrants arrive, they are constrained because of the political, economic and social climate in the area. Policies that impact immigrants based on legal status significantly affect their health. For example, public health and welfare benefits, access to higher education, employment opportunities and identification, including driver's licenses are common impediments and stressors affecting the health of immigrants and vary by state of residence (Rodríguez, Young, & Wallace, 2015).

During the early 20th century, immigrants predominantly originated from Europe. However, from 1960 to 2014, the share of the total U.S. foreign-born accounted by Europeans decreased from approximately 75% to 11%, with the number of European immigrants living in the U.S. remaining relatively stable since 2000. (Zong & Batalova,

2015). From the late 20th and early 21st century, there has been a considerable increase in immigrants from Latin America and Asian countries. In 2015, more than half of immigrants living in the U.S. were from Mexico, India, China, Philippines, El Salvador, Vietnam, Cuba, Dominican Republic, Korea and Guatemala (Zong et al., 2018). Thus, Latinos now comprise a large percentage of the immigrant population whereas, as a whole, the percentage of European immigrants in the U.S. has decreased.

Latinos or Hispanics, (hereafter used interchangeably to refer to individuals who identify as Latino or Hispanic descent), are the largest ethnic/racial minority and immigrant group and constitute approximately 17% of the U.S. population (Stepler & Brown, 2016). It is estimated that there are more than 55 million people in the U.S. of Hispanic or Latino descent, with 35% or 19 million being immigrants and approximately 8 million being undocumented. At nearly 34 million, individuals of Mexican origin are the largest Latino group living in the U.S., with more than 11 million foreign-born from Mexico (Gonzalez-Barrera & Lopez, 2013; Zong et al., 2018). The complex political history between the U.S. and Latin American countries have influenced waves of migration and how different Latino groups have been received in the U.S. (Guarnaccia, 1997; Tienda & Sánchez, 2013).

When compared with other immigrants, European immigrants are more likely to be proficient in English and to speak English, more educated, and have a higher household income (Zong & Batalova, 2015). Therefore, when compared with Latino immigrants, European immigrants may not face as significant financial or language stressors in adjusting to life in the United States. Their proficiency of the English language is likely to help them across educational, medical and legal (e.g., applying for

citizenship) systems and differentiate them from the experience of Latino immigrants. Furthermore, physical appearance makes it probable that it will be difficult to distinguish European immigrants from Caucasian or White Americans. Consequently, Latinos/Hispanics may experience greater instances of perceived discrimination than Non-Hispanic Whites/Europeans.

Perceived Discrimination, Discrimination, and Health

Perceived discrimination and discrimination are often used interchangeably to refer to a behavior that is manifested through negative attitudes, judgments or unfair treatment towards members of a group. For example, individuals from a specific ethnic, racial, and sexual background (Pascoe & Smart Richman, 2009). Discrimination is primarily assessed through self-report of an individual's perceived experiences, without confirmation of those experiences. Inability to confirm their experiences has ignited some controversy regarding discrimination as an accurate construct. However, experiences of perceived discrimination can act as stressors, contributing to symptoms of psychopathology (Pascoe & Smart Richman, 2009). In other words, one's perception of being the target of discrimination can lead to worse mental and physical health outcomes. Another definition of perceived discrimination encompasses an individual's perceptions of the treatment or discrimination experienced by their ethnic group (Malcarne, Chavira, Fernandez, & Liu, 2006).

A meta-analysis found that higher levels of perceived discrimination were related to more negative mental health symptoms, including symptoms of depression, anxiety, and posttraumatic stress (Pascoe & Smart Richman, 2009). Although the majority of studies on perceived discrimination have focused on negative outcomes among African

Americans, efforts have been made to include different populations (Williams & Mohammed, 2009). Latinos experience discrimination in their daily life and it has shown to affect mental health outcomes (Pérez, Fortuna, & Alegria, 2008). For instance, Latinos that experienced discrimination exhibited more symptoms of depression, anxiety and poorer psychological well-being (Araújo & Borrell, 2006; Lee & Ahn, 2012). A study also found that undocumented Mexican immigrants who experienced discrimination, were nearly three times more likely to meet criteria for a disorder (Garcini et al., 2017). U.S. born Latinos or Latino immigrants arriving to the U.S. at age 6 or younger reported greater instances of discrimination than immigrants who arrived when they were between 7-17 years old and 18-24 years (Pérez et al., 2008). Other variables that are important to consider because of the positive association with discrimination include being younger, having a higher education and income. Despite the fact that more than 30% of Latinos or Hispanics in the U.S. are foreign born (Stepler & Brown, 2016), the majority of studies on perceived discrimination and discrimination focus on other ethnic groups, typically excluding Latino immigrants (Williams & Mohammed, 2009; Williams, Neighbors, & Jackson, 2003). Further research is therefore warranted to determine common impacts of perceived discrimination on this population.

College Student Mental Health

Mental health is a growing concern among young adults, especially among college students. The responsibilities that college students face and the transition that many students endure from high school to secondary education leaves them vulnerable to experiencing mental health problems and symptoms of psychopathology. Depression and anxiety disorders are common among undergraduate and graduate students. Previous

studies have found that the prevalence of overall positive screening of depression was 13.8% for undergraduate students and 11.3% for graduate students (Eisenberg, Gollust, Golberstein, & Hefner, 2007). In an ethnically diverse sample of college students, more than half expressed moderate to high levels of anxiety and 41% experienced moderate to high levels of depression (Rosenthal & Schreiner, 2000). Additionally, perceived discrimination are common experiences among college students of diverse backgrounds thus, contributing to negative mental health outcomes. A study among Latino and Asian college students found that higher perceived discrimination scores were associated with higher depression, anxiety and suicide ideation (Hwang & Goto, 2008).

There are several sociodemographic characteristics that are associated with mental health problems. For instance, sexual identity and socioeconomic status are associated with depression and anxiety. Studies have found that students who identified as bisexual were more likely to screen positive for depression (Eisenberg et al., 2007). Additionally, students who reported current financial struggles and growing up in a poor family were more likely to screen positive for depression and anxiety (Eisenberg et al., 2007). Characteristics such as, being born in the U.S., living in rural settings and living away from parents have been associated with a greater risk for a mental health disorder (Blanco et al., 2008). On the contrary, when compared with students that were between 18-22 years, those that were older than 25 reported fewer mental health problems. Students that were married or in a relationship also had fewer mental health problems (Blanco et al., 2008). Hence, there are risk and protective factors that may augment or ameliorate risk for psychopathology.

Intercultural Sensitivity

Intercultural sensitivity is the extent to which an individual develops positive emotions towards understanding and appreciating cultural differences, which could lead to appropriate and effective behavior when communicating with others from different cultural backgrounds (Chen & Starosta, 1997). Common elements accounting for intercultural sensitivity include self-esteem, self-monitoring, open mindedness, empathy, interaction involvement and non-judgment (Chen & Starosta, 2000). Individuals with higher self-esteem tend to be more confident in dealing and recognizing differences with the ambiguous situation of intercultural encounters. Self-monitoring has also been related to intercultural sensitivity because it includes the ability to regulate and change one's behaviors in an appropriate cultural context (Chen & Starosta, 2000). People that are open-minded can recognize, appreciate, and accept diverse views that shows one's consideration for others (Chen & Starosta, 2000). Empathy or the ability to understand the feelings and reactions of others is also a critical component of being interculturally sensitive. Interaction involvement comprises of three concepts related to the sensitivity expressed during interaction: responsiveness, attentiveness, and perceptiveness. Lastly, being nonjudgmental allows one to listen sincerely to others from different cultural backgrounds (Chen & Starosta, 2000). Intercultural sensitivity is grounded on the assumption that as one's experiences becomes more sophisticated, one's sensitivity to cultural differences increases (Bennett & Bennett, 2004). During the process, one initially starts in an ethnocentric stage, where our perception of the world revolves on our own cultural experiences (Bennett & Bennett, 2004). It is then possible to shift to an ethnorelative stage, where one adapts the perspective of other cultures and seeks to accept

cultural differences from one's own then, leading to appropriate and competent communication with others (Bennett & Bennett, 2004). Therefore, it is expected that as individuals advance towards the ethnorelative stage, their attitudes towards different ethnic/cultural groups will become more positive and accepting.

Ingroup and outgroup bias is derived from intergroup contact theory, which suggests that contact with other cultural and/or ethnic groups than one's own could reduce prejudice attitudes towards that group. Intergroup contact theory includes four processes that mediate attitude change: learning about the outgroup, changing behavior, generating affective ties, and ingroup reappraisal (Pettigrew, 1998). Meta-analyses have found a strong association between having outgroup friends and lower intergroup prejudice (Pettigrew & Tropp, 2006). Studies have also found that the negative relationship between contact and prejudice was smaller among minority groups of low-status than majority groups of high status (Pettigrew & Tropp, 2000). A longitudinal study among college students found that students had the highest number of closest friends among members of their own ethnic group. Specifically, Whites had the most White friends, Asian Americans had the most Asian friends, Latinos had the most Latino friends, and Blacks had the most Black friends (Levin, Van Laar, & Sidanius, 2003). Results also indicated that Blacks were the least likely to have White and Asian friends, whereas Asian Americans were least likely to have Latino and Black friends (Levin et al., 2003). The most important influence on ingroup favoritism was outgroup friends. Students who had more friends from different ethnic groups and fewer friends from their own group during their second and third year in college were less biased in favor of their ethnic

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group, as well as less anxious being around people of different ethnic groups by the end of their fourth year in college (Levin et al., 2003).

Although research on ingroup and outgroup bias among Latinos or Hispanics is limited, studies suggest that there are stronger biases towards Hispanics among White Americans than Latinos. For instance, Hispanic Americans were more likely than White Americans to hold favorable views towards policy that would predominantly affect Latino immigrants (Lee & Ottati, 2002). Similarly, studies have found that Latinos hold more positive views towards immigrants and immigration policy than Whites (Sanchez & Espinosa, 2016; Sanchez & Sanchez-Youngman, 2013). Other studies have found that when stratified by Latino subgroup, Latinos of Mexican, Puerto Rican and Cuban descent expressed a strong preference for members of their own subgroup (Huddy & Virtanen, 1995). In comparison with Whites, Latinos felt more negatively toward members of other Latino subgroups. Therefore, suggesting that there is within group variation among Latinos from different backgrounds. Moreover, when asked to rate the social standing of each Latino subgroup, Whites gave similar low ratings across all Latino subgroups (Huddy & Virtanen, 1995). Previous findings elucidate that ingroup and outgroup preference exists between and within ethnic or cultural groups. However, it is unclear if preference towards undocumented immigrants would vary by ethnic/cultural groups. In other words, there may be ingroup and outgroup differences towards undocumented immigrants based on their racial/ethnic group (i.e., European or Latino).

Explicit Attitudes towards Undocumented Immigrants

Attitudes are tendencies and beliefs that people hold towards someone or something, which may influence them to act in favorable or unfavorable manners

(Greenwald & Krieger, 2006). Attitudes can be explicit or implicit expressions and indicators of how an individual may feel towards an object. Explicit attitudes include expressions that an individual recognizes, whereas implicit attitudes may be subtle forms of beliefs that an individual may not understand why they hold or are expressing that attitude (Greenwald & Krieger, 2006). Undocumented migration or the entry of individuals to a country without authorization has been a growing concern in the U.S. Policies aimed at deterring legal and illegal migration continue to be at the forefront of the political agenda; such policies along with the media, may influence attitudes towards undocumented immigrants (Atwell Seate & Mastro, 2016). Attitudes towards undocumented immigrants are influenced by contextual factors, including media, information from other people, labor-market competition, perceived threat to cultural and national identity (e.g., communicating in a language other than English), and perceptions that they are a burden to society (Ommundsen, Larsen, van der Veer, & Eilertsen, 2014). Specifically, it has been found that prejudice and discrimination is strongest among people who compete directly for the same jobs as undocumented immigrants (Larsen, Krumov, Van Le, Ommundsen, & van der Veer, 2009). Additionally, attitudes towards immigrants differ depending on whether the labels attributed were "illegal immigrants", "illegal aliens" or "undocumented immigrant." When compared with using the term "undocumented immigrants", using the term "illegal immigrants" resulted in significantly less positive attitudes (Ommundsen et al., 2014). Labeling immigrants as "illegal aliens" also results in more negative attitudes than "undocumented worker," which suggests that labels may elicit differences in perceived threat (Pearson, 2010).

Attitudes towards undocumented immigrants vary by country and reason for migrating. Students from the U.S. reported significantly higher negative scores towards undocumented immigrants than students from Europe (Ommundsen & Larsen, 1999). Attitudes towards undocumented immigrants who migrated for political reasons were more positive than those who migrated for economic reasons (van der Veer, Higler, Woelders, Ommundsen, & Pernice, 2013). Although most studies on explicit attitudes towards undocumented immigrants have not focused on a specific ethnic or cultural group (e.g., Latino, European), previous research suggests that there are differences on attitudes pertaining to the cultural or ethnic background of immigrants. Particularly, studies have found that White Americans show higher levels of worry about the effect Latino immigrants have on communities across the U.S. rather than African and European immigrants (Valentino, Brader, & Jardina, 2013). Additionally, the perception of White Americans on immigration policy is related to their attitudes towards Latinos (Valentino et al., 2013). During the past few years, the media has placed more attention to immigrant groups from Latin America, thus, making it likely that news coverage could be solely shaping attitudes towards Latino immigrants (Valentino et al., 2013). Moreover, when people hear undocumented immigrant, they tend to associate it with Latinos, particularly of Mexican origin (Vargas, Winston, Garcia, & Sanchez, 2016). Given the recent end of the Deferred Action for Childhood Arrivals (DACA) program (DHS, 2017), and the high rates of student advocacy across university campuses, this is likely to be a salient issue among college students. Furthermore, the current socio-political and economic climate, as well as the fact that the majority of immigrants in the U.S. are

Latino or more specifically of Mexican origin (Stepler & Brown, 2016), will continue to influence people's attitudes towards this group.

The Implicit Association Test

Researchers have long looked for ways to measure attitudes one person has against another beyond self-report, in part because it was thought that people would not be readily truthful or even recognize their own subtle attitudes. The Implicit Association Test (IAT) has been used extensively to measure the strength of automatic associations towards two pairs of concepts (Greenwald, McGhee, & Schwartz, 1998; Greenwald, Nosek, & Banaji, 2003). The IAT assumes that it is easier to make a response through a key press to concepts that are strongly associated than to weakly associated concepts (Greenwald et al., 1998). For example, participants will be more likely to attribute the concept of European American or White to pleasant words than African American or Black to positive thus, when paired together, it will elicit faster responses (Greenwald et al., 1998). Figure 1 shows an example of the stages and blocks of the IAT. The IAT procedure has five critical steps: 1) learning the concept dimension; 2) learning the attribute dimension; 3) concept-attitude pairing one; 4) learning to switch the spatial location of the concepts and 5) concept-attitude pairing two (Nosek, Greenwald, & Banaji, 2005). In learning the concept dimension, respondents initiate by sorting items to two different concepts for example, in block one they would sort face images of White for good and faces of Blacks for bad. Categorization are made using two keys on a computer keyboard that are mapped to the categories. For example, the "E" key for positive and "I" for negative (Nosek et al., 2005). In step two: learning the attribute dimension, participants now sort items representing two contrasted concepts representing

opposite attribute dimensions, such as, wonderful, beautiful for "positive" and terrible, nasty for "negative." In the third stage, or the first concept-attribute pairing, where two sorting tasks are combined so on alternating trials, participants are identifying face images of Whites or Blacks and then a word as positive or negative (Greenwald, Poehlman, Uhlmann, & Banaji, 2009). Respondents are now using one key, "E" as the correct response for White and Good and the other key "I" for Black and Bad (Nosek et al., 2005). During this stage, which is also referred to as block three and four, participants perform a block of 20 "practice" trials then, a second block of 40 "critical" trials (Nosek et al., 2005). In step four, which is also referred to block five: learning to switch the spatial location of the concepts, the stimulus items for the target concepts are sorted for 20 trials, but the key pressing assignments are reversed. In other words, White target concepts now require a "I" key press, whereas Black concepts require an "E" press. In the fifth stage, also known as block six and seven: the concept and attributes are paired together and participants are required to categorize items with one key for White and Negative items and the other key for Black and Positive items. Stimulus items are performed for 20 trials and then, 40 more trials (Nosek et al., 2005). The sorting rules in blocks one, three, and four are usually counterbalanced with blocks five, six and seven between subjects (Nosek, Greenwald, & Banaji, 2007). As seen in Figure 1, at each block the category labels appear on the top left and right of the computer screen and when items are incorrectly categorized, an indication of an error in the form of a red "X" appears below the stimulus item thus, participants need to hit the correct response key before moving to the next trial (Nosek et al., 2007).

Figure 1. IAT Tasks by Blocks and Procedures

Instructions by Block Number	Block 1 - 20 Trials Concept-Image Pairing	Block 2 - 20 Trials Concept-Attribute Pairing	Block 3 - 20 Trials; Block 4 - 40 Trials Concept + Attribute Pairing
	White American — Black American Put your middle or index fingers on the E and I keys of your keyboard. Pictures or words representing the categories at the top will appear one-by-one in the middle of the screen. When the item belongs to a category on the left, press the E key; when the item belongs to a category on the right, press the I key. Items belong to only one category. If you make an error, an X will appear - fix the error by hitting the other key. This is a timed sorting task. GO AS FAST AS YOU CAN while making as few mistakes as possible. Going too slow or making too many errors will result in an uninterpretable score. This task will take about 5 minutes to complete. Press the SPACE BAR to begin.	Good — Bad See above, the categories have changed. the items for sorting have changed as well. The rules, however, are the same. When the item belongs to a category on the left, press the E key; when the item belongs to a category on the right, press the I key. Items belong to only one category. An X appears after an error - fix the error by hitting the other key. GO AS FAST AS YOU CAN. Press the SPACE BAR to begin.	White American or Good — Black American or Bad See above, the four categories you saw separately now appear together. Remember, each item belongs to only one group. For example, if the categories White American and Good appear on separate sides above - pictures or words meaning White American would go in the White American category, not the Good category. The green and white labels and items may help to identify the appropriate category. Use the E and I keys to categorize items into four groups left and right, and correct errors by hitting the other key.
	White American — Black American	Good — Bad Superb	White American or Good — Black American or Bad Humiliate
	White American — Black American	Good — Bad Terrible	White American or Good — Black American or Bad

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Instructions by Block Number	Block 5 - 40 Trials Reverse Concept - Image - Pairing 	Block 6 - 20 Trials Reverse Concept - Image - Attribute 	Block 7 - 40 Trials Reverse Concept - Image - Attribute

The critical blocks of the IAT are blocks three and four and six and seven thus, latency data from these blocks are used to calculate an IAT effect (Nosek et al., 2005). Specifically, sorting the stimulus items faster when White and Positive and Black and Negative are paired than the reverse pairings of White and Negative and Black and Positive indicates a stronger association between White and Positive and Black and Negative items (Nosek et al., 2005). The scoring algorithm for the IAT effect is derived by calculating the difference in average response latency between the two sorting conditions and dividing by the standard deviation of the sorting tasks. Therefore, the IAT score is often referred to as *D* and is equivalent to Cohen's *D* calculation of effect size (Greenwald et al., 2003). A positive *D* score supports a stronger association between White and positive and Black and negative, whereas, a negative *D* score would support the opposite.

It was believed that attitudes operated primarily at a conscious level and that assessment of attitudes was only possible through introspection, which was acquired by directly asking individuals (Nosek et al., 2007). However, interest in evaluations that may exist outside of conscious awareness have led researchers to identify ways to measure implicit attitudes (Greenwald & Banaji, 1995). The IAT procedure has allowed researchers to measure implicit attitudes by measuring their underlying automatic evaluation of the categories being studied (Greenwald et al., 1998). In other words, the IAT is based on implicit cognition that could reveal associative information that people may not be aware of, readily accept, or are unwilling to report (Nosek et al., 2007). Since the IAT is an indirect measure of the strengths of association among concepts, the sorting task should be easier when two concepts that share a response are strongly associated

than when they are weakly associated (Nosek et al., 2007). For example, participants who

have stronger associations of positive evaluations with Whites than Blacks will find that

the sorting task of Whites and positive and Blacks and negative will be easier to complete

than the sorting task Whites and negative and Blacks and positive. Therefore, a positive

or negative *D*-score could indicate more positive or negative attitudes towards a

particular group (Nosek et al., 2007).

Reliability and Validity of the IAT

Although research with the IAT received criticism because of the weak

relationship between the IAT and self-report measures, recent research has found that a

strong relationship could exist and that implicit and explicit attitudes are related and

moderated by several factors (Greenwald et al., 1998; Greenwald et al., 2003; Nosek,

2005, 2007; Nosek et al., 2005). However, given that the extent of the implicit and

explicit relationship depends on other factors, some have questioned the importance of

identifying a distinction between implicit and explicit attitudes (Fazio & Olson, 2003).

The discordance between implicit and explicit attitudes has also placed some confusion

on which attitude may be the real one being expressed and how these measures predict

behavior (Fazio & Olson, 2003). Despite these criticisms, there is strong evidence

supporting the construct validity of the IAT as a measure of implicit attitudes (Nosek &

Smyth, 2007). Although the IAT and self-report attitude measures have found to be

related, evidence of convergent and discriminant validity have emerged thus, indicating

distinct constructs (Nosek & Smyth, 2007). Furthermore, there is also evidence that the

IAT and explicit self-report measures have predictive validity of behavior, including

political and consumer preferences (Greenwald et al., 2009; Nosek et al., 2007). There

are some known extraneous influences on the IAT. The influence of the order of combined tasks may slightly bias the IAT effects because performance of the first combined pairing (B3 and B4 of Figure 1) is likely to interfere with performance of the second pairing (B6 and B7 of Figure 1). However, the use of 40 trials in block 5 and counterbalancing the task orders allowed for the identification and statistical removal of the effects of this influence (Nosek et al., 2005, 2007). Other extraneous influences are the individual difference in average response latency or cognitive fluency and participant's age. Specifically, slow task performance elicits larger IAT effects than those who perform the task faster. Additionally, older participants report larger effects of IAT than younger participants (Greenwald et al., 2003). Nonetheless, extensive research suggests that the scoring algorithm reduces the influence of both factors (Greenwald et al., 2003). Moreover, it has been found that repeated administration tends to reduce the effect magnitudes of the IAT, but that the scoring algorithm also reduces the influence of this factor (Greenwald et al., 2003). Although it is possible that the order in which self-report and IAT are administered may affect responses to both, research suggests that there is little to no effect of task order (Nosek et al., 2005). However, it may be beneficial to counterbalance the order of IAT and self-report measures (Nosek et al., 2007).

Although it has been challenging for implicit measures to achieve internal consistency and test-retest reliability, the IAT has achieved greater reliability than other latency-based implicit measures (Nosek et al., 2007). Previous research has also found that the IAT is less fakeable than self-report. However, two factors increase fakeability: previous experience with the IAT and explicit instructions on how to control IAT scores (Nosek et al., 2007). Faking in the IAT may occur by alteration of the task procedures

and it could encompass deliberate effort to alter one's mind, which could then reduce bias towards a specific group (Nosek et al., 2007).

Attitudes and Behavior

Previous research has identified that the IAT and self-report measures are able to predict different dimensions of behavior. For instance, the IAT has a greater predictive validity than explicit measures in socially sensitive interactions such as, racial interactions and in predicting spontaneous behavior (Greenwald et al., 2009). However, there is limited statistical evidence that the IAT predicts discriminatory behavior (Mitchell & Tetlock, 2017; Oswald, Mitchell, Blanton, Jaccard, & Tetlock, 2013, 2015). Thus, one should be cautious in making causal assumptions and be wary of common misconceptions about the IAT. Although the IAT is a widely-used measure of implicit attitudes and biases towards ethnic groups, relatively few studies have focused on Latinos as the targets and those that do have found negative implicit attitudes among Whites towards Latinos (Devos, Gavin, & Quintana, 2010; Dovidio, Gluszek, John, Ditlmann, & Lagunes, 2010; March & Graham, 2015; Weyant, 2005). The paucity of IAT research using Latino or Hispanic as targets limits our understanding of what attitudes hold towards undocumented Latino immigrants and how attitudes could affect behavior towards this group. Given that Latinos or Hispanics comprise the largest ethnic/racial and immigrant group in the U.S., Latinos or Hispanics are likely to be discriminated against and perceived to be undocumented. Thus, negative behaviors and attitudes towards Latinos/Hispanics living in the U.S. may be salient. It is critical that people move away from believing that they know an individual's documentation status based on their physical appearance or race/ethnic background. Furthermore, it should be clear that it is

irrational to identify if a person is undocumented solely on their race/ethnic background. The assumption that this is possible is likely to continue contributing to the hostility seen towards this community, which could then lead to adverse health outcomes.

Reducing Biases

The contact hypothesis provides a theoretical perspective on how close and sustained contact with members of other cultural groups provide direct information about values, lifestyles and experiences of members of those groups, which is likely to lead to more favorable perceptions and attitudes of the group (Allport, 1979; Ellison, Shin, & Leal, 2011). Several studies have found that casual contact and close friendships with members from African Americans and Latinos are associated with more positive attitudes towards those groups (Ellison et al., 2011; Sigelman & Welch, 1993). Specifically, people who have close friendships with Latinos hold more favorable attitudes and are less susceptible to believing that immigration causes crime and results in job losses for native-born workers (Ellison et al., 2011). They are also less likely to doubt the benefits of immigration on U.S. society and less prone to support sharp reductions in the number of immigrants from Latin America (Ellison et al., 2011). Therefore, close friendships with outgroup members could influence attitudes, perceptions and policy preferences by fostering understanding and empathizing with the needs of outgroup members, which can lead to diminished fear and reduction in misinformation and negative images (Ellison et al., 2011). Moreover, research suggests that people who attend high schools with large numbers of Latinos or ethnically diverse students express greater respect for social, economic and cultural contributions (Ellison et al., 2011).

Ways to measure attitudes are important and assessing the degree to which well-established methods can be generalized to other groups is an important task in and of itself. It is the first step in coming up with ways of determining exactly what the effects of discrimination are on people and it is a step towards identifying factors that increase or decrease implicit attitudes. Once those are identified, it may be possible to develop ways to moderate implicit and explicit attitudes or biases in the future and minimize or eliminate the negative outcomes. No study has evaluated the association between intercultural sensitivity and implicit and explicit attitudes towards undocumented Latino immigrants. This study can provide important information on the associations between intercultural sensitivity and negative attitudes towards undocumented Latino immigrants. Identifying this relationship can highlight the need for researchers, mental health professionals, educators, and policy leaders to collaborate on implementing ways to reduce biases towards this community.

Purpose of study. In the proposed study, our primary goals are to investigate implicit and explicit attitudes towards undocumented Latino immigrants, implicit attitudes towards Latino Americans, intercultural sensitivity, perceived discrimination, and mental health in an ethnically diverse sample of college students. In this study, ethnically diverse refers to those who are from the non-majority group or do not identify as Non-Hispanic White or Caucasian.

Specifically, our aims are to 1) examine implicit and explicit attitudes towards undocumented Latino immigrants. We hypothesize that Latino/Hispanic students will show less negative implicit and explicit attitudes towards undocumented Latino immigrants and less negative implicit attitudes towards Latino Americans than non-

Hispanic White students. We also hypothesize that there will be within group differences in attitudes among Latino/Hispanic groups; 2) Evaluate intercultural sensitivity and its association with implicit and explicit attitudes towards undocumented Latino immigrants. We hypothesize that: a) Latino/Hispanic students will score higher in intercultural sensitivity than Non-Hispanic Whites; b) higher intercultural sensitivity scores will be associated with less negative implicit and explicit attitudes towards undocumented Latino immigrants; and c) Intercultural sensitivity will explain a significant amount of the variance in implicit and explicit attitude scores towards undocumented Latino immigrants. 3) Identify the association between intercultural sensitivity and perceived discrimination. We hypothesize that higher intercultural sensitivity scores will be associated with greater instances of discrimination. 4) Examine perceived discrimination and its relation to mental health. We hypothesize that Latino/Hispanic students will have higher scores in perceived discrimination and will score higher in the depression and anxiety scales than Non-Hispanic White students.

CHAPTER 2 METHOD

Participants and Setting

Four-hundred thirty-six college students from The University of New Mexico (UNM) that were 18 years of age or older (M = 21, SD = 6) participated in this study through UNM's SONA system. SONA is run by the Department of Psychology and allows students to sign up for studies for research credit for their classes. After observing the great heterogeneity between students from ethnic and racial groups that participated, but limited sample sizes, we decided to focus on participants that self-identified as Mexican, Mexican American or Chicano; Hispanic; or Non-Hispanic White for our

primary analyses because they were the largest groups. Thus, demographics includes 334 participants from these three groups. Since participants had the right to discontinue at any moment and/or refuse to answer any questions, full data were not available for each measure thus, listwise deletion were used in analyses.

Data Collection

Data were collected online through Inquisit software package by Millisecond software (Inquisit [Computer Software], 2016). The online computer program presented an electronic version of the informed consent form on a screen and participants decided to move forward with the study by clicking on a "yes" button. This digital acknowledgement took place of a signature, indicating they had read and understood the consent. The consent provided them with an explanation of the objective of the study, clarification that their participation is completely voluntary, that they have the right to discontinue the study at any moment without penalization, and that they could ask questions prior to participating or after the study. The UNM IRB approved this study.

Demographics

Participants completed a demographic questionnaire, which includes, but is not limited to questions on age, gender, race/ethnicity, educational status, sexual orientation, perceived social class, immigrant generation status in the U.S., and language acquisition and proficiency. See appendix A for a list of sociodemographic questions and variables. The race and ethnic questions were modeled after the 2010 U.S. Census (U.S. Census Bureau, 2010). Participants were asked if they identified as Hispanic, Latino, or Spanish origin with the following options: No, not of Hispanic, Latino or Spanish origin; Yes, Mexican, Mexican American, Chicano; Yes, Puerto Rican; Yes, Cuban; Yes, another
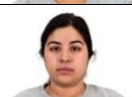
Hispanic, Latino, or Spanish origin-please print origin. For race/ethnicity, participants had the option to select from the following categories: American Indian/Alaskan Native; Asian, Black or African American; Middle Eastern; Native Hawaiian or Pacific Islander; and White. Participants who identified with other racial/ethnic groups had the opportunity to respond via an open-ended response. As expected from previous research on how Latinos answer the race question (Hitlin, Brown, & Elder Jr, 2007), we noticed that a significant proportion selected "other". Additionally, for our study we found that among those that answered another Hispanic, Latino or Spanish origin, most had identified as "Hispanic" or of "Spanish" origin. Therefore, for this study, a new race/ethnicity variable was generated and coded for, where 0 = Non-Hispanic White; 1 = Mexican/Chicano, 2 = Hispanic or Spanish origin; 3 = Non-Hispanic Asian; 4 = Non-Hispanic American Indian; 5 = Non-Hispanic Black; 6 = Other Hispanic Group; and 7 = Non-Hispanic Middle Eastern.

Education is categorized from freshman in college to other. Generation status was categorized as first-generation immigrant (i.e., born in another country) to fifth generation immigrant (i.e., the individual, parents and grandparents were all born in the U.S.). Perceived social status was categorized as 1 = Lower class to 5 = Upper class. Dummy code variables were generated for gender (Female = 0, Male = 1) multi ethnic group (0 = No, 1 = Yes); ethnic/racial background, with the reference group being Non-Hispanic Whites. Similarly, dummy variables were generated for immigrant generation status (0 = first and second generation, 1 = third, fourth and fifth generation). Sexual orientation was dichotomized to 0 = Heterosexual or straight and 1 = sexual minority background. A dichotomous variable that was a proxy for being a bilingual Spanish

speaker was generated by coding proficiency of Spanish as 0 = not at all and a little; and 1 = somewhat well and very well.

The Implicit Association Test

Participants completed two IATs that were counterbalanced to minimize the likelihood of being influenced by order effects (Greenwald et al., 2003). Previous research suggests that variation in the number of stimuli representing the attributes and categories is only affected if using a single exemplar. In other words, IAT effect magnitudes stayed consistent whether one uses two to eight items per attribute and category (Nosek et al., 2005). Thus, as used in previous studies, six stimuli/faces were used for each target category, whereas, eight attributes were used to represent each category of positive and negative. One of the IATs was designed to capture the association between the concepts of "Undocumented European Immigrant" versus "Undocumented Latino Immigrant". Attributes of immigrants are divided into positive (e.g., determined, honest, hard-worker, law abiding, trustworthy, educated, peaceful, responsible) and negative (e.g., lazy, corrupt, free-loader, criminal, deceiving, ignorant, dangerous, irresponsible; See Appendix B and Table 1 and Table 2 for a list of the immigrant IAT attributes and target labels).

Table 1. Concept Contrasts for Immigrant and Race IATs				
Concepts	Undocumented European Immigrant/European American	Undocumented Latino Immigrant/Latino American	Positive	Negative
Items			Determined	Lazy
			Honest	Corrupt
			Hard-Worker	Job-Stealer

		Law Abiding	Criminal
		Trustworthy	Deceiving
		Educated	Ignorant
		Peaceful	Dangerous
		Responsible	Irresponsible

Note. Faces acquired through the normative Chicago Face Database (Ma, Correll, & Wittenbrink, 2015).

Table 2. Sequence of Blocks in the Implicit Association Test for Immigrant and Race IATs			
Blocks	Number of trials	Items assigned in left response	Items assigned in right response
1	20	Faces of undocumented European/European American	Faces of undocumented Latino/ Latino American
2	20	Positive words	Negative words
3	20	Faces of undocumented European/European American and Positive	Faces of undocumented Latino/Latino American and Negative
4	40	Faces of undocumented European/European American and positive words	Faces of undocumented Latino/Latino American and negative words
5	40	Faces of undocumented Latino/Latino American	Faces of undocumented European/European American
6	20	Undocumented Latino/Latino American and positive words	Undocumented European/European American or negative words
7	40	Undocumented Latino/Latino American and positive words	Undocumented European/European American or negative words

Note. The only difference between IATs was the concept item groups.

Attributes for the positive and negative categories were selected based on

previous research on stereotypes and attitudes towards undocumented immigrants

(Cowan, Martinez, & Mendiola, 1997). A second IAT was included to provide further

support that attitudes towards undocumented immigrants may be influenced by ethnic/racial background. Particularly, we included a second IAT to capture differences in ethnic attitudes between the concepts of "European American" versus "Latino American". The attributes were the same as the immigrant IAT (See Appendix C for the IAT race attribute and target labels). Including a second IAT also allowed us to control for ethnic attitudes in statistical analyses to capture the negativity directed towards undocumented Latino immigrants.

The strength of association is measured by the mean difference score in reaction times of the "hypothesis-inconsistent" and the "hypothesis-consistent" pairings, and then dividing by the standard deviation to derive a D-score. Generally, the higher the D-score, the stronger the association between the "hypothesis-consistent pairing" (Greenwald et al., 2003). In this study, a positive D-score reflects a stronger association between undocumented European immigrant and positive attitudes, and undocumented Latino immigrant and negative attitudes. In the second IAT, a positive D-score will reflect a stronger association between European American and positive attitudes, and Latino American and negative attitudes. On the contrary, negative D-scores support a stronger association between "hypothesis-inconsistent" pairing." In this study, a negative D-score would support a greater association between undocumented European immigrant and negative attitudes, as well as undocumented Latino immigrant and positive attitudes. A negative score in the second IAT will indicate greater association between European American and negative attitudes and Latino American and positive attitudes. The small, medium, and strong labels correspond to Cohen's D effect sizes and indicate implicit preference/bias or strength of association. Conventional guidelines for small, medium,

and large effect sizes are .2, .5, and .8, respectively (Cohen, 1992; Greenwald et al., 2003).

Illegal Immigration Scale

The Illegal Immigration Scale (IIS) measures attitudes towards illegal immigrants. This is a 20-item Likert-type with responses ranging from 1 = *strongly disagree* to 5 = *strongly agree,* with higher scores connoting more negative attitudes. 12 items are reversed scored (See Appendix D). This scale has established reliability, construct validity and cross-national utility (Ommundsen & Larsen, 1999; Ommundsen, van der Veer, Van Le, Krumov, & Larsen, 2007). Given our interest in explicit attitudes towards undocumented Latino immigrants, "undocumented immigrant(s)" was replaced with "undocumented Latino immigrant(s)." For this study, internal consistency of this scale was .929.

Intercultural Sensitivity Scale

The Intercultural Sensitivity Scale (ISS) is a validated and reliable 24-item self-report measure designed to measure five factors that represent the concept of intercultural sensitivity: interaction engagement, respect for cultural differences, interaction confidence, interaction enjoyment and interaction attentiveness (Chen & Starosta, 2000). The responses are categorized in a 5-point Likert type scale ranging from *1 = strongly disagree* to *5 = strongly agree* (See Appendix E). A higher overall score suggests greater sensitivity in intercultural interaction (Chen & Starosta, 2000). Internal consistency for this study was .869.

Scale of Ethnic Experience

The Scale of Ethnic Experience (SEE) is a self-report measure designed to measure multiple ethnicity-related cognitive constructs across ethnic groups with 32 items that assess Ethnic Identity, Perceived Discrimination, Mainstream Comfort, and Social Affiliation. Responses are categorized in a 5-point Likert type scale ranging from *1 = strongly disagree* to *5 = strongly agree* (See Appendix F). The SEE has well-established psychometric properties of internal consistency reliability, test-retest reliability, and concurrent validity (Malcarne et al., 2006). The internal consistency for the full measure was .856. Internal consistency for the perceived discrimination subscale was .919.

Patient Health Questionnaire

The Patient Health Questionnaire (PHQ-9) and the General Anxiety Disorder Scale (GAD-7) were used to assess symptoms of depression and anxiety (See Appendix G). The PHQ-9 consists of nine symptoms of depression and assesses severity of depression via a 4-point Likert type scale. Participants were asked to indicate how often in the past two weeks they have been bothered by each of the nine different problems. Responses range from *0 = not at all* to *3 = nearly every day* (Kroenke & Spitzer, 2002). The PHQ-9 has excellent internal reliability, test-retest reliability, criterion, construct and external validity (Kroenke, Spitzer, & Williams, 2001). For this study, internal consistency of the PHQ-9 was .879. The GAD-7 consists of seven symptoms of general anxiety disorder and measures severity of anxiety via a 4-point Likert type scale identical to the PHQ-9 (Spitzer, Kroenke, Williams, & Löwe, 2006). The GAD-7 has excellent internal consistency, test-retest reliability, criterion, and construct validity (Spitzer,

Kroenke, Williams, & Löwe, 2006). For this study, internal consistency of the GAD-7 was .913 The PHQ-9 and GAD-7 are linked to the DSM-IV-TR criteria for depression and anxiety (Kroenke & Spitzer, 2002; Spitzer et al., 2006).

Analytic Strategy

A priori power analysis was performed through G-power to identify the recommended sample size to identify a true difference. G-Power is a tool to determine a recommended sample size to attain statistical power (Faul, Erdfelder, Lang, & Buchner, 2007). With a power of 0.80, an alpha level of .05, and an effect size of 0.214, that was acquired from a previous meta-analysis on the IAT (Greenwald et al., 2009), G-power recommends using a sample size of at least 222 with an ANOVA of at least three groups. Thus, given that our sample size was more than the recommended, we should have enough statistical power to detect a true effect. All data were analyzed using Statistical Package for the Social Sciences, SPSS version 25.0.

CHAPTER 3 RESULTS

Demographics

Sixty-nine percent of the full sample was female. Fifty-three percent of the full sample identified as Latino or Hispanic. Within the Latino or Hispanic group, 30% identified as Mexican, Mexican American or Chicano, 21% as another Hispanic, Latino, or Spanish origin, 1% Cuban, and 1% of Puerto Rican descent. Of the 21% that identified as another Hispanic, Latino or Spanish origin, 18% identified as Hispanic or Spanish.

Among the 47% percent that did not identify as Latino or Hispanic, 29% were Non-Hispanic White, 7% were Non-Hispanic Asian, 5.5% were Non-Hispanic American Indian/Alaskan Native, 4.5% were Non-Hispanic Black and less than 1% were of Middle

East descent. Thirty-seven percent of participants identified as more than one ethnic/racial group. These data are not shown in the tables.

Although our initial objectives of this study were to examine other ethnic/racial group differences, the sample size of the Non-Hispanic Asian, American Indian, Black, Middle Eastern and Other Hispanic or Latino groups were not large enough to compare. Thus, for our primary analyses, we focused on participants that identified as Mexican/Chicano, Hispanic/Spanish, and Non-Hispanic White (See Table 3 for participant characteristics). However, with the exclusion of Non-Hispanic Middle Eastern (N = 2), we explored group differences in implicit and explicit attitudes towards undocumented Latino immigrants between all groups. Henceforward we may refer to the Mexican, Mexican American or Chicano group as Mexican/Chicano; and the Hispanic or Spanish origin group as the Hispanic group.

Table 3. Participant Characteristics by Ethnic/Racial Group				
		Ethnic/Racial Group		
Variables	**Total (%)**	**Non-Hispanic White**	**Mexican, Mexican American or Chicano**	**Hispanic or Spanish origin**
	N = 334	N = 126 (38%)	N = 128 (38%)	N = 80 (24%)
Gender				
Female	69%	24.5%	27%	17.5%
Male	31%	13%	11%	7%
*Multi ethnic group**				
Yes	36%	7%	18%	12%
No	64%	31%	21%	11%
Age (Mean, SD)	21 (5)	21 (6.7)	20 (3.3)	21 (4.3)
Education				
Freshman	37.5%	13.5%	16.5%	7.5%
Sophomore	22%	8%	8%	5%
Junior	22%	8%	8%	7%
Senior	16%	7%	5%	4%
Other	2%	1.5%	0.5%	0.5%
Sexual Orientation				
Heterosexual	84%	31%	33%	20%

Bisexual	8%		3%		2.5%		2.5%	
Gay	2%		0.5%		1%		.5%	
Pansexual	1%		0%		1%		0%	
Queer	0.5%		0.5%		0%		0%	
Questioning	0.5%		0.5%		0%		0%	
Fluid	1%		0.5%		0.5%		0%	
Prefer not to answer	2%		1.5%		0.5%		0%	
Sexual minority								
Yes	14.5%		5%		5%		4.5%	
No	85.5%		32%		33.5%		20%	
Perceived social class								
	Grade school***	Current	Grade	Current	Grade	Current	Grade	Current
Lower-class	8.5%	7%	1.5%	1.5%	5%	3%	1%	2%
Lower-middle	25%	22%	7%	8%	13%	9%	5%	4%
Middle class	49%	52%	19%	19%	17%	21%	14%	12%
Upper-middle	17%	18%	10%	8%	4%	4%	4%	6%
Upper	2%	1%	1%	0.5%	0.5%	0.5%	0.5%	0%
Immigrant generation***								
First and second: foreign born or foreign-born parents	34%		9%		24%		2%	
Third, fourth, and fifth: not foreign-born or parents	66%		29%		15%		22%	
Language								
Speaks more than one language***	42%		10%		24%		8%	
Spanish-Bilingual***	32%		4%		23%		5%	
Proficiency of Speaking Spanish***								
Not at all	20%		11%		3%		6%	
A little	48%		23%		13%		13%	
Somewhat well	17%		3%		9%		5%	
Very well	15%		0.5%		14%		0.5%	

Note. Percentages were rounded to the nearest .5 or whole number. $*p < .05$, $**p < .01$. $***p < .001$.

Immigrant and Race IAT

A sequence of one-way between subjects ANOVA's were performed to compare scores between ethnic/racial groups on *D* Scores on the race and immigrant IATs. Table 4 provides a One-Way ANOVA comparisons across assessments between ethnic/racial groups. IAT immigrant *D* scores were significantly different between groups $F_{(2, 324)} = 5.83$, $p < .01$. IAT race *D* scores were also significantly different between ethnic/racial groups $F_{(2, 323)} = 9.34$, $p < .001$. Post-hoc comparisons using a one-way ANOVA with

Bonferroni correction were performed to identify differences between groups. IAT immigrant D scores were significantly different between the Mexican group (M = .06, SD = .41) and the Non-Hispanic White group (M = .22, SD = .35), $p < .05$. Race IAT D scores were also significantly different between the Mexican group (M = .04, SD = .41) and the Non-Hispanic White group (M = .26, SD = .38), $p < .001$.

Explicit Attitudes

A one-way between subjects ANOVA was performed to compare scores between ethnic/racial groups on the total immigration scale. Total immigration scale scores were significantly different between ethnic/racial groups. $F (2, 308) = 13.30$, $p < .001$. Post-hoc comparisons using a one-way ANOVA with Bonferroni correction were performed to identify differences between groups. Total immigrant scale scores were significantly different between the Mexican group (M = 46.17, SD = 13.54) and the other two groups; Non-Hispanic White (M = 53.39, SD = 13.08) $p < .001$; and the Hispanic group (M = 55.09, SD = 13.45), $p < .001$.

Perceived Discrimination

A one-way between subjects ANOVA was performed to compare scores between ethnic/racial groups on total perceived discrimination scores. Total perceived discrimination scores were significantly different across groups $F (2, 317) = 83.06$, $p < .001$. Post-hoc comparisons using a one-way ANOVA with Bonferroni correction were performed to identify differences between groups. Total perceived discrimination scores were different between the Non-Hispanic White group (M = 2.38, SD = .73) and Mexican group (M = 3.62, SD = .80), $p < .001$; Hispanic group (M = 2.95, SD = .70), $p < .001$; and between the Mexican and the Hispanic group, $p < .001$.

Intercultural Sensitivity

      A one-way between subjects ANOVA was performed to compare scores between ethnic/racial groups on total intercultural sensitivity scores. Total intercultural sensitivity scores were significantly different between ethnic/racial groups $F(2, 291) = 3.46$, $p < .05$. Post-hoc comparisons using a one-way ANOVA with Bonferroni correction were performed to identify differences between groups. Total intercultural sensitivity scores were different between the Mexican group (M = 97.63, SD = 10.02) and the Hispanic group (M = 94.05, SD = 9.45), $p < .05$.

Depression and Anxiety

      Total depression and anxiety scores were not significantly different between ethnic/racial groups.

Table 4. One-Way ANOVA Comparisons of Assessments Between Ethnic/Racial Groups				
Variable	Non-Hispanic White	Hispanic or Spanish	Mexican, Mexican American, or Chicano	F Value
IAT Immigrant *D* Score (M, SD) [a]	0.22 (0.35)	0.15 (0.34)	0.06 (0.41)	5.83**
IAT Race *D* Score (M, SD) [b]	0.26 (0.38)	0.15 (0.35)	0.04 (0.40)	9.43***
Total Immigrant Score (M, SD) [c]	53.39 (13.08)	55.09 (13.45)	46.17 (13.54)	13.30***
SEE Perceived Discrimination (M, SD) [d]	2.38 (0.73)	2.95 (0.70)	3.62 (0.80)	83.06***
Intercultural Sensitivity (M, SD) [e]	97.05 (8.68)	94.05 (9.45)	97.63 (10.02)	3.46*
PHQ-9 (M, SD) [f]	6.36 (5.75)	5.53 (4.78)	7.30 (5.37)	2.61
GAD-7 (M, SD) [g]	5.67 (5.27)	5.64 (5.16)	5.89 (4.88)	0.80

Note. [a] = data is based on N = 326; [b] = data is based on N = 325; [c] = data is based on N = 311; [d] = data is based on N = 320; [e] = data is based on N = 294; [f] = data is based on N = 314; [e] = data is based on 318. ANOVA significant at: *$p < .01$, **$p < .01$, ***$p < .001$.

Intercorrelations

      Bivariate correlations were performed to assess the relationship between intercultural sensitivity and implicit and explicit attitudes towards undocumented Latino

immigrants; intercultural sensitivity and implicit attitudes towards Latino Americans

intercultural sensitivity and perceived discrimination; and perceived discrimination and

depression and anxiety symptoms. Table 5 shows intercorrelations using data from

participants that identified as Mexican/Chicano, Hispanic or Spanish, and Non-Hispanic

White. The intercorrelations were then split by each ethnic/racial group. For the full

sample, there was a significant negative correlation between intercultural sensitivity and

explicit attitudes r = -.287, *p* <.001; a positive correlation between implicit attitudes on

the race and immigrant IATs, r = .424, *p* <.001; a positive correlation between explicit

attitudes and implicit attitudes towards undocumented Latino immigrants, r = .164, *p*

<.01. No significant relationship was found between perceived discrimination and

symptom scores of depression and anxiety; and intercultural sensitivity and perceived

discrimination. Interestingly, a significant correlation was found between perceived

discrimination and implicit attitudes towards undocumented Latino immigrants, r = -.173,

p <.01; and perceived discrimination and explicit attitudes towards undocumented Latino

immigrants, r = -.283, *p* <.001; and perceived discrimination and implicit attitudes

towards Latino Americans, r = -.211, *p* <.001.

Table 5. Intercorrelations for ISS, IAT scores, IIS, SEE-PD, PHQ-9, and GAD-7 scores for full sample							
Measure	1	2	3	4	5	6	7
1. ISS	-						
2. IAT *D*-Immigrant	-.069	-					
3. IAT *D*-Race	-.048	.424***	-				
4. IIS	-.287***	.164**	.151**	-			
5. SEE-PD	.041	-.173**	-.211***	-.283***	-		
6. PHQ-9	-.084	-.113*	-.140*	-.121*	.049	-	
7. GAD-7	-.017	-.087	-.058	-.157**	.075	.778***	-

Note. ISS = Intercultural Sensitivity Scale; IAT = Implicit Association Test; IIS = Illegal Immigrant Scale; SEE-PD = Scale of Ethnic Experience-Perceived Discrimination Subscale; PHQ-9 = Patient Health Questionnaire-9; GAD-7 = General Anxiety Disorder-7. * *p* <.05; ** *p* <.01; *** *p* <.001.

Intercorrelations for the Non-Hispanic White group (see Table 6) showed that

there was a positive association between implicit attitudes towards undocumented Latino

immigrants and Latino Americans, r = .444, *p* < .001; a positive correlation between

implicit attitudes towards Latino Americans and explicit attitudes r = .174, *p* <.01; and a

negative correlation between intercultural sensitivity and explicit attitudes towards

undocumented Latino immigrants r = -.313, *p* <.01. No relationship was found between

perceived discrimination and symptom scores of depression and anxiety.

Table 6. Intercorrelations for ISS, IAT scores, IIS, SEE-PD, PHQ-9, and GAD-7 scores for Non-Hispanic White Group							
Measure	1	2	3	4	5	6	7
1. ISS	-						
2. IAT *D*-Immigrant	-.025	-					
3. IAT *D*-Race	-.073	.444***	-				
4. IIS	-.313**	.134	.174*	-			
5. SEE-PD	-.086	-.002	-.083	.063	-		
6. PHQ-9	-.009	-.249**	-.082	-.269**	-.066	-	
7. GAD-7	.025	-.220**	-.054	-.230**	-.051	.810***	-

Note. ISS = Intercultural Sensitivity Scale; IAT = Implicit Association Test; IIS = Illegal Immigrant Scale; SEE-PD = Scale of Ethnic Experience-Perceived Discrimination Subscale; PHQ-9 = Patient Health Questionnaire-9; GAD-7 = General Anxiety Disorder-7. * *p* <.05; ** *p* <.001; *** *p* <.001.

Intercorrelations for the Mexican group (see Table 7) showed that there was a

positive association between implicit attitudes towards undocumented Latino immigrants

and Latino Americans, r = .379, *p* <.001; a negative association between perceived

discrimination and implicit attitudes towards undocumented Latino immigrants, r = -.189,

p <.05; a negative correlation between perceived discrimination and explicit attitudes, r =

-.428, *p* <.001. No relationship was found between perceived discrimination and

symptom scores of depression and anxiety.

Table 7. Intercorrelations for ISS, IAT scores, IIS, SEE-PD, PHQ-9, and GAD-7 scores for Mexican, Mexican American, Chicano Group							
Measure	1	2	3	4	5	6	7
1. ISS	-						
2. IAT *D*-Immigrant	-.134	-					
3. IAT *D*-Race	-.040	.379***	-				
4. IIS	-.146	.219*	.122	-			
5. SEE-PD	.090	-.189*	-.165	-.428***	-		

6. PHQ-9	-.256**	.063	-.151	.025	.080	-	
7. GAD-7	-.086	.017	-.034	-.219*	.155	.794***	-

Note. ISS = Intercultural Sensitivity Scale; IAT = Implicit Association Test; IIS = Illegal Immigrant Scale; SEE-PD = Scale of Ethnic Experience-Perceived Discrimination Subscale; PHQ-9 = Patient Health Questionnaire-9; GAD-7 = General Anxiety Disorder-7. * $p <.05$; ** $p <.01$; *** $p <.001$.

Intercorrelations for the Hispanic or Spanish group (see Table 8) indicated that there was a negative correlation between intercultural sensitivity and explicit attitudes, r = -.406, $p < .001$; a positive correlation between implicit attitudes towards undocumented Latino immigrants and Latino Americans, r = .328, $p <.01$; and a negative correlation between perceived discrimination and explicit attitudes, r = -.380, $p <.001$. No correlation was found between perceived discrimination and scores of depression and anxiety.

Table 8. Intercorrelations for ISS, IAT scores, IIS, SEE-PD, PHQ-9, and GAD-7 scores for Other Hispanic or Spanish Group							
Measure	1	2	3	4	5	6	7
1. ISS	-						
2. IAT *D*-Immigrant	.006	-					
3. IAT *D*-Race	.007	.328**	-				
4. IIS	-.406***	-.069	-.048	-			
5. SEE-PD	.098	-.009	.000	-.380**	-		
6. PHQ-9	.002	-.129	.073	.035	.073	-	
7. GAD-7	-.012	-.017	.047	.051	.047	.706***	-

Note. ISS = Intercultural Sensitivity Scale; IAT = Implicit Association Test; IIS = Illegal Immigrant Scale; SEE-PD = Scale of Ethnic Experience-Perceived Discrimination Subscale; PHQ-9 = Patient Health Questionnaire-9; GAD-7 = General Anxiety Disorder-7. * $p <.05$; ** $p <.01$; ***$p <.001$.

Regression Models

Three hierarchical regression models were performed to identify if intercultural sensitivity predicted a significant proportion of the variance in implicit and explicit attitudes towards undocumented Latino immigrants and implicit attitudes towards Latino

Americans. In step 1 of the hierarchical regression predicting implicit attitudes towards undocumented Latino immigrants (see Table 9), the following variables were entered: number of previous IATs taken, age, gender dummy code, a multi-ethnic dummy code, current social class, dummy variable coding of Mexican/Chicano group, and Hispanic or Spanish group, with the reference group being Non-Hispanic Whites, dummy variable coding for immigrant generation status, and a dummy code for bilingual Spanish-speaker, with the reference group being not bilingual, explaining 7.9% of the variance in implicit attitudes. In step 2, the race IAT D Score was entered, explaining an additional 14.4% of the variance in implicit attitudes. In step 3, the total immigrant score was entered, explaining .4% of the variance; and in step 4, the total perceived discrimination score was entered, explaining .2% additional variance. After entry of intercultural sensitivity in step 5, the total variance explained by the model as a whole was 22.9%, F (13, 260) = 5.94, p <.001. Intercultural sensitivity explained no additional variance in implicit attitudes. In the final model, only age (β = -.159, p <.01) and D scores on the race IAT (β = .390, p < .001) were statistically significant.

Table 9. Hierarchical Multiple Regression Predicting Implicit Attitudes Towards Undocumented Latino Immigrants

Variable	Step 1			Step 2			Step 3			Step 4			Step 5		
	B	SE	β	B	SE	β	B	SE	β	B	SE	β	B	SE	β
Number of IATs taken	-.020	.034	-.035	-.016	.031	-.029	-.014	.031	-.025	-.015	.031	-.027	-.015	.031	-.027
Age	-.009	.004	-.153*	-.009	.003	-.149**	-.010	.003	-.156**	-.010	.003	-.159**	-.010	.003	-.159**
Gender	.045	.046	.058	.042	.043	.055	.030	.044	.039	.028	.044	.037	.029	.044	.037
Multi-ethnic	-.004	.046	-.006	-.005	.043	-.007	.000	.043	.001	.004	.043	.005	.004	.043	.005
Current social class	-.011	.027	-.024	-.012	.025	-.026	-.019	.026	-.044	-.023	.026	-.051	-.023	.026	-.051
Mexican/Chicano dummy code	-.118	.060	-.158*	-.033	.056	-.044	-.034	.056	-.046	-.015	.061	-.020	-.015	.061	-.020
Hispanic or other Spanish dummy code	-.067	.058	-.081	-.006	.054	-.007	-.012	.054	-.014	-.001	.056	-.002	-.001	.056	-.001
Immigrant Generation	.086	.055	.112	.028	.051	.036	.019	.052	.025	.012	.053	.015	.011	.053	.015

	B	SE	β	B	SE	β	B	SE	β	B	SE	β	B	SE	β
Bilingual-Spanish	-.035	.057	-.045	-.062	.052	-.079	-.053	.053	-.067	-.047	.054	-.060	-.047	.054	-.060
Race IAT D				.365	.052	.401***	.360	.052	.395***	.355	.053	.390***	.355	.053	.390***
Explicit Score							.002	.002	.070	.002	.002	.068	.002	.002	.069
Perceived Discrimination										-.023	.028	-.061	-.023	.028	-.060
Intercultural sensitivity													.000	.002	.006
R^2	.079			.223			.227			.229			.229		
F change in ΔR^2	2.51**			48.83***			1.22			.727			.009		
F Value	2.51			7.56			6.98			6.46			5.94		

Note. * $p <.05$, ** $p <.01$, *** $p <.001$.

The second hierarchical multiple regression was performed to assess if intercultural sensitivity predicted scores on explicit attitudes towards undocumented Latino immigrants (see Table 10). Age, gender, a multi-ethnic dummy code, current social class, dummy variable coding of Mexican/Chicano group, and Hispanic/Spanish group, with the reference group being Non-Hispanic Whites, dummy variable coding for immigrant generation status, with the reference group being first or second generation and a dummy code for bilingual Spanish-speaker, with the reference group being not bilingual were entered at step 1, explaining 25.2% of the variance in explicit attitudes towards undocumented Latino immigrants. The race IAT D score was entered at step 2, explaining 0.5% additional variance. The immigrant IAT D score was entered at step 3, explaining 0.9% additional variance. Total perceived discrimination scores were entered at step 4, explaining 0.2% additional variance. After entry of intercultural sensitivity at step 5, the total variance explained by the model as a whole was 31.8%, $F (12, 262) = 10.18$, $p <.001$. Intercultural sensitivity explained an additional 5% variance in explicit attitudes towards undocumented Latino immigrants. In the final model, gender ($\beta = .193$, $p <.001$), current social

class ($\beta = .219$, $p < .001$), dummy code variable of immigrant generation ($\beta = .159$, $p < .05$), dummy variable code for bilingual

Spanish speaker ($\beta = -.144$, $p < .05$); and intercultural sensitivity ($\beta = -.230$, $p < .001$) were statistically significant.

Table 10. Hierarchical Multiple Regression Predicting Explicit Attitudes Towards Undocumented Latino Immigrants															
	Step 1			Step 2			Step 3			Step 4			Step 5		
Variable	*B*	SE	*β*	*B*	SE	*β*	*B*	SE	*β*	*B*	SE	*β*	*B*	SE	*β*
Age	.220	.131	.092	.221	.131	.092	.261	.132	.109*	.254	.133	.106	.245	.128	.102
Gender	6.70	1.62	.223***	6.68	1.62	.222***	6.55	1.61	.218***	6.48	1.62	.215***	5.80	1.57	.193**
Multi-ethnic	-3.13	1.62	-.109	-3.12	1.61	-.109	-3.15	1.61	-.110	-3.03	1.62	-.106	-2.87	1.56	-.100
Current social class	4.03	.938	.235***	4.02	.937	.234***	4.13	.935	.241***	4.01	.948	.234***	3.76	.918	.219***
Mexican/Chicano dummy code	.056	2.09	.002	.680	2.13	.023	.830	2.13	.029	1.51	2.29	.052	1.51	2.22	.052
Hispanic or other Spanish dummy code	2.63	2.03	.082	3.07	2.06	.095	3.13	2.05	.097	3.49	2.10	.108	2.21	2.05	.069
Immigrant Generation	5.27	1.92	.177**	4.83	1.95	.162*	4.76	1.94	.160*	4.50	1.97	.151*	4.74	1.91	.159*
Bilingual-Spanish	-4.66	1.99	-.153*	-4.85	1.99	-.159*	-4.64	1.99	-.152*	-4.44	2.01	-.146	-4.39	1.94	-.144*
Race IAT *D*				2.69	1.98	.076	1.29	2.13	.036	1.16	2.13	.033	.847	2.06	.024
Immigrant IAT *D*							3.98	2.23	.105	3.85	2.24	.101	3.23	2.17	.085
Perceived Discrimination										-.823	1.04	-.054	-.854	1.01	-.057
Intercultural sensitivity													-.342	.078	-.230***
R^2	.252			.257			.266			.268			.318		
F change in ΔR^2	11.21***			1.84			3.18			.624			19.25***		
F Value	11.21			10.20			9.57			8.75			10.18		

Note. * $p < .05$, **$p < .01$, ***$p < .001$.

A third hierarchical multiple regression was performed to identify ethnic and racial group differences in implicit attitudes

towards Latino Americans, after controlling for relevant sociodemographic variables (table not included). The following variables

were entered in step 1: number of previous IATs, age, gender dummy code, a multi-ethnic dummy code, current social class, dummy

variable coding of Mexican/Chicano group, and Hispanic/Spanish group, with the reference group being Non-Hispanic Whites, dummy variable coding for immigrant generation status, and a dummy code for bilingual Spanish-speaker, with the reference group being not bilingual, explaining 10.4% of the variance in implicit attitudes. In step 2, the immigrant IAT D score was entered, explaining 14% additional variance. In step 3, explicit scores towards undocumented Latino immigrants were entered, explaining 0.2% additional variance. In step 4, total perceived discrimination scores were entered, explaining 0.5% additional variance. After entry of intercultural sensitivity at step 5, the total variance explained by the model as a whole was 25.3%, $F (13, 260) = 6.78$, $p < .001$. Intercultural sensitivity explained 0.2% additional variance. In the final model, the dummy code variables for the Mexican/Chicano, $\beta = -.183$, $p < .05$ and Hispanic/Spanish, $\beta = -.144$, $p < .05$; and immigrant IAT D scores $\beta = .378$, $p < .001$. Prior to the entry of total perceived discrimination scores, at step 4, the dummy code variable for immigrant generation, $\beta = .136$, $p < .05$ was significant.

Exploratory Analyses

Exploratory analyses were performed to identify group differences among other ethnic/racial groups that were not included in our primary analyses. In other words, in addition to the Mexican/Chicano group, Hispanic/Spanish origin and Non-Hispanic White, for these analyses, we included Non-Hispanic Asians, Non-Hispanic American Indian, Non-Hispanic Blacks, and Other Latino or Hispanic groups.

First, a one-way ANOVA was performed to compare differences in implicit attitudes towards undocumented Latino immigrants and Latino Americans. IAT immigrant D scores were significantly different between groups $F (6, 417) = 2.96$, $p < .01$.

IAT race *D* scores were also significantly different between ethnic/racial groups F (6, 416) = 4.71, *p* <.001. Post-hoc comparisons using a one-way ANOVA with Bonferroni correction were performed to identify differences between groups. IAT immigrant *D* scores were significantly different between the Mexican/Chicano group (M = 0.06, SD = 0.40) and the Non-Hispanic Asian group (M = 0.28, SD = 0.43), *p* <.05. Race immigrant IAT *D* scores were significantly different between the Mexican/Chicano group (M = 0.04, SD = 0.41) and Non-Hispanic Asian (M = 0.32, SD = 0.37), *p* < .01. Similar to the primary ANOVA comparing Mexican, Non-Hispanic Whites and Hispanic students (see Table 4), immigrant and race IAT *D* scores were significantly different between Mexican and Non-Hispanic White students, *p* <.05; *p* <.001, respectively.

A one-way ANOVA was performed to compare differences in explicit attitudes towards undocumented Latino immigrants. Explicit attitudes were significantly different between groups F (6, 391) = 5.02, *p* <.001. Post-hoc comparisons using a one-way ANOVA with Bonferroni correction were performed to identify specific group differences. Similar to the primary ANOVA comparing Mexican, Non-Hispanic Whites and Hispanic students (see Table 4), total immigration scores were significantly different between the Mexican/Chicano group and Non-Hispanic White group, *p* <.001; and between the Mexican/Chicano group and the Hispanic group, *p* <.001.

A fourth hierarchical regression predicting implicit attitudes towards undocumented Latino immigrants was performed to identify if the results would still hold after including all ethnic/racial groups and a dichotomous variable on sexual orientation, with heterosexual or straight being the reference group (table not included). In step 1, we entered number of previous IATs, age, gender, a multi-ethnic dummy code, current social

class, dummy variables for the following groups: Mexican/Chicano group; Hispanic or Spanish group; Non-Hispanic Asian; Non-Hispanic American Indian; Non-Hispanic Black; and Other Hispanic or Latino origin, with the reference group being Non-Hispanic Whites, dummy variable coding for immigrant generation status, with the reference group being first or second generation and a dummy code for bilingual Spanish-speaker, with the reference group being not bilingual and a dichotomous variable for sexual orientation, explaining 9.8% of the variance. The race IAT was entered at step 2, explaining 14.9% additional variance. At step 3, total immigrant scores were entered, explaining 1% additional variance. At step 4, total perceived discrimination scores were entered, explaining 0.3% additional variance. After entry of intercultural sensitivity at step 5, the total variance explained by the model was 26%, $F(18, 330) = 6.44$, $p < .001$. Intercultural sensitivity did not explain any additional variance in implicit attitudes. In the final model, age ß = -.155, $p < .01$; and race IAT D score, ß = .398, $p < .001$ were statistically significant. After entry of perceived discrimination in step 4, the NH-Black variable code and explicit attitudes were no longer significant at $p < .05$. After entry of the race IAT D score in step 2, the Mexican/Chicano group code and Non-Hispanic Asian were no longer significant at $p < .05$.

Similarly, a fifth hierarchical regression predicting explicit attitudes towards undocumented Latino immigrants was performed to identify if the results would still hold after including all ethnic/racial groups and a dichotomous variable on sexual orientation, with heterosexual or straight being the reference group (table not included). In step 1, we entered age, gender, a multi-ethnic dummy code, current social class, dummy variables for the following groups: Mexican/Chicano group; Hispanic or Spanish group; Non-

Hispanic Asian; Non-Hispanic American Indian; Non-Hispanic Black; and Other

Hispanic or Latino origin, with the reference group being Non-Hispanic Whites, dummy

variable coding for immigrant generation status, with the reference group being first or

second generation and a dummy code bilingual Spanish-speaker, with the reference group

being not bilingual and a dichotomous variable for sexual orientation, explaining 23.8%

of the variance in explicit attitudes. The race IAT D score was entered at step 2,

explaining .4% additional variance. The immigrant IAT D score was entered at step 3,

explaining 1.5% additional variance in explicit attitudes. Total perceived discrimination

scores were entered at step four, explaining 1% additional variance in explicit attitudes.

After entry of intercultural sensitivity at step 5, the total variance explained by the model

is 32%, $F(17, 332) = 9.18$, $p < .001$. Intercultural sensitivity explained 5.2% additional

variance in explicit attitudes. In the final model, gender (i.e., men had more explicit bias)

ß = .179, $p < .001$; current social class ß = .194, $p < .001$; bilingual Spanish-speaker (less

explicit bias among bilingual Spanish-speakers) ß = -.144, $p < .05$; sexual orientation

(more explicit bias among heterosexual) ß = -.136 $p < .01$; immigrant IAT D score ß =

.115, $p < .05$; total perceived discrimination ß = -.125, $p < .05$; and intercultural sensitivity

ß = -.236, $p < .001$ were significant.

CHAPTER 4 DISCUSSION

This study sought to examine factors related to implicit and explicit biases

towards undocumented Latino immigrants and implicit biases towards Latino Americans

among Mexican, Hispanic and Non-Hispanic White students. Mexican/Chicano college

students had more positive implicit attitudes towards undocumented Latino immigrants

and Latino Americans than Non-Hispanic White students. Hispanic/Spanish college

students had more positive implicit attitudes towards Latino Americans than Non-Hispanic Whites. Students that identified as Mexican/Chicano had more positive explicit attitudes than Non-Hispanic Whites and Hispanic/Spanish students. Mexican/Chicano students had higher intercultural sensitivity scores than Hispanic/Spanish students. Intercultural sensitivity explained a significant proportion of the variance in explicit attitudes towards undocumented Latino immigrants, and higher scores were associated with less negative explicit attitudes towards undocumented Latino immigrants, but not implicit attitudes. Intercultural sensitivity was not associated with greater instances of perceived discrimination. Mexican/Chicano and Hispanic/Spanish students had higher scores in perceived discrimination than Non-Hispanic Whites. No differences were found in depression and anxiety symptom scores. Perceived discrimination was not associated with depression and anxiety symptoms.

Implicit Attitudes and Biases

After controlling for relevant sociodemographic variables, students that identified as Mexican/Chicano had more positive implicit attitudes towards undocumented Latino immigrants than Non-Hispanic Whites. Results on group differences between ethnic/racial groups (see table 4 and 9) are consistent with previous findings that showed larger IAT D scores towards Hispanics among White participants than Hispanic participants (March & Graham, 2015) and evidence of implicit bias towards Latinos and Latino immigrants (Blair et al., 2013; Pérez, 2010). However, our study contributes to the literature because it examines implicit attitudes within different Latino or Hispanic groups (i.e., between Mexican/Chicano and Hispanic/Spanish origin); assesses biases towards undocumented Latino immigrants; and includes a larger and more diverse

sample. Previous research has grouped individuals that identify as Hispanic or Latino into one group. However, given that the state of New Mexico has a unique history that can be traced to the original conquistadores, colonists from Spain, American Indian or Alaskan Native tribes and immigrants from Mexico (Gonzalez, 1969); (Hayes-Bautista & Chapa, 1987; Treviño, 1987) we decided that it would not be appropriate to simply combine such a heterogeneous group.

Similarly, other states with large variations of Latino or Hispanic groups such as, California, Texas, Arizona, New York, and Florida may benefit from understanding the context of Latino or Hispanic populations. Particularly, instead of grouping Latino or Hispanic groups as one, national origin should be considered (Hayes-Bautista & Chapa, 1987). For example, in our study, after controlling for relevant sociodemographic variables, there were no differences between students that identified as Hispanic/Spanish and Non-Hispanic White in implicit biases towards undocumented Latino immigrants. This finding may suggest within group differences between Latino and Hispanic groups in implicit biases towards undocumented Latino immigrants and should be further investigated.

The greatest predictor of implicit biases towards undocumented Latino immigrants was implicit biases towards Latino Americans (i.e., race IAT D score in Table 9). It is possible that since most undocumented immigrants in the U.S. are of Latino origin, particularly, of Mexican descent, people may tend to subtly combine Latinos, Hispanics and others who they perceive to belong in this group (Zong et al., 2018). If people hold implicit biases towards Latino Americans and if they hold negative views towards immigrants, we would expect that this holds the same or is greater among

undocumented Latino immigrants. When combined with the current political climate

regarding immigration, which includes but is not limited to restricting temporary worker

programs, introducing bills that would cut or eliminate certain aspects of legal permanent

immigration (e.g., family-based), elimination of the Deferred Action for Childhood

Arrivals (DACA) program, the fencing of the U.S.-Mexico border region and rising

immigration enforcement and arrests of non-citizens without criminal records (Migration

Policy Institute [MPI], 2017), the preconceived notions towards this group may be

occurring at an unconscious level.

Another finding was that an increase in age was associated with a decrease in

implicit biases towards undocumented Latino immigrants, which suggested that college

students that are older would have more positive attitudes. It is possible that older college

students may have had more opportunities to explore or become aware of issues

surrounding this population, which may have shaped their associations towards

undocumented Latino immigrants. However, since no other variables were significant in

the full model, the extraneous influence of age on IAT D scores may also explain our

findings (Nosek et al., 2005, 2007).

In line with our hypotheses about implicit attitudes towards Latino Americans,

after controlling for relevant sociodemographics, students that identified as

Mexican/Chicano and Hispanic/Spanish had less implicit biases towards Latino

Americans. As previously mentioned, these results are consistent with previous findings

that Non-Hispanic Whites had more implicit biases towards Latino immigrants and

Hispanics (March & Graham, 2015; Pérez, 2010; Weyant, 2005).

Additionally, another contribution to the literature is that after controlling for relevant sociodemographic variables, implicit attitudes towards undocumented Latino immigrants (i.e., Immigrant IAT *D* scores), and explicit attitudes towards undocumented Latino immigrants (i.e., total immigration scores), first and second generation immigrants had more positive attitudes towards Latino Americans than third, fourth, and fifth generation immigrants. Although there is limited information available on differences in immigrant generation in attitudes towards Latinos, some evidence suggests differences between foreign-born (i.e., first-generation) and U.S. born Latinos (Regalado, 2009). However, in the context of that study, U.S. born was not broken down by other generation groups (i.e., second, third, fourth and fifth). Moreover, it is possible that first and second-generation immigrants may have a strong identification with being American and their own national identity (Devos, 2006). Thus, they could have more a subtle inclusive definition on what constitutes being a "Latino American," which may have been shaped by their own experiences as immigrant or children of immigrants.

As previously mentioned, given the heterogeneity of the excluded ethnic and racial groups, we decided to explore implicit and explicit biases towards undocumented Latino immigrants because it may provide preliminary information in guiding future research. Inclusion of individuals from other diverse backgrounds, including Non-Hispanic Asians, Blacks, American Indian, and other Latino or Hispanics led to more nuanced findings in implicit attitudes toward undocumented Latino immigrants. Particularly, after controlling for sociodemographic variables, race IAT *D* scores, and explicit attitudes towards undocumented Latino immigrants, Non-Hispanic Blacks had more positive implicit attitudes towards undocumented Latino immigrants than Non-

Hispanic Whites. Given that Non-Hispanic Blacks and undocumented Latino immigrants account for a small percentage of the population in New Mexico, Non-Hispanic Blacks may establish a coalition or a perceived commonality with undocumented Latino immigrants. Thus, when combined with the fact that Blacks and Latinos have a history of segregation and discrimination, Blacks may holds less implicit biases towards undocumented Latino immigrants than Whites (McKanders, 2010). However, larger sample sizes and other factors such as, policies affecting immigration; the racial and ethnic environments; low and high-status neighborhoods; racial compositions of friends; and predictors of coalitions will need to be considered in future research (Levin et al., 2003; Oliver & Wong, 2003).

Explicit Attitudes and Biases

Our hypothesis that Latino/Hispanic students would show more positive explicit attitudes towards undocumented Latino immigrants was partially supported. In our study, students that identified as Mexican/Chicano had more positive attitudes than Non-Hispanic Whites; and Hispanic/Spanish students. However, contrary to our expectations, Hispanic/Spanish students did not have significantly more positive explicit attitudes than Non-Hispanic White students. As seen in the regression analyses (see Table 10), after inclusion of the sociodemographic variables, no ethnic/racial group differences in explicit attitudes towards undocumented Latino immigrants were found. Instead, we found that females had more positive attitudes towards undocumented Latino immigrants than males. Results on gender differences are consistent with previous research that when compared with men, women have more positive attitudes towards undocumented

immigrants (Ommundsen et al., 2014). However, gender differences will need to be further explored in studies with more equal sample sizes.

A finding that was contrary to previous research was that higher reported current social class was related to more negative attitudes. This was contrary because economic competition or those with lower SES have been found to exhibit greater negative attitudes towards undocumented immigrants (Larsen et al., 2009). Hypothetically speaking, those with higher social class would not be expected to be in labor competition with undocumented Latino immigrants. However, it is possible that this discrepancy is explained by perceived threat to national identity, political affiliation, the variation in measures of SES, other variables such as, living abroad, having friends or family members that are undocumented, having friends of Latino origin, the influence of the media, familial beliefs, and older age (Atwell Seate & Mastro, 2016; Haubert & Fussell, 2006; Larsen et al., 2009).

From an ingroup perspective, first and second generation immigrant groups are likely to have closer relationships to those who are undocumented. In this case, since it affects them at a more personal level, more positive or accepting attitudes towards undocumented Latino immigrants are expected than other generations. Moreover, it is possible that the less explicit biases found towards undocumented Latino immigrants could be attributed to the fact that first and second-generation immigrants are foreign-born or have at least one parent that is foreign-born. Therefore, they be more likely to be in contact with family and friends from different countries, which from intergroup contact theory (Pettigrew, 1998; Pettigrew & Tropp, 2006), may have led to more positive attitudes.

Similarly, bilingual-Spanish speakers may have less explicit biases towards undocumented Latino immigrants because they are likely to have had the opportunity to communicate with monolingual or even bilingual Spanish-speakers in the U.S. or other countries. For example, since most people that speak Spanish are of Latino/Hispanic origin, bilingual-Spanish speakers that work in contexts that provide services to diverse populations (e.g., community and hospital clinics, churches), are likely to come into contact with Spanish-speaking Latinos/Hispanics, including some who may be undocumented. Frequent and recurring linguistic and interpersonal contact has found to promote positive attitudes towards groups (Shin, Leal, & Ellison, 2015). Therefore, it is a critical component to consider in the reduction of explicit biases.

Although this study focused on implicit and explicit attitudes towards undocumented Latino immigrants, one would expect attitudes to vary within Latino groups. Particularly, the focus on the media and the ongoing anti-immigrant policies and statements, as well as the fact that immigrants from Mexico are the largest immigrant group, it would be expected that documented and undocumented Mexican immigrants would continue to experience more negative attitudes (Diaz, Saenz, & Kwan, 2011). Therefore, depending on the context (i.e., the state, neighborhood) that one lives in, it may be important to consider focusing on Latinos/Hispanics from specific countries of origin.

The unique contribution of implicit biases towards undocumented Latino immigrants on explicit attitudes, even after controlling for implicit biases towards Latino Americans may provide evidence for two different attitudinal constructs. Our results can also highlight the non-linear relationship among both implicit and explicit biases towards

undocumented Latino immigrants and the importance of considering other sociodemographic and intersecting identities (e.g., race, ethnicity, immigrant status, sexual orientation) in future studies on attitudes or biases towards diverse groups.

Furthermore, exploratory analyses suggested that sexual minorities and individuals who perceive greater instances of discrimination may experience closeness or a coalition to highly stigmatized groups such as, undocumented immigrants (Craig & Richeson, 2012, 2016). This coalition could strengthen their sense of belonging and openness to others from minority backgrounds. The current sociopolitical context particularly, the ongoing debate of immigration, sexual minority and woman rights (e.g., equal pay, abortion, sexual victimization) may also provide rationale for our findings that marginalized groups could feel threatened and therefore will stick together. However, coalitions among different stigmatized groups (e.g., sexual minorities, ethnic, racial groups, religious, spiritual, and psychologically distressed individuals) warrant further research.

Intercultural Sensitivity

Our results (see Table 4) did not support our hypothesis that Latinos/Hispanics would score higher in intercultural sensitivity than Non-Hispanic Whites. Surprisingly, students that identified as Mexican/Chicano had higher intercultural sensitivity scores than Hispanic/Spanish students. This finding suggests that students that are Mexican/Chicano may be more interculturally sensitive to people from diverse groups. However, since this study did not focus on predicting intercultural sensitivity, it is unclear if other variables such as, racial neighborhood composition, friends, age, SES, bilingualism could account for this association.

As theorized, higher intercultural sensitivity was associated with more positive explicit attitudes towards undocumented Latino immigrants. However, intercultural sensitivity was not associated with implicit attitudes towards undocumented Latino immigrants and did not explain a significant amount of variance. The independent contribution of intercultural sensitivity on explicit attitudes towards undocumented Latino immigrants could provide initial information on the reduction of explicit biases towards undocumented Latino immigrants or more generally, undocumented immigrants. If further researcher identifies that explicit biases towards undocumented Latino immigrants predicts certain behavior (e.g., discrimination, hate crimes) toward this group or people perceived to belong in that group (e.g., Latinos/Hispanics that are U.S. born or permanent residents, ethnic/racial minorities), identifying ways to reduce explicit biases will be critical to mitigate the potential negative effects towards this population. However, identifying the extent to which this will be applicable first warrants experimental research on what types of behavior do explicit biases towards undocumented Latino immigrants predict. Furthermore, since intercultural sensitivity consists of five subscales: interaction engagement; respect for cultural differences; interaction confidence; interaction enjoyment; and interaction attentiveness (Chen & Starosta, 2000), it is worth exploring if a particular subscale (e.g., respect for cultural differences) is more likely to be associated with explicit biases towards undocumented Latino immigrants.

Perceived Discrimination

Contrary to our hypothesis, intercultural sensitivity was not associated with higher perceived discrimination. To our knowledge, no study has found or explored this thus, it

may need to be confirmed with more representative samples. As hypothesized, we found that students of Mexican/Chicano and Hispanic/Spanish origin reported greater instances of perceived discrimination than Non-Hispanic Whites. Consistent with previous literature on differences within Latino/Hispanic groups on perceived discrimination (Arellano-Morales et al., 2015), Mexican/Chicano students reported greater instance of perceived discrimination than Hispanic/Spanish students. It is possible that with the inclusion of relevant sociodemographic variables (e.g., immigrant generation status, SES, bilingual-Spanish speaker, ascribed ethnic/racial group), we will have a better understanding on this association.

Depression and Anxiety

Contrary to our hypothesis, we did not find any group differences in depression and anxiety scores. Perceived discrimination was not associated with worse mental health. Since we only performed correlations, we did not assess if the inclusion of risk and protective factors predicted symptoms of depression and anxiety (e.g., gender, SES, immigrant generation status, sexual orientation, acculturation). This will need to be further explored among college students of diverse groups.

Limitations

Some limitations to keep in mind are that participants were based on a convenience sample of college students enrolled for course credit, which is not representative of the general U.S. population. Unequal sample sizes across diverse groups is also a limitation of this study and did not allow for appropriate analyses. Additionally, since this study is cross-sectional, causation cannot be inferred. Thus, research with a more representative sample is warranted to be able to further extrapolate our findings.

Another limitation is the inability to determine if biases towards undocumented Latino immigrants vary by Latino/Hispanic group or if a particular group was thought of when answering (e.g., Mexican, Salvadorian, Guatemalan, Honduran). The current study looks at a sensitive and prominent topic, which may have led to underreporting in explicit attitudes due to concerns of self-presentation (Nosek, 2005). Furthermore, this study examines overall attitudes towards undocumented Latino immigrants and does not address specific attitudes (e.g., open borders, forced removal and belief that undocumented are hurting the U.S. economy). Therefore, specific attitudes towards undocumented Latino immigrants will need to be further studied.

Conclusion

Although we did not measure sociopolitical factors such as awareness of the political climate and immigration-related issues, sentiments towards immigrants particularly, those that are undocumented may be influenced by the media, geographic location, perceived competition, and previous contact (Larsen et al., 2009; Ommundsen et al., 2014). Despite some limitations, our findings provide innovative information on between and within group differences in implicit and explicit biases towards undocumented Latino immigrants in a predominantly Mexican/Chicano and Hispanic sample. Given the heterogeneity of Latino/Hispanic groups and the changing demographics across the U.S., comparisons in areas where there may be a large (e.g., California, Texas, Florida, New York, Illinois) or growing (Georgia, Arizona, Colorado, New Jersey, New Mexico) Latino/Hispanic population is warranted (Stepler & Brown, 2016; Stepler & Lopez, 2016). Although differences in attitudes towards different Latino/Hispanic immigrants groups are expected across states partly because of the racial,

ethnic, and immigrant composition, as well as the variation in state policies, the extent to which implicit and/or explicit biases predict behavior (e.g., discrimination, racism) towards specific immigrant groups, remains unclear. Furthermore, the intersect of various identities (e.g., gender, sexual orientation, nativity, racial and ethnic background) and experiences are likely to shape one's perceptions towards diverse groups. As seen in this study, intercultural sensitivity may be a promising construct to consider in strategies aimed at reduction of negative explicit biases towards undocumented Latino immigrants. However, the extent to which it may be applicable warrants further empirical evidence with methodological rigor.

APPENDIX A   DEMOGRAPHIC QUESTIONNAIRE

A. To ensure that we give you credit for participation, what is your UNM ID?

Please answer the following demographic questionnaire

1. What is your age in years: open ended
2. Gender: Options: Female, Male, Other
3. How would you describe your sexual identity?
Do you consider yourself to be:
- Heterosexual or straight
- Gay
- Lesbian
- Bisexual
- Fluid
- Pansexual
- Queer
- Demisexual
- Questioning
- Asexual
- Other
- I prefer not to answer

4. Do you identify as Hispanic, Latino, or Spanish origin?

- No, not of Hispanic, Latino or Spanish origin

- Yes, Mexican, Mexican American, Chicano

- Yes, Puerto Rican

- Yes, Cuban

- Yes, another Hispanic, Latino, or Spanish origin - *Please print origin, for example, Argentinean, Colombian, Dominican, Nicaraguan, Salvadoran, Spaniard, and so on.*

5. What is your race? Mark one or more

- White

- Black or African American

- American Indian or Alaska Native - *Print name of enrolled or principal tribe:*

- Middle Eastern

- Asian Indian

- Chinese

- Filipino

- Other Asian -*Print race, for example, Hmong, Laotian, Thai, Pakistani, Cambodian, and so on.*

- Japanese

- Korean

- Vietnamese

- Native Hawaiian

- Guamanian or Chamorro

- Samoan

- Other Pacific Islander - *Print race for example, Fijian, Tongan and so on.*

- Some other race: write in race

5a. Please enter the name of your specific ethnic group

5b. Do you belong to more than one ethnic group? Yes or No
If yes, how do you identify yourself?

5c. If you were walking down the street and saw a stranger, what race/ethnicity do you think that person would assume you were based on what you look like?
- White
- Black
- Latino or Hispanic
- Asian
- Middle Eastern/Arab
- American Indian
- Other: Specify

5d. If you were walking down the street, do you think that people would think you are an immigrant? Yes or No.

6. Please indicate the approximate racial/ethnic composition of the neighborhood where you currently live. Responses must add up to 100 percent. *(Note: use a sliding scale that adds up to 100).*
Percent White
Percent Black
Percent Latino or Hispanic
Percent Asian
Percent Middle Eastern/Arab
Percent American Indian
Percent Other

6a. Please indicate the approximate racial/ethnic composition of your closest friends. Responses must add up to 100 percent. *(Note: use a sliding scale that adds up to 100).*

Percent White
Percent Black
Percent Latino or Hispanic
Percent Asian
Percent Middle Eastern/Arab
Percent American Indian
Percent Other

7. In what country were you born? Open ended
If you were not born in the United States, what age did you arrive to the U.S.?

How many years have you lived in the country? Open ended

8. Choose the generation that applies to you:
Options:
1st generation- you were born in another country
2nd generation – you were born in the US; either parent was born in another country
3rd generation - you were born in the U.S.; both parents born in the US; all grandparents born in another country
4th generation - you and your parents were born in the US; at least one grandparent born in another country with remainder born in the US
5th generation - you and your parents were born in the US and all grandparents born in the US

9. What is your educational status?

Options: Freshman in college, Sophomore in college, Junior in college, Senior in college, other

10. Choose the highest level of education that your parents completed:

10a. Father or male guardian:
options: no formal schooling; grades 1- 8; some high school (no diploma or GED); GED; High school graduate; some college/technical school; Associates Degree, (e.g., AA, AAS); College graduate (B.A., B.S.); some graduate school; advanced degree (M.A., M.S.) Ph.D., M.D., J.D.

10b. Mother or female guardian:
options: no formal schooling; grades 1- 8; some high school (no diploma or GED); GED; High school graduate; some college/technical school; Associates Degree, (e.g., AA, AAS); College graduate (B.A., B.S.); some graduate school; advanced degree (M.A., M.S.) Ph.D., M.D., J.D.

11. Thinking back to grade school, which social class would you have identified with?
Options: 1= Lower class, 2 = Lower-middle class, 3 = Middle Class, 4 = Upper-middle class; 5 = Upper class

11a. Which social class group do you currently identify with?
Options: 1= Lower class, 2 = Lower-middle class, 3 = Middle Class, 4 = Upper-middle class; 5 = Upper class

12. Do you speak more than one language?   Y   N

    12a. If so, which ones:

    12b. When did you learn your second language?

    12c. When did you learn other languages?

13. What language do you normally speak at home?

14. How well would you say you speak English?

    Very well   Somewhat well   A little   Not at all

15. How well would you say you speak Spanish?

    Very well   Somewhat well   A little   Not at all

16. How well would you say you speak another language other than English and Spanish?

    Very well   Somewhat well   A little   Not at all

Attribute Labels

Attribute A Label
"Positive"

Item attribute A

/1 = "Determined"
/2 = "Honest"
/3 = "Hard-Worker"
/4 = "Law Abiding"
/5 = "Trustworthy"
/6 = "Educated"
/7 = "Peaceful"
/8 = "Responsible"

Attribute B Label
"Negative"

Item attribute B
/1 = "Lazy"
/2 = "Corrupt"
/3 = "Job Stealer"
/4 = "Criminal"
/5 = "Deceiving"
/6 = "Ignorant"
/7 = "Dangerous"
/8 = "Irresponsible"

Target A Label
"Undocumented European Immigrant"
- 6 pictures from Chicago Face database (3 men and 3 women)

Target B Label
"Undocumented Latino Immigrant"
- 6 pictures from Chicago Face database (3 men and 3 women)

Example of images can be found in: http://chicagofaces.org/

APPENDIX C   IMPLICIT ASSOCIATION TEST (RACE IAT)

Attribute Labels

Attribute A Label
"Positive"

Item attribute A

/1 = "Determined"
/2 = "Honest"
/3 = "Hard-Worker"
/4 = "Law Abiding"
/5 = "Trustworthy"
/6 = "Educated"
/7 = "Peaceful"
/8 = "Responsible"

Attribute B Label
"Negative"

Item attribute B
/1 = "Lazy"
/2 = "Corrupt"
/3 = "Job Stealer"
/4 = "Criminal"
/5 = "Deceiving"
/6 = "Ignorant"
/7 = "Dangerous"
/8 = "Irresponsible"

Target A Label
"European American"
  - 6 pictures from Chicago Face database (3 men and 3 women)

Target B Label
"Latino American"
  - 6 pictures from Chicago Face database (3 men and 3 women)

Example of images can be found in: http://chicagofaces.org/

20-ITEM ILLEGAL IMMIGRANT SCALE

1 = strongly disagree
2= disagree
3 = neither agree nor disagree
4 = agree
5 = strongly agree

1. Undocumented Latino immigrants should not benefit from my tax money
2. Our taxes should be used to help undocumented Latino immigrants residing illegally in the U.S. (R)
3. There is enough room in this country for everyone (R)
4. Undocumented Latino immigrants are not infringing on our country's resources (R)
5. Undocumented Latino immigrants are a nuisance to society
6. There should be open international borders (R)
7. Access to this country is too easy.
8. Undocumented Latino immigrants should be excluded from social welfare
9. U.S. should accept all political refugees (R)
10. Undocumented Latino immigrants who give birth to children in the U.S. should be made citizens (R)
11. Undocumented Latino immigrants cost the U.S. millions of US dollars each year
12. Undocumented Latino immigrants should be eligible for social welfare (R)
13. Undocumented Latino immigrants provide the U.S. with a valuable human resource (R)
14. The government should pay for the care and education of undocumented Latino immigrants (R)
15. Undocumented Latino immigrants should not have the same rights as U.S. citizens
16. Undocumented Latino immigrants have rights too (R)
17. Taking care of people from other nations is not the responsibility of the U.S.
18. All undocumented Latino immigrants deserve the same rights as U.S. citizens (R)
19. Undocumented Latino immigrants should be forced to go back to their own countries
20. Undocumented Latino immigrants should not be discriminated against (R)

APPENDIX E   INTERCULTURAL SENSITIVITY SCALE

Below is a series of statements concerning intercultural communication. There are no right or wrong answers. Please work quickly and record your first impression by indicating the degree to which you agree or disagree with the statement. Thank you for your cooperation.

Please put the number corresponding to your answer in the blank before the statement
5 = strongly agree
4 = agree
3 = uncertain
2 = disagree
1 = strongly disagree

1. I enjoy interacting with people from different cultures.
2. I think people from other cultures are narrow-minded.
3. I am pretty sure of myself in interacting with people from different cultures.
4. I find it very hard to talk in front of people from different cultures.
5. I always know what to say when interacting with people from different cultures.
6. I can be as sociable as I want to be when interacting with people from different cultures.
7. I don't like to be with people from different cultures.
8. I respect the values of people from different cultures.
9. I get upset easily when interacting with people from different cultures.
10. I feel confident when interacting with people from different cultures.
11. I tend to wait before forming an impression of culturally-distinct counterparts.
12. I often get discouraged when I am with people from different cultures.
13. I am Open-minded to people from different cultures.
14. I am very observant when interacting with people from different cultures.
15. I often feel useless when interacting with people from different cultures.
16. I respect the ways people from different cultures behave.
17. I try to obtain as much information as I can when interacting with people from different cultures.
18. I would not accept the opinions of people from different cultures.
19. I am sensitive to my culturally-distinct counterpart's subtle meanings during our interaction.
20. I think my culture is better than other cultures.
21. I often give positive responses to my culturally different counterpart during our interaction.
22. I avoid those situations where I will have to deal with culturally-distinct persons.
23. I often show my culturally-distinct counterpart my understanding through verbal or nonverbal cues.
24. I have a feeling of enjoyment towards differences between my culturally-distinct counterpart and me.

APPENDIX F   SCALE OF ETHNIC EXPERIENCE

Directions: Read each item and indicate how much you agree or disagree with the statements.
1 = Strongly disagree, 2 = Disagree, 3 = Neither agree nor disagree, 4 = Agree, 5 = Strongly Agree

1. Holidays related to my ethnicity are not very important to me.
2. Generally speaking, my ethnic group is respected in America.
3. My ethnic group has been treated well in American society.
4. Ethnicity was not important to my parents.
5. At a social gathering, I would feel most comfortable if the majority of the people there were members of my own ethnic group.
6. I feel like I belong to mainstream American culture.
7. My ethnic background plays a very small role in how I live my life.
8. I do not feel it is necessary to learn about the history of my ethnic group.
9. I'm what most people think of as a typical American.
10. I feel most comfortable talking about personal things with people from my own ethnic group.
11. I do not feel a part of mainstream American culture.
12. Ethnic pride is not very important to a child's upbringing.
13. My ethnic group does not have the same opportunities as other ethnic groups.
14. I have a strong sense of myself as a member of my ethnic group.
15. I think that friendships work best when people are from the same ethnic group.
16. I believe that my sense of ethnicity was strongly influenced by my parents.
17. I think of myself as a typical American.
18. I find it easier to trust people from my own ethnic group.
19. I often have to defend my ethnic group from criticism by people outside of my ethnic group.
20. Being a member of my ethnic group is an important part of who I am.
21. Discrimination against my ethnic group is not a problem in America.
22. I prefer my close friends to be from my own ethnic group.
23. My parents gave me a strong send of cultural values.
24. My ethnic group is often criticized in this country.
25. I believe that it is important to take part in holidays that celebrate my ethnic group.
26. In America, the opinions of people from my ethnic group are treated as less important than those of other ethnic groups.
27. When I was growing up, ethnicity played a very little part in our family life.
28. I understand how to get along well in mainstream America.
29. In my life, I have experienced prejudice because of my ethnic group.
30. I have taken time to learn about the history of my ethnic group.
31. I have not felt prejudiced against in American society because of my ethnic background.
32. The term "American" does not fit me.

APPENDIX G   PATIENT HEALTH QUESTIONNAIRE-9 (PHQ-9) AND

GENERAL ANXIETY DISORDER-7 (GAD-7)

Over the last two weeks, how often have you been bothered by any of the following problems?
0 = Not at all
1 = Several days
2 = More than half the days
3 = Nearly every day

1. Little interest or pleasure in doing things
2. Feeling down, depressed, or hopeless
3. Trouble falling or staying asleep, or sleeping too much
4. Feeling tired or having little energy
5. Poor appetite or overeating
6. Feeling bad about yourself - or that you are a failure or have let yourself or your family down
7. Trouble concentrating on things, such as reading the newspaper or watching television
8. Moving or speaking so slowly that other people could have noticed? Or the opposite- being so fidgety or restless that you have been moving around a lot more than usual
9. Thoughts that you would better be off dead or hurting yourself in some way

GAD-7
Over the last two weeks, how often have you been bothered by any of the following problems?
0 = Not at all
1 = Several days
2 = More than half the days
3 = Nearly every day
1. Feeling nervous, anxious or on edge
2. Not being able to stop or control worrying
3. Worrying too much about different things
4. Trouble relaxing
5. Being so restless that it is hard to sit still
6. Becoming easily annoyed or irritable
7. Feeling afraid as if something awful might happen

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