The Relationship Between Ethnicity, Ethnic Identity, and Tolerance of Infidelity Among College Women at Risk for HIV

DISSERTATION

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Abstract

**Background:** African-American women are disproportionately affected by HIV in comparison to women of other ethnic groups. Heterosexual contact poses the largest risk for contracting HIV, and it is therefore imperative that researchers consider the role that intimate relationships play in the lives of this population. In addition, a woman’s ethnic identity can have a profound influence on how she interprets and reacts to various situations, and it is thought that this identity may influence decision-making within heterosexual relationships, including level of tolerance of infidelity.

**Purpose:** The purpose of this explanatory study was twofold; a) to examine ethnic group differences in reactions to sexual infidelity and b) to evaluate the influence of ethnic identity on tolerance of sexual infidelity among African American and European-American/Caucasian college women at risk for HIV.

**Methods:** Using an online data collection method, a cross-sectional 2 group design was employed to examine the relationship between ethnicity and tolerance of sexual infidelity. The convenience sample was comprised of 93 African American and 62 European-American/Caucasian sexually active college women. Participants completed a questionnaire consisting of the Multigroup Ethnic Identity Measure (MEIM), a vignette-based measure of tolerance of infidelity which included scenarios of sexual infidelity,
emotional infidelity, and infidelity when a child is involved, and a demographic questionnaire.

**Results:** Analysis of Variance and Multiple Regression were utilized as methods for statistical analyses. Results of ANOVA indicated that African-American women had higher levels of tolerance of infidelity than European-American/Caucasian women after uncovering a partner’s sexual infidelity, and after uncovering continued emotional infidelity. There were no differences between ethnic groups once the presence of a child was introduced into the scenario. African-American women had higher levels of ethnic identity compared to European-American/Caucasian women. Ethnic identity moderated the relationship between ethnicity and tolerance of infidelity for African-American women after finding out about sexual infidelity, but not for European-American/Caucasian women. Ethnic identity had no moderating effect for the two scenarios beyond the initial incident of sexual infidelity.

**Conclusion:** HIV risk among African-American women is complex and college women are an especially vulnerable population as they enter a period of newfound freedom, while experiencing the nuances of developing their young adult identities. Results of the current study suggest that in African-American college women are at risk for HIV in their intimate relationships, particularly when sexual infidelity is committed by their partner. Although found to be a protective factor during adolescence for African-Americans, ethnic identity may not serve the same function among African-American college
women, especially in relation to sexual risk behaviors, compared to European-American/Caucasian women. The findings from this study have implications for addressing cultural competency issues in nursing as well as highlight the importance of considering not only individual behaviors, but also partner behaviors and the role that ethnic identity has in the emotional, cultural, and socially constructed meaning of intimate relationships.
Dedication

This dissertation is dedicated to my mom, Deborah J. Moore, who taught me at an early age the value of a good education. I pray that I can instill the same thirst for knowledge in my future children that you have implanted in me. I love you.
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I would like to first say “Thank you Lord!” for ordering my steps and allowing me the opportunity to walk this educational path. Thank you for the many reminders that you are in control. You constantly and consistently provide just what I need, when I need it, and I give you all the glory! To my mom, thank you for being my cheerleader and for believing in me when I couldn’t muster up the energy to believe in myself. To Granny, my best girl, I hope I’ve made you proud! To all of my family and friends who have given me words of encouragement, and even helped me with my research, thank you! To Dr. Rhonda Johnson, who would’ve thought that the girl I met on the school bus the first day of high school would be such an inspiration to me all these years later?

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Chapter 1: Introduction

Although African-Americans comprise approximately 14% of the US population, they represent roughly half of all new reported cases of HIV (Centers for Disease Control & Prevention, CDC, 2011; Corneille & Belgrave, 2007; Fitzpatrick, McCray, & Smith, 2004). The largest number of these new cases are among African-American women (El-Bassel, N., Caldiera, N., Ruglass, L, & Gilbert, L., 2009; Theall, Elifson, Sterk, & Klein, 2003) and the rate of AIDS diagnoses for African American women is 17 times higher than that of Caucasian women (CDC, 2009). As of 2005, approximately 81,256 cases of HIV infection were reported among African-American women, up from 41,067 in 2003. In 2005, African Americans were 18 times more likely than Caucasians to have gonorrhea and around 5 times more likely to have syphilis, diseases which can greatly increase the chance of contracting HIV and spreading it to others (CDC). Although recent data from the CDC (2011) suggests that overall incidence of HIV has been stable from 2006-2009, African-American women continue to be disproportionately affected by this disease. A considerable amount of research has been conducted outlining sexual behavior of women who are disadvantaged (i.e. low-income, drug users), however little attention has been given to members of this population who may not be as disadvantaged, including college students. For women during their college years, there are numerous opportunities for self-discovery, independence, new relationships, and experimentation.
that place this group at increased risk and may influence the decision to engage in safe sex behaviors.

Heterosexual contact poses the most pressing risk for HIV among all women (CDC, 2007), with transmission from heterosexual contact the highest among African American women (Laurencin, C., Christensen, D., & Taylor, E., 2008; McNair & Prather, 2004). Although there are obvious disparities in HIV infection among these women, research has shown that differences in behavior based on race/ethnicity and SES do not fully explain disparities in STI rates (Hallfors, Iritani, Miller, & Bauer, 2007). Authors suggest that the emotional, cultural, and social factors contribute to the increasing incidence of HIV among women (Aral, S., Adimora, A., Fenton, K., 2008; Foreman, 2003b). This may particularly be the case for women who maintain their intimate relationships despite known sexual infidelity perpetrated by their partner, a behavior that has been reported to rapidly spread sexually transmitted diseases (O’Sullivan, Hoffman, & Harrison, 2006).

In addressing ethnic disparities in HIV infection rates, examining differences solely based on ethnic group membership limits one’s ability to draw adequate inferences as this only comprises one portion of a person’s ethnic identity. In fact, this psychological unification does not consider the various ideas and experiences of people within the same ethnic group that may influence their behavior. A person’s racial and/or ethnic identity, and the qualitative meaning they ascribe to that identity, can have a profound influence on how that person interprets and reacts to various situations (Schwartz, Zamboanga, Weisskirch, & Rodriguez, 2009; Arbona, Jackson, McCoy, & Blakley, 1999; Phinney,
1990; Phinney & Ong, 2007; Sellers, Smith, Shelton, Rowley, & Chavous, 1999) and thus has importance in the evaluation of sexual risk behaviors.

The purpose of this explanatory study was twofold; a) to examine ethnic group differences in responses to infidelity and b) to evaluate the influence of ethnic identity on tolerance of infidelity among African American and European-American/Caucasian college women that impact their risk for HIV. An explanatory design using cross-sectional data collection was employed to examine the relationship between ethnicity, ethnic identity, and tolerance of infidelity. A sample of 155 subjects were recruited, 93 European-American/Caucasian women and 62 African-American women. Inclusion criteria were: female, heterosexual, self-identify as African-American or European-American/Caucasian, current college student, sexually active, not married, and able to speak, read, and write English. Participants completed an online questionnaire, which consisted of an investigator developed vignette-based questionnaire, the Multigroup Ethnic Identity Measure (Phinney, J., 1992) and a demographic questionnaire.

Significance

The Centers for Disease Control and Prevention (CDC) has established as part of its objectives, in order to promote healthy lifestyles and functioning amongst adults, the prevention of infectious diseases and the promotion of reproductive and sexual health (CDC, 2007). Additionally the Healthy People 2020 campaign, a set of national health objectives, has set the promotion of healthy sexual behaviors as one of its objectives (Healthy People, 2012) in the achievement of its overall goal to eliminate health disparities, including those which differ by gender, social class, and race and ethnicity (Office of Minority Health & Health Disparities; OMHD, 2007). One of the six areas of
focus for elimination of health disparities among minorities is HIV/AIDS. According to the OMHD there is gripping evidence that suggests that race and ethnicity are correlated with increasing health disparities among U.S. populations and demands national attention. The elimination of these disparities will require “new knowledge about the determinants of disease, causes of health disparities, and effective interventions for prevention and treatment” (pg 1). The National Institute of Nursing Research (NINR) areas of research emphasis include promoting health and preventing disease and eliminating health disparities. To this end, the NINR supports research that identifies the factors that influence decision-making which can result in behavioral changes that promote health and prevent disease and disability as well as research aimed at developing culturally specific interventions by which risk and susceptibility can be effectively communicated to at-risk populations. The proposed research project will aid in the achievement of the goals and missions set forth by the CDC, Healthy People 2010, and the NINR.
Sexually Transmitted Infections

The elimination of sexually transmitted infections (STIs) within the United States continues to be a major public health challenge. There are an estimated 19 million new cases of STIs reported each year and the majority of STIs occur among those who are between the ages of 15 and 24 (CDC, 2009a). According to the National Center for Health Statistics (as cited by Lichtenstein, 2003, p. 2435) by the age of 21, 1 in 5 people will have contracted an STI. Although common among all ethnic groups, there continue to be racial/ethnic disparities with regard to the acquisition of STIs. In 2005, African Americans were 18 times more likely than Caucasians to have gonorrhea and around 5 times more likely to have syphilis, diseases which can greatly increase the chance of contracting Human Immunodeficiency Virus (HIV) and spreading it to others (CDC, 2009b). The most recent data from the CDC show that in 2010, syphilis rates were eight times higher among African Americans than that of Caucasians, chlamydia rates were almost 8 times higher among African Americans than Caucasians, while gonorrhea rates were 19 times higher among African Americans than Caucasians (CDC, 2011). Another STI that continues to cause major public health concern is HIV. While chlamydia, gonorrhea, and syphilis are all curable infections, there is currently no cure for HIV. The virus’s natural progression into Acquired Immune Deficiency Syndrome (AIDS) can lead to such ailments as pneumonia, cancer, and in the most serious cases death. In 2009,
there were approximately 48,100 new cases of HIV among all ethnicities, an estimated 40% increase from previous yearly estimates (CDC, 2011; Prejean et al., 2011). Consistent with other STIs, this disease disproportionately affects minority communities, particularly the African American community (Bowleg, Valera, Teti, et al., 2010; Hodder, Justman, Haley, et al., 2010; Lightfoot & Milburn, 2009; Thompson-Robinson, Richter, Shegog, et al., 2005).

Although African-Americans comprise approximately 14% of the US population, they represent roughly half of all new reported cases of HIV (CDC, 2007a; Fitzpatrick, McCray, & Smith, 2004; Prejean, Song, Hernandez, et al., 2011) and the largest numbers of these new cases have been reported among African-American women. The rate of AIDS diagnoses for African American women is 15 times that of Caucasian women (CDC). As of 2005, approximately 81,256 cases of HIV infection were reported among African-American women, up from 41,067 in 2003. An estimated 6,407 of these cases were newly diagnosed in 2005 accounting for approximately 66% of cumulative cases of new HIV diagnoses among women of every racial and ethnic group, an increase from 60% of cumulative cases in 2003 (CDC). Subsequent data from the CDC (2009b) showed that close to 25,000 African Americans became infected with HIV in 2006 alone, accounting for 45% of new cases among all ethnicities that year, while Caucasians accounted for 35% of all new cases (total of approximately 19,000) (CDC, 2008). Men accounted for approximately 65% of new infections and women accounted for 35% of new infections among African Americans. The most recent data from the CDC (2011) suggests that overall incidence of HIV has been stable from 2006-2009. Although there
were fewer new cases of HIV among women than men. African American women continue to be disproportionately affected by this disease as compared to women of other ethnicities. In 2009, African American women accounted for 57% of all new HIV infections among women (CDC, 2011).

Twenty percent of those diagnosed with HIV in 2009 were aged 13-24 and African Americans accounted for 65% of diagnoses within this age group, an increase from 55% percent in 2004 (CDC, 2011b; CDC, 2007a). According to 2004 statistics from the CDC (2007a), HIV infection is the leading cause of death for African-American women aged 25-34 years. Due to the fact that it can take 5-15 years for the virus to manifest into AIDS symptomatology and death, it is likely that a majority of these deaths occur from exposure to HIV during the adolescent and college years (World Health Organization; WHO; 2008). A report by Stine (2003) stated that approximately 2 in 1,000 college students are infected with HIV. With 18.2 million students enrolled at American colleges/universities (U.S. Department of Education, 2009), this translates into roughly 36,400 US college students who are infected with the virus. Simply by being members of the larger African American population, African American college students are also at increased risk for HIV infection in comparison to Caucasian students (Adefuye, Abiona, Balogun, et al, 2009; Foreman, 2003b). In Leone et al’s (2004) review of HIV cases diagnosed among men from 2000 to 2003, it was revealed that 88% of those cases were of African American college males who were sexually active with both men and women.

On the surface, reporting bias of STIs plays a factor in the reported disparities among African American women and other minorities. Ethnic minorities are more likely
to seek care from public health clinics than private providers, with public health clinics being more likely to report positive STI cases (CDC, 2009b). However, within the African American community there are complex factors beyond reporting bias that account for the reported disproportionate number of HIV cases within this population. For example, the absolute higher prevalence of HIV within this community creates risk as African Americans are less likely to have sexual relationships with members outside of the African American community (CDC). Similarly, the CDC also reports that STIs such as gonorrhea, chlamydia, and syphilis can increase transmission of HIV, and these are infections that all have a higher prevalence among African Americans. In comparison to Caucasians, Taylor, Adimora, & Schoenbach (2010) propose that the socio-economic environment which African Americans have to traverse fosters the transmission of HIV because it causes a decrease in stable partnering and causing an increase in concurrent partnerships. They suggest that poverty and unemployment are related to marital instability and married people are less likely to have concurrent relationships, or relationships which overlap in time (Doherty, Minnis, Auerswald, Adimora, & Padian, 2007). The majority of HIV interventions that target African-American women have addressed individual factors without considering these social and contextual influences (Bowleg, Valera, Teti, et al., 2010; McNair & Prather, 2004). This concentration on personal behavior has not been highly effective in reducing the disproportionate effect of HIV among this population.

Concurrent partnerships have been said to increase the likelihood of transmission of STIs including HIV, and it speeds transmission of HIV through sexual networks more
effectively than does serial monogamy, or when sexual intercourse is limited to one partner during a specific time interval (Adimora & Schoenbach; Howard, Fortenberry, Blythe, Zimet, & Orr, 1999; Aral, 2010; Morris, Kurth, Hamilton, Moody, & Wakefield, 2009). Concurrent partnerships are higher among African Americans than Caucasians, with African American men accounting for the highest rate of concurrent partnerships across both ethnic groups and gender (Morris et al; Adimora, Schoenbach, Bonas, et al., 2002). This is especially disheartening for heterosexual African American women as they are less likely to date outside of their race (Fisman, Iyengar, Kamenica, et al., 2008), having to choose potential sexual partners from African American men who also have disproportionately higher rates of HIV (CDC, 2009c).

Risky Sexual Behavior
Risky sexual behavior is defined as the participation in activities that place one at risk for pregnancy and STIs (Crouter & Booth, 2006). Certain behaviors have been shown in the literature to place one at risk for HIV/STDs, such as unprotected sexual intercourse with high-risk partners, drug use, a history of having a sexually transmitted disease, high rates of sexual activity, perceptions of invulnerability, and frequency of unplanned sexual encounters (Braithwaite and Thomas, 2001; Hodder, et al., 2010; Timmons & Sowell, 1999; Wu, El-Bassel, Witte, Gilbert, & Chang, 2003). According to the CDC, risk factors for the transmission of HIV to women include injection drug use, exchanging sex for money, and having unprotected sex with men who have sex with men, men who have multiple partners, or men who have anonymous partners (CDC, 2007).

The most common method of transmission of HIV among women is having unprotected sex, or sex without a condom, with a man who either has HIV or who is at
greater risk for contracting HIV (CDC, 2007). This risk increases with the number of sexual partners a woman has (Kyomugisha, 2006). The use of male condoms is the most accepted and effective method for preventing the transmission of HIV/STDs and its consistent and proper use decreases the transmission of HIV by approximately 90%. One of the most cited reasons for women's risk within their sexual relationships is the inability to negotiate condom use, which has been said to be influenced by an imbalance in relationship power among the man and woman (Harvey et al, 2002; Woolf & Maisto, 2008). Kyomugisha (2006) describes condom use as a learned behavior for men but a behavioral goal for women. A focus group of African American women conducted by Timmons & Sowell (1999) on condom use behaviors produced themes found within the heterosexual relationships of the study participants. Common themes that arose from this study included "a man will be a man", in that women believed that men could not or were not willing to maintain a sexually monogamous relationship, and that negative attitudes towards condom use, men's refusal to use condoms, and women's refusal to negotiate condom use were reasons for unprotected sexual activity. This is similar to the sexual scripts that emerged in a more recent focus group study among African American women by Bowleg, Lucas, and Tschann (2004) in which the authors found that men control relationships, women sustain relationships, infidelity is normative, men control sexual activity, and women want to use condoms but men control the actual condom use. The type and length of the relationship may influence power and condom use as well. In newer relationships, it is often easier for both African American and Caucasian women to negotiate condom use (Gorbach & Holmes, 2003; Macaluso, Demand, Artz, et al, 2000;
Manning, Flanigan, Giordano, et al., 2009). In comparison, condom use may become more difficult for relationships that are ongoing (Wingood & DiClemente, 1998a), although not all studies have found a clear pattern between relationship type and condom use (Bowleg et al., 2004). The development of the female condom has provided women with the opportunity to regain control over the use of barrier methods in the protection against HIV (Choi, Hoff, Gregorich, et al. 2008), although this has not necessarily translated into real-life experiences. For example, although women in Foreman’s (2003a) study of safer sex behaviors had heard of the female condom, none of the women stated they had ever used one or knew of any of their friends who had used one.

College students experience a newfound sense of independence along with new pressures from peers to engage in risky behavior (Bazargan, Kelly, Stein, et al., 2000; Mattanah, Ayers, Brand, et al., 2010). As such, they are more likely to have multiple sex partners and less likely to consistently use condoms (Desiderato & Crawford, 1995; Duncan, Miller, & Borskey, et al., 2002; LaBrie, Pedersen, Thompson, et al., 2008; Winfield & Whaley, 2005). The earlier work of Desiderato & Crawford points to the notion that students with multiple sexual partners were less likely to disclose information about other partners or inconsistent condom use. College men have been shown to be more sexually compulsive than women and this is associated with unprotected acts of oral, vaginal, and anal intercourse, which also increases college women’s risk for HIV (Dodge, Reece, Cole, et al., 2004). Smith (2003) found that nearly half of male and female college students surveyed had ever had sex since the age of 16 without a condom. A significantly higher number of Caucasian students reported they had never experienced
unwanted non-condom use, in comparison to Latino or African American students, since
the age of 16. Caucasians students were also significantly more likely to state that they
had never experienced unwanted non-condom use with their current partner, followed by
Latinos, and lastly African Americans. African Americans were more likely to have had
sexual intercourse when they didn’t want to due to the influence of their partner, with
females being significantly more likely to report this. Overall, Latinos and African
Americans experienced more unwanted non-condom use than Caucasians.

Although it would be logical to assume that being knowledgeable about disease
and risk behaviors would translate into reduced participation in risk-behaviors, research
has shown that knowledge regarding HIV does not consistently translate into a significant
reduction in risk behaviors (Inungu, Mumford, Younis, et al., 2009) and among African
American college students in particular, this link is weaker (Braithwaite & Thomas,
2001; Jemmott & Jemmott, 1991; Opt & Loffredo, 2004). For example, among college
students, Opt & Loffredo found that students were aware of a lack of a cure and vaccine
for HIV, but were not as knowledgeable, compared to teenagers and the average
American, about rates of HIV transmission among young adults or the association
between STIs and HIV. However, not all research studies have found comparable results.
In their study of HIV risk-taking behaviors among African American undergraduate
college students, Barzagan, Kelly, & Stein (2000) found a significant positive association
between knowledge of sexual transmission of HIV and behavioral skills along with
positive attitudes towards condom use. Davis, Sloan, MacMaster, & Kilbourne (2007)
found no differences based on ethnicity on the relationship between HIV/AIDS
awareness and being sexually active among their sample of ethnically diverse college
students. The authors did find however that current sexual activity and current condom
use were not correlated with HIV/AIDS awareness. Perceptions of risk for HIV have
been shown to be low overall among college students (Adefuye, et al., 2009; Brown,
1998) and studies have shown inconsistencies among college students’ perceived
vulnerability to HIV and their risk-reduction behaviors (Hou & Wisenbaker, 2005;
Roberts & Kennedy, 2006). In their study of college women, Roberts & Kennedy (2006)
uncovered that Caucasian women had the highest levels of perceived STI risk, followed
by Latinos, then African Americans, and that this perceived risk was much lower than
actual participation in risk behaviors. They also found that Caucasian women had
significantly higher rates of moderate to high risk behaviors, than did African Americans
or Latinas. In comparison, Espinosa-Hernandez & Leftkowitz (2009) did not find any
significant differences in risky sexual behavior or attitudes among African American,
Caucasian, and Latina college women. These findings do not explain HIV disparities
among these populations.

Study findings have shown inconsistencies in the relationship between risk
behaviors and HIV incidence, therefore simply examining participation in risk behaviors
as being indicative of HIV risk is not adequate in addressing disparities, especially among
college students. Hallfors, Iritani, Miller, & Bauer (2007) recommend that targeting
individual behaviors may be beneficial for Caucasians because their STI risk increases
when their sexual risk behaviors increase, however their research suggests that this
approach may not be successful among African Americans because they are still at high risk for STIs, even when their behaviors are normative.

Based on the notion that behaviors that involve HIV transmission involve two people, and that transmission through heterosexual contact poses the most pressing risk for women, one must evaluate the influence that heterosexual relationships has on the lives and sexual practices of the women who are at risk.

The influence of intimate heterosexual relationships

According to McNair and Prather (2004) and the CDC (2009), heterosexual contact poses the most pressing risk for HIV among African-American women, and knowledge of HIV and risk-protective behaviors, such as condom usage, alone does not increase the likelihood that women will engage in safer sexual behaviors (Bazargan, Kelly, Stein, Husani, & Bazargan, 2000; Chernoff & Davison, 2005). A woman's personal connections, social norms, sexual roles, race, and socioeconomic vulnerability all play a role in her ability to engage in protective behaviors (Jipguep, Sanders-Phillips, & Cotton, 2004). Women often engage in risky behaviors when sex is an important part of the psychosocial and economic relationship had between the man and the woman (Kyomugisha, 2006). Researchers have posited that being in a relationship provides an immense source of self-validation and self-esteem for women (Foreman, 2003b). Timmons & Sowell (1999) propose that wished-for monogamous relationships, low self-esteem, and having a preoccupation with other life problems are associated with risky sexual behaviors and that a positive sense of self was suggested by the female participants in their study as important in the ability to use condoms and participate in protective measures to prevent HIV and other STDs. Regardless of the ethnicity of the
individual, the amount of control that young women can have over their risks and sexual practices is also often influenced by confusion regarding expectations of romance, love, and caring (Holland, Ramazanoglu, Scott, et al, 1990). The need for intimacy has been said to be universal and thus affects decision-making strategies as well as the amount of relationship control that is given to partners (Robinson, Bockting, Rosser et al, 2002).

Having unprotected sex often symbolizes trust and commitment to the relationship. Unprotected sex is thought to promote intimacy and romance within intimate relationships for both African American and Caucasian women (Duncan, Miller, & Borskey, 2002; Jones & Oliver, 2007). Beliefs that sexual intercourse creates a bond between two people often serves as a barrier to condom use (Foreman, 2003b). In a focus group study by Jemmott & Brown (2003), study participants agreed that it was easier to insist on condom use for newer relationships versus more long-term relationships. Reasons given for this phenomenon included fear of physical and mental abuse, fear of accusations of infidelity, and the inability to negotiate condom use when they are being provided with the material things they need by their partners. There is pressure to engage in risky sexual activity because of the belief that their mate with leave if they do not fulfill their sexual requests, which leads to a sense of powerlessness in the relationship (Kyomugisha, 2006). Gender differences in themes on perspectives regarding HIV/AIDS have revealed that among females, there is a fear of losing the relationship if there was a discussion about HIV within the relationship (Thompson-Robinson, Richter, Shegog, et al., 2005). This is consistent with earlier studies that have shown that women’s risk is confounded by an emotional commitment and a fear of losing the relationship
(St.Lawrence et al., 1998) and concerns about violating trust which lead to inconsistent communication within intimate relationships regarding HIV transmission (Carey, Gordon, Morrison-Beedy, & McLean, 1997). In depth interviews conducted by Foreman (2003a) uncovered that among African American college women, sex involved a deep emotional connection and not just a physical act. This emotional investment serves as a barrier to safe sex practices in that the more emotionally attached a woman is to the relationship, the less likely it is that a condom will be used. An earlier study of urban African American women by Sobo (1993) illustrated a monogamy narrative in which the women suggested that many men cheat on their partners, but admitting that the partner could be unfaithful brings with it feelings of hurt and shame, and damages the emotional security of the relationship.

Research has shown that within the African American community the roles of men and women within relationships along with relationship expectations are shaped by their sociocultural realities. Scholars have purported that in comparison to men within the dominant culture, African American men are often socialized to be the aggressor and show dominance (Myers, 1988) and because of the emasculation that these men often feel within western society, they strike out against their women in relationships, particularly in sexual relationships. Because of the denied access to the identity that is idealized within western society, as a result of slavery and oppression, African American men have resulted to finding other means of expressing their masculinity such as promiscuity, aggressiveness, and violence (Myers). Wright (1997) asserts that the sexuality of African American men could essentially be a metaphor for their power. As a result, prevention
programs which aim to reshape their sexual practices, however positive in intent, could be seen by this group as yet another attempt to remove what little remaining power they have. This has potential to directly impact African American women as they are less likely to date men from outside of their ethnic group.

Another factor that influences women's decisions to engage in risky sexual behavior within their intimate relationships is the perceived shortage of available men (Kyomugisha, 2006) because women are believed to have less interpersonal power within their relationships due to the fact that men have more options available to them (McNair & Prather, 2004). As a result, women often resort to mansharing, when two or more women intentionally share one man. This concept is most salient within the African American community (Chapman, 1986, in McAdoo 2007). In a study conducted by Chapman, in which African-American women were interviewed regarding the difficulty of selecting a mate, a majority of participants indicated that they have opportunities to meet men, but these men often are not of the quality they seek. In addition, the reduction of eligible men due to incarceration, homosexuality, and drug addiction (Adimora, Schoenbach, & Floris-Moore, 2009; Rosier, 2000) creates a smaller pool of choices for these women, and therefore they settle for sharing a man and often times have to negotiate relationships on the man's terms; in other words, they are "buyers in a seller's market" (Aldridge, 1991, pg 39). To further illuminate this idea, Ferguson, Quinn, Eng, & Sandelowski’s (2006) study of gender imbalance and HIV risk among college students found that the gender ratio imbalance specifically among African Americans, as evidenced by there being twice as many African American females on college campuses
than African American males, contributed to behaviors among African American men such as multiple sexual partners and limited condom use because the gender ratio imbalance creates an opportunity for men to capitalize on the low self-esteem of the young women on campus. There have, however, been studies that have shown hope for reclaiming power among women, despite contextual influences. For example, in their focus group study, Bontempi, Eng, and Quinn (2008) found that although African-American women recognized the ratio imbalance between men and women, they believed that it forced them to become stronger women, both within themselves and within their family roles.

Although being in a committed relationship can foster feelings of trust and security, these committed relationships also have the potential to carry with them various unrecognized costs and increase risk for HIV. Heterosexual couples are less likely to use condoms within their primary relationships and many times women face more HIV risk within their committed relationships than they do from casual sex partners (Hearn, O’Sullivan, El-Bassel, 2005; O’Sullivan, Hoffman, Harrison, et al., 2006). For example, a partner in a seemingly trusting and committed relationship believes that it is unlikely that their mate would engage in behaviors that would place them at risk for HIV and also considers the potential consequences of losing the relationship and its resources, which could arise from the topic of HIV risk and risk-protective behaviors being broached.

Unlike other health risk behaviors, an individual’s risk for HIV depends as much on the behaviors of their partner as it does their own behavior. For both African American and Caucasian women, the benefit of being in a relationship may cause them to
overlook potential risks that may be a function of the behaviors of their partner, for example when their partner has sexual partners outside of the relationship. These acts of sexual infidelity have been said to increase the likelihood of transmission of STIs, including HIV, through sexual networks. For African American women, who have been said to experience social and contextual factors beyond Caucasians that affect their heterosexual relationships, this may be especially salient.

Infidelity as risk

Many decades ago, it was the expected norm that dating relationships occurred before committed relationships were established and sexual activity generally only occurred with the promise of marriage (O’Sullivan et. al, 2006). During the early period of the HIV/AIDS epidemic, one of the major ways in which public health officials suggested to protect against infection with HIV was to enter into and maintain a monogamous relationship. Monogamy was viewed as an alternative to other HIV preventive behaviors (Hobfoll, Jackson, Lavin, et al., 1993). In more recent decades, the characteristics of these norms have changed toward early commitment, early sexual activity, and presumed monogamy, which has been posited as one of the reason why couples cease using condoms early in the relationship (O’Sullivan et al). As time has progressed, it has become clear that maintaining a seemingly stable relationship with one sexual partner does not necessarily ensure that the individual is safe from HIV. Although attitudes of expected fidelity in romantic relationships are the norm among couples (Feldman, Cauffman, Jensen, & Arnett, 2000; Treas & Giesen, 2000), infidelity within the context of romantic relationships, particularly among young adults are a common occurrence (Drigotas et al., 1999; Misovich et al., 1997). Also known as extradyadic
activity, infidelity within the research literature has been defined as “a secret sexual, romantic, or emotional involvement that violates the commitment to an exclusive relationship” (Glass, 2002, p. 489). Emotional infidelity occurs when an individual who is in a committed relationship becomes emotionally involved with, or feels a romantic love towards, someone other than their partner. Sexual infidelity is an actual sexual involvement with another outside of the relationship (Brase et al., 2004). This sexual infidelity is a behavior that has been reported to rapidly spread sexually transmitted infections (O’Sullivan et. al, 2006). Morris & Kretzschmar’s (1997) mathematical simulations of disease spread showed that concurrent partnerships, created when a partner engages in infidelity, can increase both the size and variability of the HIV epidemic. Reported statistics show that these behaviors occur in 20-25% of all marriages and 38-75% of college students have reported engaging in acts of infidelity (Hall & Fincham, 2006; Shackelford, LeBlanc, & Drass, 2000; Sheppard, Nelson, Andreoli-Mathie, 1995; Wiederman & Hurd, 1999).

A majority of infidelity research has focused on gender differences in participation in and responses to infidelity, however research examining ethnic differences in responses to infidelity is limited. This has importance because it may help to shed new light upon ethnic disparities in STI/HIV risk within the context of heterosexual relationships. Concurrent partnerships have been said to increase the likelihood of transmission of STIs including HIV, and they speed transmission of HIV through sexual networks more effectively than does serial monogamy, or when sexual intercourse is limited to one partner during a specific time interval (Adimora &
Schoenbach; Howard, Fortenberry, Blythe, Zimet, & Orr, 1999; Morris, Kurth, Hamilton, Moody, & Wakefield, 2009). Concurrent partnerships are higher among African Americans than Caucasians (Eyre, Auerswald, Hoffman, et al., 1998; Giordano, Manning, & Longmore, 2005; Mulatu, Leonard, Godette, 2008), with African American men accounting for the highest rate of concurrent partnerships across both ethnic groups and gender (Morris et al; Adimora, Schoenbach, Bonas, et al., 2002). This is especially disheartening for heterosexual African American women as they are less likely to date outside of their race (Fisman, Iyengar, Kamenica, et al., 2008), having to choose potential sexual partners from African American men who also have disproportionately higher rates of HIV (CDC, 2009c). STI risk has been shown to be related to an individual’s partner having a concurrent partner (Drumright, Gorbach, & Holmes, 2004). Results from a 2004 study by Drumright et al., which included both African American and Caucasian participants, found that although 32% of participants reported having had a concurrent partner, only 16% of the sample reported thinking that their partner had a concurrent partner. Additionally, the authors found that a partner’s practice of concurrency showed a trend toward an association with current STI in the individual, whereas the individual’s own concurrency did not. Of note, an individual’s report of being committed to continuing the partnership was also associated with increased prevalence of STIs in that study. Wang, Kao, & Joyner (2006) found that Caucasian adolescents were more likely to break-up over infidelity than their African American counterparts.

College students tend to socialize with groups of largely unmarried individuals which in turn can increase risk due to the number of potential concurrent partnerships and
extradyadic behavior (O’Sullivan, Hoffman, Harrison et al., 2006). A study measuring sexual compulsivity among heterosexual college students found that although there were no differences based on age or ethnicity, women were significantly more likely to report being in an exclusive sexual relationship while men were significantly more likely to report being currently involved in nonexclusive sexual relationships. Both African American and Caucasian college students are also increasingly likely to engage in casual sex, or sex in which there is no romantic involvement or romantic relationship (Grello, Welsh, & Harper, 2006).

Studies of samples of college students showed that 21% of students who engaged in casual sex also had romantic partners at the time of the most recent sexual encounter (Grello, Welsh, & Harper, 2006). College males have been shown to be more likely to commit sexual infidelity than females, and more often than not with more than one extradyadic partner (McAlister, Pachana, & Jackson, 2005; Wiederman & Hurd, 1999). O’Sullivan et al.’s (2006) study among college males and females uncovered that 45% of males, in comparison to 12% of female participants reported having at least one other sexual partner within the past two months. Males were also twice as likely to report numerous secondary partners, and were six times as likely to report having a “one-night stand” within the past two months. Another study of college undergraduates showed that 62% of men and 22% of women felt that acts of sexual infidelity were more distressing than acts of emotional infidelity and attachment, and men were significantly more likely to break up with their partner over sexual infidelity (Shackleford et al, 2002), although the authors also did not find any significant differences based on ethnicity (Caucasian vs
non-Caucasian) or age. Research among African American college students in heterosexual relationships has shown that females tend to avoid condom use based on the assumption that they are in a monogamous relationship (Duncan, Miller, & Borskey, 2002) and a study examining HIV risk behaviors among African American college students (Barzagan, Kelly, & Stein, 2000) uncovered that males were less likely to report monogamous relationships than females. Eyre et al.’s (1998) study of African American adolescents showed that in response to sexual infidelity, males were more likely to end the relationship. Female participants were more likely to accept the fact that males may cheat and were also more likely to rationalize it. Out of 18 female study participants, only one female expressed concern over health risks that may be involved when a romantic partner cheats. Knox et al.’s (2000) study of college students’ attitudes towards infidelity revealed that 69% of the participants stated they would end a relationship with someone who cheated on them and almost half of the respondents stated they had actually ended a relationship due to infidelity, although there were no reported gender differences. Of those who stated they had ended a relationship in which the partner was unfaithful, having a history of abuse, both emotional and physical, was significantly associated with ending the relationship.

Interestingly, a recent study from Fisher, Voracek, Rekkas, & Cox (2008) examined feelings of guilt regarding imagined emotional and sexuality infidelity, among a community sample of men and women. Both men and women felt that their partner would be less likely to forgive sexual infidelity, however only the women in the study felt that their sexual infidelity would lead to relationship break-up. The potential implications
of these findings place heightened risk into context in that men may believe women have a stronger need for the relationship, and thus they would believe that the woman would potentially be more tolerant of transgressions by choosing to forgive rather than dissolve the relationship. This may allow opportunities for men to continue to engage in extradyadic activities without concern for repercussions within their current relationship.

Of note, having an interpersonal history of higher numbers of sexual partners has been linked to increased participation in infidelity (Treas & Giesen, 2000). Treas & Giesen purport that individuals who are more sexually experienced have a sort of learned advantage in which they become more skilled in recognizing sexual advances and become better in recruitment of potential sexual partners, thereby showing a higher likelihood of engaging in extradyadic sex. This finding was also supported by McAlister et al. (2005), although the authors did not find a significant correlation between age of first intercourse and infidelity.

Timmons & Sowell, (1999), and Bowleg et al’s (2004) studies of African American women both illuminated the norm suggested by African American women that infidelity is normative. As such, women who believe this to be the case may be more likely to remain in the relationship and less likely to engage in safer sex behaviors simply because they are more apt to believe that things such as infidelity just happen as a byproduct of being in a relationship. Jones & Oliver (2007) conducted a focus group study among predominantly African American urban women to explore their views about engaging in unprotected sexual acts with men who they perceived to have engaged in HIV risk behaviors. Specifically, the authors sought to gain a better understanding about
why young adult women engage in unprotected sex with men with whom they do not trust or whom they suspect to be participating in high risk behaviors. They also sought to explore sexual pressure and risk behavior, and to uncover the conditions under which low and high power sexual scripts operate in the lives of the study participants. Low power scripts that emerged suggested that women buried their knowledge of sexual risk under the assumption that they needed to satisfy their man. These scripts suggested that women accept infidelity with the hopes that things will eventually get better, and were accepting of this behavior as long as the partner came home every night. High power scripts suggested that women’s senses of being worthy are involved in being able to ask that condoms be used. High power scripts meant that women felt connected to others and had a sense of sexual autonomy in their ability to engage in safer sex communication.

Infidelity is experienced among African American and Caucasian women and both groups are at risk for STIs when sexual infidelity is committed. Because HIV is largely transmitted to women through heterosexual contact, perhaps disparities in HIV incidence are a byproduct of variations of behaviors within the relationship, specifically tolerance of partner behaviors such as infidelity, among these two ethnic groups. For example, social and contextual factors more prevalent within the African American community such as a perceived limited pool of available African American men may influence an African American woman’s decision to remain in the relationship. Although insightful, examining differences in attitudes and sexual behaviors in response to infidelity simply by looking at one’s ethnic group membership as explanatory is somewhat limiting because it only considers one aspect of a person’s identity. Specific to
African Americans, Sellers et al. (1998) submit that mainstream society has attempted to group African Americans into one racial category which has “resulted in the psychological unification of many individuals who vary a great deal in their experiences and cultural expressions” (pg 19). In fact, an examination of the other aspects of ethnic identity, to include one’s commitment to his or her ethnic group and attitudes towards that group, in relation to sexual behavior is one further way to help explain ethnic differences in attitudes and behaviors among members of ethnic groups.

Ethnic Identity
Ethnic identity is defined as “part of an individual’s self-concept that derives from his or her knowledge of membership in a social group together with the value and emotional significance attached to that membership” (Phinney, 1992). It is reflective of having a sense of belonging to the group, having a positive evaluation of the group, and having an interest in the activities, heritage, and customs of the group (Phinney, Dennis, & Osorio, 2006; Umaña-Taylor, Yazedjian, & Bamaca-Gomez, 2004). Ethnic identity is variable, depending upon a person’s experience and changes in societal and historical context (Phinney, 1992) and it involves the development of both a personal and group identity (Phinney, 2000). According to Phinney (1989), the process of ethnic identity development most closely resembles ego identity formation as described in earlier years by Erikson (1968). According to Erikson, identity formation typically occurs during adolescence through an exploratory process in which a person traverses through various identity domains, which leads to a sense of commitment within major life areas. As such, the process of ethnic identity development includes an exploration of the meaning of a person’s ethnicity, including the history and traditions of that ethnicity, which leads to
having a secure sense of self as a member of a particular group (Umana-Taylor et al., 2004). The process of ethnic identity development has often been thought to evolve during the adolescent period as well.

The development of ethnic identity, like ego-identity formation, is done through an active process of self-evaluation and decision-making. Phinney (1990) describes a model of ethnic identity formation that consists of three phases in which adolescents and adults progress from an unexamined ethnic identity, through a period of exploration, and finally to a committed ethnic identity. The model suggests that individuals who have not been exposed to issues surrounding ethnic identity are in a stage of unexamined identity. Individuals may have a preference for the dominant culture, while on the other hand may have been exposed to and absorbed some positive ethnic attitudes from their parents, but have not examined and thought through these issues for themselves. The second stage of ethnic identity is characterized by an exploration of one’s identity. This stage involves immersion in the individual’s culture through activities such as reading, participating in cultural events, taking to people, and going to ethnic places such as museums. The third stage, ethnic identity achievement develops as a result of that process in which the individual comes to a deeper understanding and appreciation of his or her ethnicity.

It is important to come to a greater understanding of how an individual’s identity influences their behavior. A person’s identity influences their self-concept (Tajfel & Turner, 1986) and a positive identity in turn helps to foster a positive self-concept. Particularly for African Americans, identity may have greater salience simply because of their position as a minority group within the dominant culture. Researchers suggest that
African Americans must come to an understanding of the duality of their identity, or double-consciousness, which encompasses being both African and American (Allen & Bagozzi, 2001; Lyubansky & Eidelson, 2005). The “double-consciousness” as described by Du Bois (1969), represents an inner struggle to maintain a positive sense of self within a negative world (Gaines & Reed, 1995). Pierre, Mahalik, and Woodland (2002) describe the double-consciousness as two forces within the African American community, one which pulls them towards the values and norms of the dominant culture, and the other which draws them closer to each other. The way African Americans feel about this contradiction plays a major role in their identity development (Schwartz et al., 2009).

In a review of ethnic identity, Phinney & Ong (2007) noted that researchers share a general sense of what ethnic identity means, although the construct of ethnic identity is often used interchangeably with the construct of racial identity within the research literature (Cokley, 2005). Contributing to their synonymous use in the literature is the idea that both involve a sense of belonging to a group and they are both associated with behaviors and values, attitudes towards the group, and discrimination. Cokley (2007) suggests that both racial and ethnic socialization potentially have distinct implications for behavior. While racial identity tends to focus more on the social and political impact that group membership has on a person’s psychological functioning, ethnic identity focuses more on a shared worldview, language, and behaviors that are associated with a cultural heritage (McMahon and Watts, 2002).

Phinney (1996) asserts that ethnicity is usually salient in situations where ethnic group differences are evident, as is the case for minorities within the dominant society.
This may explain why minorities often score higher on levels of ethnic identity, and is postulated as a reason why ethnic identity has been shown to serve as a protective factor for minorities and not members of the dominant culture (Lee, 2005; Marsiglia, Kulis, & Hecht, 2001; Phinney and Ong, 2007; Utsey, Chae, Brown, & Kelly, 2002).

Phinney (1992) posits that although each ethnic group has their own traditions, values, and history, there are components of ethnic identity that are similar across ethnic groups, and these components are what comprise the conceptual definition of ethnic identity for this study. These commonalities include self-identification as a group member, participation in ethnic behaviors and practices, a sense of group belonging, and attitudes towards one’s group. Self-identification is the ethnic label that one uses to refer to oneself, and it is a precursor for ethnic identity. People who use a specific ethnic label may vary in their sense of belonging to their group, attitudes toward the group, ethnic behaviors, and understanding of the meaning of ethnicity. Behaviors such as participation in cultural traditions and involvement in activities with members of one’s ethnic group have been said to be common across groups as well. Ethnic pride, or being happy with group membership, and feelings of attachment to the group are also key aspects of ethnic identity. According to Yancey, Seigel, & McDaniel (2002), ethnic identity has significant implications for health and psychological functioning among groups that are misrepresented and/or discriminated against by socio-cultural institutions. Utsey, Chae, Brown, & Kelly (2002) addressed the role of ethnic identity and race-related stress on quality of life among minorities. African Americans scored higher on measures of race-related stress than did Asians and Latinos, and also scored higher on the measure
of Ethnic Identity. Interestingly, African Americans also had higher scores on the measure of quality of life. In fact, ethnic identity was the best overall predictor of quality of life. Although African Americans are more likely to experience racial discrimination and stress, it can be deduced that ethnic identity may serve a protective function in that when a person or a person’s ethnic group experiences rejection or prejudice, examining and strengthening their ethnic ties can buffer against negative oppressive forces.

For adolescents and young adults, especially college students, developing a clear identity is a task that often brings with it competing demands (Barry, Madsen, Nelson, et al., 2009; Feldman et al., 2000). On one hand, this is a period of time in which young adults are developing a sense of intimacy which requires a degree of trust and commitment. Contrastingly, developing their young adult identity requires a series of exploration and experimentation. Within intimate relationships, the tendency to forgo HIV preventive behaviors usually occurs during this time when the individual is first beginning to form these intimate sexual relationships (Misovich et al., 1997). In particular, ethnic identity may be especially salient among college students as they enter a period of separation from family and enter into a stage of independence (Walker, Wingate, Obasi, & Joiner, 2008). College students representing minority communities particularly experience this sense of duality of developing their identity as they are dealing with culturally ascribed identity norms as well as those set forth within the dominant society with regards to knowledge, attitudes, and beliefs.

Ethnic identity and outcome behaviors

Phinney (1992) suggests that ethnic identity may act as an intervening variable which accounts for the maintenance of positive attitudes towards one’s ethnic group,
despite the presence of negative stereotypes. Having an identity is critical in the development of positive self-esteem and self-efficacy among members of minority groups (Phinney, 1990). According to Phinney, Cantu, & Kurtz (1997), early assumptions suggested that being a member of a minority group, or a group that is generally viewed negatively by society, would also cause lowered self-esteem, however research has shown that this isn’t the case. Numerous studies have shown a positive relationship between ethnic identity and psychological well-being (Umaña-Taylor & Updegraff, 2007; Yip and Fuligni, 2002; Zaff, Blount, Phillips, et al., 2002). Ethnic identity has most extensively been examined in relation to self-esteem (McMahon and Watts, 2002) and greater ethnic identity has been found to be associated with a higher level of self-esteem (Umana-Taylor & Updegraff, 2007; Rivas-Drake, Hughes, Way, 2008). Umaña-Taylor & Updegraff (2007) found that ethnic identity exploration and commitment positively predicted self-esteem, and that self-esteem partially mediated the relationship between perceived discrimination and depression among a sample of Latino adolescents.

In a study looking at the role of ethnic and racial identity and drug use among African American adolescents and young adults, Brook and Pahl (2005) found that affirmation and belonging, a component of ethnic identity across groups, enhanced the protective factors of high perceived drug risk and low levels of depression on drug use. They also uncovered that affirmation and belonging were associated with higher levels of conventionality and lower levels of intrapersonal distress, which are both related to lower stages of drug use. Among urban adolescents, ethnic identity played an important role in
connectedness with a person who was identified as a role model and having an identified role model, particularly one whom the adolescent knew personally, was associated with lower risk-taking (Yancey, Siegel, & McDaniel, 2002). A study by McMahon and Watts (2002) among predominantly African American adolescents found that ethnic identity was positively related to self-worth and active coping, while negatively related to depression, aggressive beliefs and aggressive behaviors. Of particular interest is the fact that the youth in the McMahon and Watts study resided in a neighborhood with a considerable amount of community violence, and this exposure to violence was found to be significantly related to aggressive beliefs. Further analysis revealed that ethnic identity was a significant predictor of active coping and lower approval of aggression, and fewer aggressive behaviors, however it was not a significant predictor for anxiety or depression. Therefore it served as a protective factor, despite negative beliefs.

Ethnic identity has been shown to have a protective influence on participation in risk behaviors, particularly among minorities, along with a positive relationship with psychological outcomes such as higher self-esteem and lower levels of depression. This has implications for examining risky sexual behavior in that if ethnic identity has a similar protective influence on sexual behaviors, it could help to not only further explain disparities, but also provide a means by which participation in risk behaviors can be decreased among minorities (i.e. programs that serve to increase ethnic identity to promote safer sex behaviors and greater self-efficacy within intimate relationships).

Ethnic identity and sexual behaviors

Although ethnic identity research has included an examination of risk behaviors such as drug use and fighting, there has been little direct empirical evidence exploring the
role of ethnic identity and sexual behavior. In a study specifically examining the role of ethnic identity on the amount of sexual risk-taking among African-American women, Beadnell et al. (2003) found that women who had higher levels of ethnic identity reported fewer instances of sexual risk-taking, as measured by unprotected sexual acts within the previous four months. In addition, women who had higher ethnic identity had more favorable outcome beliefs towards monogamy and abstinence. In another study which examined the role of ethnic identity and neighborhood risk on drug and sex attitudes and refusal efficacy among adolescents, Corneille and Belgrave (2007) found that higher ethnic identity was associated with drug use disapproval and it served as a buffer from risky sex attitudes. Salazar et al. (2004) studied the effect of self-concept, which was defined as being comprised of body image, ethnic identity, and self-esteem, on unprotected sex refusal, hypothesizing that a more positive self-concept would be related to frequent preventative sex behaviors in a sample of African American adolescent girls. Study results showed that ethnic identity in particular was positively related to self-esteem, body image, self-efficacy for condom use negotiation, sex-related discussion, and unprotected sex refusal. There was a significant negative relationship between ethnic identity and fear of negotiating condom use, however, because the study was designed to test the construct of self-concept, one cannot adequately tease apart the exact contribution that ethnic identity had on unprotected sex refusal. Although these few studies shed some light on the role of ethnic identity and risky sexual behaviors, there is a significant gap in the literature of research that directly measures the role that ethnic identity plays in
not only the participation in safer sexual behaviors, but on the associated attitudes and behaviors within the context of intimate relationships, especially among college students.

To the knowledge of this author, only one study to date has examined the relationship between sexual behaviors and ethnic identity specifically among an ethnically diverse sample of college students (Espinosa-Hernandez & Leftkowitz, 2009). This study was conducted among African-American, Caucasian, and Latino first-year college students to understand how ethnic identity is related to sexual behaviors and attitudes. Authors examined behaviors including number of sexual partners, not using a condom, and alcohol use before or during sexual activity. Results showed that African Americans initiated sex a year younger than Caucasians and Latinos, although there were no ethnic differences based on ethnicity for recent sexual behaviors. Latinos were less positive about condom use than African Americans and Caucasians, while Caucasians reported less fear of AIDS than did African Americans and Latino Americans. Authors also found that African Americans and Latinos scored higher on ethnic identity than did Caucasians. The authors found that ethnic identity was significantly associated with less risky sexual behavior, as measured by recent condom use, only for Caucasian students and not African-Americans or Latinos, in contrast to the Belgrave (2003) study. Interestingly, there was a positive association between ethnic identity and alcohol use before or during intercourse among African American men, and a negative relationship between ethnic identity and alcohol use before or during intercourse among Caucasian men; there was no significant association between the two variables among women in the study. Lastly, the authors found that higher ethnic identity was associated with more
conservative sexual attitudes and greater fear of AIDS, although the associations did not vary based on ethnicity. This study produced results that are in contrast to previous research that has suggested ethnic identity only has salience among minorities, by suggesting that ethnic identity may be salient among Caucasians as well. The authors posit that perhaps this is due to members of the dominant culture having a greater national identity, which has been said to be related to ethnic identity (Phinney, Cantu, & Kurtz, 1997). The authors also discuss that ethnic identity perhaps had a negative effect on alcohol use before and during sex among African American men because those with higher ethnic identities were acting out the stereotypes present within the African American society. This in itself is contradictory to the way in which ethnic identity has been specifically posited to play out in the lives of minorities (Utsey et al., 2002). In addition, the fact that the authors did not find significant differences in recent sexual behavior provides support for the notion that ethnic differences in risk behaviors tend to fade after the adolescent period and therefore are not good indicators of risk among young adult populations.
Current Study

Conceptual Framework

Based on findings from previous research, a conceptual framework was developed to serve as a guide for the testing of study hypotheses. Figure 1 below presents a graphical model of this framework. A major overarching goal of this study will be to test this conceptual model.

Figure 1. Graphical representation of the conceptual framework for the study.

Ethnicity is one’s self-reported ethnic group of belonging. It is considered to be a basic element of group belonging (Phinney & Ong, 2007). It is thought that African American women and Caucasian women may have varying levels of tolerance of infidelity, based on the different socio-cultural environments of each ethnic group. Tolerance of infidelity is conceptually defined as the extent to which a woman will remain in an intimate relationship with someone she believes has committed infidelity. A woman’s decision to remain in a relationship when there has been sexual infidelity is what increases risk for HIV and other STIs, should there not be a change towards safer sexual practices. This highlights the importance of examining a woman’s level of tolerance along with her responses to infidelity, which conceptually includes a woman’s
emotional and behavioral reactions. To further explain ethnic differences, one must consider the influence that ethnic identity has in participation in safer sex behaviors along with tolerance of infidelity. Ethnic identity is conceptually defined as part of an individual’s self-concept that derives from his or her knowledge of membership in a social group together with the value and emotional significance attached to that membership as evidenced by self-identification, ethnic behaviors and practices, ethnic identity achievement, and affirmation and belonging. Ethnic identity is posited to be a moderating variable in this framework in that the relationship between ethnicity and tolerance of infidelity is stronger or weaker at different levels of ethnic identity.

Based on findings from current literature, it is evident that there are gaps in knowledge as it relates to the underlying causal influences for why women stay in risky relationships and potentially jeopardize their health, along with the true influences of ethnic identity on women’s decision-making. The aims of this study will fill in these research gaps in a number of ways. This study will examine ethnic differences in responses to infidelity and tolerance of infidelity and HIV risk, an area in which there has been little research. It will go beyond comparing ethnic differences in risky behavior and shed new light on the influence that being in an intimate relationship imparts on the decision-making and HIV risk of African American and Caucasian women, specifically when infidelity is committed by the woman’s partner. There is evidence to support that Caucasian women and African American men are more likely to break up over a mate’s infidelity than African American women (Eyre et al., 1998; Wang, Kao, & Joyner, 2006), although this evidence has been among adolescents. To expound upon this, the proposed
study will examine this relationship among a sample of college women. A number of researchers have examined the role that ethnic identity plays in the lives of adolescents (Pahl and Way, 2006; French, Seidman, Allen, and Aber, 2006; Roberts et al., 1999; Kvernmo and Heyerdahl, 2003; Greig, 2003; Worrell and Gardner-Kitt, 2006), however ethnic identity also has great importance in young adulthood as it is dynamic its development may continue or re-emerge during this time (Beadnell et al, 2003). Ethnic identity and its relationship with tolerance of infidelity will be measured among college women, a group in which there is sparse literature regarding this relationship (Braithwaite & Thomas, 2001), and no studies to date have examined the relationship between ethnic identity and tolerance of infidelity. Recent research that has utilized a sample of college students only found a significant relationship between ethnic identity and sexual behavior and attitudes among Caucasian students and not minority students, which is contrary to previous published research utilizing other non-college samples and thus it is unclear as to whether the protective influence of ethnic identity is significant among this population (Espinosa-Hernandez & Leftkowitz, 2009). Therefore this study will provide evidence in support or contrast to previous study findings in an effort to gain a clearer understanding of this relationship. A majority of the published literature that provides insight into women’s thoughts on relationships and infidelity, particularly among African American women, have been focus group studies. While this qualitative method is advantageous in that it provides rich data that examines an individual’s interpersonal thoughts and interpretations, the quantitative nature of this study will allow for testing of relationships and statistical support to enhance the generalizability of findings.
Short-term implications for findings from this research study include the ability to provide evidence of a potential relationship between the study variables. Long-term implications for this study include using the resultant information to assist researchers, clinical professionals, and others to develop more culturally competent approaches in the implementation of programs designed to decrease the incidence of HIV. It will highlight the necessity that researchers must go beyond simply addressing personal risk behaviors, and consider how the emotional, cultural, and socially constructed meaning of sex, within the context of intimate relationships, contributes to the increasing incidence of HIV among various ethnic groups.

The purpose of the proposed explanatory study is twofold; a) to examine ethnic group differences in responses to infidelity and b) to evaluate the influence of ethnic identity on tolerance of infidelity among African American and European-American/Caucasian college women that impact their risk for HIV. The following specific aims will help to meet the purpose of this study.

Specific Aims

Among heterosexual African American and European-American/Caucasian women:

Specific Aim#1: Describe the significance of being in an intimate relationship and the potential risks resulting from partner behavior

Specific Aim #2: Evaluate ethnic differences in responses to and tolerance of infidelity

Specific Aim #3: Examine motivations for maintaining intimate relationships in the presence of infidelity
Specific Aim #4: Evaluate the moderating influence of ethnic identity on the relationship between ethnicity and tolerance of infidelity

The research questions for this study are:

RQ1: Do African American and European-American/Caucasian women differ in their level of tolerance of infidelity and in their responses to infidelity?

- Hypothesis 1a: African American women will have higher levels of tolerance of infidelity than European-American/Caucasian women.
- Hypothesis 1b: African American will be more likely to believe their partner compared to European-American/Caucasian.
- Hypothesis 1c: African-American women will be more likely than European-American/Caucasian women to believe that having a future with the partner is important in the decision-making after infidelity.
- Hypothesis 1d: African American women will be less likely than European-American/Caucasian women to report that behaviors will change after infidelity.

RQ2: Do African American and European-American/Caucasian college women differ in levels of ethnic identity?

- Hypothesis: African-American women will have higher levels of ethnic identity than European-American/Caucasian women.

RQ3: Does ethnic identity moderate the relationship between ethnicity and tolerance of infidelity?

- Hypothesis: Ethnic identity will moderate the relationship between ethnicity and tolerance of infidelity for African-American women, such that the relationship
between being African-American and tolerance of infidelity will decrease at higher levels of ethnic identity.
Chapter 3: Methodology

Design
This was an explanatory, correlational 2-group study using a cross-sectional method of data collection. Descriptive data was also collected and analyzed.

Sample
The target population for this study was African-American and European-American/Caucasian college females, between the ages of 18-30. According to 2004 statistics from the CDC (2007), HIV infection is the leading cause of death for African-American women aged 25-34 years. Due to the fact that it can take 5-15 years for the virus to manifest into AIDS symptomatology and death, it is likely that a majority of these deaths occur from exposure to HIV during the adolescent and college years (World Health Organization; WHO; 2008), therefore college women were the focus of this study. Ethnic identity may be especially salient among college students as they enter a period of separation from family and enter into a stage of independence (Walker, Wingate, Obasi, & Joiner, 2008). In addition, one of the main aims of the current study is to identify ethnic differences among the study variables, in particular ethnic identity, as possible explanations for the varying degree to which HIV is presented in each population. Both African American and European-American/Caucasian women were recruited for this purpose. The sample size for this study was determined based on an a priori power analysis utilizing Cohen’s (1992) guide for power analysis. Power was set at .80 and
alpha=.05. Based on the notion that there are limited studies of effect sizes that pertain to
the study’s variables, the effect size was estimated based on reported effect sizes from
studies that were conducted on some of the predictor and outcome variables for this
study. Beadnell et al., (2003) found medium effect sizes for the relationship between
ethnic identity, measured using the MEIM, and unprotected sexual acts, outcome beliefs
for abstinence, and normative beliefs on monogamy, and large effect size for the
relationship between ethnic identity and outcome beliefs on monogamy. The sample size
for this study was calculated using a medium effect size. Due to the fact that multiple
statistical analyses were used to analyze the study hypotheses, the a priori factor analysis
was conducted using the power, alpha level, and medium effect size requirements for
Regression Analysis, which is one of the main analyses for the study questions.
Subsequently, it was determined that a sample of 85 African-American females and 85
Caucasian females were required. To allow for the possibility of missing data,
oversampling was done for a target number of 200 subjects, 100 per ethnic group.
Subjects with missing data on any of the inclusion criteria were deleted from the analysis.
Subjects were recruited from The Ohio State University. Inclusion criteria were: female,
heterosexual, self-identify as African-American or Caucasian, current college student,
between the ages of 18-30, not married, able to speak, read, and write English, and
sexually active. Consistent with the operational definitions set forth by the Child Trends
Databank (2008) and the CDC (2002), sexually active was defined as having sexual
intercourse within the past three months. Additionally, research supports the use of a
three-month time frame for accuracy of retrospective self-report of sexual behaviors (Schroder, Carey, & Vanable, 2003).

Procedure

After approval by the Ohio State University Institutional Review Board, recruitment advertisements for subjects were posted in the Buckeye Net News and OSU Weekly, weekly electronic newsletters that are sent to OSU undergraduate and graduate students, respectively. In addition, a recruitment advertisement was also sent to the African American student listserve. According to the most recent university data, there are 63,217 students and approximately 3,934 of those are African American students. To account for this disproportionate ratio, multiple recruitment measures were taken to recruit African American women. Flyers were also posted around various buildings and classrooms on campus. Included on the study advertisements was basic information about the study, including the purpose of the study, eligibility requirements, and a brief synopsis informing potential subjects that the study will be assessing participants’ sexual behavior, ethnic identity, and beliefs about infidelity. The advertisements also included the Primary Investigator’s (PI) email address. Interested subjects emailed the PI from their OSU buckeyemail email account. This gave potential subjects the opportunity to express interest and ask questions before participation. The PI then sent a response email outlining relevant study information including the purpose, study participation criteria, and the potential risks/benefits of participation. Once this response email was sent, the subjects’ original email was deleted. No names or email addresses were kept. If willing to participate, subjects replied to the email the PI from their OSU buckeyemail account. This was done to ensure that the subject was an OSU student and that they, and not
anyone using their name under another free email account, were the willing participant. The PI then sent a response email which included a reminder about the study inclusion criteria, a unique link for the survey that was generated by the survey system, along with instructions for accessing the survey. The study questionnaire was located and hosted on the OSU College of Nursing Checkbox Survey system. Participants were given a secure link to the study site, and did not have to provide any personally identifiable information to be able to complete the study. The Checkbox Survey Server is installed directly on the college's infrastructure, giving administrators total control over the survey environment. Only Microsoft active directory authenticated users can log in to create surveys or view the responses. Additionally the users can be assigned to roles so you can limit which authenticated user can view/modify your survey questions or view the responses. The checkbox server is behind a Cisco ASA (adaptive security appliance http://www.cisco.com/en/US/products/ps6120/index.html) that provides intelligence threat defense and prevents hackers from gaining access to our systems. SSL (secure sockets layer) technology can be employed to encrypt all web traffic to collect responses utilizing 128-bit encryption. This is the same security employed by merchants to secure online credit card payments. Only the study PI and the dissertation adviser had access to study information.

During the recruitment process, there was difficulty recruiting African American participants. One quarter of the way into data collection, 51 participants were European-American/Caucasian and 27 were African-American. Seeing that recruitment of African-American women was not progressing at the same rate of recruitment of European-
American/Caucasian women, recruitment methods were reevaluated to determine ways in which African-American women could be recruited more effectively. As a result, more flyers were placed around campus in areas that were thought to be frequented more by African-American students, including the Frank Hale Center. Emails were sent to the Black Graduate and Professional Student caucus, both to the organization email provided by the Student Union, as well as the personal email address of the president of the organization. Neither of these emails received responses. Contact was made with the advisor of the Black Student Association, who posted an announcement about the research project in the newsletter that went out to members of that group. Emails which included the recruitment flyer were sent to the African American sororities on campus, however little response was received. Considering that recruitment may need to extend outside of OSU, attempts were made to contact Central State University and Wilberforce University. Both of these institutions are historically black institutions in Ohio and have a large population of African-American women. No responses were received from representatives at either institution. During this timeframe, a total of three subjects completed the study questionnaire.

During the university’s welcome week, an information table was secured for the African-American student welcome back events at the Frank Hale Center. As a result of this recruitment endeavor, numerous flyers were passed out and a number of interested women stopped at the information table to ask questions about the study. From this, a total of four women signed up to receive more information the day of the event. As an additional means of recruiting, an information website was developed through the
College of Nursing blog site, with the purpose of not only providing information about the study purpose and aims, but information about the researchers as well. This was done in hopes that if women could see who the researchers were, and the fact that one of them was an African-American woman, they would feel more comfortable participating in the study. During the first two weeks of Autumn quarter, numerous European-American/Caucasian participants participated in the study ultimately resulting in over 100 who completed the study questionnaire, along with a few African American women. Having achieved the required number of participants for the European-American/Caucasian group, the study recruitment materials were changed to only invite African-American women to participate. Another ad was run through Buckeye Net News and OSU Weekly reflecting this change. Additionally, a new contact was made in the Multicultural Center, who saw to it that the announcement ran each week in the African-American student newsletter. A year out from when recruitment first began, a total of 63 African-American women participated in the study.

Once participants accessed the survey, the first screen that appeared presented the study inclusion criteria. Subjects were asked to select yes or no as to whether they: were a current college student, identified as African-American or European-American/Caucasian, between the ages of 18-30, had sexual intercourse in the past 3 months, or were currently single, partnered but not married, or divorced. If subjects answered no to any of the questions they were taken to a page that thanked them for their interest in the study and were not able to participate in the study. The next screen that
subjects encountered was the consent form. Subjects were advised that by clicking the next button at the bottom of the screen, they were consenting to participation. After the consent form, participants first completed the investigator developed vignette-based questionnaire, followed by the Multigroup Ethnic Identity Measure, and then a demographic questionnaire. Based on data provided by Checkbox, completion of the questionnaire took on average 30 minutes. Upon completion of the questionnaire, subjects clicked the submit button which took them to another screen containing debriefing information. The debriefing page thanked subjects for their participation and gave them resources for further information about HIV/AIDS awareness, including the Columbus AIDS Task Force, along with contact information for the OSU Counseling Center. At the end of the debriefing page, subjects were told that they would be given a five dollar incentive for their participation placed on their BuckID. BuckID is the official Ohio State University ID and it is also a debit account that is accepted as a form of payment at many locations on and off campus. If participants desired to be compensated, they emailed the PI from their OSU email address, with only their BuckID number and the disbursement was placed onto their student BuckID account. The email, which included names, email addresses, and BuckID numbers, were deleted once the disbursement was sent. BuckID numbers are separate from students’ university ID numbers, and cannot be utilized to look up personal information.

An online survey method was chosen for this study based on the potential advantages it offers over traditional print surveys. They offer a greater ability to present and record information (Boyer, Olson, & Jackson, 2001). Online surveys also provide
greater speed in administration in that a large number of interviews can be conducted in a short period of time (Duffy, Smith, Terhanian, & Bremer, 2005). Computer administration of surveys can create an anonymous atmosphere which allows for respondents to feel uninhibited (Booth-Kewley et al., 2007) and it provides for low experimenter effects due the fact that the interviewer need not be present (Duffy et al., 2005). Both of these factors allow for respondents to respond in a less socially desirable manner. A study by Booth-Kewley et al (2007), found that respondents who completed computerized surveys reported higher levels of risky behavior when compared to those who completed print surveys. A computerized survey also can give the perception of being shorter than a print survey due to the fact that with a print survey, a respondent could easily flip through and quickly determine the length of the survey which may cause them to prematurely end their participation. Online surveys offer low maintenance, ease of data entry, and overall lower cost (Reips, 2002; Van Selm & Jankowski, 2006).

There are a few disadvantages to using online surveys. There is the possibility of multiple submissions, although there is evidence that multiple submissions are rare (Reips, 2002). Another disadvantage of online surveys versus traditional paper and pencil is the possibility that participants of a different gender will complete the survey pretending to be of the opposite gender. A study by (Voracek, Stieger, & Gindl, 2001) found that less than 3% of participants “gender swapped”, or pretended to be of another gender. This percentage is low. Although absence of the interviewer can be a positive, the reduced interaction with study participants can be problematic, particularly if subjects do not understand instructions. As previously mentioned, participants in the proposed study
had the opportunity to email the investigator with any questions before completing the questionnaire, and they were given the opportunity to meet with the investigator to discuss any concerns or unclear instructions. Another disadvantage is that participation is often limited by dependence on computers and computer networks, and is also constrained by the varying internet connections and configurations of the users (Evans & Mathur, 2005) and participation is limited to those who have access to the internet. Although this potential limitation could have been countered by giving students who do not have convenient computer access the ability to use computers within the OSU College of Nursing, only students who have computer and internet access were recruited for the current study. Online surveys carry with them privacy and security issues, in particular how secure data transmission is and how the information will be used. The OSU Carmen system is a secure site hosted by OSU College of Nursing which protects data from being able to be accessed by a third party.

Instruments

Reactions to infidelity, including tolerance level and emotional and behavioral responses, were operationalized utilizing an investigator-developed vignette-based questionnaire. The development of the vignettes and questionnaire was based on a review of literature on maintaining intimate heterosexual relationships and factors that influence reactions to infidelity as presented earlier in Chapter 2, along with anecdotal accounts of patients’ experiences with sexual infidelity and STIs from practitioners at a local health clinic. There is currently no scale or questionnaire that measures one’s tolerance of infidelity.
The questionnaire presents a college woman, Nicole, who has been in a relationship for two years with her boyfriend Michael, with whom she is currently having unprotected oral and vaginal intercourse. Nicole and Michael live together, have met each other’s families, and have discussed the possibility of marriage. The questionnaire is comprised of three vignettes and five subsequent response items presented after each vignette. In the first vignette, Nicole finds out at her annual exam from her doctor that she has a sexually transmitted infection. She confronts Michael about her infection, to which he admits that he cheated on Nicole with a woman he met at work. He tells her that the woman didn’t mean anything to him and that it was a one-night stand. He gets emotional, tells her that he is sorry and that he is committed to Nicole and their future together. In the second vignette, Nicole has decided to stay with Michael, but she has noticed that he has seemed more distant in their relationship. One day when Nicole goes to use Michael’s phone, she finds text messages from a woman named Ashley stating that Ashley misses Michael and that she can’t wait to be with him again. There are texts from Michael to Ashley telling her that he can’t get her off his mind, and that Nicole doesn’t understand him like Ashley does. When Nicole confronts Michael about the texts, he tells her that Ashley is the woman from work, but that they are just good friends. Michael avoids Nicole’s questions as to whether he is still having sex with Ashley, and instead tells her that he wants to stay with Nicole and have a future together. In the third vignette, subjects are asked to imagine the previous two scenarios, but now Nicole and Michael have a one year old child together. Michael says he wants to stay and make his relationship work because of their family. The first vignette was developed to assess
responses to sexual infidelity, the second vignette was developed to assess responses when emotional infidelity is included, and the third vignette was developed to assess responses to infidelity when there is a child involved.

Participants were asked to respond to each vignette by answering a set of five questions. The first item was intended to measure emotional response to infidelity. The first item asked “How much should Nico\l e believe Michael?”, with responses ranging from ”not at all”(1) to “very much so”(5) on a 5-point scale. The second item assessed tolerance of infidelity, one of the major variables of the study, and was measured by a single question of “How likely do you think it is that Nicole will stay with Michael”? Participants responded on a 5-point scale, with responses ranging from “not at all likely” (1) to “very likely” (5). A lower score represented a lower level of tolerance whereas higher scores indicated higher levels of tolerance. The third item addressed aspects of the infidelity that would influence the decision to stay or leave the relationship, an emotional response, and asked “How important will the following be in Nicole’s decision to stay or leave”? Examples of available responses included “Michael has cheated on her” and “Nicole may feel that Michael has feelings for another woman”. Responses were measured on a 5-point scale, ranging from “not important at all”(1) to “very important”(5). The fourth item assessed behavioral responses to infidelity with the question “Which of the following behaviors will Nicole do likely do with Michael?”. Possible responses included “she will not have sex at all with Michael”, “she will continue to have sex with Michael but request that he use condoms”, and “she will continue to have sex with Michael as they have been”. Both the emotional and behavioral
items were analyzed individually for differences based on ethnicity for each scenario. The last question asked the subject “If this were you, would you stay with Michael or leave him?”. Responses are “stay with Michael” or “leave Michael”.

The vignette-based questionnaires were pilot tested with a group of African-American and Caucasian women (n=14) who met the study inclusion criteria to establish face validity, to determine comprehension, and whether their interpretation of the questionnaire items were congruent with the intent of the investigator. The vignette was found to be comprehensible amongst this group and there was 91 percent congruence between the group and the investigator on the intent of the questionnaire items. Readability was assessed at a seventh-grade reading level.

The Multigroup Ethnic Identity Measure (MEIM) is a 14-item scale designed to measure three aspects of ethnic identity: a positive ethnic attitude and sense of belonging (5 items), ethnic identity achievement (7 items), which includes exploration and resolution of identity issues, and ethnic behaviors or practices (2 items) (Phinney, 1992). The scale was designed to be used with adolescents and young adults and can be used with various ethnic populations. The scale also includes six items that are designed to assess other-group orientation, as this may interact with one’s ethnic identity although it is distinct from ethnic identity, although this scale was not used for this study. Each item is rated on a 4-point scale with responses ranging from strongly agree to strongly disagree. Scores are derived from reversing negatively worded items, summing across items, and obtaining the mean. Scores range from 4 to 1, with a high ethnic identity indicated by a score of 4 and a low identity indicated by a score of 1. In instances of
missing items, the means are calculated on the non-missing items. The scale also includes questions that assess the subject’s ethnicity and their parents’ ethnic identity. These questions are not included in the ethnic identity score. Item examples include “I have a clear sense of my ethnic background and what it means to me” and “I have a lot of pride in my ethnic group and its accomplishments”. Item difficulty has been assessed at a sixth to seventh-grade readability level (Ponterotto, Gretchen, Utsey, et al, 2003).

Reliability and validity for the MEIM was tested in a study of 427 high school students and 136 college students from ethnically diverse schools (Phinney, 1992). Reported Chronbach’s alpha were .81 and .90 overall for the high school and college students respectively. For each subscale, reliability results were: ethnic attitude and sense of belonging (5 items; alpha=.75 for high school students .86 for college students), Ethnic Identity and Achievement (7 items; alpha= .69 high school students .80 college students). Reliability coefficients were not given for the Ethnic behaviors scale due to the fact that reliability cannot be calculated with only two items. Construct validity was assessed using exploratory factor analysis, resulting in a two-factor solution consisting of ethnic identity items and other-group orientation item, for both the high school student sample and college sample. The factor loadings were similar for the high school and college group, and the factor of ethnic identity accounted for 30.8% of the variance explained and other-group orientation accounted for 11.4% of the variance explained in the college sample. Ponterotto et al.’s (2003) study in which factor analysis was conducted on a sample of high school students, replicated the two-factor solution uncovered by Phinney (1992), although the authors suggest that the Other-group orientation scale be re-
evaluated through further research due to the weaker factor loadings of these items. The other-group orientation scale was not utilized for this study.

After data collection began for this study, it was discovered that two items from the MEIM had been inadvertently left off the Checkbox survey. At the time this realization was made, 78 subjects had already completed the survey, 27 African-American and 51 European-American/Caucasian. Data collection was subsequently halted, and an internal consistency reliability analysis, using Cronbach’s alpha coefficient (Polit & Hungler, 1995) was done to determine whether the study could continue on without those two missing items, or whether the items needed to be added and data collection restarted with a new sample. The two items that were missing were item 10, “I really have not spent much time trying to learn more about the culture and history of my ethnic group”, and item 14, “I have a lot of pride in my ethnic group and its accomplishments”. These items were from the Ethnic Identity Achievement and Affirmation and Belonging subscales, respectively. Cronbach’s alpha coefficient for the 12-item scale was α=.855, and for the African-American and European-American/Caucasian sample the Cronbach’s alpha coefficients were α=.625 and α=.806, respectively. Based on these findings, it was determined that the benefit of continuing data collection outweighed any benefit of adding the missing items back into the scale. The subsequent analyses presented for research questions two and three in which the MEIM was used as a measure are based on the 12-item scale. Planned reliability analysis would be run again at the conclusion of data collection with the remaining data.
Demographic information form questions included in the demographic questionnaire were designed to elicit information regarding age, socioeconomic status, number of children, Grade Point Average, relationship status, sexual orientation, beliefs regarding mate availability, experience with sexual infidelity, and condom use. These demographic variables were used to analyze differences among subjects. The demographic questionnaire was designed to be user-friendly and was pilot tested along with the tolerance of infidelity questions.

Data Analysis

Various statistical analyses were conducted, depending on the level of data being analyzed. The study research questions along with the corresponding statistical analyses are presented below in Table 1.
Table 1

*Planned data analysis by research question.*

<table>
<thead>
<tr>
<th>Research Question</th>
<th>Dependent variable(s)</th>
<th>Independent variable(s)</th>
<th>Level of data</th>
<th>Statistical Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Do African American and European-American/Caucasian college women differ in level of tolerance of infidelity and their responses to infidelity?</td>
<td>Tolerance of infidelity</td>
<td>Ethnicity</td>
<td>Interval</td>
<td>ANOVA</td>
</tr>
<tr>
<td></td>
<td>Emotional Responses</td>
<td>Ethnicity</td>
<td>Interval</td>
<td>ANOVA</td>
</tr>
<tr>
<td></td>
<td>Behavioral Responses</td>
<td>Ethnicity</td>
<td>Nominal</td>
<td>Chi Square Analysis</td>
</tr>
<tr>
<td>2. Do African American and European-American/Caucasian women differ in ethnic identity?</td>
<td>Ethnic Identity</td>
<td>Ethnicity</td>
<td>Interval</td>
<td>ANOVA</td>
</tr>
<tr>
<td>3. Does ethnic identity moderate the relationship between ethnicity and tolerance of infidelity?</td>
<td>Tolerance of infidelity</td>
<td>Ethnicity</td>
<td>Interval</td>
<td>Multiple Regression</td>
</tr>
</tbody>
</table>
Chapter 4: Results

The purpose of this research study was to examine ethnic group differences in responses to infidelity as well as to evaluate the influence of ethnic identity on tolerance of infidelity among African American and European-American/Caucasian college women. Specifically, did African-American women and European-American/Caucasian women have different levels of infidelity tolerance and ethnic identity, and did ethnic identity moderate the relationship between ethnicity and tolerance of infidelity. Descriptive and inferential statistics were used to address the study hypotheses. Data were analyzed using the Statistical Package for Social Sciences (SPSS) version 19.

The data were analyzed for violations of the assumptions of ANOVA, Chi-Square, and Regression analysis. Tests of skewness and kurtosis were not employed due to the fact that these tests can be overly sensitive, as the sensitivity is tied to the sample size, and according to the consulting statistician for this study, the sample size shouldn’t affect one’s assessment of whether the assumptions of the model are badly violated (C. Holloman, personal communication, January 27, 2012). Similar sensitivity issues have been raised about tests of homogeneity of variance (ex. Levene’s test). ANOVA has shown to be robust against unequal variances (Polit, 1996) and a comparison of the ratios of standard deviations for equal variances revealed that no group had a \( SD \) larger than 1.3\( SD \) of the other. Normality of data for each analyses and homoscedasticity was
assessed by examining histograms and Q-Q plots of the residual data. Unless specifically noted, assumptions for each statistical analysis were satisfied.

Study Sample

A total of 197 subjects logged on to the survey site to complete the questionnaire. Of these, 31 did not complete the questionnaire. One Hundred sixty-six submitted responses, and of these 11 did not meet the inclusion criteria. As outlined in Chapter 3, participants needed to be female, heterosexual, self-identify as African-American or Caucasian, current college student, between the ages of 18-30, not married, able to speak, read, and write English, and sexually active. Two respondents were not sexually active, one respondent was over the age limit, three either identified as lesbian or did not provide a response to the question of sexual orientation, and five did not identify as either African-American or European-American/Caucasian. Due to the fact that bisexual women also have sexual intercourse with men, they were chosen to remain in the analyses (n=3). In total, 155 respondents were included in the final analyses.

Demographic characteristics

Demographic information was collected for each ethnic group regarding age, socioeconomic status as indicated by the need to work to support oneself, number of children, Grade Point Average, relationship status, sexual orientation, and condom use. Socio-cultural characteristics of each group were also collected regarding mate availability, dating outside of one’s ethnic group, and experiences with infidelity. A breakdown of study participant demographic characteristics by ethnic group is presented in Table 2.
African-American and European-American/Caucasian women differed significantly on a number of demographic variables. European-American/Caucasian women had higher GPAs ($M=3.53$, $SD=.37$) than African-American women ($M=3.13$, $SD=.45$).

### Table 2

**Sociodemographic characteristics of the sample by ethnicity**

<table>
<thead>
<tr>
<th>Categories</th>
<th>AA</th>
<th>EA/C</th>
<th>Statistic</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>$M$ (SD)</td>
<td>$M$ (SD)</td>
<td></td>
</tr>
<tr>
<td>Age</td>
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<td>22.01 (3.02)</td>
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<td>GPA</td>
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<tr>
<td>Single</td>
<td>37 (60%)</td>
<td>27 (29%)</td>
<td>$\chi^2 = 15.396^{***}$</td>
</tr>
<tr>
<td>Partnered</td>
<td>24 (39%)</td>
<td>63 (68%)</td>
<td>$\chi^2 = 2.119$</td>
</tr>
<tr>
<td>Divorced</td>
<td>0 (0)</td>
<td>2 (2%)</td>
<td></td>
</tr>
<tr>
<td>Sexual Orientation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Heterosexual</td>
<td>60 (97%)</td>
<td>91 (98%)</td>
<td>$\chi^2 = .171$</td>
</tr>
<tr>
<td>Bisexual</td>
<td>2 (3%)</td>
<td>2 (2%)</td>
<td></td>
</tr>
<tr>
<td>Work to support self</td>
<td></td>
<td></td>
<td>$\chi^2$</td>
</tr>
<tr>
<td>Yes</td>
<td>39 (63%)</td>
<td>47 (51%)</td>
<td>$\chi^2 = 2.119$</td>
</tr>
<tr>
<td>No</td>
<td>20 (32%)</td>
<td>40 (43%)</td>
<td></td>
</tr>
<tr>
<td>Man shortage</td>
<td></td>
<td></td>
<td>$\chi^2$</td>
</tr>
<tr>
<td>Yes</td>
<td>36 (58%)</td>
<td>21 (23%)</td>
<td>$\chi^2 = 20.145^{***}$</td>
</tr>
<tr>
<td>No</td>
<td>26 (42%)</td>
<td>72 (77%)</td>
<td></td>
</tr>
<tr>
<td>Dated outside of race</td>
<td></td>
<td></td>
<td>$\chi^2$</td>
</tr>
<tr>
<td>Yes</td>
<td>21 (34%)</td>
<td>36 (39%)</td>
<td>$\chi^2 = .375$</td>
</tr>
<tr>
<td>No</td>
<td>41 (66%)</td>
<td>57 (61%)</td>
<td></td>
</tr>
<tr>
<td>Committed infidelity</td>
<td></td>
<td></td>
<td>$\chi^2$</td>
</tr>
<tr>
<td>Yes</td>
<td>19 (31%)</td>
<td>18 (19%)</td>
<td>$\chi^2 = 2.609$</td>
</tr>
<tr>
<td>No</td>
<td>43 (69%)</td>
<td>75 (81%)</td>
<td></td>
</tr>
<tr>
<td>Victim of infidelity</td>
<td></td>
<td></td>
<td>$\chi^2$</td>
</tr>
<tr>
<td>Yes</td>
<td>39 (63%)</td>
<td>28 (30%)</td>
<td>$\chi^2 = 18.603^{***}$</td>
</tr>
<tr>
<td>No</td>
<td>22 (36%)</td>
<td>65 (70%)</td>
<td></td>
</tr>
<tr>
<td>Condom use</td>
<td></td>
<td></td>
<td>$\chi^2$</td>
</tr>
<tr>
<td>Yes</td>
<td>34 (55%)</td>
<td>46 (50%)</td>
<td>$\chi^2 = .720$</td>
</tr>
<tr>
<td>No</td>
<td>25 (40%)</td>
<td>45 (49%)</td>
<td></td>
</tr>
</tbody>
</table>

*Note. *$p<.05$, ***$p<.001$. AA=African-American, EA/C=European-American/Caucasian*
SD=.05, F (1,149) = 36.72, p <.01, while African-American women were more likely to have children (M=.05, SD=.22) than European-American/Caucasian women (M=0, SD=0), F (1,152) = 4.62, p=.03. The women in the sample differed significantly in the frequency in which they reported being single, partnered, and divorced, χ² (2, N=153) = 15.40, p<.01. A larger percentage of European-American/Caucasian women reported being in a relationship (68%) while a larger percentage of African-American women reported being single (69%). There was a significant difference in frequencies of reported beliefs of a shortage of available men to date, χ² (1, N=155) = 20.15, p <.01, with African-American women (58%) more likely to report that there was a man shortage that European-American/Caucasian women (23%). Lastly, there were significant differences in the frequency in which African-American women and European-American/Caucasian women reported they had been victims of infidelity, χ² (2, N=155) = 18.60, p <.01, with a larger percentage of African-American women (63%) reporting that they had experienced infidelity of a partner in their relationship.

Tolerance of Infidelity; Research Question One

The first research question addressed whether there were differences among African-American women and European-American/Caucasian women in their levels of tolerance of infidelity and in their responses to infidelity. Tolerance of infidelity was operationalized by a single question of “How likely do you think it is that Nicole will stay with Michael”? Participants responded on a 5-point scale, with responses ranging from “not at all likely” (1) to “very likely” (5). A lower score represented a lower level of
tolerance whereas higher scores indicated higher levels of tolerance. Table 3 presents the descriptives for this variable.

Table 3

Descriptive statistics for Tolerance of Infidelity

<table>
<thead>
<tr>
<th>Scenario</th>
<th>n</th>
<th>M</th>
<th>(SD)</th>
<th>n</th>
<th>M</th>
<th>(SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scenario 1</td>
<td>62</td>
<td>3.52</td>
<td>(1.23)</td>
<td>93</td>
<td>3.14</td>
<td>(1.07)</td>
</tr>
<tr>
<td>Scenario 2</td>
<td>62</td>
<td>2.31</td>
<td>(1.08)</td>
<td>93</td>
<td>1.84</td>
<td>(.88 )</td>
</tr>
<tr>
<td>Scenario 3</td>
<td>62</td>
<td>3.66</td>
<td>(1.12)</td>
<td>93</td>
<td>3.57</td>
<td>(1.03)</td>
</tr>
</tbody>
</table>

*Note. AA=African-American, EA/C=European-American/Caucasian*

The first hypothesis for research question one was that African-American women would have higher levels of tolerance of infidelity than European-American/Caucasian women. The study hypothesis was supported in response to the first two scenarios, but not the third. A one-way ANOVA determined that for scenario one African-American women had higher levels of tolerance than European-American/Caucasian women, $F(1,153) = 4.09, p=.045$. For scenario two, African-American women also had higher levels of tolerance of infidelity than did European-American/Caucasian women, $F(1,153) = 8.78, p=.004$. For scenario three, in which a child was involved, there was no difference in level of tolerance between African-American and European-American/Caucasian women, $F(1,153) = .28, p=.601$. The summary table for this analysis is presented in Table 4.

The second hypothesis for research question one was that African-American women would be more likely to believe their partner than European-American/Caucasian women. The item used to assess this asked “How much should Nicole believe Michael?”,
with responses ranging from “not at all” (1) to “very much so” (5) on a 5-point scale.

Means and standard deviations for this item are reported in Table 5. An ANOVA comparing the groups revealed that European-American/Caucasian women were more likely to believe the partner compared to African-American women in the first scenario. Table 6 presents the results of this ANOVA. There were no significant differences between groups for scenario two and three. Additionally, although there was a significant difference between groups, the hypothesis was not supported.

Table 4

*Summary of ANOVA for mean scores on tolerance of infidelity*

<table>
<thead>
<tr>
<th>Scenario 1</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>η²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between groups</td>
<td>5.27</td>
<td>1</td>
<td>5.27</td>
<td>4.099*</td>
<td>.026</td>
</tr>
<tr>
<td>Within groups</td>
<td>196.67</td>
<td>153</td>
<td>1.29</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>201.94</td>
<td>154</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Scenario 2</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>η²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between groups</td>
<td>8.14</td>
<td>1</td>
<td>8.14</td>
<td>8.784**</td>
<td>.054</td>
</tr>
<tr>
<td>Within groups</td>
<td>141.76</td>
<td>153</td>
<td>.93</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>149.90</td>
<td>154</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Scenario 3</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>η²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between groups</td>
<td>.31</td>
<td>1</td>
<td>.31</td>
<td>.275</td>
<td>.002</td>
</tr>
<tr>
<td>Within groups</td>
<td>172.68</td>
<td>153</td>
<td>1.13</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>172.99</td>
<td>154</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

Table 5

*Descriptive statistics for emotional response of belief of partner*

<table>
<thead>
<tr>
<th>Scenario</th>
<th>AA</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>n</td>
<td>M</td>
<td>(SD)</td>
<td></td>
<td>n</td>
<td>M</td>
<td>(SD)</td>
</tr>
<tr>
<td>Scenario 1</td>
<td>62</td>
<td>2.15</td>
<td>(.85)</td>
<td>93</td>
<td>2.45</td>
<td>(.89)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scenario 2</td>
<td>62</td>
<td>1.11</td>
<td>(.37)</td>
<td>93</td>
<td>1.23</td>
<td>(.49)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scenario 3</td>
<td>62</td>
<td>2.45</td>
<td>(1.14)</td>
<td>92</td>
<td>2.59</td>
<td>(.99)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note. AA=African-American, EA/C=European-American/Caucasian*
Table 6

Summary of ANOVA for mean scores on emotional response of belief.

<table>
<thead>
<tr>
<th>Scenario 1</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>η²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between groups</td>
<td>3.49</td>
<td>1</td>
<td>3.49</td>
<td>4.58*</td>
<td>.029</td>
</tr>
<tr>
<td>Within groups</td>
<td>116.73</td>
<td>153</td>
<td>.76</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>120.22</td>
<td>154</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Scenario 2</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>η²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between groups</td>
<td>.47</td>
<td>1</td>
<td>.47</td>
<td>.13</td>
<td>.015</td>
</tr>
<tr>
<td>Within groups</td>
<td>30.47</td>
<td>153</td>
<td>.20</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>30.94</td>
<td>154</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Scenario 3</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>η²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between groups</td>
<td>.68</td>
<td>1</td>
<td>.68</td>
<td>.62</td>
<td>.004</td>
</tr>
<tr>
<td>Within groups</td>
<td>167.66</td>
<td>152</td>
<td>1.10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>168.34</td>
<td>153</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*p<.05

The third hypothesis for research question was that African-American women would be more likely to believe that having a future with the partner would be important in their decision-making after the infidelity. This hypothesis was assessed by the item “How important will the following be in Nicole’s decision to stay or leave”? Examples of available responses included “Michael has cheated on her” and “Nicole may feel that Michael has feelings for another woman”. Responses were measured on a 5-point scale, ranging from “not important at all”(1) to “very important”(5). Responses to this item are summarized in Table 7.
Table 7

*Descriptive statistics for reasons why Nicole would stay or leave*

<table>
<thead>
<tr>
<th>Item</th>
<th>AA</th>
<th></th>
<th></th>
<th>EA/C</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>M</td>
<td>(SD)</td>
<td></td>
<td>n</td>
<td>M</td>
</tr>
<tr>
<td><strong>Scenario 1</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Michael has cheated on her</td>
<td>62</td>
<td>4.53</td>
<td>(.80)</td>
<td></td>
<td>93</td>
<td>4.59</td>
</tr>
<tr>
<td>Michael still wants to have a future with her</td>
<td>62</td>
<td>3.56</td>
<td>(1.31)</td>
<td></td>
<td>93</td>
<td>3.73</td>
</tr>
<tr>
<td>Nicole may feel that Michael has feelings for another woman</td>
<td>62</td>
<td>3.56</td>
<td>(1.33)</td>
<td></td>
<td>93</td>
<td>4.12</td>
</tr>
<tr>
<td>Nicole may feel that Michael may still be having sex with another woman</td>
<td>62</td>
<td>4.18</td>
<td>(1.09)</td>
<td></td>
<td>91</td>
<td>4.31</td>
</tr>
<tr>
<td><strong>Scenario 2</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Michael has cheated on her</td>
<td>62</td>
<td>4.71</td>
<td>(.58)</td>
<td></td>
<td>93</td>
<td>4.63</td>
</tr>
<tr>
<td>Michael still wants to have a future with her</td>
<td>62</td>
<td>2.48</td>
<td>(1.38)</td>
<td></td>
<td>92</td>
<td>2.20</td>
</tr>
<tr>
<td>Nicole may feel that Michael has feelings for another woman</td>
<td>61</td>
<td>4.61</td>
<td>(.78)</td>
<td></td>
<td>93</td>
<td>4.89</td>
</tr>
<tr>
<td>Nicole may feel that Michael may still be having sex with another woman</td>
<td>61</td>
<td>4.77</td>
<td>(.53)</td>
<td></td>
<td>91</td>
<td>4.85</td>
</tr>
<tr>
<td><strong>Scenario 3</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Michael has cheated on her</td>
<td>62</td>
<td>4.00</td>
<td>(.99)</td>
<td></td>
<td>93</td>
<td>4.31</td>
</tr>
<tr>
<td>Michael still wants to have a future with her</td>
<td>62</td>
<td>3.60</td>
<td>(1.42)</td>
<td></td>
<td>93</td>
<td>3.80</td>
</tr>
<tr>
<td>Nicole may feel that Michael has feelings for another woman</td>
<td>60</td>
<td>4.02</td>
<td>(1.10)</td>
<td></td>
<td>93</td>
<td>4.23</td>
</tr>
<tr>
<td>Nicole may feel that Michael may still be having sex with another woman</td>
<td>62</td>
<td>4.16</td>
<td>(1.01)</td>
<td></td>
<td>92</td>
<td>4.33</td>
</tr>
</tbody>
</table>

Note: AA=African-American, EA/C=European-American/Caucasian

A one-way ANOVA showed that there were significant differences between African-American women and European-American/Caucasian women on what was important in decision-making; however these differences were different than what was
hypothesized. There were no significant differences between groups on the belief that having a future with the partner would be important in decision-making. However, for both scenario one and two, European-American/Caucasian women were more likely to believe that the decision to either stay or leave would be influenced by the fact that the partner may have feelings for another woman, $F(1, 153) = 9.76, p=.002$ and $F(1,152) = 9.64, p=.002$, respectively. In scenario three, European-American/Caucasian women believed that the fact that the partner cheated would influence the decision to stay or leave, $F(1, 153) = 4.07, p=.045$. There were no other significant differences between groups on these responses at $p<.05$.

The fourth hypothesis for research question one was that African-American women would be more likely to believe that there will be no change in HIV risk behaviors in response to infidelity. The fourth item assessed behavioral responses to infidelity with the question “Which of the following behaviors will Nicole do likely do with Michael?”. Possible responses included “she will not have sex at all with Michael”, “she will continue to have sex with Michael but request that he use condoms”, and “she will continue to have sex with Michael as they have been”. Descriptive results for this question are presented in Table 8.

A chi-square analysis was conducted to evaluate whether African American women and European-American/Caucasian women differed in the frequency in which they reported behaviors to change after uncovering infidelity. Results showed that there were no significant differences between groups as to the frequencies in which they reported a change in behavior for scenario one, two or three, $\chi^2 (2, N=155) = 4.28$. 

66
$p = .117, \chi^2 (2, N=154) = 3.27, p = .20, \chi^2 (2, N=155) = 2.22, p = .33$, respectively. The hypothesis was not supported. The crosstabulation table for this hypothesis can be found in Table 9.

Table 8

*Descriptive statistics for behavioral responses to infidelity*

<table>
<thead>
<tr>
<th>Item</th>
<th>AA</th>
<th>EA/C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item</td>
<td>$n$ (%)</td>
<td>$n$ (%)</td>
</tr>
<tr>
<td>She will not have sex at all with Michael</td>
<td>19 (31%)</td>
<td>44 (47.3%)</td>
</tr>
<tr>
<td>She will continue to have sex with Michael but request that he use condoms</td>
<td>29 (47%)</td>
<td>33 (35.5%)</td>
</tr>
<tr>
<td>She will continue to have sex with Michael as they have been</td>
<td>14 (23%)</td>
<td>16 (17.2%)</td>
</tr>
<tr>
<td>Scenario 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>She will not have sex at all with Michael</td>
<td>48 (77%)</td>
<td>83 (89%)</td>
</tr>
<tr>
<td>She will continue to have sex with Michael but request that he use condoms</td>
<td>10 (16%)</td>
<td>8 (9%)</td>
</tr>
<tr>
<td>She will continue to have sex with Michael as they have been</td>
<td>3 (5%)</td>
<td>2 (2%)</td>
</tr>
<tr>
<td>Scenario 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>She will not have sex at all with Michael</td>
<td>26 (42%)</td>
<td>50 (54%)</td>
</tr>
<tr>
<td>She will continue to have sex with Michael but request that he use condoms</td>
<td>22 (36%)</td>
<td>28 (30%)</td>
</tr>
<tr>
<td>She will continue to have sex with Michael as they have been</td>
<td>14 (23%)</td>
<td>15 (16%)</td>
</tr>
<tr>
<td>Scenario 3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note.* AA=African-American, EA/C=European-American/Caucasian
Table 9

*Ethnicity and behavioral responses to infidelity*

<table>
<thead>
<tr>
<th>Behavioral Response</th>
<th>Ethnicity</th>
<th>Vignette 1</th>
<th>Vignette 2</th>
<th>Vignette 3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>AA</td>
<td>EA/C</td>
<td>N</td>
<td>( \chi^2 )</td>
</tr>
<tr>
<td><strong>Count</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>She will not have sex at all with Michael</td>
<td>19</td>
<td>44</td>
<td>155</td>
<td>.117</td>
</tr>
<tr>
<td>Column %</td>
<td>(30.6%)</td>
<td>(47.3%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>She will continue to have sex with Michael but request that he use condoms</td>
<td>29</td>
<td>33</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Column %</td>
<td>(46.8%)</td>
<td>(35.5%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>She will continue to have sex with Michael as they have been</td>
<td>14</td>
<td>16</td>
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<td>Column %</td>
<td>(22.6%)</td>
<td>(17.2%)</td>
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<tr>
<td><strong>Total</strong></td>
<td>62</td>
<td>93</td>
<td>(100%)</td>
<td>(100%)</td>
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68
Ethnic Identity: Research Question Two

The second research question addressed whether African-American and European-American/Caucasian women differed in their levels of ethnic identity. The Multigroup Ethnic Identity Measure (MEIM, Phinney, 1992) was used to measure participant’s level of ethnic identity. The MEIM is a 14-item, 4-point Likert Scale, with responses ranging from strongly agree (4) to strongly disagree (1), which measures three aspects of ethnic identity: a positive ethnic attitude and sense of belonging (5 items), ethnic identity achievement (7 items), which includes exploration and resolution of identity issues, and ethnic behaviors or practices (2 items). A higher score indicates a greater ethnic identity and a lower score indicates a lower level of ethnic identity.

As mentioned in Chapter 3, only 12 items from the MEIM were used for this study. The two items that were missing were item #14 “I have a lot of pride in my ethnic groups and its accomplishments, from the affirmation and belongings subscale, and item #10, “I really have not spent much time trying to learn more about the culture and history of my ethnic group, from the ethnic identity achievement subscale. Internal consistency of this shortened, 12-item version of the scale was assessed using Cronbach’s coefficient alpha (Polit & Hungler, 1995). An alpha of .867 was obtained, demonstrating that this version was reliable in measuring ethnic identity in the sample. Cronbach’s alpha for the African-American sample was \( \alpha = .719 \), while the alpha coefficient for the European-American/Caucasian group was \( \alpha = .807 \). The mean score for ethnic identity for African-American women was 3.45 (\( SD = .38 \)). The mean score for ethnic identity for European-American/Caucasian women was 2.66 (\( SD = .52 \)).
It was hypothesized that African-American women would have higher levels of ethnic identity than European-American women. This hypothesis was supported based on an ANOVA that was used to test for mean differences in ethnic identity between African-American women and European-American/Caucasian women. Ethnic identity differed significantly between groups, $F(1,153) = 99.78, p<.001$, with African-American women having higher levels of ethnic identity than European-American/Caucasian women. Partial eta squared for this analysis was $\eta^2 = .395$.

Ethnic Identity as a moderator; Research Question Three

The third research question addressed whether ethnic identity had a moderating effect on the relationship between ethnicity and tolerance of infidelity; specifically, whether the relationship between ethnicity and tolerance of infidelity was different at various levels of ethnic identity for African-American and European-American/Caucasian women. The hypothesis for this research question was that ethnic identity would moderate the relationship between ethnicity and tolerance of infidelity for African-American women, such that the relationship between being African-American and tolerance of infidelity will decrease at higher levels of ethnic identity.

To address the question of moderation, a multiple regression analysis was used to examine the interaction of the independent variables of ethnicity and ethnic identity. Results of between-subject effects revealed that after finding out that a partner has committed infidelity (scenario 1) the relationship between ethnicity and tolerance of infidelity was statistically different at various levels of ethnic identity, $F(1, 155) = 4.50, p = .036, \eta^2 = .029$. This provides support for the first part of the hypothesis in that ethnic identity has a moderating effect. Another way of stating this finding is that the...
relationship between ethnic identity and tolerance of infidelity is different between groups. To evaluate how this effect is different for African-American women and European-American/Caucasian women as hypothesized, the regression coefficients were examined. Table 11 presents a summary of these findings. African-American women were used as the reference group in the analysis, therefore a custom hypothesis test was also created in SPSS to examine the effect of ethnic identity among European-American/Caucasian women. Results revealed that for African-American women, a 1 SD change in ethnic identity resulted in .76 change in tolerance of infidelity. For European-American/Caucasian women, ethnic identity did not have a significant effect on tolerance of infidelity. Overall, the model explained only 4% of the variance in tolerance of infidelity.

Table 10

<table>
<thead>
<tr>
<th>Variable</th>
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<tr>
<td>Ethnic Identity&lt;sup&gt;b&lt;/sup&gt;</td>
<td>.76*</td>
<td>.381</td>
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<tr>
<td>AA&lt;sup&gt;a&lt;/sup&gt;</td>
<td>2.74</td>
<td>1.46</td>
</tr>
<tr>
<td>EA/C&lt;sup&gt;a&lt;/sup&gt;</td>
<td>-.17</td>
<td>.23</td>
</tr>
</tbody>
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<sup>a</sup>p<.05. <sup>Note</sup>. For model, adjusted R<sup>2</sup> = .037. <sup>a</sup>= analyses of regression coefficients for ethnicity is broken down by ethnic group. <sup>b</sup>. moderating effect of ethnic identity.

The same analyses were done to examine the moderating effect of ethnic identity on ethnicity and tolerance of infidelity after uncovering a partner had continued a relationship with another woman (scenario 2) and after introducing a child into the relationship (scenario 3). Results of the multiple regression revealed that ethnic identity
did not moderate the relationship between ethnicity and tolerance of infidelity for neither scenario 2, $F (1,155) = 2.244$, $p=.136$, nor scenario 3, $F (1,155) = .087$, $p=.768$. The hypothesis was not supported for these two situations.

An examination of the residuals showed no violation of the assumptions. A check for multicolinearity revealed that the independent variables of ethnicity and ethnic identity were found to be moderately correlated, $r(153) = .628$, $p<.001$. Therefore, the estimates of the standard errors are unstable. While the resulting p-values are accurate, they may be unreliable. After conferring with the consulting statistician, it was determined that there was no way to adjust for this. This will be addressed as a limitation in the following chapter.
Chapter 5

The purpose of this study was to explore differences in tolerance of infidelity and ethnic identity among African-American and European-American college women at risk for HIV and other STIs. Partner infidelity has been said to be related to increased HIV and STI risk among women (Doherty, Schoenbach, & Adimora, 2009). This study aimed to move beyond comparing individual risk behaviors of women and sought to highlight the role that being in an intimate relationship has related to sexual risk, particularly when infidelity is committed by the woman’s partner. In addition, there is a broad amount of literature which suggests that ethnic identity plays an important role in the lives of minorities, especially African-Americans (French, Seidman, Allen, and Aber, 2006; Roberts et al., 1999; Kvernmo and Heyerdahl, 2003; Greig, 2003; Worrell and Gardner-Kitt, 2006), however there is sparse evidence to support the role of ethnic identity as it relates to tolerance of infidelity. There is no data regarding this relationship among college women.

The present study attempted to fill in these aforementioned gaps by examining levels of tolerance of infidelity and ethnic identity among African-American and European-American/Caucasian college women and determining whether the potential relationship between ethnicity and tolerance of infidelity was influenced by the woman’s level of ethnic identity. The criteria for participation in this study were self-identified African-American or European-American/Caucasian, between the ages of 18 and 30,
sexually active, not married, and able to read and write English. Participation in this study was voluntary.

Findings from hypotheses testing

*Ethnic differences in tolerance of infidelity*

The first hypothesis examined differences in tolerance of infidelity among African-American and European-American women. It was expected that African-American women would have higher levels of infidelity tolerance in comparison to European-American/Caucasian women. Results showed that African-American women were more likely to tolerate the infidelity and remain in the relationship after learning of sexual infidelity than their European-American/Caucasian counterparts as hypothesized. When the scenario changed and moved beyond sexual infidelity to the partner maintaining a connection with the side partner after the sexual infidelity, African American women continued to have had higher levels of tolerance. Past research among adolescents supports the notion that Caucasian females are more likely to end a relationship over a mate’s infidelity than African-American women (Eyre et al., 1998; Wang, Kao, & Joyner, 2006) and the findings from this study suggest that this ethnic difference may continue into young adulthood.

There are socio-cultural differences within the African-American community in comparison to other ethnic groups is one that have been reported in the literature to affect the relationships of African-American women (Taylor, Adimora, & Schoenach, 2010). Factors such as gender ratio imbalance, social discrimination and segregation, and lower socioeconomic status, create an increased instability within African-American male-female relationships and influence the behaviors of parties within those relationships.
Many researchers have pointed to the unequal sex-ratio in the African-American community as a large contributor to concurrent partnerships and reasons as to why women remain in relationships with men who have more than one sexual partner (Pinderhughes, 2002; Aral, Adimora, & Fenton, 2008). African-American women and European-American/Caucasian women in this study differed on a number of socio-demographic and socio-cultural variables. Perhaps the most theoretically significant demographic difference was the fact that African-American women were more likely to report believing there was a shortage of available men to date. This perception of a sex-ratio imbalance among African-Americans has been cited as one of the main reasons why African-American women are at greater risk for HIV and other STIs within their intimate relationships. In his classic work on Black male-female relationships, Aborampah (1989) identifies how societal and institutional factors, such as the sex ratio imbalance, contribute to unique relationship dynamics among African-Americans. The lack of perceived available men causes these women to resort to man-sharing and also contributes to women settling for being in a relationship with a man who commits infidelity and concurrent sexual partners (Aborampah; Kyomugisha, 2006; Rosier, 2000). African-American women in this study were more likely to believe that there was a shortage of available men to date. If women perceive themselves to have few viable dating options, their behaviors within their relationships may change in order to maintain that relationship. Aborampah (1989) suggests that college educated African-American women have even less options available to them, and thus are at a greater disadvantage when it comes to being in a committed relationship with a committed partner. Harrison
(1973) also suggested that professional African-American women have the hardest time when it comes to developing and sustaining relationships because this group has higher rates of divorce and lower rates of marriage. There aren’t a large number of equally educated African-American men to choose from. With college men experiencing pressure to engage in risky sexual behavior and being more likely than women to have more than one partner, African-American college women with higher levels of tolerance of infidelity are at great risk for HIV and other STIs.

The fact that African-American women in this study were more likely to tolerate infidelity may also be due to the fact that this behavior could be seen as normative in their relationships. If women believe that infidelity is normal, and simply accept this as a byproduct of being in a relationship, then they are more likely to remain in that relationship if they uncover that their partner has been unfaithful. Prior studies have shown that among African-American women there is a belief that a man is going to cheat and that there is nothing a woman can do about it (Hutchinson, 1999). In a study among young African-American women between the ages of 25 and 32, Hutchinson found that there was a belief among these women that men are not satisfied with one woman and that all men are going to be with someone else. These women simply accepted this as a way of life. Along with this, women in this study felt that it was important to be with a man and that love played an important factor in the ability to say no to a man. Timmons & Sowell’s (1999) focus group study among African-American women on their perceived HIV risk revealed four themes, one of which included “a man will be a man”. Under this theme, the women in the study had the belief that having a man was an
important part of their lives and as such they needed to do things to keep the man, including having sex. Although the women in the study desired a monogamous relationship, they believed that infidelity among men was normal and that men were naturally prone to have multiple sexual partners. A more recent study by Eyre, Flythe, Hoffman, et al., (2011), focused on culturally specific models of infidelity that influence HIV risk among African-Americans. Specifically, the authors noted that although men and women expect there to be mutual fidelity within main relationships, there is often a double-standard among men. This double-standard suggests that women should be okay with a man cheating, but a man would terminate the relationship if he learned that his partner was cheating.

An interesting point to note is that for this study, once a child was introduced into the scenario, there were no significant differences between African-American women and European-American/Caucasian women with respect to level of tolerance of infidelity. Both groups of women were likely to remain in the relationship. One explanation for this may be that for women with children, regardless of ethnicity, the existence of a child changes a woman’s expectations of the relationship as well as what behaviors she will accept, for the sake of being able to maintain a family. Researchers have suggested that the presence of children can increase a partner’s sense of investment in the relationship (Belsky, 1990, as cited by Barnett & Hartnett, 2005). Overall, the women in this study may believe that while potentially detrimental to a woman’s physical well-being, accepting infidelity is seen as beneficial to the maintenance of the relationship when the woman and the man have a child.
This study also assessed other responses to infidelity, specifically the likelihood of believing a man’s explanation for infidelity, what aspect of the infidelity would be most important in the consideration of whether to remain in the relationship or not, and how behaviors would change after learning of infidelity. European-American/Caucasian women were more likely to believe a man’s reasoning for his sexual infidelity in comparison to African-American women in this study. As mentioned in Chapter 4, this finding was opposite of what was originally hypothesized. In consideration of the belief that African-American women would have higher levels of infidelity tolerance, it was originally thought that African-American women would be more likely to believe the explanations given by the man for his infidelities. It was assumed that if a woman did not believe that the man was sincere in his explanations then the woman would be less likely to tolerate the infidelity. After taking a further look at the demographic data, perhaps the fact that African-American women were less likely to believe the man is based on the fact that they experienced more infidelity than did the European-American/Caucasian women, as highlighted in the demographic data. Authors have reported that African-American women are less likely to date outside of their race, which suggests that they mostly date African-American men. African-American men have been reported to have concurrent partnerships more than men of any other ethnic group (Adimora, Schoenbach, Bonas, et al., 2002; Morris, et al., 2009). Therefore, it is no surprise that this group of women reported experiencing infidelity more than European-American/Caucasian women, although there is no data specifying whether the women in this study were in relationships with African-American men to validate this assumption. Perhaps the
African-American women in this have similar beliefs as the men in Eyre et. al’s (2011) study in that men will do whatever it takes, even lie, to keep their side partner a secret from the main partner. It may also be that the women in this study who experienced infidelity, experienced it on more than one occasion, and trust within the relationship and the ability to believe the partner decreased after each subsequent incidence. These potential explanations should be assessed with data collected in future studies.

European-American/Caucasian women felt that the whether or not the partner had developed feelings for another woman would influence the decision to stay or leave after infidelity for scenarios one and two. The fact that the emotional aspect of the infidelity was most influential makes sense in the context of previous research findings. Over the years, research on gender differences in reactions to infidelity has shown that men are more likely to get upset when their partner has committed sexual infidelity, while women are more likely to be upset over emotional infidelity by the man (Harris & Christenfield, 1996; Cramer, Abraham, Johnson, Manning-Ryan, 2001). Emotional infidelity of the partner did not significantly influence the decision to stay or leave for either ethnic group once a child was included in the scenario. Similar to tolerance of infidelity, a child seemed to have added a new dimension to the decision-making process. For scenario three, European-American/Caucasian women believed that the decision to stay or leave would be influenced by the fact that the partner cheated. One reason that the actual cheating may be seen as more important in this instance is because of the risk of the man fathering another child. If the man indeed does reproduce with another woman, then not only will resources be potentially taken away from the woman but also the woman’s
child. Prior research supports the notion that gender differences in responses to infidelity include women being upset over infidelity because of the potential loss of resources (Buss, Larsen, Westen, & Semmelroth, 1992). Although there were significant differences uncovered among European-American/Caucasian women and African-American women as to what would be important in decision-making, it is unclear as to whether these factors influenced the decision to stay or the decision to leave, due to the fact that choosing to stay or choosing to leave were not assessed separately. This addressed further in this chapter.

It was hypothesized that African-American women would be more likely to believe that after uncovering a partner’s infidelity that there would be no changes in behavior. This is what potentially increases HIV risk. This hypothesis was not supported. In fact, there were no significant differences among the women in the study related to behavioral outcomes after infidelity, however the responses to this question still merit some discussion. After finding out about a partner’s sexual infidelity, African-American women chose to continue to have sex but request condom that condoms be used over other possible behavioral responses. This speaks to the nature of risk within this group in that most of the women would continue to have sex with their partner. Women can request condom use, but this does not guarantee that they will be used. If the partner does not want to use condoms, the desire for the relationship may increase the chance that the women could be convinced to have unprotected sex.
Ethnic differences in ethnic identity

African-American women in this study had significantly higher levels of ethnic identity than the European-American/Caucasian women. This is consistent with previous research on ethnic identity that has shown minorities to have significantly higher levels of ethnic identity in comparison to Caucasians (Espinosa-Hernandez & Leftkowitz, 2009; Pahl and Way, 2006; French, Seidman, Allen, and Aber, 2006; Beadnell et al., 2003; Roberts et al., 1999). Beadnell et al., suggest that ethnic identity also has great importance in young adulthood as it is dynamic its development may continue or re-emerge during this time. Ethnic identity has been said to be salient among groups in situations in which ethnic group differences are readily apparent (Phinney, 1996). The women in this study were recruited from a large predominantly white institution, in which the African-American student population is approximately six percent of the European-American/Caucasian student population. The findings from this study also support Walker, Wingate, & Obasi’s (2008) idea that ethnic identity may be especially salient among college students as they enter a period of separation from family and enter into a stage of independence.

Moderating effect of ethnic identity on tolerance of infidelity

Ethnic identity has been said to be a protective factor against risk behaviors for members of minority populations (Brook & Pahl, 2005; Arbona, 1999), thereby informing the hypothesis that women with greater levels of ethnic identity would be less likely to engage in, and sustain relationships in the presence of, behaviors that would place them at risk within their relationships and as a result would have lower levels of
infidelity tolerance. This was not the case for the African-American women in this study. As ethnic identity increased for African-American women, their levels of infidelity tolerance increased in response to sexual infidelity by the partner. There are a few factors that could explain this.

Tolerance of infidelity was measured by a woman’s response to a hypothetical scenario. Responses to the scenario were based on what the study participant thought the women in the scenario would do. The rationale for assessing infidelity tolerance in this manner was to reduce social desirability bias by taking the focus off the participant. As such, while the authors believe that this is a representation of the woman’s tolerance level, the only way to determine actual tolerance of infidelity is to ask the woman retrospectively about her behaviors, after she has experienced infidelity. Therefore, ethnic identity may in fact be a protective factor among women who have experienced infidelity, but because of the way in which this variable was measured, this was not able to be assessed. Data was collected on experience with infidelity, but no information was gathered regarding whether the woman chose to remain in the relationship afterwards.

Additionally, there is the possibility that while the responses to this question may have come from a personal frame of reference, the women projected the scenario on to women they knew and not themselves. This would mean that African-American women with higher levels of ethnic identity are more likely to perceive that women will remain in the relationship after infidelity.

If in fact the measure of tolerance in this study is a true representation of women’s actual tolerance, as the authors suspect, then further explanation of the moderating effect
of ethnic identity may be found by examining risk within the historical context of this ethnic group. Theoretically, women who have a high level of ethnic identity are sensitive to the unique experiences within their particular ethnic community and the cultural norms and models that are typically espoused by members of their ethnic group. These unique experiences of African-Americans within the dominant western society have significance for understanding the way in which African-American men and women relate to each other as well as understanding the behaviors of each person within the relationship. For African-American women, these cultural aspects influence the way in which they approach their intimate relationships and their decisions within those relationships. As previously mentioned, men are often socialized to be the aggressor and show dominance (Myers, 1988) yet because of the emasculation that African-American men often feel in western society, they strike out against the women in relationships. Their participation in multiple sexual relationships is a reflection of this. Access to physical and economic resources is still controlled by the dominant culture, and African Americans are constantly struggling to gain equal access to these basic human rights. As a result, African-American couples may have to give up certain aspects of their relationship simply to gain access to material, and sometimes emotional, ideals (Lawrence-Webb, Littlefield, & Okundaye, 1994). This means that being happy and satisfied in a healthy relationship may be outweighed by the economic benefit of being in that relationship. On the other hand, the struggles that African-American women face to move ahead in the workplace, in education, and in their community, may influence the woman’s decision to remain in a potentially unhealthy relationship because of the emotional benefit. In her
intimate relationship, she is able to fulfill her perceived role as a woman. Relationships are seen as an indicator of the quality of life of the woman and are an expression of who a woman really is, and this is especially true for African-American women (Aldridge, 1984).

Young African-American women are often socialized to be caretakers and are given adult responsibilities at an early age. This may include taking care of younger siblings, maintaining the house, and even caring for elderly family members. (Tyson, 2012). Historically, African-American women have functioned in more of a provider role for the family due to the marginalization experienced by African-American man. Having this responsibility can often result in women seeking out relationships in which the man is willing, or at least is perceived to be willing, to support the woman and ease her burden. One effect of this unique gender role has been expressed by African-American women who often feel a sense of responsibility when it comes to the survival of the community as a whole. These women feel pressure from the community to develop relationships to help guarantee the survival of the African-American man and woman (Tyson, 2012). There is a need to support the man, for the ultimate uplift of the community. Women who feel this sense of responsibility would feel a greater need to sustain their relationship, even in the presence of infidelity.

Beyond historical explanations, further explanations may be found simply by considering the population being studied. Research that has shown that ethnic identity has a positive influence on risk behaviors of adolescents (Pahl and Way, 2006; French, Seidman, Allen, and Aber, 2006; Roberts et al., 1999; Kvernmo and Heyerdahl, 2003;
Greig, 2003; Worrell and Gardner-Kitt, 2006), however ethnic identity also has great importance among young adults, also known as emerging adults (Beadnell et al, 2003; Eyre et al., 2011; Tyson, 2012). The term “emerging” is important because it is during this time that Tyson suggests that young men and women go through both identity development and intimacy development simultaneously. As college women journey through the process of understanding who they are and who they desire to be, both as women in intimate relationships as well as African-Americans in the larger society, the ideals of both identities may conflict. Until these young women are able to come to a common understanding of the meaning of both identities, the ideals of one may usurp the other depending upon the situation. The value and the role of ethnic identity may be different for these college women than it is for adolescents or even older women and the aspects of ethnic identity that are usually protective may not be as important as this time.

As these young women go through a period of reemerging identity development, it is possible that they are in the phase of exploration as described earlier by Phinney (1990). During this phase, people seek out other members of their ethnic group, participate in cultural activities, and actively seek to learn more about their ethnicity. This causes women to become aware of who they are as African-Americans in the larger society and thus may directly influence their development of gender roles and intimacy as they begin to understand the experiences of African-American men and women in society. Perhaps ethnic identity only serves a protective function once a person has reached an achieved identity and not during the exploration phase. Even more, perhaps the intimacy development during this time holds greater importance for young women
and therefore any protective factor that having a positive ethnic identity may have is superseded by the perceived benefits of intimate relationships.

The fact that the study by Espinosa-Hernandez & Leftkowitz (2009) did not find a significant relationship between ethnic identity and sexual behavior among African-American college students may support this theory. Although the current study did not address actual participation in sexual behaviors related to ethnic identity, the findings support the idea that ethnic identity does not have a protective influence among college students with regards to intimate relationships and behaviors that influence a person’s sexual health.

Overall, African-American women differed from European-American/Caucasian women on a number of aspects in this current study. However, most of these differences were seen in response to the first scenario upon finding out about sexual infidelity, but they tended to disappear as the infidelity of the partner continued and progressed towards emotional infidelity. For example, after initially finding out about the partner’s infidelity, African-American women were more likely to believe the partner’s explanation, but not once the scenario changed to potential emotional infidelity. Additionally, ethnic identity had no relation to tolerance of infidelity beyond the initial episode of sexual infidelity. There also weren’t any differences on any of the assessments of tolerance of infidelity once a child was introduced. It therefore appears that African-American women in this study deem a singular incidence of sexual infidelity by their partner as acceptable, and are willing to believe the explanation given by the partner for the infidelity. Even when ethnic identity is high, these women still are willing to accept the infidelity, as long as the
infidelity remains of a sexual nature. Once the infidelity appears to become more emotional in nature, African-American women are not as willing to accept the infidelity. This is consistent with the recent findings of Tyson’s (2012) study among African-American women, in women were willing to remain in the relationship after infidelity if there was remorse felt by the partner, however a continued relationship with an outside partner was considered unacceptable. Ultimately, it is the sexual infidelity that places women at increased risk for HIV, and not the continued emotional relationship, and therefore the findings from this study still have great importance.

Limitations

Although the findings from this study do provide important insight into sexual risk among African-American women within their intimate relationships, these findings should be considered in light of several limitations.

Although most of the hypotheses in this study were supported, the findings should still be interpreted with caution. The sample size for this study was smaller than originally aimed for. Although it was adequate enough to yield significant results, some of the analyses had small effect sizes and a post-hoc power analysis revealed that power was as low as .5 for research question one. Further investigation showed that due to small effect sizes, sample size would need to reach 296 to yield adequate power of .80. Additionally, the variable of ethnicity and ethnic identity were moderately correlated with each other and as a result the estimates of the standard errors are unstable. The resulting p-values, while accurate, may be unreliable. Because of this issue, future studies may not yield similar results.
The results of this study cannot be generalized to all African-American women. The participants in this study were college women who were between the ages of 18 and 30 and not being married. A convenience sample was also used. Participants were recruited from the university in which the researcher was enrolled. For the purpose of this research study, it was important to recruit participants who not only met the study criteria, but who were also easily accessible and willing to volunteer. This aspect of convenience also affects the generalizability of the findings (Marshall, 1996). The participants were recruited from a large, predominantly white institution in the Midwest, and therefore these findings also cannot necessarily be generalized to college students who attend universities in other geographical locations or universities that have large numbers of minority student enrollment, especially in consideration of the role of ethnic identity, as this study variable may have different meaning for students at other types of institutions.

This study was cross-sectional in design. One of the disadvantages of a cross-sectional research study, such as this one, is that a researcher cannot measure change over time. Although data collection with a cross-sectional time dimension is limited in its ability to draw valid conclusions about causality, this method is effective for demonstrating when a relationship probably does not exist. It is beneficial for descriptive analyses and for generating hypotheses. The results of this study are only a snapshot of the participant’s attitudes and beliefs at one point in time. Although this study showed that there were differences in women’s level of infidelity tolerance in response to various scenarios, one could not assess a participant’s change in tolerance of infidelity or ethnic
identity, if any, over time. This would be important for future studies to examine changes in levels of infidelity tolerance and related risk.

Social desirability bias is another potential limitation of this study. The personal nature of questionnaire items, such as those on the measure of infidelity along with demographic questions on infidelity history, may have resulted in some participants responding in a manner that would show them in a more favorable light. Participants were informed, both within the consent form and in the directions prior to each section, that their responses would be kept confidential and that they did not have to answer any items in which they felt uncomfortable doing so. This was done in an effort to reduce any need for participants to respond in a socially desirable manner. The questionnaire instrument itself was implemented using a computer-based format, allowing the participants to give their responses in a private manner, without an investigators present. With respect to items assessing tolerance of infidelity, the use of the vignette-based questionnaire was employed to reduce some of this effect. One of the largest benefits of using vignettes is that they reduce the effect of social desirability because they are not of a personal nature and are less threatening to the participant, especially when the topic is of a sensitive nature (Wilks, 2004).

The use of vignettes also carried with it limitations regarding validity, specifically whether or not the situation that is being presented in the vignette is actually representative of the phenomenon being explored. The development of the vignettes for this study was done based on the clinical experiences of the investigators. Additionally, there were women who participated in the review of the study questionnaire who had
experienced infidelity in their relationships and they could speak to whether or not they felt the situations in the vignettes were representative of their experiences.

Tolerance of infidelity was operationalized by the question of what the participants thought the young woman in the scenario would do and the likelihood of her remaining in the relationship, not the likelihood of the participants themselves staying. This question was asked via the use of vignettes. The vignettes were used with the fictitious character because they were thought to reduce social desirability bias based on the sensitive topic being studied. For example it may be deemed socially unacceptable to remain in a relationship when infidelity has occurred and thus women may respond that they would leave when in reality they would stay in the relationship. Ultimately, true measure of tolerance of infidelity could only be assessed retroactively, based on whether a woman whose partner had committed infidelity chose to remain in her own relationship. This could potentially bring up other methodological issues, such as recall bias, but would still provide valuable data. Women in this study were asked about experiences with infidelity, but no information was collected regarding whether they chose to stay or remain in those relationships.

This study did not include data from women who were not sexually active or who were married. This exclusion criteria was established based on the target population being women who are at risk for HIV. Although women who are not sexually active are not at risk through sexual behaviors, their opinions on infidelity are still important and may provide valuable information regarding why women choose to remain or not remain in relationships when infidelity had been committed. Married women have a different
inherent risk simply because they are less likely to use condoms and may have different perspective on infidelity given the nature of their relationships. The opinions of these groups of women are valuable and may warrant investigation in future studies, particularly for studies that are qualitative in nature.

The entire MEIM 14-item scale (Phinney, 1992) was not used for this study. As mentioned earlier in Chapter three, two items were left off of the MEIM. Consequently, all of the ethnic identity data for this research study was based on a smaller 12-item version of the scale, and not the entire scale. As a result, there is a question of whether or not the version used in this study is a reliable measure of ethnic identity. The resultant reliability of the 12-item MEIM for this study was deemed to be acceptable (see Chapter 4).

Implications for future research and practice

Despite the stated limitations, the current study provided useful information regarding college women’s reactions to infidelity, including tolerance of infidelity which may increase HIV risk, and the influence of ethnic identity on tolerance of infidelity, specifically among African-American women.

Future research should continue to explore reasons for tolerance of infidelity among African-American college women. Recognizing that HIV risk among this group of women cannot fully be explained by their individual behaviors, it is imperative that researchers continue to evaluate women’s risk in the context of their relationships. A qualitative examination of reasons why a woman would stay or would leave would be a next step as a follow-up to the findings from this study, particularly among college women. Focus group studies that have elicited information regarding infidelity among
African-American women have traditionally been conducted among community samples, usually low-income (Timmons & Sowell, 1999; Bowleg, Lucas, & Tschann, 2004). Gaining an understanding of the underlying reasons that influence the woman’s decision-making would help researchers to focus development of prevention efforts on those factors and also help practitioners in providing meaningful patient education placed within the context of the woman’s reality. Blow and Harnett (2005) conducted a substantive review of infidelity research and suggested the need for more studies that explore the infidelity experiences among various ethnic groups. They state that studies that have explored the “intricacies of infidelity” (pg. 224) have been limited to homogenous, Caucasian samples. This then hinders the ability of researchers to understand how infidelity affects those of other ethnic groups. Along these lines, the continued development and revising of the tolerance of infidelity questionnaire would be beneficial to this process.

The only way to assess actual tolerance of infidelity is to evaluate the response of the woman after she experienced infidelity. Knowing this, the questionnaire should be revamped to include questions about actual experience with infidelity, including both lifetime and immediate past, and the woman’s resultant response to that infidelity. Using both immediate past and lifetime would account for any difficulties that may come from women not remembering either lifetime or immediate incidences as well as help to examine trends over time (Blow & Hartnett, 2005). Instead of basing tolerance of infidelity on just a one-item measure, perhaps average the scores over each scenario to create an average score. This may give a more accurate measure of infidelity tolerance.
Because of the differences in responses to behavioral and emotional infidelity, further delineation of the behavioral and emotional items could be done to create subscales for the entire measure. This would allow researchers to assess how two different types of infidelity are potentially related to risk and risk behaviors.

Along the same lines, question three in the vignettes regarding what would influence the decision to stay or leave should be reworded to delineate more specifically what would influence the decision to stay and what would influence the decision to leave. As the question is written now, “how important with the following be in the decision to stay or leave”, there is no way to distinguish whether the participants’ responses to this item are based on them thinking the young woman will stay or leave and as a result there is no way to analyze the stay/leave aspect separately. In order for researchers to gain more information from this item, this question should be broken down into two parts: how important will the following be in the decision to stay and how important will the following be in the decision to leave.

Future studies should also continue to evaluate the role of ethnic identity as it relates to sexual health among college students. Although this study, as well as the study by Espinosa-Hernandez et al. (2009), did not find evidence in support of a protective role of ethnic identity on behaviors related to sexual health, the inherent risk within this population merits further investigation as to the role of ethnicity and ethnic identity within this group. As such, future studies utilizing newer measures of ethnic identity may be worthwhile. Ponterotto & Park-Taylor (2007). Although the MEIM has consistently been utilized since its development, and continues to be a reliable measure of ethnic identity.
identity among multiple ethnic groups, some authors have noted that this measure does not provide a way to assess the stages of identity development as theorized by Erickson (Umana-Taylor, Yazedjian, & Bamaca-Gomez, 2004). The ability to tease a part which stage of identity development a woman is in has potential implications for this study. As college students are in a stage of reemerging identity, perhaps the protective value of having a positive ethnic identity is present, but only during the achieved or resolution stage. Recently, the initial authors of the MEIM revisited the measure and developed a revised version, the MEIM-R. In this version, the scale is separated into items that assess stages of identity exploration and identity achievement (Phinney & Ong, 2007).

Additionally, the Ethnic Identity Scale developed by Umana-Taylor and colleagues may also provide a more useful measure of ethnic identity. The EIS is comprised of three separate sub-scales comprising the variable of ethnic identity that are in line with the stages of identity development. A measure of this nature would allow for greater within-group comparisons as researchers could assess tolerance of infidelity among African-American women in relation to their stage of ethnic identity development. Knowing this would allow researchers to further tailor ethnically-focused interventions.

This study would benefit from replication with a larger sample. The small sample in this study led to limited power and small effect sizes for a few of the study analyses. Resultant studies should also include an examination of differences that vary by institution. The experiences of students at predominantly white institution, such as the one in this study, may vary from those students at historically black colleges and institutions (HBCU). For example, the fact that the ratio of African-American men to
African-American to women is greater at an HBCU may influence women’s perceptions of relationships and infidelity. In addition, because of the historical nature of the university, the role of ethnic identity may be different at a HBCU. Findings from these future studies would aid in the generalizability of the current findings.

Implications for practice and HIV prevention

The Office of Minority Health (2005) asserts that cultural competency is important for addressing disparities and closing health care gaps. They suggest that understanding the unique cultural needs and experiences of various ethnic groups can help bring about positive outcomes in health. Tyson (2012) suggests that an understanding of the intimate relationships of African-American women informs practice and helps to develop a level of cultural competence among health professionals. The unique findings among African-American women in the current study support the importance of cultural competency and emphasize the need for researchers and healthcare providers to embark on a deeper understanding of the socio-cultural influences in the lives of ethnically diverse women. Central to this idea is the importance of recognizing and dealing with personal bias. Behaviors that may be considered taboo among members of the dominant society in western culture, may be considered more of the norm in other cultures. While the decision to leave a relationship may be seen as an easy one to make, this decision may not be as simple for women of other ethnicities, even when there are associated health risks.

For women’s health providers, it can be easy to make the woman’s own risk behaviors, such as condoms use and the impact of multiple sexual partners, the focus of patient education. For those providers unfamiliar with the African-American community
it may not be as easy to recognize the amount of influence the partner has as well as the woman’s desire to continue the relationship despite the costs on sexual health, and thus this aspect of risk may get glossed over. The results of the current study highlight the need to consider the influence of the intimate relationships on African-American women’s risk. While discussions centered on individual risk-protective behaviors are still important, the topic of risks that result from partner behaviors should also be broached. Practitioners should help the woman understand her own sexual health risk within the context of her own relationship.

The results of this study have implications for HIV prevention efforts as well. Prevention efforts may need to be more creative in the way in which they address risk behaviors within the context of intimate relationships among this population. Eyre et al. (2011) suggest that HIV prevention interventions should focus more on consistent condom use among side partners, rather than a focus on condom use with main partners. This is due to the fact that African-American men and women are less likely to use condoms in their main relationships. According to the participants in their culturally-specific study, men often cheat because sex with a side partner is seen as exciting. At the same time there is a need for men to do their best to hide the relationship with the side partner from the main partner. The authors suggest that prevention efforts should capitalize on the need to hide the side partner from the main partner and focus efforts of promoting condom use with side partners. This approach may actually be beneficial for women in relationships who have similar beliefs as the African-American women in the current study.
With the knowledge that heterosexual contact poses the most risk for HIV among African-American women, and recognizing the importance of intimate relationships related to risk for African-American couples, HIV prevention programs would benefit from engaging the couple instead of focusing solely on the individual. Authors suggest that this will not only increase the trust and communication within the relationship, but also help to reduce gender power imbalances and provide an environment in which it may be easy to discuss various aspects of the relationship, especially disclosure of infidelity (El-Bassel, Caldeira, Ruglass, et al., 2009). In fact, the CDC has highlighted a couples-based HIV intervention program, CONNECT (El-Bassel, Witte, & Gilbert, 2003), as a best-evidence program for HIV prevention. The one caveat to these types of intervention programs is that they may not be beneficial for women who are currently experiencing IPV (El-Bassel et al.).

When developing prevention programs, one must make sure that they are grounded in that same culture that gives meaning to its members, that they are relevant and responds to conditions that plague the specific community, and that they address real problems as defined and experienced by the community (Nobles & Goddard, 1993). As suggested by Boone et al. (2006), in order to integrate culture into a successful intervention, particularly those aimed at STI prevention, one must appeal to a specific cultural group as well as create a program in which cultural concepts are embedded.

Of the 44 best-evidence HIV interventions reported by the CDC (2011), there were 10 which were specifically designed for implementation solely within the African American population. Of these 10, six were designed specifically for African American
women, three of which targeted adolescent populations, the others targeted adult women. Prior to this most recent CDC report, only four HIV prevention interventions were developed for African-American women. While it appears that researches are recognizing the importance of developing ethnically specific interventions, it is disheartening to learn that none of the best-evidence interventions specifically target college women. Although college students are not traditionally seen as an at-risk group, it is evident from the current study that prevention efforts are needed for this group. Not only does the college environment provide opportunities for risky behaviors, but as college students go through the process of identity development, both on an ethnic identity level and intimacy level, they are at risk for developing relationships that may carry more risks than benefits. Because they are going through a period of exploration and identity development, this would be an opportune time for implementation of prevention programs within this population, considering the potential large influence that these programs could have. The current study findings do present a note of caution however. With programs being developed now which include interventions with the intent of building ethnic pride, results of the current study suggest that those interventions may not be as effective among African-American college women, especially if the goal is to affect changes within their sexual relationships.

On a larger scale, prevention efforts should continue to focus on social determinants that contribute to HIV risk, particularly those that are at the center of issues within African-American male-female relationships. Social and economic factors affect a person’s health and well-being. For African-Americans, these factors influence the
relationships had between men and women, and in turn influence individual health. The male shortage in the African-American community along with high rates of incarceration and homicide is associated with multiple sexual partners among men (Aral, Adimora, & Fenton, 2008; Pouget, et al., 2010). Poverty also contributes to the decreased quality of social networks that exist. Aral, Adimora, & Fenton (2008) suggest that prevention needs to be framed within a social determinants framework.

Conclusion

HIV risk among African-American women is complex. African-American college women are especially at-risk population as they are experiencing newfound freedom, developing new identities, and may be vulnerable to behaviors that place them at risk within their intimate relationships. For women during their college years, there are numerous opportunities for self-discovery, independence, new relationships, and experimentation that place this group at increased risk and may influence the decision to engage in safe sex behaviors. Sexual infidelity of a partner has been shown to increase women’s risk for contracting HIV and remaining in the relationship after uncovering the sexual infidelity of a partner has implications for women’s health. While many researchers have found the concept of ethnic identity to serve a protective function among members of minority groups, these finding have been inconsistent among college students. The purpose of this study was to examine differences in tolerance of infidelity among African-American and European-American/Caucasian college women, as well as whether ethnic identity had a moderating effect on the relationship between ethnicity and tolerance of infidelity.
As was hypothesized, African-American women had higher levels of tolerance of infidelity than did European-American/Caucasian women in response to sexual and emotional infidelity of a partner and ethnic identity was found to be higher among African-American women. Although ethnic identity moderated the relationship between ethnicity and tolerance of infidelity for African-American women, women with higher levels of ethnic identity had higher levels of tolerance of infidelity in response to sexual infidelity, which was in the opposite direction than what was hypothesized. Ethnic identity does not seem to serve a protective function for college African-American women when it comes to their heterosexual intimate relationships.

Despite the limitations of the study, the results highlight the importance of considering not only individual behaviors in women’s HIV risk, but also the importance of considering the risk inherent in women’s intimate relationships and the unique cultural differences that may impact decision-making within those relationships. For practitioners who interact with African-American women, simply suggesting that the woman use condoms may not be enough. It is hoped that as a result of this study, those involved in the health care of women and African-Americans will evaluate their own beliefs and potential biases as it relates to the delivery of preventive services. Additionally, this study can serve as a beginning point for researchers wishing to gain a greater understanding of the nuances involved in not only the relationship of tolerance of infidelity and HIV risk, but also for those who seek to explore how ethnic identity influences sexual decision-making among college women.
References


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Appendix A: Study questionnaire

Thank you for your interest in sexual health! As practitioners and researchers, we are very interested in the sexual health of young women. Our interest is to provide individuals accurate and tailored information that will assist them to make healthy choices about their bodies. The purpose of this questionnaire is to find out how young women think about relationships with a significant other and sexual health.

There are no right or wrong answers to any of the questions you will be asked in the questionnaire, it is important to us just to know how you feel. Please remember that these data will be combined with other people’s data and only reported as a group. If any of the questions make you feel uncomfortable, please remember you do not have to answer any or all of them.

Section 1: Please read the following three stories. Just answer how you feel the woman (Nicole) in the story would or should react. There are no right or wrong answers to these questions. If any or all of the questions are uncomfortable, please remember you do not have to answer them.

Story #1
Nicole is a college student who has been dating Michael, her boyfriend, for 2 years. Currently Nicole and Michael live together. Their relationship is getting very serious. Nicole has met Michael’s family and Michael has met Nicole’s family. They have discussed the possibility of getting married. Nicole is on the birth control pill because they do not want any children at this time. Nicole needed to get a new prescription for birth control pills and went to the doctor for her annual exam. From this exam she has found out that she has a sexually transmitted infection. Nicole has only been with Michael in the past 2 years. When she returns home, Nicole confronts Michael about the sexually transmitted infection. Michael admits that he did cheat on Nicole with a woman he met at work. He tells her that the other woman didn’t mean anything to him and that it was a one-night stand. He begins to get emotional and says he is sorry and that he is still committed to Nicole and their future together.

1. How much should Nicole believe Michael?
   
   Not at all                  Very Much So
   1                        2        3        4        5

new page  

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2. How likely do you think it is that Nicole will stay with Michael?

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<th>Not at all likely</th>
<th>Very likely</th>
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</tbody>
</table>

If you think Nicole would be more likely to stay (if you answered 4 or 5), what are the top 3 reasons Nicole would stay?
1. 
2. 
3. 

If you think Nicole would be more likely to leave (if you answered 1 or 2), what are the top 3 reasons Nicole would leave Michael?
1. 
2. 
3. 

3. How important will the following be in Nicole’s decision to stay or leave?

<table>
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<tr>
<th>Not important at all</th>
<th>Very important</th>
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Michael has cheated on her
Michael still wants to have a future with her
Nicole may feel that Michael has feelings for another woman
Nicole may feel that Michael may still be having sex with another woman

4. Which of the following sexual behaviors will Nicole likely do with Michael? (Please select one)
She will not have sex at all with Michael
She will continue to have sex with Michael but request that he use condoms
She will continue to have sex with Michael as they have been

5. If this were you, would you stay with Michael or leave him?
Story #2
Nicole is staying with Michael while she works through some things for herself. Since confessing to having sex with someone else, Nicole has noticed that Michael has seemed more distant in their relationship. One day, Nicole goes to use Michael’s phone to make a call. When she opens his phone, she finds texts from another woman named Ashley. The texts from Ashley talk about how much she misses Michael and can’t wait to be with him. There are also texts from Michael to Ashley telling her that he can’t get her off his mind, that he has enjoyed the time they’ve spent together, and that Nicole just doesn’t understand him like she does. Nicole confronts Michael about the texts. He admits that Ashley was the woman from work with whom he had sex. Michael tells Nicole that Ashley is just a good friend. Nicole asks Michael if he is still having sex with Ashley and Michael avoids Nicole’s questions. He says that that is not important. That the important thing is that he wants to stay with Nicole and have a future together. He says he feels bad about the texts and promises to be a better boyfriend.

1. How much should Nicole believe Michael?
   Not at all  1  2  3  4  5
   Much So

2. How likely do you think it is that Nicole will stay with Michael?
   Not at all likely 1  2  3  4  5
   Very likely

If you think Nicole would be more likely to stay (if you answered 4 or 5), what are the top 3 reasons Nicole would stay?
1.
2.
3.

If you think Nicole would be more likely to leave (if you answered 1 or 2), what are the top 3 reasons Nicole would leave Michael?
1.
2.
3.
3. How important will the following be in Nicole’s decision to stay or leave? 

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<th>Not important at all</th>
<th>Very important</th>
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<tr>
<td>Michael has cheated on her</td>
<td>1 2 3 4 5</td>
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<tr>
<td>Michael still wants to have a future with her</td>
<td>1 2 3 4 5</td>
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<tr>
<td>Nicole may feel that Michael has feelings for another woman</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>Nicole may feel that Michael may still be having sex with another woman</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
</tbody>
</table>

4. Which of the following sexual behaviors will Nicole likely do with Michael? (Please select one) 

- She will not have sex at all with Michael
- She will continue to have sex with Michael but request that he use condoms
- She will continue to have sex with Michael as they have been

5. If this were you, would you stay with Michael or leave him?

- Stay with Michael ____
- Leave Michael _____

____________________
new page

Story #3

Now imagine the previous stories, but Nicole and Michael have a one year old child together. Michael says he wants to stay and make his and Nicole’s relationship work because of their family.
1. How much should Nicole believe Michael?
   Not at all  1  2  3  4  Very Much So  5

2. How likely do you think it is that Nicole will stay with Michael?
   Not at all likely  1  2  3  Very likely  4  5

If you think Nicole would be more likely to stay (if you answered 4 or 5), what are the top 3 reasons Nicole would stay?
1. 
2. 
3. 

If you think Nicole would be more likely to leave (if you answered 1 or 2), what are the top 3 reasons Nicole would leave Michael?
1. 
2. 
3. 

3. How important will the following be in Nicole’s decision to stay or leave?
   Not important at all  1  2  3  Very important  4  5
   Michael has cheated on her 
   Michael still wants to have a future with her 
   Nicole may feel that Michael has feelings for another woman 
   Nicole may feel that Michael may still be having sex with another woman 

4. Which of the following sexual behaviors will Nicole likely do with Michael? (Please select one)
   She will not have sex at all with Michael    
   She will continue to have sex with Michael but request that he use condoms 
   She will continue to have sex with Michael as they have been 

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5. If this were you, would you stay with Michael or leave him?

Stay with _____
Leave Michael _____

Section 2: In this country, people come from a lot of different cultures and there are many different words to describe the different backgrounds or ethnic groups that people come from. Some examples of the names of ethnic groups are Mexican-American, Hispanic, African-American, Asian-American, American Indian, Anglo-American, and White. Every person is born into an ethnic group, or sometimes two groups, but people differ on how important their ethnicity is to them, how they feel about it, and how much their behavior is affected by it. The following questions are about your ethnicity or your ethnic group and how you feel about it or react to it.

Use the numbers given below to indicate how much you agree or disagree with each statement.

1: Strongly Disagree  2: Somewhat Disagree  3: Somewhat Agree  4: Strongly Agree

Disagree  Disagree

1. I have spent time trying to find out more about my own ethnic group, such as its history, traditions, and customs.

2. I am active in organizations or social groups that include mostly members of my own ethnic group.

3. I have a clear sense of my ethnic background and what it means for me.

4. I like meeting and getting to know people from ethnic groups other than my own.

5. I think a lot about how my life will be affected by my ethnic group membership.

6. I am happy that I am a member of the group I belong to.

7. I sometimes feel it would be better if different ethnic groups didn’t try to mix together.

8. I am not very clear about the role of my ethnicity in my life.
9. I often spend time with people from ethnic groups other than my own. 

10. I have a strong sense of belonging to my own ethnic group. 

11. I understand pretty well what my ethnic group membership means to me, in terms of how to relate to my own group and other groups. 

12. In order to learn more about my ethnic background, I have often talked to other people about my ethnic group. 

1: Strongly Disagree  2: Somewhat Disagree  3: Somewhat Agree  4: Strongly Agree

13. I don’t try to become friends with people from other ethnic groups. 

14. I participate in cultural practices of my own group, such as special food, music, or customs. 

15. I am involved in activities with people from other ethnic groups. 

16. I feel a strong attachment towards my own ethnic group. 

17. I enjoy being around people from ethnic groups other than my own. 

18. I feel good about my cultural or ethnic background. 

1: Strongly Disagree  2: Somewhat Disagree  3: Somewhat Agree  4: Strongly Agree

Section 3: The following questions are general questions about you.

1. How old (in years) are you? _____________

2. What is your current Grade Point Average (GPA)? _________

3. Do you have to work to be able to support yourself? (please check one) 
   Yes _________
   No _________

   If yes, how many hours do you work during one week? _____

   120
Section 4: The next set of questions asks you about your relationships with loved ones:

1. What is your current relationship status? (Please select one)
   - Single
   - Partnered
   - Married
   - Separated
   - Divorced

2. Have you had sex (vaginal/oral/anal) with? (Please select one)
   - Men
   - Women
   - Both

3. How likely are you to date someone outside of your race?
   - Very Likely
   - Somewhat Likely
   - Somewhat Unlikely
   - Very Unlikely

4. Please fill in:
   In terms of ethnic group, I consider myself to be
   - Asian, Asian American
   - Black or African American
   - Hispanic or Latino
   - White, Caucasian, European, not Hispanic
   - American Indian
   - Mixed; parents are from two or more different groups
   - Other (write in): _____________________

5. My father’s ethnicity is (use letters above)

6. My mother’s ethnicity is (use letters above)
4. Have you ever dated someone outside of your race?

   Yes   ______
   No    ______

5. Do you believe there is a shortage of available men to date?

   Yes   ______
   No    ______

6. Have you ever been in a relationship in which you had sex (vaginal/oral/anal) with someone other than your partner?

   Yes   ______
   No    ______

   If you answered yes to question 6, please continue with the following question. If you answered no, please go to question 7.

   b. Which type of sex did you had with someone other than your partner? (Please check all that apply.)

      Vaginal   ______
      Oral     ______
      Anal     ______

7. Have you ever been in a relationship in which your partner had sex (vaginal/oral/anal) with someone other than you?

   Yes   ______
   No    ______

   ____________________________________________________________________________

Section 5: The next set of questions asks about your sexual health:

1. How many times have you been pregnant? ________

2. How many children do you have? ________
3. Are you currently pregnant?

   Yes       ____
   No        ____

4. Are you currently trying to get pregnant?

   Yes       ____
   No        ____

5. At what age would you like to become pregnant or have a child? ____

6. Are you currently using any form of birth control?

   Yes       ____
   No        ____

7. Did you use a condom the last time you had vaginal sex?

   Yes       ____
   No        ____

8. Which of the following types of sex have you had within the past 3 months? (Select all that apply)

   Gave oral sex to a partner         ____
   Received oral sex from a partner   ____
   Vaginal                            ____
   Anal                               ____
   None of the above                  ____

9. What is your sexual orientation? (Please select one)

   Bisexual       ____
   Heterosexual   ____
   Lesbian        ____
Appendix B: Study recruitment materials and scripts

Advertisement for BuckeyeNet News, OSU Weekly, and African American student listserve

Dr. Victoria von Sadovszky and Ms. Dana Moore, researchers from the College of Nursing at The Ohio State University, are inviting African-American and European-American heterosexual female OSU students, ages 18-30, to participate in a study. The purpose of the study is to uncover what factors are associated with tolerance of infidelity of a sexual partner among college women. Participants in the study will complete an anonymous questionnaire online that takes approximately 30 minutes to complete. Participants will have $5 placed on their BuckID. Contact Ms. Moore at

moore.1473@buckeyemail.osu.edu for more information.
EARN $5 IN 30 MINUTES!!!

Are You....

✓ An African-American or European-American/Caucasian female?
✓ Between the ages of 18 and 30?
✓ A current OSU student?
✓ Willing to complete an anonymous online questionnaire?

European-American and African-American females are needed to participate in a research project on ethnic differences in college women’s tolerance of infidelity and levels of ethnic identity. This study is being conducted from the OSU College of Nursing. Participants will be required to commit to a maximum of 30 minutes to complete an anonymous questionnaire. Subjects will have $5 placed on their BuckID for their time.

For more information, please contact Dana Moore, at moore.1473@buckeyemail.osu.edu

Thank you for your thoughtful consideration!
Script for responses to emails

First email response:

Dear (name will be inserted here):

Thank you for your interest and e-mailing me about the study regarding ethnicity, ethnic identity and tolerance of infidelity. I am the co-investigator in the study and will be your contact if you decide to participate.

The purpose of this study is to examine women’s responses to infidelity. If you choose to participate, you will be asked to complete a questionnaire that assesses your perceptions of infidelity, your beliefs about intimate relationships and dating, general questions about you and your sexual practices, along with your general feelings about your ethnic group.

The questionnaire consists of 56 questions and takes approximately 30 minutes to complete. Upon completion of the questionnaire you would be given instructions for how to receive $5 in appreciation of your time, which will be placed on your BuckID.

To participate in this study you must be female, heterosexual, not married, self-identify as African-American or European-American, have had sexual intercourse within the past 3 months, 18-30 years of age, be a current college student, and able to read, speak, and write in English.
If you are not interested in participating, please delete this e-mail. You will not be contacted again from the investigators of this study. Please be assured that your original query already has been deleted from our server.

If you are interested, please reply to this e-mail from your OSU email address. You will then receive an invitation to participate from OSU College of Nursing that will contain the web address to the study along with instructions for accessing the study. Please note, participation is entirely voluntary and individuals can withdraw from the study at any time without any penalty.

I would be happy to answer any questions you have about the study. If you have any questions or are interested in participating, please reply to this e-mail.

Dana J Moore, MS, RN
The Ohio State University
College of Nursing
(301) 254-2067
moore.1473@buckeyemail.osu.edu

Thank you,
Second email response (sent directly from Checkbox as an invitation to participate):

Thank you again for your interest in participating in this study regarding ethnicity, ethnic identity and tolerance of infidelity. Your participation will assist us in providing young women accurate and culturally sensitive information that will assist them to make healthy choices about their bodies.

The purpose of this study is to examine women’s responses to infidelity. If you choose to participate, you will be asked to complete a questionnaire that assesses your perceptions of infidelity, your beliefs about intimate relationships and dating, general questions about you and your sexual practices, along with your general feelings about your ethnic group.

To participate in this study you must be female, heterosexual, not married, self-identify as African-American or European-American, have had sexual intercourse within the past 3 months, 18-30 years of age, be a current college student, and able to read, speak, and write in English.

The study questionnaire can be accessed by clicking on the link at the bottom of this invitation. You can be assured that any information you submit is secure and unable to be accessed by a third party, thereby protecting your personal information. Only the researcher and study sponsor are able to visualize and access the study information.
If you have changed your mind and are not interested in participating, please delete this e-mail. You will not be contacted again by the investigator of this study. Please be assured that your original query already has been deleted from our server.

Should you have any questions once you have read the consent information or if you are unable to access the study, please contact me at moore.1473@buckeyemail.osu.edu or (301) 254-2067.

Thank you,

Dana J Moore, MS, RN
Doctoral Candidate
The Ohio State University
College of Nursing
(301) 254-2067
moore.1473@buckeyemail.osu.edu