

THESIS

THE ASSOCIATION OF ETHNIC IDENTITY AND PERCEIVED DISCRIMINATION
WITH RISK BEHAVIORS FOR MULTI-ETHNIC EMERGING ADULTS

Submitted by

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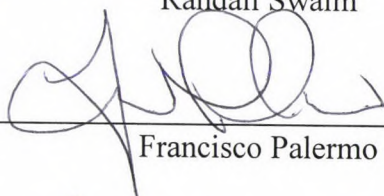
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WE HEREBY RECOMMEND THAT THE THESIS PREPARED UNDER OUR SUPERVISION BY JAMIE M. WENSINK ENTITLED THE ASSOCIATION OF ETHNIC IDENTITY AND PERCEIVED DISCRIMINATION WITH RISK BEHAVIORS FOR MULTI-ETHNIC EMERGING ADULTS BE ACCEPTED AS FULFILLING IN PART REQUIREMENTS FOR THE DEGREE OF MASTER OF SCIENCE.

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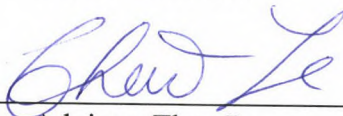
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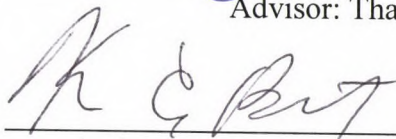
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ABSTRACT OF THESIS

THE ASSOCIATION OF ETHNIC IDENTITY AND PERCEIVED DISCRIMINATION WITH RISK BEHAVIORS FOR MULTI-ETHNIC EMERGING ADULTS

The purpose of this study is to gain insight about the risk behaviors of multi-ethnic emerging adults by exploring whether ethnic identity and perceived discrimination are associated with individuals' participation in risk behaviors. Risk behaviors include unsafe sex, drug and alcohol use, and co-occurring risk behaviors including car-related risk behaviors. The sample of participants were selected from the original sample of approximately 10,500 college students in the Multi-site University Study of Identity and Culture (MUSIC) who are part of the emerging adult population, 17-25 years old. With the increased complexity of multi-ethnic emerging adults having to navigate through multiple identities, it was hypothesized that (1) multi-ethnic emerging adults engage in more risk behaviors than mono-ethnic emerging adults; (2) multi-ethnic emerging adults score lower on ethnic identity and higher on perceived discrimination than mono-ethnic emerging adults; (3) ethnic identity is negatively associated with and perceived discrimination will be positively associated with the risk behaviors among multi-ethnic and mono-ethnic emerging adults; and (4) the relation between ethnicity classification for emerging adults and risky behaviors is mediated by ethnic identity and perceived discrimination. The following measures were used: Ethnic Identity Scale, Perceived Discrimination Subscale from the Scale of Ethnic Experience, and Risk Behavior Questions. Analyses consisted of correlations, *t*-tests, and regressions.

Results revealed that multi-ethnic emerging adults did not score higher on risk behaviors as compared to mono-ethnic emerging adults. On the other hand, results did reveal that multi-ethnic emerging adults scored higher on perceived discrimination, which supports the second hypothesis.

Correlation analyses for mono-ethnic emerging adults revealed that ethnic identity exploration, affirmation, and resolution were negatively associated with all risk behaviors. In addition, perceived discrimination was positively associated with car-related risks. For multi-ethnic emerging adults, there were negative associations among the following: ethnic identity exploration with alcohol-related risks; ethnic identity affirmation with all risk behaviors; and ethnic identity resolutions with total risk behaviors. However, perceived discrimination was not positively associated with risk behaviors. Furthermore, mono-ethnic classification was found to be associated with alcohol-related risk behaviors, which was contrary to expectations. Mediation results suggested that perceived discrimination was possibly a full mediator; however, the Sobel test statistic revealed that it was not statistically significant.

Further investigation is needed to untangle the relationship between mono- vs. multi-ethnic identification and risk outcomes, as well as the processes and mechanisms associated with the connection.

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The Association of Ethnic Identity and Perceived Discrimination with Risk Behaviors for Multi-Ethnic Emerging Adults

The few studies on risk behaviors among multi-ethnic individuals suggest multi-ethnic individuals have higher rates of sexuality and substance use as compared to mono-ethnic individuals (Faryna & Morales, 2000; Fergus, Zimmerman, & Caldwell, 2007). However, further exploration is needed in order to understand their higher rates of risky behaviors. This lack of research on multi-ethnic individuals is especially problematic given the fact that the U.S. population is becoming increasingly diverse with more individuals self-identifying themselves as multi-ethnic (Coleman & Carter, 2007; Qian, 2004). The limited understanding about the mechanisms for the higher risk behaviors among multi-ethnic individuals as compared to their mono-ethnic counterparts is troublesome because risk behaviors are connected to lower academic achievement, and the long-term consequences can include interpersonal and relational problems, limited career opportunities, poor mental and physical health, and increased risk for sexually transmitted diseases (Wallace & Fisher, 2007). This study addresses this gap by exploring risky behaviors in terms of engagement in risky sex, substance use, and other co-occurring behaviors in a large sample of young adults including those who identify themselves as multi-ethnic.

Because culture, race, and ethnicity are often used interchangeably, they will be clearly defined for the purpose of use in this study. Culture includes numerous elements such as local social norms, roles, beliefs, and values (Betancourt & Lopez, 1993). Additionally, familial roles, patterns of behavior, mannerisms, and values including individualism, collectivism, spirituality, and religiosity are all part of culture (Betancourt

& Lopez; Hanson, 1975). These characteristics within culture are learned and shared by people who identify as being a part of the same population (Betancourt & Lopez, 1993).

Race is defined as individuals being classified within three groups. These three groups are called races, which include Caucasoid, Negroid, and Mongoloid (Betancourt & Lopez, 1993). Skin color, hair texture, and facial characteristics are often used as physiological identifiers of race (Coll et al., 1996). Such characteristics are typically the basis for racial identity and also influence social positions that for multi-racial or biracial individuals (Coll et al., 1996). For this reason, race is not the best classification to use when examining group differences mainly because it is broader as compared to culture and ethnicity (Betancourt & Lopez, 1993; Coll et al.).

Ethnicity refers to the people of a nation or tribe (Betancourt & Lopez, 1993). The term is used to express cultural distinctness deriving mostly from national origin, language, religion, or a combination of these factors (Coll et al., 1996). The distinction between ethnicity and culture is important. Although cultural background can be highly influential in ethnic identity, being part of an ethnic group can also have a strong influence on culture through physical interactions and interethnic communication (Betancourt & Lopez, 1993). For this study, ethnicity was the primary focus because it is closely connected with culture whereas race is more of a global and biological classification. In addition, there is more literature that explores bi/multi-racial factors contributing to outcomes rather than factors relative to ethnicity and factors influential to outcomes.

In an extensive literature search in the PsychINFO database using the key words multi-ethnic adults/adolescents and risky behaviors, only a few articles were found.

These articles mainly looked at sexual risk behaviors and tobacco smoking. In Faryna and Morales' (2000) study, they noted a significant increase in risk-taking behavior of minority and multi-ethnic youth as they entered into adulthood; multi-ethnic youth in this study was defined as a representation of multiple ethnicities including African American, Chinese, Filipino, other Asian/Pacific Islander, Latino, and European Islander. In another study, the authors found that multi-ethnic students living in Hawaii were negatively affected by family members' tobacco use, meaning they felt influenced to smoke because they were surrounded by this atmosphere (Mitschke et al., 2008). Researchers from another study noted the predictors of cigarette use among multi-ethnic adolescents in Hawaii were related to psychopathology, school, environmental factors, the role of culture and the growing ethnic diversity of youth (Else et al., 2008).

In the present study, I hypothesized that multi-ethnic individuals are more at risk for engaging in risky sex, substance use, and other co-occurring behaviors that are car-related as compared to mono-ethnic individuals. This is based on the previous studies noted above, but also on the theoretical argument that multi-ethnic individuals experience additional challenges in navigating their ethnic identity because they have multiple ethnicities, whereas mono-ethnic individuals only have one (Phinney, 2006). Phinney (2006) argued that this additional challenge of navigating multiple identities makes them more vulnerable because they have to deal with the basic issues faced by all minorities with developing a secure sense of who they are ethnically, as well as developing their identity within the context of two or more families or groups (Phinney, 2006). They must also explore issues regarding their physical appearance. In addition to being connected to at least two ethnic groups, they must also consider a third membership group that

resembles the larger society and or the related national identity (Phinney, 2006).

Additionally, according to Erikson (1950), ethnic identity is a process that takes place within individuals and within their cultures.

Given the growing visibility of multi-ethnic families in society (Coleman & Carter, 2007; Qian, 2004), it is crucial to learn more about the youth of these families, specifically with regard to their ethnic identity and how it is associated with their behavioral outcomes in later adolescence and early adulthood. As a case in point, in the 2000 Census, Americans, for the first time ever, were able to mark two or more categories for race and ethnic classification (Qian, 2004). During this time, a total of 6.8 million individuals classified themselves as two or more races (Coleman & Carter, 2007). Furthermore, 1% to 2% of the college population is made up by multiethnic students (Jourdan, 2006). Regardless of the reasons behind this population increase, whether it is due to more social acceptance of inter-ethnic relationships or there are more opportunities to identify oneself as being multi-ethnic, this group continues to grow. It is important to understand the mechanisms that contribute to increased engagement in risk taking behaviors for multi-ethnic individuals. Specifically, lack of social acceptance or discrimination, and the complex process of identity development are areas which need to be explored.

Given that the ethnic minority population is rapidly growing, research needs to be more inclusive of these groups. Iwamasa, Sorocco, and Keeonce (2002) investigated the general focus of research in five of the leading psychology journals over a 17-year period and found only 2% of the literature focused on ethnic minority groups. In addition, Imada and Schiavo (2005) reported only 5% representation of minority groups within six

mainstream journals. Unfortunately, in the PsychINFO database, only 1% of publications involved cross-cultural issues and only 3% involved ethnic minority issues (Levesque, 2007). Given the increasing representation of minority individuals in the larger population but the dearth of research on them, more research is called for in order to determine whether conclusions about adolescent behavior, for example, apply equally well across different subgroups. In addition, this review mainly focused on minority groups in general. Consideration of multi-ethnic minorities was largely absent. Because of this limited research on multi-ethnic minorities, the following discussion will be based upon the literature on minorities in general because “multi-ethnic” is also considered a minority group and some of the challenges that accompany ethnic identity and perceived discrimination may be similar for these individuals.

Risky Behaviors among Minorities

Although not necessarily focused on multi-ethnic population, studies with minority youth indicate that minority youth are more likely to engage in risk-taking behaviors compared to those in the majority group. In one study, the majority of individuals who acquired HIV and AIDS reported being African American or Latino (Faryna & Morales, 2000). African American adolescents reported having started sexual activity at age 14 or younger (Faryna & Morales, 2000). Furthermore, according to the Centers for Disease Control and Prevention, adolescents between 13 and 19 years old make up 0.3% of the total number of AIDS cases in the United States whereas the numbers of cases among 20 to 29 year olds are 10 times higher than those of adolescents (Faryna & Morales, 2000). It is likely that those who acquired HIV and AIDS participated in sexual activity with multiple partners and or without contraception.

In another study, Latinas had the highest rate of sexual activity, which placed them at greater risk for teen pregnancy, sexually transmitted diseases, and HIV infections than those from other ethnic groups (Faryna & Morales, 2000). Ethnicity was a stronger risk factor than gender, self-efficacy, knowledge, attitudes, and beliefs. Similarly, Espinosa-Hernandez and Lefkowitz (2009) found that Latino American college students reported riskier condom-related behaviors and attitudes compared to European and African Americans. They also concluded that ethnic identity affirmation was a protective factor against risky attitudes regardless of ethnicity (Espinosa-Hernandez and Lefkowitz, 2009).

In contrast, Fergus, Zimmerman, and Caldwell (2007) found that those who were African American or biracial engaged in more sexual risk behavior compared to White individuals. African American participants had higher rates of HIV and other sexually transmitted diseases (Fergus et al., 2007). Given that there appears to be higher risks for minority groups, I expected the risks to be greater for multi-ethnic individuals. I expected this because multi-ethnic individuals face particularly complex identity issues, as mentioned earlier (Phinney, 2006).

Interestingly, a study on sources of prescriptions for misuse by adolescents found that there were ethnic differences. African Americans were more likely than White and Hispanic adolescents to obtain opioids from physicians (Schepis & Krishnan-Sarin, 2009). Furthermore, African American adolescents were more likely to steal stimulants more often than either White or Hispanic adolescents (Schepis & Krishnan-Sarin, 2009). White adolescents were more likely to purchase opioids and or get it from friends or

relatives as Hispanic adolescents were more likely to get it from “other” sources (Schepis & Krishnan-Sarin, 2009).

Furthermore, according to the results from the 2001 National Household Survey on Drug Abuse (NHSDA), White individuals were more likely to than other groups to report heavy drinking. Approximately 6% Whites, 5% Hispanics, and 5% African Americans reported heavy drinking (Randolph, et al., 2009). Although these results compare mono-ethnic individuals, I would expect multi-ethnic individuals to have greater engagement in risk behaviors due to their complexity in ethnic identity development and lack of social acceptance.

Prior research also suggests that multi-ethnic individuals are likely to experience higher risks because they are faced with the challenges associated with ethnic identity exploration. They experience the basic issues minorities face and must explore and deal with the issues of their various backgrounds as well as finding a sense of group belonging (Phinney, 2006). For example, according to Shih and Sanchez (2005), minorities with more than one minority identity find themselves to be a minority twice over, because they are minorities within larger society and also within their minority groups. Based on the complexity these individuals experience in forming an ethnic identity, this process is likely to be much longer in comparison to mono-ethnic individuals (Phinney, 2006). Because multi-ethnic individuals are aware of being different from family and peers, they tend to struggle with acceptance of having multiple identities especially when they lack support from others like them (Phinney, 2006). The goal of the present study was to explore ethnic identity development and perceived discrimination of multi-ethnic emerging adults as compared to their mono-ethnic counterparts. The theoretical

framework used to explore the processes associated with higher risk behaviors for multi-ethnic emerging adults include ethnic identity as well as its associated perceived discrimination. Risk behaviors explored in this study include unsafe sex, drug and alcohol use, and reckless driving-behaviors.

Ethnic Identity Development Theory

According to Erikson (1950), ethnic identity is a process that takes place within individuals and within their cultures. He believed that “only an identity safely anchored in the patrimony of a cultural identity can produce a workable psychosocial equilibrium” (Erikson, 1950, p. 412). Phinney (1992) extended this idea by proposing her theory of ethnic identity development for individuals of all ethnic groups. According to Phinney (1996), ethnic identity refers to “an enduring fundamental aspect of the self that includes a sense of membership in an ethnic group and the attitudes and feelings associated with that membership” (p. 922). Past research has used ethnic identity and racial identity interchangeably. The term ethnic identity for this study will be used broadly to include racial identity.

People with two or more different ethnic backgrounds face particularly complex identity issues (Phinney, 2006). It is more complex because they must explore and develop their identity in the context of two or more groups. During this time they must explore and resolve issues from their different identity backgrounds (Phinney, 2006). According to Phinney (1992), ethnic identity is a reliable construct in understanding the importance of values and beliefs that are chosen by a culture. For college students who are part of the emerging adult population, identity resolution is particularly significant

during this time because students become independent from their families of origin and explore this new stage of their lives (Walker et al., 2008).

Ethnic identity is presumed to develop in three stages (French, Seidman, Allen, & Aber, 2006). The first stage is described as having an unexamined ethnic identity when individuals hold both positive and negative views about their ethnic group, which they have yet to examine (French et al., 2006). This stage can also be described as having a neutral ethnic self-image (Yi & Shorter-Gooden, 1999). The second stage is the ethnic identity search when an individual begins to search or explore the meaning of being a member of an ethnic group (French et al., 2006). This stage is also thought to be a period where individuals discredit the previously accepted model image of the Euro-American culture (Yi & Shorter-Gooden, 1999). Finally, the third stage is achieved ethnic identity when individuals explore their membership of a group and are clear on what their ethnicity means in their life (French et al., 2006). Ethnic identity is also achieved when one has ethnic self-acceptance and pride (Yi & Shorter-Gooden, 1999).

Ethnic identity development is an extensive process beginning in childhood and continuing through adulthood. The life-long process of ethnic identity development is important because ethnic identity achievement contributes to psychological health (Smith, 1991). Studies have found that ethnic identity is linked to positive outcomes and buffers against negative outcomes (Walker et al., 2008). Specifically, it acts as a protective factor against risky attitudes and engagement in risky behaviors (Espinosa-Hernandez and Lefkowitz, 2009).

Emerging adulthood is a particularly salient time for ethnic identity development because frequent changes and explorations are typical (Arnett, 2000). For most people,

this is a formative stage of life but not all people are able to use this time for independent identity exploration. Many experience cultural influences that often structure and limit how one is able to use this time. The key feature of this stage is that it offers much opportunity for identity exploration. Erikson (1950) believed that in industrialized societies, adolescence has an extended period of identity exploration. Past research on identity formation focused primarily on adolescence; more recent research finds that identity is rarely achieved by the end of high school (Arnett, 2000). In addition, this research also suggests identity development continues through late teens and early twenties, which is during emerging adulthood (Arnett, 2000). The sample used in the present study is characterized as the emerging adulthood population. With this in mind, this is a productive time to identity exploration and development to occur.

Ethnic Identity and Emerging Adulthood

According to Jourdan (2006), college is a formative time for identity development because students strive to explore their identities and work toward defining themselves. In addition, changes in ethnic identity have been linked to school transitions, which tends to be considered as periods of exploration for students as well as renegotiation of identity (Syed & Azmitia, 2009).

Recently, both conceptual and empirical evidence suggest that emerging adulthood is a productive time for continued change and negotiation of ethnic identity (Syed & Azmitia, 2009). Interestingly, research has noted that a substantial number of college students do not reach identity achievement by the end of college within the identity domains of sexuality, social class, and ethnicity. For example, these students are still exploring where they stand or who they are in those areas.

For example, in one longitudinal study by Syed and Azmitia (2009), some ethnic variations in the rate of change over time were found. During early and middle adolescence, African American and Latino individuals appeared to have a faster rate of commitment to their ethnic groups compared to White adolescents. However, by late adolescence, Latinos decreased in identity exploration, whereas African American adolescents remained committed. These results suggest that there are ethnic variations in the rate of change in ethnic identity when looking at certain developmental periods as well as ethnic groups. For example, with an increase in age, Latino's decreased in identity exploration.

Ethnic identity is considered to be a fundamental aspect in finding a sense of belonging to a particular ethnic group. Those who develop a secure attachment to an ethnic group are likely to demonstrate higher self-esteem and self-awareness, and lower levels of anxiety and inferiority (Jourdan, 2006). Overall, this emerging adulthood period is important to study in connection with multi-ethnic individuals because this period is vital for identity exploration, so it is possible that multi-ethnic emerging adults experience more challenges in achieving a strong ethnic identity due to their multiple backgrounds.

Struggles of Multi-ethnic Individuals: Discrimination

Having achieved a mature sense of ethnic identity may promote higher psychological functioning, well-being, and self-esteem (Suzuki-Crumly & Hyers, 2004). Being able to understand the group with whom one identifies, along with how it is chosen by self and society, adds to the psychological development and functioning of an individuals (Wallace & Fisher, 2007).

Peer rejection or low acceptance in early childhood is a risk factor for poor behavioral outcomes (Dodge & Pettit, 2003; Hawkins, Catalano, & Miller, 1992). Multi-ethnic individuals may experience higher levels of distress including more severe psychological problems when outside prejudices are internalized. Internalizing societal pressures can make the development of a positive identity a challenge (Coleman & Carter, 2007).

Society plays an important role in the well-being of multi-ethnic individuals. There is a high level of societal pressure to identify with only one race or one ethnicity (Coleman & Carter, 2007). As a result, multi-ethnic individuals are more likely to experience higher levels of anxiety and depression (Coleman & Carter, 2007). Societal pressure may lead to rejection and or disapproval from both majority and minority groups if a decision is not made on which group with whom they identify (Shih, Bonam, Sanchez, & Peck, 2007).

As noted earlier, internalizing prejudices constructed by society can make it difficult for a multi-ethnic individual to develop a positive identity (Coleman & Carter, 2007). The United States has had a long history of racism and discrimination, which has caused great difficulties for minority groups as well as bi-racial and multi-racial individuals (Miville, Constantine, Baysden, & So-Lloyd, 2005). In one study, bi-racial and multi-racial participants described their encounters with racism to be distressing incidents, which led them to feel hurt, angry, and shameful (Miville et al., 2005). These encounters are risk factors that can lead to negative outcomes influenced by these feelings.

Unfortunately, for multi-ethnic individuals, there is little support that would provide positive messages and strategies to resist the negative affects from racism (Miville et al., 2005). Such social support groups tend to view their ethnic heritage as being a meaningful label and could build a sense of community and social support network. Being part of a community helps protect multi-ethnic individuals from negative encounters by having a base of support (Milville et al., 2005).

There is support from cross-sectional and longitudinal studies for a connection between the level of ethnic identity and perceived discrimination (Ponterotto & Park-Taylor, 2007). Research suggests that in the context of discrimination, ethnic identity is characterized as being a support of healthy adjustment, meaning ethnic identity helps individuals cope with the discrimination without negative affects (Coleman & Carter, 2007; Milville et al., 2005; Ponterotto & Park-Taylor, 2007). Overall, having a sense of connection to one's ethnic group can lead to improved personal adjustment. In addition to exploring the connection between perceived discrimination and ethnic identity, the period of emerging adulthood is also tied identity development as well as risk behaviors.

Risk Behavior in Emerging Adulthood

According to Nelson and Barry (2005), unprotected sex, substance use, and risky driving behaviors are at a peak during the emerging adult period. During this period, parental monitoring decreases, this may be a reason for why risk behaviors are higher for this population than for adolescents (Nelson & Barry, 2005). A number of studies have found high rates of these problem behaviors, such as unprotected sex and substance use, occurring during adolescence (Bradley & Wildman, 2002). In addition, some studies suggest these activities occur frequently and even more often during the emerging adult

years between the ages of 18 and 25 (Bradley & Wildman, 2002). Some researchers found that to some degree these behaviors can be associated with their identity explorations, because of their increased desire to obtain multiple experiences before settling down into their adult life roles and responsibilities (Arnett, 2000). These behaviors may be a reflection of the desire to have various experiences before they settle into roles and responsibilities set for them as part of adulthood (Arnett, 2000).

Those who engage in risk behaviors are likely to be at greater risk for substance abuse, educational failure, and juvenile crime (Hawkins, Catalano, & Miller, 1992). If behavioral outcomes include alcohol and other drug use, this may lead to more severe outcomes, including AIDS, violent crimes, child abuse and neglect, and unemployment (Hawkins et al., 1992). In addition, alcohol and drug abuse may lead to the break-up of families, weakening of relationships, and loss of productivity (Hawkins et al., 1992).

Research has explored the decision-making process related to participation in risky behaviors, with the research agenda reflecting a theoretical presumption that risky behavior is a result of tension between two different motives: (1) avoiding or minimizing possible losses, and (2) maximizing possible gains (Hirschberger et al., 2002). Due to the increase of risk behaviors among emerging adults, it is important to understand the underlying factors included evolving attitudes and behaviors in recent generations. For example, in recent decades there has been a change in attitudes and behaviors in regards to sexual activities. This change has mainly occurred with adolescents, college students, and young adults in the United States and includes having intercourse at a younger age, more sex partners, and higher frequency of unprotected sex (Langer, Warheit, & McDonald, 2001).

Summary

Studies have found achieving an ethnic identity is linked to positive outcomes and buffers against negative outcomes (Walker et al., 2008). According to Jourdan (2006) and Syed and Azmitia (2009), changes in ethnic identity have also been linked to school transitions such as college, which is a formative time for identity development because students strive to explore their identities and work toward defining themselves. This development is a lifelong process and is important because ethnic identity achievement is likely to serve as a contributing factor to psychological health (Smith, 1991) as well as to positive behavioral outcomes (Trinidad & Johnson, 2002). Multi-ethnic groups can be particularly challenged in their ethnic identity formation due to the complexity of navigating through multiple identities as well as potential experiences of discrimination. Societal pressure may lead to rejection from both majority and minority groups if a decision is not made on which group multi-ethnic individuals identify with (Shih, Bonam, Sanchez, & Peck, 2007).

With the growing population of multi-ethnic individuals, it is important that we know more about this unique population specifically how multi-ethnic emerging adults compare to their mono-ethnic counterparts on behavioral outcomes, and factors associated with the negative outcomes. Thus, the purpose of this study is to gain insight about the risk behaviors of multi-ethnic emerging adults by exploring how ethnic identity and perceived discrimination are associated with participation in risk behaviors. Risk behaviors include unsafe sex, drug and alcohol use, and other behaviors in association to these behaviors, such as driving under the influence of alcohol or drugs. It is important to understand the contributing factors of these behaviors because such behaviors can lead to

serious illness, injury, or death (Johnson, McCaul, & Klein, 2002). Searching for an ethnic identity and having the independence for identity exploration during emerging adulthood are both important components in achieving a secure identity. Lack of security in ethnic identity may be associated with more risk behaviors for multi-ethnic emerging adults. It is important to understand the mechanisms that contribute to increased engagement in risk taking behaviors for multi-ethnic individuals. Specifically, lack of social acceptance or discrimination, and the complex process of identity development are areas which need to be explored.

Hypotheses

Based on previous research, this study proposed the following hypotheses:

1. Multi-ethnic emerging adults engage in more risk behaviors than mono-ethnic emerging adults.
2. Multi-ethnic emerging adults score lower on ethnic identity and higher on perceived discrimination than mono-ethnic emerging adults.
- 3a. Ethnic identity is negatively associated with risk behaviors among mono-ethnic and multi-ethnic emerging adults.
- 3 b. Perceived discrimination is positively associated with risk behaviors among mono-ethnic and multi-ethnic emerging adults.
4. The relation between ethnicity classification of emerging adults and risky behaviors is mediated by ethnic identity and perceived discrimination.

Method

Participants

For this study, the sample selected comes from a sample of 10,561 college students from the Multi-site University Study of Identity and Culture (MUSIC). Thirty-four academic institutions nationwide participated in this study. At each site, participants were recruited either through a website in psychology departments or through advertisements in classes asking for participation for extra credit. Students who did not choose to participate had the option to complete an alternative assignment to earn extra credit. In this study, participants were restricted to ages 17 to 25 to reflect the emerging adult population.

This study used existing measures from this MUSIC data set. Demographics included gender which was coded as male = 0 and female = 1. Ethnicity was assessed with the use of two questions. First, participants were asked to choose one ethnicity from a list that best described their ethnicity: a) Black, African American, Afro-Caribbean, Black African, Other in this category, b) Caucasian, White, European American, White European, Other in this category, c) East Asian, Asian American, Amerasian, Asian-Caribbean, Other in this category, d) Latino/a, Hispanic, Spanish, Latin American, of Spanish speaking- South American/Caribbean heritage, Other in this category, e) South Asian, South Asian American, of South Asian heritage, Other in this category, f) Middle Eastern, Arab, Non-Black North African, Other in this category, or g) Coloured-South African, Khoi San, Cape Malay, Other in this category. Second, participants were identified as Biracial/Multiracial if they answered the following question: “If you are Biracial/Multiracial, please answer item 3 as best you can, and then specify the

racial/ethnic groups to which you belong.” Respondents gave a range of answers (i.e., half-Filipino/half-German, Chinese/Korean/Japanese, etc.). A new variable (ethnic classification or ethclass) was then computed to distinguish multi-ethnic participants from mono-ethnic participants. For those who answered this question, they were coded as 2 = multi-ethnic and those who did not respond were coded as 1 = mono-ethnic. Participants who did not fall within this age range were deleted, which brought the total down to 9,428 participants.

Measures

Ethnic Identity Scale. The 17-item EIS Scale (Umaña-Taylor et al., 2004) was used to assess three components of ethnic identity: exploration (7 items; e.g., “I have attended events that have helped me learn more about my ethnicity”), resolution (4 items; e.g., “I have a clear sense of what my ethnicity means to me”), and affirmation (6 items; e.g., “My feelings about my ethnicity are mostly negative”; reverse coded). Items were scored on a four-point Likert scale of 1 (*Does not describe me at all*) to 4 (*Describes me very well*) (See Appendix A). The subscales of the EIS acquired moderately strong coefficient alphas, which range from .72 to .93 with diverse samples (Umaña-Taylor & Shin, 2007). Summations were computed for each subscale separately, as described by the scale developers. In this sample, Cronbach’s alpha for exploration was .80; .89 for resolution, and .85 for affirmation.

Scale of Ethnic Experience. The SEE measure was developed to examine the different elements of acculturation, which can expand understanding psychopathology and other mental health issues (Malcarne, Chavira, Fernandez, & Liu, 2006). The full version of the SEE consists of four factors that include Ethnic Identity, Perceived

Discrimination, Social Affiliation, and Mainstream Comfort. For this study, Perceived Discrimination was used. Perceived Discrimination consisted of nine-items reflecting perceptions of how their ethnic group has been treated in the United States (Malcarne et al., 2006). Items were scored on a five-point Likert scale of 1 (*strongly disagree*) to 5 (*strongly agree*) (See Appendix B). The perceived discrimination variable was computed by summing the nine items from the subscale. Higher scores reflected higher levels of perceived discrimination. The coefficient alphas for Perceived Discrimination range from .68 to .88 among diverse samples (Malcarne et al.). In this sample, Cronbach's alpha for perceived discrimination was .87.

Risk Behavior Questions. This 13-item measure asks questions related to how often participants engage in various risky behaviors. Respondents report on the frequency of participation within the past 30 days in risky behaviors related to alcohol, sex, drugs, and driving. Participants responded using the following scale of 1 to 5: 1 (*Never*), 2 (*Once or Twice*), 3 (*3-5 times*), 4 (*6-10 times*) and 5 (*11 or More Times*) (See Appendix C). Summations were computed for total risk behaviors and for each subscale separately, as described by the scale developers. In this sample, Cronbach's alpha for the total risk behaviors was .77, .70 for the alcohol-related subscale, .66 for the sex-related subscale, .69 for the drug-related subscale, and .68 for the car/driving-related subscale.

Procedure

When students visited the study website, participants were asked to enter their email address, the name of the university they were attending, and their student ID number. This information was not saved with the data, and was only used to grant students credit for their participation. They then were asked to read the consent form and

to check a box indicating that they consent to participating in the study. Those who consented were then directed to the website with the assessment series. The total time for participation was less than two hours.

Preliminary Analyses

First, descriptive information (i.e., means and standard deviations) for ethnic identity, perceived discrimination, and risky behaviors was examined. Variable distribution was also examined for skewness and kurtosis. Skewness values between -2 and +2 indicate normality (Cohen, 2001). Skewness was apparent for the “Number of Sexual Risks” subscale. As a result, this variable was transformed by computing its square root. “Listwise” deletion of cases that were missing a variable further reduced the sample size. This led to a variation in the number of participants (n) for each analysis.

Bivariate correlations were computed to examine the relations among the variables. These results described whether or not these predictors are associated with risk behaviors during emerging adulthood. If age and or gender were significantly related with any outcomes of interest, then the effects were controlled for in the multivariate tests of the hypotheses.

Because of the large sample size and multiple tests, a more conservative p -value (.001) was used for all analyses. Effect size testing was also conducted for t -test results that revealed significant findings.

Test of the Hypotheses

Independent samples t tests were used to examine whether multi-ethnic emerging adults engage in more risk behaviors than mono-ethnic emerging adults (hypothesis 1)

and whether multi-ethnic emerging adults score lower on ethnic identity and higher on perceived discrimination as compared to mono-ethnic emerging adults (hypothesis 2).

Bivariate correlations were used to explore whether ethnic identity was negatively associated with and perceived discrimination was positively associated with the risk behaviors for both mono-ethnic and multi-ethnic emerging adults (hypothesis 3). In addition, multiple regression analysis was used to examine whether the relation between ethnic classification and risky behaviors was mediated by ethnic identity and perceived discrimination (hypothesis 4).

Results

Descriptive analyses revealed that multi-ethnic emerging adults represented approximately 13 percent of the samples overall population (see Table 1). Additionally, results revealed that mono-ethnic and multi-ethnic emerging adults did not differ on age and gender.

Table 1

Descriptive Analyses

Variable	Mono-ethnic (<i>n</i> = 8355)		Multi-ethnic (<i>n</i> = 1073)		<i>t</i> –test & Chi-square test
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
Age	19.77	1.61	19.69	1.65	<i>t</i> (9383) = 1.46, n.s. <i>X</i> ² (1) = 1.72, n.s.
Gender					
Male	27.1%		25.3%		
Female	72.4%		74.5%		
Ethnicity			12.8%		
White	65%				
Black	7.9%				
Asian	12.9%				
Hispanic	13%				

Hypothesis One

An independent samples *t* test was performed to compare multi-ethnic and mono-ethnic emerging adults in the following domains: total number of risk behaviors, alcohol-related, sexual risks, drug-related risks, and car-related risks (see Table 2). The results revealed that multi-ethnic emerging adults did not score higher on risk behaviors as compared to mono-ethnic emerging adults. In fact, there were no statistically significant differences between mono-ethnic and multi-ethnic participants. As such, these results do not support the first hypothesis.

Table 2

Comparison of mono-ethnic and multi-ethnic emerging adults on risk behaviors.

Variable	Mono-ethnic (<i>n</i> = 6,429)		Multi-ethnic (<i>n</i> = 821)		<i>t</i> (7248)
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
Total Risk Behaviors	6.43	6.26	6.16	6.10	1.18, n.s.
Alcohol-related	.49	.76	.40	.71	3.13, n.s.
Sexually-related	1.22	1.21	1.22	1.20	.02, n.s.
Drug-related	.72	1.89	.68	1.83	.56, n.s.
Car-related	.69	1.25	.64	1.20	1.14, n.s.

Hypothesis Two

Independent samples *t* tests were used to assess the differences between multi-ethnic and mono-ethnic emerging adults in the following domains: ethnic identity exploration, ethnic identity affirmation, ethnic identity resolution, and perceived discrimination (see Table 3). In support of the second hypothesis, the results revealed that multi-ethnic emerging adults scored higher on perceived discrimination. According to Cohen (1988), the effect size ($d = .49$) was medium. On the other hand, contrary to

expectations, multi-ethnic and mono-ethnic emerging adults were not statistically significantly different on ethnic identity exploration, resolution, or affirmation.

Table 3

Comparison of mono-ethnic and multi-ethnic emerging adults on ethnic identity exploration, affirmation, and resolution, and perceived discrimination.

Variable	Mono-ethnic (<i>n</i> = 6,429)		Multi-ethnic (<i>n</i> = 821)		<i>t</i> (7248)
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
Ethnic Identity:					
Exploration	17.37	5.46	17.85	5.06	-2.40, n.s.
Affirmation	22.29	3.03	22.17	3.13	1.12, n.s.
Resolution	10.90	3.37	11.01	3.18	-.90, n.s.
Perceived Discrimination	20.76	8.31	24.79	7.51	-13.22, <i>p</i> <.001

Hypothesis Three

Exploratory analyses were conducted to investigate if there were associations among ethnic identity, perceived discrimination, and risk behaviors. Bivariate correlations were calculated separately for both mono-ethnic and multi-ethnic emerging adults. These analyses were conducted to explore associations among the variables in both groups, not the differences in the strength of the association. For mono-ethnic emerging adults, results revealed that ethnic identity exploration, affirmation, and resolution were significantly correlated with all risk behaviors (see Table 4). These correlations represented a negative association, meaning as ethnic identity exploration, affirmation, and resolution increased, risk behaviors decreased and vice versa. These results support the hypothesis that there is a negative association between ethnic identity and risk behaviors. In addition, perceived discrimination was negatively associated with alcohol- and drug-related risks, and positively associated with car-related risks (see Table

4). Substantively, as perceived discrimination increased so did car-related risk behaviors, which supports of the hypothesis. However, the negative association with alcohol- and drug-related risks does not support the hypothesis. Although many of the correlations were significant at $p < .001$, they accounted for less than 1% of the shared variance and are small effect sizes (Cohen, 1988).

Table 4

Correlations for ethnic identity, perceived discrimination, and risk behavior variables among mono-ethnic emerging adults (n = 6,429)

Variable	1	2	3	4	5	6	7	8	9
Mono-ethnic:									
1. EI Exploration	--	.04*	.65*	.17*	-.08*	-.10*	-.06*	-.05*	-.06*
2. EI Affirmation	--	--	.14*	-.22*	-.22*	-.06*	-.22*	-.22*	-.13*
3. EI Resolution	--	--	--	.02	-.09*	-.07*	-.09*	-.08*	-.05*
4. Perceived Disc.	--	--	--	--	.00	-.13*	-.05*	.05*	-.01
5. Total # of RB	--	--	--	--	--	.50*	.73*	.68*	.81*
6. Alcohol-related	--	--	--	--	--	--	.26*	.42*	.26*
7. Drug-related	--	--	--	--	--	--	--	.54*	.36*
8. Car-related	--	--	--	--	--	--	--	--	.36*
9. Sexual-related	--	--	--	--	--	--	--	--	--

* Correlation is significant at the .001 level (1-tailed).

For multi-ethnic emerging adults, the correlations also supported this hypothesis for the following relations: ethnic identity exploration with alcohol related risks; ethnic identity affirmation with all risk behaviors; ethnic identity resolutions with total risk behaviors (see Table 5). These correlations represented a negative association.

Substantively, as ethnic identity increased in one area, some or all risk behaviors decreased. Overall, the results partially support the hypothesis that there is a negative association between ethnic identity and risk behaviors. However, perceived discrimination was not significantly correlated with any of the risk behaviors, which does not support the hypothesis.

Table 5

Correlations ethnic identity, perceived discrimination, and risk behavior variables among multi-ethnic emerging adults (n = 821)

Variable	1	2	3	4	5	6	7	8	9
Multi-ethnic:									
1. EI Exploration	--	.07	.62*	.15*	-.06	-.11*	-.06	-.01	-.03
2. EI Affirmation	--	--	-.15*	-.11*	-.26*	-.12*	-.31*	-.27*	-.12*
3. EI Resolution	--	--	--	.01	-.11*	-.08	-.09	-.09	-.06
4. Perceived Disc.	--	--	--	--	.03	-.10	.03	.07	.04
5. Total # of RB	--	--	--	--	--	.52*	.73*	.69*	.80*
6. Alcohol-related	--	--	--	--	--	--	.36*	.41*	.26*
7. Drug-related	--	--	--	--	--	--	--	.57*	.34*
8. Car-related	--	--	--	--	--	--	--	--	.35*
9. Sexual-related	--	--	--	--	--	--	--	--	--

* Correlation is significant at the .001 level (1-tailed).

Additionally, ethnic classification (1 = mono-ethnic, 2 = multi-ethnic) was found to be negatively correlated with alcohol-related risk behaviors ($r = -.04, p < .001$) but not with any other risk behaviors. This indicates that mono-ethnic participants are associated with higher rates of alcohol-related risk behaviors as compared to their multi-ethnic counterparts. As a result, the test for mediation will not be in support of multi-ethnic emerging adults. However, the mediation test proceeded for further exploration for the mediators in the relationship between ethnic classification and risk behaviors.

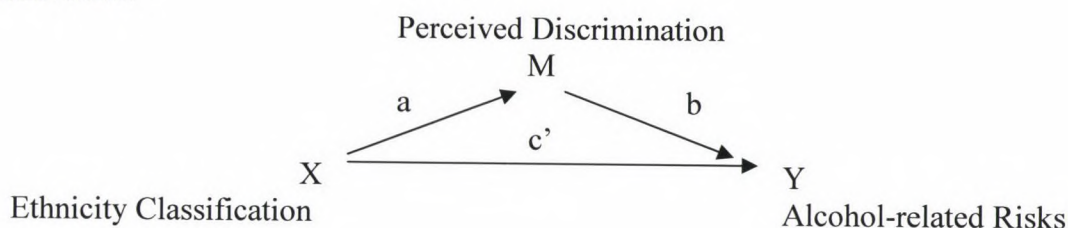
Hypothesis Four

The Baron and Kenny (1986) method (see Figure 1) for testing mediation was used to examine whether the relation between ethnic classification and risky behaviors was mediated by ethnic identity and perceived discrimination while controlling for age and gender. However, as previously noted, results revealed that contrary to expectations, there was a significant association between ethnic classification (mono-ethnic) and risk

behaviors. Substantively, mono-ethnic emerging adults were more likely to engage in risk behaviors than multi-ethnic emerging adults.

Figure 1

Mediation Model



Significant Findings: Mono-ethnic and Alcohol-related Risks

The results revealed, in Model 1, that age and gender were significant predictors of alcohol-related risks (see Table 5). In Model 2, the addition of ethnic classification was significant indicating that mono-ethnic emerging adults were more likely to engage in alcohol related risks.

Perceived discrimination was added into the next step to predict alcohol-related risks. The results were statistically significant with perceived discrimination. Specifically, this variable was negatively associated with alcohol-related risks. Ethnic classification became non-significant when perceived discrimination was included in Model 3, suggesting full mediation. However, the Sobel test statistic revealed that perceived discrimination was not statistically significant. Ethnic identity exploration, resolution, and affirmation were also explored in separate models to test for mediation, but were found to be not statistically significant. Therefore, these results do not suggest mediation for ethnic identity subscales.

Table 6

Results of multiple regressions predicting alcohol-related risks with perceived discrimination as mediator

Variable	<i>B</i>	<i>SE</i>	β	<i>R</i> ² change	<i>F</i> change
<i>Model 1: Step 1</i>					
Age	.01*	.01	.03	.02	97.92
Gender	-.26*	.02	-1.5		
<i>Model 1: Step 2</i>					
Age	.01*	.01	.03		4.12
Gender	-.26*	.02	-.15		
Ethnic classification	-.09*	.03	-.04	.00	
<i>Model 1: Step 3</i>					
Age	.02*	.01	.04		87.74
Gender	-.27*	.02	-1.6		
Perceived Discrimination	-.01*	.00	-.14		
Ethnic classification	-.04	.03	-.02	.04	

* $p < .001$

Discussion

The purpose of this study was to gain a deeper knowledge about the risk behaviors of multi-ethnic emerging adults by exploring whether ethnic identity and perceived discrimination were associated with multi-ethnic adult's participation in risk behaviors. Risky behaviors were explored in terms of engagement in alcohol-related, sexual-related, drug-related, and car-related risks. It is important to understand what contributes to increased engagement in risk taking behaviors for multi-ethnic individuals, given that they may struggle more with identity development, which some research has found to be a correlate of adolescent risk taking (Espinosa-Hernandez & Lefkowitz, 2009; Ponterotto & Park-Taylor, 2007; Trinidad & Johnson, 2002; Walker et al., 2008; Yoo & Lee, 2009).

It was hypothesized that multi-ethnic emerging adults would score higher on risk behaviors as compared to mono-ethnic emerging adults. However, results revealed that multi-ethnic emerging adults did not score higher on risk behaviors as compared to mono-ethnic emerging adults. Although research in the literature appears to support the notion of higher substance abuse among the majority population, two studies found no differences between African American and White adults (Keyes et al., 2008; Rivera-Mosquera, 2005). Both African American and White groups were considered mono-ethnic in this present study. In another study, results indicated that White young adults who were in college were more likely to engage in heavy alcohol use as compared to other minority groups (Paschall et al., 2005). In fact, some research argues that ethnicity does not predict drinking intentions or behavioral rather, substance use is affected by different variables including lower perception of parental monitoring, lower levels of perceived parental demands (Jackson et al, 1999), and peer respect and pressure (Kristjansson et al., 2010). There seems to be more support for the predictors involving familial and social environments than ethnicity per se. For example, results from one study suggest that academic motives/behaviors as well as family history of alcohol use are predictors of alcohol use among college minorities (Vaughan, Corbin, & Fromme, 2009). Specifically, academic motives/behaviors acted as a protective factor against alcohol use for Latino students, but not for White and Asian American students (Vaughan, Corbin, & Fromme, 2009). It was also a protective factor for those in families without a family history of alcohol use (Vaughan, Corbin, & Fromme, 2009). These results illustrate that there are other factors that may predict alcohol use or other risky behaviors other than having a multi-ethnic classification.

It was also hypothesized that multi-ethnic emerging adults would score lower on ethnic identity and higher on perceived discrimination as compared to mono-ethnic emerging adults. The results did reveal that multi-ethnic emerging adults scored higher on perceived discrimination. This result is consistent with Coleman and Carter's (2007) finding that multi-ethnic individuals score higher on perceived discrimination as compared to their mono-ethnic counterparts. According to Coleman and Carter (2007), multi-ethnic individuals may experience higher levels of distress including more psychological problems when outside prejudices are internalized.

Why did multi-ethnic emerging adults not score lower on ethnic identity as expected? As noted by Phinney (2008), "the task of ethnic identity formation involves sorting out and resolving positive and negative feelings and attitudes about one's own group and about other groups and identifying one's place in relation to both" (p. 49). With this in mind, I would expect multi-ethnic individuals to score lower on ethnic identity as hypothesized, and specifically because of the complexity in navigating through ethnic identity and having to sort out both positive and negative feelings for multiple identities.

Nolfo (2008) investigated the impact that biracial identity had on individual adjustment. Although this study focused on racial identity rather than ethnic identity, but rather on racial identity, Nolfo (2008) found that biracial individuals were well adjusted in a number of realms despite what earlier research has shown. As a result of numerous improvements in institutions, culture, and education in the U.S., mixed race individuals have more options and resources, which are likely to contribute to their increase in support, acceptance, and validation (Nolfo, 2008). It is possible that these findings may

help to explain why multi-ethnic individuals from this study were not lower in ethnic identity. Multi-ethnic young adults are perhaps well-adjusted because of the numerous societal improvements that have been made to support them in identity development. The social pressure to identify with only one ethnicity is perhaps weaker than the availability of social support.

Correlational analyses provided at least partial support for the third hypothesis in that ethnic identity subscales were associated with risk behaviors among both mono-ethnic and multi-ethnic emerging adults. These results replicate findings by Trinidad and Johnson (2002). They concluded it is plausible that those with high ethnic identity may possess a greater mental ability to read others well and detect unwanted peer pressure, contributing to greater ability to resist peer pressure (Trinidad & Johnson, 2002). Similarly, Espinosa-Hernandez and Lefkowitz (2009) concluded that ethnic identity affirmation was a protective factor against risky attitudes regardless of ethnicity. Numerous studies have concluded that ethnic identity, or having a sense of connection to an ethnic group, is supportive of healthy adjustment and buffers against negative outcomes (Ponterotto & Park-Taylor, 2007; Walker et al., 2008; Yoo & Lee, 2009).

As expected, there was a positive association between perceived discrimination and risky behaviors, but only among the mono-ethnic group. On the other hand, perceived discrimination did not show statistically significant relationships with any risk behavior for multi-ethnic individuals. Milville and colleagues (2005) suggested that the long history of racism and discrimination in the U.S. has caused great difficulties for minority groups, especially those who are multi-racial/ethnic. In their study, they found that multi-racial/ethnic participants described their encounters with racism to be

distressing incidents, which led them to feel hurt, angry, and shameful (Miville et al, 2005). The fact that there was no significant association between perceived discrimination and risky behaviors in this sample was unexpected given multi-ethnic individuals scored higher on perceived discrimination. However, it is likely that perceived discrimination was not significantly correlated with risk behaviors for multi-ethnic individuals because, as noted previously, Nolfo (2008) found that mixed race or ethnic individuals have more options and resources, which are likely to contribute to their increase in support, acceptance, and validation. These things could act as potential protective factors. It is possible that their higher perception of discrimination impacts them in other areas in their lives but not in their temptations to engage in risky behaviors because they have more resources and support now than they have in the past. In essence, some of these findings support previous, but limited research on multi-ethnic population, whereas other findings were contrary to previous studies.

What remains unresolved from this study? Phinney (2006) argued the additional challenge for multi-ethnic individuals of navigating multiple identities puts them at greater risk for experiencing vulnerabilities because they have to deal with the basic issues faced by all minorities with developing a secure sense of who they are ethnically. They must explore issues regarding their physical appearance and sense of group belonging (Phinney, 2006). If this holds true for multi-ethnic emerging adults and ethnic identity is not a main predictor for engagement in risk behaviors for this population, then what predicts involvement in risk behaviors for them? And are these factors at all associated with ethnic identity and perceived discrimination in any way? These

unresolved questions need to be answered to better understand the unique but growing multi-ethnic population.

Implications

It is important to understand the various protective factors that buffer against the increased risk of engagement in risk behaviors. This is especially important to understand based on the numerous consequences from risk behaviors (Faden, 2006; Wallace & Fisher, 2007). The most prominent finding from this study is in relation to perceived discrimination, which was associated with higher levels of risk taking behaviors for mono-ethnic individuals. These results can help support diversity workshops within college universities. The mono-ethnic group consisted of both minority and majority groups. Given that perceived discrimination and risk behaviors were significantly correlated for mono-ethnic individuals, diversity workshops could have a positive affect by mediating this relationship and lowering the frequency in engagement of risk behaviors for this group. Additionally, multi-ethnic individuals did score higher in perceived discrimination overall. It is possible this perception is impacting them negatively in other areas of their lives, which reflects the importance of these workshops to help lower the discrimination imposed on them.

Past research statistics found that approximately 1 million college students face violence annually that is racially and ethnically motivated (Springer, Palmer, Terenzini, Pascarella, & Nora, 1996). Tragically, most incidents are not reported by the victims. In addition, Springer et al. (1996) found that approximately a quarter of minority students on college campuses report assaults, vandalism, or harassment, that are racially or ethnically motivated. The majority of these students experience distress as a result of the

incidents they face. Interestingly, many college students have a tendency to view their classmates, of different racial or ethnic backgrounds, as being competitors rather than partners (Springer et al., 1996). Several colleges and universities have implemented interventions that consist of workshops focused on improving racial and cultural awareness in order to address this problem. Unfortunately little research has been conducted to assess the effectiveness of these specific programs. However, previous research suggests that students' understanding of discrimination and their motivation to advocate against discriminatory practice can be increased through the use of prejudice-reduction programs (Springer et al., 1996).

Prejudice-reduction programs are also labeled as diversity workshops, multicultural workshops, pluralism workshops, or anti-bias workshops. In general, these workshops employ a wide variety of activities. These include disclosing personal stories of injury or discrimination, exploring ethnic differences, sharing positive and negative feelings, participating in role plays, and practicing the management of intergroup conflict. Approximately half of colleges and universities (42%) in the United States make these workshops a part of their mandatory curriculum and only 5% make this mandatory for faculty or staff (McCauley, Wright, & Harris, 2000). Overall, it is estimated that 70% of colleges and universities at least offer some form of workshop in this area (McCauley, Wright, & Harris, 2000). Although these workshops have generally positive reactions, they unfortunately are not evaluated to the degree they should be in looking at the impact the workshop has on its participants.

Considering most of these workshops are focused on unlearning racism and discrimination and improving the acceptance of diversity, it is also important to

incorporate a unique component, which would focus on the multi-racial/ethnic population. Because this population continues to grow rapidly, it is important to learn more about how to be more sensitive to the experiences and hardships one might face. There are limited diversity workshops that focus on multi-racial/ethnic individuals. Utilizing these workshops will serve as an intervention in the hopes that college students will learn from this experience and not participate in discriminatory acts, which will help in preventing negative outcomes for those experiencing these attitudes from the majority groups.

Limitations of the Study

One limitation of the study was that not all participants filled out the MUSIC questionnaire in its entirety. Because of this, some participants were excluded during analyses to ensure that data was collected in all measures from the students. In addition, some participants did not fill out the measures appropriately and or skipped some of the questions.

The ethnic identity measure is also a limitation because it captures ethnic identity in three areas, which include exploration, resolution, and affirmation. This measure assesses these areas for solely one ethnicity as opposed to multiple ethnicities. This measure does not specifically capture ethnic identity for those who consider themselves as multi-ethnic. Another measure that could be useful is the multi-group ethnic identity measure. This measure explores the individual's ethnic background and their ties with the group they identify with. Unfortunately this measure, like the ethnic identity measure, does not have to language for multiple ethnicities. With this in mind, it is possible that the

participants who identified themselves as multi-ethnic were unsure how to respond to the items in the measure given its focus and language of one identity.

It is also possible some participants did not take the opportunity to identify themselves as multi-ethnic. This could have been due to time constraints, not comprehending the question, or still in the exploration stage where they are unsure of how to identify themselves. It is possible that more participants would identify themselves as multi-ethnic.

Additionally, results revealed relatively small effect sizes for a number of the correlations that were interpreted. This indicates that the strength of the relationships were very small. In other words, the degree of the differences between groups was so small that the practical meaning of these differences is not clear. Thus, this is a limitation because although some differences were found to be significant, the effect sizes were still small. This is not strong evidence to support the hypotheses as compared to having a stronger effect size.

Future Directions

There is always room for researchers to further investigate the mechanisms associated with increased engagement in risky behaviors as well as the risk factors specifically for multi-ethnic individuals. Future research should focus on age group and the three stages of ethnic identity including exploration, affirmation, and resolution. It is possible that exploration is more prominent for younger individuals in the emerging adulthood period and affirmation is prevalent with the older individuals. It would be interesting to explore if these associations exist.

It is also possible that some multi-ethnic individuals are at different stages of ethnic identity development or they have not yet adapted to the option to choose two or more ethnicities. With this in mind, it would be interesting to do a mixed-method study including both qualitative and quantitative research to further investigate where these individuals stand in ethnic identity development. This would be done by having participants fill out the measures, as they did for this study, and do a brief interview with participants. This interview would consist of a more in-depth exploration of how they explored their ethnicities, what it means to be a part of multiple ethnicities, and how they respond to these identities. Further exploration will help to grasp where they are in identity exploration in the context of multiple identities.

It is also possible that the majority of the participants identified as mono-ethnic may have led to ambiguous findings, which in turn could lead to overlooking important differences between mono-ethnic majority and mono-ethnic minority. It would be important for future research to create three groups including majority mono-ethnic, minority mono-ethnic, and multi-ethnic. It is likely that in comparing the minority mono-ethnic individuals to the multi-ethnic individuals, multi-ethnic individuals will experience lower scores in ethnic identity because of the greater complexities in navigating through ethnic identity. Furthermore, I would also predict them to be more likely to engage in higher levels of risk behaviors.

Additionally, it is imperative that there is a clear distinction made between ethnicity, race, and culture. Although they may be related in some areas, there are also differences in the impact that identification with one of these can have. It is apparent in the literature that numerous researchers tend to use these terms interchangeably when

really there could be significant differences in the way one identifies ethnically, racially, and culturally.

Conclusion

Previous studies have found ethnic identity affirmation is linked to positive outcomes and buffers against negative outcomes (Walker et al., 2008). This study demonstrated that ethnic identity is negatively associated with risk behaviors, meaning having a strong ethnic identity buffers against engagement in risk behaviors for both multi-ethnic and mono-ethnic emerging adults. Multi-ethnic groups can be particularly challenged in their ethnic identity formation due to the complexity of navigating through multiple identities as well as potential experiences of discrimination. There was no clear evidence of multi-ethnic young adults reporting more difficulty in identity formation; however, multi-ethnic individuals did report higher perceived discrimination compared to their mono-ethnic counterparts. Ethnic identity seems to be a buffer against risk behaviors, and this is consistent with other previous studies. However, perceived discrimination was positively associated with car-related risks for mono-ethnic individuals only. It is likely that perceived discrimination did not have a significant association with risk behaviors for multi-ethnic individuals because research suggests that mixed race or ethnic individuals have more options and resources, which are likely to contribute to their increase in support, acceptance, and validation (Nolfo, 2008). It is possible that their higher perception of discrimination impacts them in other areas in their lives but not in their temptations to engage in risky behaviors because of additional resources and support. Further investigation is certainly needed in order to better

understand the growing multi-ethnic population as well as the mechanisms contributing to increased risk for risky behaviors.

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