THE RELATIONSHIPS AMONG PERCEPTION OF STIGMA, ETHNIC IDENTITY, 
AND ACCULTURATION IN PEOPLE LIVING WITH HIV/AIDS

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The HIV/AIDS epidemic continues to grow and minorities have been affected at a disproportionate rate. Two factors that are hypothesized to be associated with HIV/AIDS stigma include ethnic identity and acculturation. The current study uses a diverse, gender-balanced sample (*n* = 201, aged 23-68) of African-Americans (54.2%), European Americans (31.8%), and Latinos/Hispanics (10%) to evaluate the relationship among the proposed variables. The study found that higher levels of ethnic identity and other group orientation were associated with lower levels of perceived HIV/AIDS stigma. A stepwise linear regression analysis (adjusted *R*² = .13, *F*(11, 189) = 3.74, *p* < .001) revealed that as the level of inclusiveness of other ethnic groups (*t* = -4.263, *p* < .001) increases, the level of perceived HIV/AIDS stigma decreases. The results from this study suggest that the development of interventions that address stigma and inclusiveness of other ethnic groups may benefit people living with HIV/AIDS.
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CHAPTER I

INTRODUCTION

The HIV/AIDS epidemic continues to grow and surpass geographical and ethnic boundaries. In 2003 there were more than 40 million people living with HIV/AIDS worldwide, while in the United States (U.S.), the estimated number of diagnoses of AIDS was 928,188 (CDC, 2003). Although the greatest percentage of the AIDS cases in the United States continues to be in European American gay males, the epidemic has affected minorities at a disproportionate rate. In 2003 the number of AIDS cases in the European American population was 376,834 accounting for 41% of cases (CDC, 2003). In the U.S., African Americans account for only 12.3% of the population, but account for 39% (368, 169) of all AIDS cases (Census, 2000; CDC, 2003). Latinos comprise 13% of the total population, yet in the AIDS population, they account for 18% (172, 993) of the estimated total cases (Census, 2000; CDC 2003). The number of cases in women has also increased. Heterosexual contact is the leading cause of AIDS in women, which accounts for more than half the cases in women (CDC, 2003). In African American and Hispanic/Latino women, the leading cause of AIDS is heterosexual contact (CDC, 2003). The leading cause of infection in African American men and Hispanic/Latino men is male to male sexual contact and injection drug use (CDC, 2003).

There are many factors that affect health and health behaviors, which result in the increasing numbers of HIV/AIDS cases. One such factor may be HIV/AIDS stigma. Recent research shows that HIV/AIDS stigma may have an impact on behaviors such as medication adherence, medical visits (Myers et al., 1993; Stall et al., 1996; Worthington & Myers, 2003; Fortenberry et al., 2002), disclosure (Laryea & Gian, 1993;
Derlaga et al., 2002; Clark et al., 2003; Lester et al., 2002), and coping, which are all related to the quality of life of the PWA. As the AIDS epidemic continues to grow, there is a need to understand the factors that are related to stigma and the effects that it has on the persons living with AIDS (PWA). Berger, Ferrans, and Lashley (2001) define HIV/AIDS stigma as the person with AIDS negative self-perception. Because of the nature of the disease, people living with HIV/AIDS continue to experience HIV/AIDS stigma. In the United States the main reasons for HIV/AIDS stigma are the association of the disease with marginalized groups, such as drug users, or gays; the association with morbidity and death (Blake & Arkin, 1988); and the belief that the person with HIV/AIDS is responsible for the disease (Herek & Capitanio, 1999). HIV/AIDS stigma not only affects the individual that is infected, but also friends, relatives, and caregivers that are in contact with them (Herek, 1999). It is important to understand the effects of AIDS related stigma, because as Herek (1999) argues, HIV/AIDS stigma will continue to shape the policies that protect those infected since stigma leads to discrimination.

Current and future policies that protect and provide services to those with HIV/AIDS, as well as interventions to reduce stigma might be better informed through research that identifies factors that are associated with HIV/AIDS stigma and provide an understanding of the different experiences in the minority population (Herek, 1999). Two factors hypothesized to be associated with HIV/AIDS stigma include ethnic identity and acculturation. Race and ethnicity are terms that are often used interchangeably in research and will be defined later. This study will specifically look at ethnic identity. According to social identity theory (Tajfel, 1981), ethnic identity is the part of an individual’s self-concept that derives from the knowledge of being a member of a social
group, in this case, an ethnic group, together with the value and emotional significance that is attached to that membership. Because many groups have been discriminated against because of their race or ethnicity, there have been numerous studies analyzing this relationship. Studies have shown that ethnic identity may have protective factors against discrimination (King, 2003; Romero & Roberts, 1998; Smith, Stratton, Stones & Naidoo, 2003; Romero & Roberts, 2003; Lee, 2003) and risky health behaviors, such as drug use (Brook et al., 1998; Kulis & Marsiglia, 2002) and unprotected sex (Belgrave, Marin, & Chambers, 2000; Faryna & Morales, 2000; Beadnell et al., 2003; Chng & Geliga-Vargas, 2000).

Furthermore, because ethnic identity is affected by acculturation, it is important to look at this process as well, since it may play an important role in the experience of stigma. Acculturation defined by Redfield, Linton, and Herskovits (1936) is the process that results when two different cultures come into continuous contact, and cultural changes occur in one or both cultures. Berry (1980) developed a definition of acculturation that included intergroup contact, conflict, and adaptation. According to Berry (1980), acculturation is a two-level phenomenon that involves the group and the individual. Acculturation studies (Balls Organista, Organista, & Kurasaki, 2003; Ramirez et al., 2004; Paragallo, 1996; Belgrave, Marin, & Chambers, 2000; Hines et al., 1998; Loue, Cooper, and Fiedler, 2003; Dolezal, Caraballo-Dieguez, Nieves-Rosa, & Diaz, 2000; Castaneda, 2000). indicate a significant relationship with stress, mental health, and health behaviors. These associations may help us understand if acculturation plays a role on HIV/AIDS stigma.
HIV/AIDS Stigma

This study focused on HIV/AIDS stigma as perceived by the PWA. Previous definitions and theoretical models of HIV/AIDS stigma only look at public stigma. Differences between these two frameworks will be explained. HIV/AIDS stigma is defined by Herek (1999) as the prejudice and discrimination towards people that are perceived to have HIV or AIDS, as well as towards those that are thought to be associated with them, such as individuals, groups or communities. The word stigma comes from the Greek meaning something bad or unusual about a person (Goffman, 1963). According to Birenbaum and Sagarin (1976) stigma refers to people that are viewed negatively, either because they have violated society’s rules or because they have traits that are not highly valued in society. In Goffman’s view (1963) stigma is a social label that discredits and taints people, and changes the way that people view themselves and how they are viewed by others. This social label comes from society’s notion that the behavior is deviant, and not acceptable. However, the stigma label depends on the time period and cultural context in which the label takes place (Katz, 1981), in other words, labels may not be thought of as being stigmatizing in one context or time period, but may be in another. For example, in the 1800s, mental illness was considered to be caused by spirits or the devil. Moreover, what some cultures may regard as unwanted or negative characteristics, others may not. For example, aging is highly regarded in some eastern cultures, while it is negatively viewed in the West (Joachin & Acorn, 2000).

Three related concepts of stigma comprise a set of issues relevant in stigmatized situations: associative stigma, internalized stigma, and stigma management.
Associative stigma, or courtesy stigma (Goffman, 1963), is the stigma attached to those voluntarily associated or acquainted with the person that is being stigmatized (Goffman, 1963). Such persons may be caregivers or family members. Internalized stigma occurs when the person has accepted society’s rejection and discrimination, viewing the self in a negative way (Goffman, 1963). This type of stigma can occur without any overt stigma experiences or mistreatment. It can lower a person’s self esteem and self worth resulting in fear of rejection (Jones et al., 1984). Stigma management is the third concept that is related to coping with stigma. Aware of the negative reactions that others have or may have, an individual attempts to minimize or manage these negative effects (Jones et al., 1984). However, the individual must consider the problems involved with certain management strategies such as concealment, disclosure, secrecy, information management and social visibility (Goffman, 1963).

Many illnesses have a history of stigmatization. Disease can affect a person biologically, psychologically and socially (Alonzo & Reynolds, 1999). Stigmatizing characteristics of disease may add to the illness burden. Conrad (1986) suggests that these stigmatizing illnesses are connected to deviant behavior. Illnesses either produce this deviant behavior, such as in the case of seizures, or are a product of the deviant behavior, such as sexually transmitted diseases. Individuals with a stigmatizing illness are devalued, discredited, and discriminated (Goffman, 1963).

Research has shown that stigma affects many chronic illnesses. There have been many studies that show stigmatization in a variety of illnesses. For example, in a study by Corrigan et al. (2003) 1,824 persons with mental illness completed a two-part questionnaire about discrimination. About half of them reported some experience with
discrimination, most frequently occurring in the areas of employment, housing, and interactions with law enforcement. Likewise, a study assessed stigma related to depression and its effects on employment, health insurance and friendships in a sample of primary care patients. Results indicate that stigma was greater in those patients that had hypertension or diabetes. Men reported less stigma in relation to employment than did women (Reoloffs et al., 2003). A qualitative study of lung cancer found that participants experienced stigma because of lung cancer’s strong association with smoking. Some patients did not disclose their illness for fear of rejections (Chapple, Ziebland, & McPherson, 2004). A study of 340 college students evaluated job performance of workers of different health status. Results indicate that workers with rheumatoid arthritis were perceived as having significantly poorer interpersonal job skills and deserving of a poorer score for overall job performance (McQuade, 2002).

Similar to these illnesses, there are several characteristics of HIV/AIDS that are likely to provoke stigma. Alonzo and Reynolds (1995) describe these characteristics based on Goffman’s (1963) and Jones’ et al. (1984) types of stigma. One characteristic of HIV/AIDS is that it is a disease thought to be a product of the individual’s own behavior. The individual is blamed because he or she engaged in behaviors that are seen as negative or immoral (Herek & Capitanio, 1999). Because behaviors such as drug use, or sexual promiscuity and homosexuality, induce social disapproval, the person will likely be stigmatized (Weiner, 1993). A second characteristic of HIV/AIDS is that the disease is degenerative or unalterable. Because the disease is equated with death, the individual will be stigmatized to a greater degree (Blake & Arkin, 1988). A third characteristic of HIV/AIDS is that it is thought of as a contagious and threatening
disease. Since the beginning of the AIDS epidemic, society has perceived the disease as dangerous and contagious, therefore increasing stigma (Herek, 1990). A fourth characteristic is the physical manifestations of the symptomatic stage of the disease. Physical changes and deformities are likely to evoke stigma as well (Klitzman, 1997).

Models of HIV/AIDS-Related Stigma

In the United States AIDS stigma comes largely from society’s association between AIDS and certain groups or sectors of the population (Herek, 1999), such as gay and bisexual men, and injecting drug users (IDUs); as well as society’s association between AIDS and death. Research has shown that gay men with AIDS and men who became infected with HIV through male-to-male contact are viewed more negatively than are heterosexuals with AIDS or other illnesses (Anderson, 1992; Crandall, 1991; Fish & Rye, 1991; Herek & Capitanio, 1999). Based on this fact, there have been several AIDS stigma theories that have been developed. Examining correlates of people’s reactions toward HIV-infected children, Pryor, Reeder, Vinacco, and Kott-Russo (1989) identified two processes of HIV related stigma: reactions related to the associations made by society between the disease and certain populations and behaviors, and reactions related to the pros and cons of interacting with a person that is HIV positive. Pryor et al. (1989) identified these processes as instrumental considerations and symbolic considerations. Instrumental considerations are related to parent’s fears of transmission when their own children interact with HIV positive children. Parents weighed pros and cons of the interaction between their children and an HIV positive child. Symbolic considerations are the social associations between the
disease and a negatively viewed group, such as gays or injecting drug users. Similarly, Herek (1999) identified two types of stigma: Instrumental AIDS stigma, and Symbolic AIDS stigma. Instrumental AIDS stigma refers to the perception that the disease is highly contagious and associated with death (Herek 1999). This type of stigma can be illustrated by the fact that many people still believe that HIV can be transmitted through casual contact or through mosquito bites. Symbolic AIDS stigma refers to the type of stigma, which results from the meanings that society attaches to the disease (Herek, 1999). This type of stigma is used as a mode to express attitudes towards those groups who are perceived to be associated with AIDS, such as gays, bisexuals and injecting drug users as mentioned before.

Unlike Pryor et al. (1989) and Herek (1999) who described two types of stigma based on society’s perception of the disease, Berger, Ferrans and Lashely (2001) describe a model of HIV stigma that accounts for the HIV positive individual’s perception of stigma. Berger, Ferrans, and Lashley (2001) argue that because HIV may not have overt or noticeable symptoms or characteristics, the person can pass as normal. However, the HIV positive individual perceives herself/himself negatively, and therefore, according to Goffman’s (1963) view, the individual will experience low self-esteem, anxiety, and social withdrawal. This perception of stigma model has two contexts: the individual’s perception of society’s view of the HIV positive individual, and the individual’s own perception of being infected with HIV. A similar model was developed by Westbrook and Bauman (1996). They conceptualize HIV/AIDS stigma as having internalized and externalized components. The externalized components refer to society’s beliefs about HIV/AIDS. Internalized components refer to the individual’s view
about the externalized components. They hypothesize that the individual will experience
greater distress related to stigma, and will experience low self-esteem.

Although there have been several theories or models of HIV/AIDS related stigma,
there is still a lack of consensus on the best term to use to describe HIV/AIDS stigma.
Some models refer to it as AIDS related stigma (Herek, 1999), others as HIV related
stigma (Berger, Ferrans, & Lashley, 2001), yet others combine both terms as HIV/AIDS
stigma (Westbrook & Bauman, 1996). Future research should investigate if any
differences in stigma exist between those that are HIV positive, who are asymptomatic,
and those that have progressed to the AIDS stage of the disease, having symptoms and
physical side effects of medications. For the purpose of this paper, we will refer to the
construct as HIV/AIDS stigma since no differentiation has been explicitly identified
between HIV stigma and AIDS stigma.

**Impact of Stigma on Health Behaviors**

HIV/AIDS stigma becomes a stressor to the PWA, and can interfere with coping,
adjustment and management of the disease (Crandall & Coleman, 1992), and affect
behaviors such as testing, disclosure, and medication adherence. Early diagnosis and
treatment is essential to the survival of the patient. Conversely, stigma can have many
effects on those behaviors that will lead them to gain access to care and treatment.

Recent research shows that early testing is important because treatment in the
eyear stages of the disease can significantly alter the course of HIV infection (Kinloch-de
Loes et al., 1995). However, studies show that stigma is associated with a delay in
testing of people who are at risk of contracting the disease (Myers et al., 1993; Stall et
al., 1996). In a survey of 828 gay and bisexual men, Stall et al. showed that two thirds of the men endorsed the HIV-related stigma as a reason for not seeking testing (Stall et al., 1996). More recent studies still show that stigma continues to be a factor associated with testing. In a qualitative study of interviews with 39 HIV test recipients, Worthington and Myers (2003) found four themes related to the level of anxiety experienced by those individuals who received an HIV test. One of the four themes found was stigma associated with HIV. A study by Fortenberry et al. (2002) found that stigma was associated with testing and treatment of gonorrhea and HIV. Stigma levels were higher among those who had not received an HIV test. These studies suggest that an intervention that reduces HIV stigma could increase the number of HIV screening tests in a population.

The decision to disclose a seropositive status can also be affected by stigma. In a study by Laryea & Gian (1993), they found that among 24 HIV-positive persons who had disclosed their status to family members, 50% experienced rejection, including dissolution of marriage. One third experienced a negative outcome from friends (Laryea & Gian, 1993). More recent studies show similar results of the effects of stigma. A study by Derlaga et al. (2002) examined how perceived HIV-related stigma influences reasons to disclose as well as reports of actual disclosure. Perceived HIV-related stigma was related to several reasons not to disclose to a friend and a parent. These reasons included self-blame, fear of rejection, communication difficulties, and wanting to protect the other person. Actual disclosure to a parent, but not a friend or intimate partner was predicted by HIV-related stigma (Derlaga et al., 2002). In a study of 98 HIV positive and 146 HIV negative African American women, higher levels of stigma were associated
with decreased level of disclosure and psychological functioning (Clark et al., 2003). In a study of 88 HIV-positive women in New York City, 33% had not disclosed their status to their children, and were more likely than those who had disclosed to use secrecy as a stigma management tool and feel devalued and discriminated against as a result of their HIV serostatus (Letteney & LaPorte, 2004). Stigma also affects parent’s decision to disclose illness status to their HIV positive children. A qualitative study by Lester et al. (2002) found that concerns about HIV stigma and potential emotional distress were identified as the most frequent reasons not to disclose HIV positive status.

In other countries, stigma may be a greater problem than in the United States due to cultural differences, which affect disclosure. A study of Honduran Garifuna conceptions of HIV/AIDS found that the disease remains highly stigmatized in these Honduran communities, despite the community’s broad familiarity with the disease (Stansbury & Sierra, 2004). A study in South India related to HIV infection disclosure found that the main reasons for non-disclosure among 68 participants were stigma, fear of discrimination, disgrace to family and self, and futility (Chandra, Deepthivarma, & Manjula, 2003). A qualitative study of HIV positive Ghanaian women revealed several manifestations of AIDS stigma in Ghana. Secrecy in “breaking the news” was identified as an important theme; furthermore, secrecy affected access to care and financial and emotional support (Mill, 2003).

Stigma may also contribute to medication adherence, although there has been a lack of research regarding this topic. In a study by Chesney, Folkman, & Chambers (1996), HIV-positive individuals reported in focus groups that they sometimes skipped doses because they could not take their medication without somebody observing them.
doing so. More qualitative and quantitative studies are needed in order to better ascertain the relationship between stigma and medication adherence in the HIV/AIDS population.

Ethnic Identity

Presently, there is still much controversy regarding the terms *race* and *ethnicity*. Many researchers still use the terms interchangeably, and use them when referring to other constructs like culture and nationality, which are confounded within ethnicity, making it even harder to define and study such variables (Juby & Concepción, 2005). This indiscriminant use of the terms *race* and *ethnicity* often obscures the meaning, distinctions and implications that each term may express (Carter & Pieterse, 2005). A careful analysis of these terms is necessary in order to understand its effects in relation to other constructs of interest.

Helms (1990) uses Casas’s (1984) definition of race in order to discuss different racial identity theories. Casas’s (1984) definition states that race is a group of people that posses certain physical characteristics of genetic origin, which differentiates them from other groups. However, Casas’s definition only takes into account physical and biological characteristics, ignoring the social and psychological components of the term. The term race was first used in order to classify people early in American society. This classification purpose of the term has served to oppress and exploit those who were looked upon as inferior (Thompson & Carter, 1997), and presently, it serves as a structure for our society and a basis to distribute services and wealth (Smedley, 1993). The psychological component of the term refers to a person’s sense of racial identity.
Racial identity theory (Helms, 1990) refers to a person’s perception of sharing a common heritage with a certain racial group. Racial identity development is a life-long process through which an individual comes closer to resolving moral dilemmas related to race, and helps the individual deal more effectively with race-related situations (Helms, 1990). Ignoring the term race, means ignoring the reality of racism and the effects it has on access and quality of health care, and mental health services (Juby & Concepción, 2005).

Moreover, race is often a term that is avoided by many in America’s society. As a result, the term ethnicity has been increasingly used in the literature to refer to racial groups, such as White/Caucasian/European American, Black/African American, Hispanic/Latino, Asian/Asian American, and Native American. The research community has welcomed this term because it has shifted away from the biological definition of race, to a definition that includes culture (Oppenheimer, 2001). However, it is argued that the term ethnicity is used in order to soften the real meaning of race. This term is less emotionally charged and less prone to stereotypical views (Aspinall, 2001). Ethnicity can be used in research if a more accurate picture of the term is obtained. In order to obtain a more accurate picture of ethnicity, Juby and Concepción (2005) argue that ethnicity should be isolated from constructs such as ancestry, culture, race, family background and religion, which seem to overlap with the term in question. They argue that ethnicity should be defined as country of origin, making it more easily identifiable. A separation of ethnicity, heritage, and ethnic identity would give a more scientific definition and a clearer view of these concepts (Juby & Concepción, 2005).
Furthermore, the use of ethnicity and ethnic identity are used interchangeably as well. However, in order to better understand ethnic issues, these two terms should be differentiated. Ethnicity is used to refer to broad groupings of Americans on the basis of race and culture of origin (Phinney, 1996). From a psychological perspective, there are three components of ethnicity that are of importance: 1) the cultural values, attitudes, and behaviors of different ethnic groups, 2) the subjective sense of ethnic group membership, or ethnic identity, that is held by group members, and 3) the experiences associated with minority status, such as discrimination and prejudice (Phinney, 1996). These aspects are interdependent, but for the purpose of this study, the focus will be on ethnic identity. In this study, ethnic identity will refer to the subjective sense of ethnic group membership that is held by group members.

**Ethnic Identity Development Theory**

Ethnic Identity has mostly been studied from the framework of social identity from Tajfel and Turner’s (1979) work. According to social identity theory, being part of a group provides individuals with a sense of belonging that contributes to a positive self-concept. Phinney (1992) uses social identity theory to define ethnic identity as part of an individual’s self-concept that derives from the knowledge of membership in a social group, in this case, an ethnic group, together with the value and emotional significance attached to that membership. Ethnic identity is a lifetime process that changes over time, similar to Erikson’s (1968) theory of ego identity formation. Based on Erikson’s theory, Phinney (1992) developed a three-stage progression model for ethnic identity.
Ethnic identity progresses from an unexamined ethnic identity through a period of exploration to an achieved or committed ethnic identity (Phinney, 1989). According to this model, early adolescents and adults who have not been exposed to ethnic identity issues are in the first stage or unexamined ethnic identity. This stage is characterized by a preference for the dominant culture (Atkinson et al., 1983; Cross, 1978; Kim, 1981), however, young people may not be interested in ethnicity at that stage, and may have given little thought about their ethnic identity (Phinney, 1989).

The second stage is characterized by an exploration of one’s ethnicity. This stage takes place when the individual encounters a significant experience that forces awareness of one’s ethnicity. In this stage the individual goes through a process of immersion in their own culture, and engages in activities such as reading material regarding one's own ethnic group, participating in cultural activities, listening to ethnic music, and finding out more information about their own ethnic group (Phinney, 1989).

The third stage, ethnic identity achievement, is a result of the second stage where an individual comes to a deeper meaning, understanding, and appreciation of their own ethnicity. According to Phinney, Lochner & Murphy (1990), this may require that the individual comes to terms with two fundamental problems of ethnic minorities: 1) cultural differences between their group and the majority group, and 2) the lower status in society of their group. However, Phinney (1990) points out that an achieved ethnic identity does not necessarily mean a high degree of ethnic involvement. The individual may be clear as to their own ethnic identity without wanting to participate in cultural activities, language, or customs.
There are several components of ethnic identity. One is self-identification, which refers to the ethnic label that an individual uses to describe themselves. This label may differ from the individual’s ethnicity, as the group they identify with may be more specific or more general, for example, Latino or Mexican American. Another component is ethnic behaviors and practices, which refer to the involvement in social activities with members of one’s group and participation in cultural activities (Phinney, 1992). Affirmation and belonging is a third component, and refers to the feeling of belonging to an ethnic group and attitudes toward the group. The fourth and last component of ethnic identity is ethnic identity achievement, which is a secure sense of the individual as a member of a minority group (Phinney, 1992).

Because ethnic identity is part of an individual’s ethnicity, there are differences between different ethnic groups and their level of ethnic identity. Phinney (1990) found that ethnic identity search was higher among minority groups than in majority group subjects. In a subsequent study with a sample of high school students (N = 417) and a sample of college students (N = 136), Asian, African American, and Latino high school students had higher scores of ethnic identity than did White students. In the college sample, Black students scored higher than Latinos and European American. Comparisons by gender showed no difference between males and females in the college sample, however, girls had higher scores than did boys in the high school sample (Phinney, 1992). A study that surveyed a diverse sample 669 American-born high school students, with Latinos, African Americans and European American, found significant differences in ethnic identity between groups. African Americans and Latinos had higher ethnic identity scores than did European American (Phinney, Cantu & Kurtz,
A more recent study with a sample of African, African American, and West Indian/Caribbean college students, African American and West Indian/Caribbean students scored differently than African students (Phelps, Taylor & Gerard, 2001). Bracey, Bamaca, and Umana-Taylor (2004) found differences between biracial and monoracial adolescents on ethnic identity. Biracial adolescents showed higher levels of ethnic identity than European American, but lower than African American, Asian, and Latino counterparts.

Ethnic Identity as Protective Factor

According to social identity theory, ethnic identity contributes to a positive self-concept, according to social identity theory (Tajfel, 1981). Self-esteem may be part of this positive self-concept and it has been consistently studied in relationship with ethnic identity. In a preliminary study of four ethnic groups (African American, Mexican American, Asian American and European American), Phinney and Alipuria (1990) found that self-esteem was related to the extent that adolescents had resolved issues regarding their ethnic identity. A subsequent study found that ethnic identity was a predictor of self-esteem in a diverse adolescent sample of high school students (Phinney, Cantu, and Kurtz, 1997). Martinez and Dukes (1997) corroborated these results with a study of 12,386 adolescents. The study found that the higher the level of ethnic identity, the higher the level of self-esteem, purpose in life and self-confidence. They argue that these results may explain the buffering effects of ethnic identity against negative social constructs, such as denigration and stereotyping. Smith et al. (1999) found similar results in a sample of 100 early adolescents, ranging from 11 to 13 years
old. Ethnic identity and self-esteem were related to perceptions of ability of academic achievement, meaningful careers, and value prosocial means of goal attainment. Carlson (2000) found that ethnic identity was a significant predictor of global self-esteem among minority girls in a sample of Latinos, African American, and European American early adolescent girls. More recent studies have found similar results. Umana-Taylor (2004) found a significant relationship between ethnic identity and self-esteem among 1063 Mexican-origin adolescents in three different school settings (predominately Latino, predominately non-Latino, and balanced Latino/non-Latino). In addition to this study, Bracey, Bamaca, and Umana-Taylor (2004) found a positive relationship between ethnic identity and self-esteem among a sample of 3,282 adolescents.

Furthermore, ethnic identity affects minority’s perception of discrimination. Several research studies have examined this association and have found various results. A study by King (2003) of 123 African American female college students examined the effects of three types of group consciousness (ethnic, feminist, and womanist) on prejudice attributions. King found that higher ethnic consciousness (as measured by the MEIM) and womanist consciousness were related to increased prejudice attributions. A study with 3,071 students of African-American, European-American, Mexican-American, and Vietnamese-American descent analyzed the relationship between discrimination and components of ethnic identity, and attitudes towards out groups. Students with high ethnic exploration and negative attitudes towards out-groups perceived more discrimination. However, contrary to social identity theory, students who had a stronger sense of belonging to one’s group had more
positive attitudes toward out groups (Romero & Roberts, 1998). A study of 70 South Africans of mixed racial descent tested the hypothesis that ethnic identity is related to out-group prejudice. Group identity, or ethnic identity, was not associated with out-group prejudice; moreover, group identity was positively related to positive attitudes toward Whites (Smith, Stratton, Stones, & Naidoo, 2003). Similarly, a study of 881 middle school students of Mexican descent found that higher discrimination was associated with lower ethnic affirmation and lower ethnic exploration (Romero & Roberts, 2003). Lee (2003) examined ethnic identity and other group orientation as possible moderators and mediators on the effects of personal ethnic discrimination and minority group discrimination in Asian Americans. Results indicated that ethnic identity and other group orientation did not have either a moderating effect, or a mediating effect on either type of discrimination. A more recent study by the same author, hypothesized that multidimensional ethnic identity and other group orientation were protective factors moderating the negative effects of discrimination (Lee, 2005). Results indicated that ethnic identity pride operated as a protective-reactive factor that moderated the effects of discrimination (Lee, 2005).

Research has also shown evidence that ethnic identity may be related to risky or negative behaviors. In a study of 555 Puerto Rican males and females, cultural knowledge, being culturally active, group attachment and identification with Puerto Ricans buffered the risks of drug use (Brook et al., 1998). In a similar study with a sample of 259 male and 368 female African American adolescents, ethnic identity was related to drug use, where ethnic identity was a protective factor that lessened drug use (Brook et al., 1998). Similarly, in a study of 434 American Indian 7th graders, students
who had a higher sense of ethnic pride adhered more strongly to certain anti-drug norms (Kulis & Marsiglia, 2002). In contrast a study that examined the relationship between ethnic identity and actual drug use in adolescents found that high levels of cultural identity were associated with heavy drug among a sample of minority students. A study of 217 Korean American students by Shrake & Rhee (2004) found that level of ethnic identity was a significant predictor of internalizing problems, which were defined as withdrawal, anxiety/depression, and somatic complaints. Ethnic identity was also a significant predictor of externalizing problems, which were defined as aggression and delinquency.

Following this trend, studies have also looked at ethnic identity as a factor related to HIV-risk behaviors, specifically risky sexual behaviors. A study that looked at risky sexual attitudes in teenage girls (N =214), found that higher levels of ethnic identity were associated with less risky sexual attitudes (Belgrave, Marin, & Chambers, 2000). In contrast, a study by Faryna & Morales (2000) with a diverse sample of 427 high school students, found that ethnicity was a predictor for HIV-related risk behaviors. However, this study did not measure ethnic identity as a psychological construct, instead, it used a categorical variable related to ethnicity. In a study of 78 African-American women, higher levels of ethnic identity were associated with less risk-taking, which was measured by the number of risky sex acts in a period of 4 months (Beadnell et al., 2003). However, factors such as STD/HIV knowledge, motivation for condom use, or perceived behavioral skills were not found to be associated with ethnic identity (Beadnell et al., 2003). In contrast Chng & Geliga-Vargas (2000) did not find that ethnic identity predicted unprotected anal intercourse in a sample of 302 gay men.
The literature concerning ethnic identity, negative behaviors such as drug use, and HIV-risk behaviors, specifically risky sex behaviors, has only recently started to be explored. This is evident by the variety and conflicting results in the above studies. Results suggest that ethnic identity may be one of many factors that researchers need to take into consideration as a predictor of behaviors. Not only is there a need for more research in the area of ethnic identity and HIV risk behaviors, but also more research is needed in the area of ethnic identity looking at HIV positive individuals and the effects that ethnic identity has on other psychological constructs such as self-esteem, resilience, and stigma, as well as behaviors that are related to the well-being and the level of quality of life of PWAs.

Acculturation

There have been several definitions of acculturation, the first definition appearing in the literature only recently in the 20th century. Redfield, Linton, and Herskovits (1936) defined acculturation as a phenomenon that occurs when two cultures come into contact with one another and as a result, changes occur in either one or both cultures. According to this definition acculturation is seen as a unidimensional or unilinear way, where an individual moves from being non-acculturated to becoming acculturated. Berry (2003) argues that this model of acculturation is appropriate only when we talk about the amount of time an individual is exposed to a different culture. However, if what we want to study are the cultural and psychological changes and consequences acculturation has on the individual, then a bilinear model is more appropriate. Berry (1980) identified psychological acculturation as a two-level phenomenon that involves
the group as well as the individual. According to Berry’s (1980) model of psychological acculturation, there are four types of acculturation: assimilation, integration, separation, and marginalization. An individual can acculturate four different ways. If the individual identifies only with the dominant culture, and does not identify with the culture of origin, the person is said to be assimilated (Berry, 1980). Integration occurs when and individual has a strong identification with the dominant culture as well as with the original culture (Berry, 1980). An individual who identifies only with the culture of origin and not with the dominant culture is said to be separated. Finally, an individual that does not identify with either group is said to be marginalized (Berry, 1980). However, this model is based on the assumption that an individual has a choice and decides how to acculturate, but this is not always the case for many non-dominant groups (Berry, 2003). In order for integration to take place, a mutual accommodation between the dominant and non-dominant group is required. Institutions of the dominant group should accommodate to the needs of members of the non-dominant group, such as providing interpreter services, culturally-appropriate services, and language appropriate literature among other things (Berry 2003).

The acculturation process has significant social as well as psychological effects on individuals. Coming into contact with a new society often means having to deal with different cultural traditions, different social norms, different rules and laws, and sometimes a different language (Berry, 2003). These drastic changes in a person’s environment and the demands of adaptation to it can cause high levels of stress on the individual, which Berry and Kim (1988) called acculturative stress. This stress can have an impact on the social and psychological well-being, including health, of individuals
that are going through the acculturation process. However, the impact on the individual will be different for different groups. Because minorities in the United States have different histories and different issues related to the acculturation process, then this relationship will vary depending on the group that is being studied.

Latinos in the U.S. have been the group most extensively evaluated in terms of acculturation (Balls Organista, Organista, & Kurasaki, 2003). Many Latinos in the United States have emigrated from their native Latin American country to the U.S., bringing with them their culture, which encompasses language, traditions, social interactions, affiliations, religion, etc. Because acculturation refers to a change in culture, and because language is part of culture, one of the domains most commonly used to measure acculturation in the Latino population is language (Zane & Mak, 2003). Moreover, length of stay at the arrived country, as well as questions regarding adherence to cultural values and beliefs are usually assessed in acculturation measures (Zane & Mak, 2003). For this reason, it may seem that these domains may apply to other minority groups in the U.S.

However, there has been a misconception in the research literature regarding African Americans and acculturation. African Americans are seen as Americans because they are born and raised in the U.S. Any differences in their culture, beliefs and values that they possess are attributed to demographic and socioeconomic factors (Landrine & Klonoff, 1994). Landrine and Klonoff (1994) propose that African American acculturation is more fluid, developing as acculturated or bicultural individuals, instead of becoming acculturated through time.
Ethnic Identity and Acculturation

According to Phinney (2003), ethnic identity can change along several dimensions: over time, in different contexts, and with age. Those changes that occur over time or across generations are related to acculturation. Several studies have shown a relationship between ethnic identity and acculturation. Cuellar, Nyberg, Maldonado, and Roberts (1997) studied the relationship between acculturation and ethnic identity. Using the ARSMA II (Cuellar et al., 1995) to measure acculturation in a predominantly Mexican origin sample, and using the MEIM (Phinney, 1992) to measure ethnic identity, the authors found a strong relationship between the two scales. Mexican orientation was highly correlated with total ethnic identity and ethnic affirmation and belonging. Furthermore, participants who scored higher in orientation of both native and Anglo culture also scored high on ethnic identity.

In a study with 474 adolescent from Armenian, Vietnamese, and Mexican backgrounds, ethnic identity and variables of language and social interaction as part of the acculturation process were examined in two groups, one made up of U.S. born adolescents, and another of foreign born adolescents that had arrived in the U. S. by age 7. In-group peer interactions and ethnic language proficiency were significant predictors of ethnic identity. For both groups more in-group peer interaction was associated with stronger ethnic identity, more out group interaction was associated with stronger American Identity. In terms of language, greater English language proficiency predicted a stronger American identity, while for the U.S. born adolescents, greater ethnic language proficiency predicted stronger ethnic identity (Phinney, 2003). Results suggest that as group socialization patterns and language proficiency changes, identity
also changes. A study by Tonks (1998) examined the relationship between ethnic identity achievement and acculturation attitudes among college students in Canada. The study found that ethnic identity achievement was positively correlated with integration and separation attitudes. Participants with an achieved ethnic identity have attitudes that support cultural retention.

These results indicate that there is a clear association between acculturation and ethnic identity, and studying both can be beneficial in understanding the relationship between these and other constructs of interest, such as HIV/AIDS stigma.

**Acculturation and HIV/AIDS**

Much of the research regarding acculturation and HIV/AIDS examines the relationship between acculturation and risk behaviors or prevention of such risk behaviors. Much of the focus has been on how variables such as drug use, sexual attitudes, beliefs, behaviors, or knowledge of HIV/AIDS, affect risk factors related to HIV.

A study that examined the relationship between marijuana and inhalant use between European Americans and Latino American adolescents, the authors found that high acculturation was associated with low marijuana, but high inhalant use. They also found that Latino Americans exhibited higher usage of drugs across measures (Ramirez et al., 2004). Similarly, in a study that examined drug use in middle and junior high school students among Latino seventh and eight graders, acculturation was determined by language use (Spanish vs. English) with parents. Results showed that students who had a higher level of acculturation (spoke Spanish and English or English only with parents) had a greater incidence of drug use than those with lower levels of
acculturation (spoke only Spanish with parents); (Epstein, Margaret, & Botvin, 2003). Similarly, a study by Orozco and Lukas (2000) studied the relationship between acculturation and aggression, and risk of drug use among a sample of different ethnic groups. Results show that males were more acculturated and used more drugs than did females, and ethnic identification was associated with increased drug use. Zule, Desmond, Medrano, & Hatch (2001) examined the effects of acculturation among Latino and non-Latino injection drug users. Results demonstrate that higher levels of acculturation in females, African Americans, or Hispanics are positively correlated with safer needle use. Low levels of acculturation were associated with more HIV risk.

Acculturation has also been studied in relation to risky sexual behaviors. Peragallo (1996) examined risk behaviors among 112 Puerto Rican women and found that a preference for English, indicating a higher acculturation, was significantly associated with increased HIV/AIDS risk. Belgrave, Marin, and Chambers (2000) found that less acculturated Hispanic American women typically reported fewer sexual partners than more acculturated women. In contrast, in a study of 533 African American women, more acculturated African American women were more likely to engage in risky sexual behavior, including having multiple partners, being non-monogamous or in a non-monogamous relationship, and not using condoms consistently (Hines et al., 1998). More recent studies show similar results. A qualitative study by Loue, Cooper, and Fiedler (2003) of a sample of 143 Mexican and 189 Puerto Rican’s, found that individuals who have been in the United States for a longer period of time and are younger, are at increased risk of HIV infection. In a study that examined the association between substance abuse and anal sex, acculturation was thought to be a mediator.
The sample consisted of Colombian, Mexican and Puerto Rican men who have sex with men. Results show that alcohol use and drugs were positively associated with unprotected anal sex, however, when adjusting for acculturation, the association was not significant (Dolezal, Carballo-Dieguez, Nieves-Rosa, & Diaz, 2000). In a study that examined the relationship between intimate relationships and HIV risk perception, condom use, and HIV-related communication in Mexican Americans, it was found that males were more likely than females to perceive themselves at risk for HIV, and those with higher acculturation were more likely to perceive themselves at risk for HIV (Catañeda, 2000).

The results of these studies suggest that acculturation may be an important factor that is associated with behaviors. However, high levels of acculturation are not always associated with less negative behaviors, and vice versa. A careful analysis of the results of these studies as well as others related to smoking, mental health, and other health behaviors is needed in order to better explain the relationship between acculturation and negative behaviors. Furthermore, research regarding acculturation and stigma or discrimination regarding race, language use, and cultural differences are needed to better explain the reasons for acculturative stress in order to develop interventions that will help not only the new immigrant, but the person in a minority status.

In conclusion HIV/AIDS is highly stigmatized in the United States because the disease represents an association with certain groups, such as drug users, or gays; an association with death, and because the person with HIV/AIDS is perceived responsible for the illness. HIV/AIDS stigma has many effects on the HIV positive person. HIV/AIDS
stigma may cause the person to avoid or delay testing, which could prevent them from obtaining early treatment and be detrimental to their health. HIV/AIDS stigma also affects disclosure of status because of fear of rejection, as well as medication adherence, which could cause resistance to the medication leaving few options for other treatment. Disclosure and fear of rejection may contribute to the spread of HIV because the person infected may not talk to future partners about their HIV status. More research is needed on HIV-related stigma in order to better understand the effects of HIV/AIDS stigma on the individual as well as research that addresses different variables that may affect how a PWA perceives this type of stigma. The present study proposes that ethnic identity and acculturation may be two variables that influence the perception of HIV/AIDS stigma.

Although there has been much controversy regarding the terms race and ethnicity, the psychological construct of ethnic identity will be used in this study. Ethnic identity is defined as the individual’s sense of belonging and identifying with a certain ethnic group. This identification can have positive effects on the individual. Research has found that ethnic identity is related to self-esteem and that the higher the level of ethnic identity, the higher the level of self-esteem (Phinney & Alipuria, 1990; Phinney, Cantu, and Kurtz, 1997; Dukes, 1997; Smith et al., 1999; Carlson, 2000; Umana-Taylor, 2004). Along the same lines, ethnic identity has also been associated as a buffer against perceived discrimination (King, 2003; Romero & Roberts, 1998, 2003; Smith, Stratton, Stones, & Naidoo, 2003; Lee, 2003, 2005). In relation to HIV/AIDS, there have been conflicting results in recent studies, some suggesting that ethnic identity is associated with less HIV/AIDS risky behaviors, others say it is associated with a greater
degree of risky behaviors, yet others have found no difference (Brook et al., 1998; Kulis & Marsiglia, 2002; Shrake & Rahee, 2004; Belgrave, Marin, & Chambers, 2000; Faryna & Morales, 2000; Beadnell et al., 2003; Chng & Geliga-Vargas, 2000). It is obvious that there is the need for more research regarding ethnic identity and risky behaviors to prevent HIV/AIDS. Furthermore, no research exists on ethnic identity and HIV/AIDS stigma. Because ethnic identity has been shown to be associated with discrimination, an important relationship to study is ethnic identity and HIV/AIDS stigma.

Another construct that may prove to be important when looking at HIV/AIDS stigma is acculturation. Acculturation is defined as the changes that occur when two cultures come into contact. As discussed previously, acculturation is associated with drug use as well as HIV/AIDS risky sexual behaviors (Paragallo, 1996; Belgrave, Marin, & Chambers, 2000; Hines et al., 1998; Loue, Cooper, and Fiedler, 2003; Dolezal, Caraballo-Diequez, Nieves-Rosa, & Diaz, 2000; Castaneda, 2000). However, results have not been consistent. While some indicate that lower levels of acculturation are associated with higher drug use and higher risky sexual behavior, others suggest the opposite. More research is needed in this area in order to identify other factors that may be confounded in the association and are responsible for such differing results. Acculturation may also prove to be important when looking at the effects of HIV/AIDS stigma on the individual.

The purpose of this study was to describe the proposed variables and identify the differences that exist in various groups. The study also evaluated the relationships among HIV/AIDS stigma, ethnic identity and acculturation. The proposed research
The problem was to identify how ethnic identity and acculturation are associated with perceptions of HIV/AIDS stigma in people living with HIV/AIDS.

The hypotheses of this descriptive study are the following:

1. Ethnic identity will be negatively associated with HIV/AIDS stigma. Higher levels of ethnic identity will be associated with lower levels of HIV/AIDS stigma. Higher levels of ethnic identity will act as a buffer against perceived HIV/AIDS stigma as shown by previous research because the person will be more accepting of out groups, will be less likely to perceive discrimination, and will feel less stigmatized.

2. Acculturation will be negatively associated with HIV/AIDS stigma. Higher levels of acculturation will be associated with lower levels of HIV/AIDS stigma. Higher levels of acculturation will be associated with lower levels of perceived HIV/AIDS stigma because the bicultural individual is better prepared to function in the dominant culture as well as their native culture, and so they will be better able to deal with perceived HIV/AIDS stigma. However, the contrary could result, where the individual feels more stigmatized because their own culture has strong stigmatizing feelings towards HIV/AIDS. This is the reason why this research project is exploratory and descriptive in nature.

3. A model predicting HIV/AIDS stigma will indicate that as the level of ethnic identity and acculturation increase, the perception of HIV/AIDS stigma will decrease.
CHAPTER II

METHOD

Participants

The proposed descriptive study used data gathered for PROJECT VOICES: Turning it Around, conducted by the Center for Psychosocial Health at the University of North Texas. Participants were HIV positive or had been diagnosed with AIDS. The study used stratified sampling in order to obtain a sample that was 50% male and 50% female. Additionally, the study used local incidence rates of the disease to accurately reflect the number of HIV/AIDS cases in the Dallas-Fort Worth metroplex population according to race, ethnicity, and sexual orientation. The participants were HIV positive or had been diagnosed with AIDS, were 18 years of age or older, and could read, write, and speak English. All participants were clients of AIDS services organizations (ASO).

Design and Procedure

This survey-based study used a cross-sectional correlational design. HIV/AIDS stigma was operationalized as the perceived stigma of HIV/AIDS that occurs in the individual’s own perception of being infected with HIV/AIDS, and the individual’s perception of society’s views regarding people with HIV/AIDS. HIV/AIDS stigma will be measured using the HIV Stigma Scale (Berger et al., 2001). The subscales that were used were personalized stigma, disclosure, negative self-image, and public attitudes. In addition, the Perceived Stigma of HIV/AIDS (Bauman, Camacho, Westbrook, & Forbes-Jones, 1997) was used. The subscales used were Personal View and Public View. Ethnic identity was operationalized as the self-concept that derives from the knowledge
of membership in an ethnic group. To measure this, the *Multigroup Ethnic Identity Measure* (Phinney, 1992) will be used. Subscales included total ethnic identity and other-group orientation.

Acculturation was operationalized as the bilinear and multidimensional phenomena that occur when two cultures come into contact with one another and as a result, changes occur in either one or both cultures, as measured by cultural identity, language competence, and cultural competence. The acculturation scale used was the *Abbreviated Multidimensional Acculturation Scale* (Zea, Asner-Self, Birman & Buki, 2003). Subscales used will be cultural identity, cultural competence, and language competence.

The survey for this project was made up of a battery of instruments and received appropriate IRB approval. Flyers and posters were used to recruit participants from AIDS services organizations (ASO) in Fort Worth, Dallas, Denton, Plano, Forney, and Greenville. Once they demonstrated interest, they were screened for eligibility. Participants had to be HIV positive or have AIDS, be 18 years old, and able to read and write English in order to be able to participate in the study. Participants answered 5 screening questions to determine eligibility: 1) How old are you?, 2) Can you read, write, and speak English?, 3) Do you test positive for tuberculosis?, 4) Do you test positive for HIV?, and 5) Do you test positive for any sexually transmitted disease? Once eligibility was determined, the study was explained and informed consent was obtained. A paper and pen questionnaire was distributed to participants. Participants responded to the questionnaire on site at different ASOs, and the questionnaire took approximately 2 hours to complete. The researcher remained with the participant to answer any
questions and to clarify sections of the survey. Once the participant was done, the researcher would check for completeness. The participant was reimbursed $15 for their time.

Measures

The current study used several instruments. The first instrument is a demographic survey that included information such as gender, race or ethnicity, age, level of education, sexual orientation, and level of income. Also included were medical variables regarding HIV/AIDS such as months since diagnosis, medications taken, and number of symptoms.

The second instrument is the *HIV Stigma Scale* by Berger et al. (2001). The scale includes 40 items with four subscales that assess the individuals’ perception of stigma with responses in a Likert-type scale ranging from 1 (strongly disagree) to 4 (strongly agree). The Personalized Stigma subscale measures stigma experience. The Disclosure subscale notes the person’s disclosure of status and the circumstances surrounding disclosure. Negative Self-Image measures the negative views of the self because of HIV. Finally, the Public Attitudes subscale measures the perceived negative attitudes in others about HIV. Sixteen of the items load on more than one subscale. The alpha reliability for this scale was .96, and test-retest correlation was .92 (Berger, Ferrans & Lashely, 2001). Construct validity was assessed through factor analysis, which yielded four factors, as well as through the examination of the relationship with other measures of self-esteem, depression, and aspects of social support and social
conflict (Berger, Ferrans, & Lashely, 2001). Higher scores reveal a higher perception of HIV/AIDS stigma.

The third instrument is the *Perceived Stigma of HIV/AIDS* by Bauman, Camacho, Westbrook, & Forbes-Jones (1997). The scale measures internalized as well as externalized stigma and has two scales. The Personal View subscale has 24 items that measure shame, guilt, blame, embarrassment, and poor self-worth because of the HIV. The Public View subscale has 24 items that measure the participant’s perception of what other people think about those with HIV. Items are rated on a 4 point-Likert-type scale ranging from 1 (strongly disagree) to 4 (strongly agree). The scale used a sample of 237 inner-city mothers with late stage HIV/AIDS, who were mostly of African American and Puerto Rican background. The alpha reliability for Personal view was of .87, and for Public View was of .90.

The fourth instrument is *The Multigroup Ethnic Identity Measure* (MEIM) that will be used to measure the degree of identification with an ethnic group. Developed by Phinney (1992), the measure consists of a single factor of 14 items that measures ethnic identity. It also includes three intercorrelated components yielding one factor: Affirmation and belonging refer to the attitudes toward a group and a feeling of belonging to an ethnic group. Ethnic identity achievement involves the process of exploring and resolving ethnic identity issues that leads to a sense of membership in an ethnic group, including both exploration and resolution of identity issues. Finally, ethnic behaviors or practices refers to the involvement in social activities with members of one’s group and participation in cultural traditions. Items are rated on a 4-point Likert-type scale from 1 (strongly agree) to 4 (strongly disagree). A second factor is other
group orientation, which includes 6 items. This concept interacts with the aspect of one’s social identity in society. The questionnaire used a high school sample, yielding an alpha of .81, as well as a college sample, which yielded an alpha of .90 (Phinney, 1992). Construct validity was assessed through factor analysis, which revealed that some factors were intercorrelated, so two factors were chosen (Phinney, 1992). These factors were ethnic identity and other-group orientation.

The fifth scale is The *Abbreviated Multidimensional Acculturation Scale* (AMAS-ZABB), which is a new acculturation scale developed by Zea, Asner-Self, Birman, and Buki (2003). The AMAS-ZABB has three subscales: 1) cultural identity, which is an individual’s self identification as a member of the culture of origin, or the host culture (12 items total, 6 items measuring culture of origin identity, and 6 items measuring U.S. culture identity); 2) language competence (18 items, 9 items measuring native language, 9 items measuring English language); and 3) cultural competence, which is the knowledge of culture of origin and U.S. American culture (12 items, 6 items measuring competence of culture of origin, and 6 items measuring U.S. American culture). The scale has 42 items with Likert-type responses for the cultural identity scales ranging from 1 (strongly disagree) to 4 (strongly agree) and for the language and cultural competence subscales ranging from 1 (not at all) to 4 (extremely well/like a native). The scale used two different samples, which yielded an alpha ranging from .90 to .97 with college students, and an alpha of .83 to .97 (Zea, Asner-Self, Birman, & Buki, 2003). Construct validity was demonstrated through factorial analysis, which resulted in three separate factors. Convergent and discriminant validity were assessed using Phinney’s (1992) *Multigroup Ethnic Identity Measure* (MEIM) as well as Birman’s (1991,
Bicultural Involvement Questionnaire (Zea, Asner-Self, Birman, & Buki, 2003). Higher scores in the U.S. American dimension indicate greater acculturation, and higher scores in the culture of origin dimension indicate lower levels of acculturation. However, when both dimensions are significant, an index of biculturalism may be obtained.

Data Analysis

Descriptives

Frequencies, means, standard deviations and ranges were obtained for demographic and medical variables. These included gender, sexual orientation, age, income, ethnicity, and education. Medical variables included months since diagnosis, medications taken, disease status (HIV vs. AIDS), and number of symptoms.

Univariate Statistics

Univariate statistics were analyzed for all three scales. Means, standard deviations and ranges of the scales were included. HIV/AIDS stigma scale variables included personalized stigma, disclosure, negative self-image, and public attitudes; MEIM Scale variables included total ethnic identity and other-group orientation; and AMAS ZABB scale variables included two dimensions of the scale, U.S. American identity, and culture of origin identity.

Chi-Square, t-Tests, and ANOVAs

Differences between demographic variables and scale variables were assessed through T-tests, chi-square and ANOVA’s. Demographic variables included gender
(males vs. females), sexual orientation (gay vs. straight), age (young adults, older adults), education (less than high school, high school or more), income (less than $10,000, more than $10,000 a year), and ethnicity (ethnic minority vs. non-minority).

**Bivariate Correlations**

Subsequently, bivariate correlations between the demographic variables and scales were done for three purposes: first, to understand the relationship between the variables and test the two first hypotheses; second, to identify appropriate variables to include in a regression model; and third to check for multicollinearity.

**Regression Model**

After analyzing the descriptive statistics and bivariate correlations, the variables identified to be significantly associated with stigma were used to develop a model that will predict HIV/AIDS stigma. A stepwise linear regression was conducted to assess the association between HIV/AIDS stigma, ethnic identity and acculturation. HIV/AIDS stigma was the dependent variable, and ethnic identity and acculturation were the independent variables.
CHAPTER III

RESULTS

Frequencies and descriptive statistics (mean, standard deviation, variance, skewness and kurtosis) were calculated to assess normalcy of the data. It was determined that all variables were within the normal limits and did not need any transformations.

Demographics

The number of participants for this study was 201. The sample consisted of 110 (55%) males, and 91 (45%) females, and was comprised of 109 (54.2%) African-American, 64 (31.8%) European American, and 20 (10%) Latino/Hispanic. In terms of sexual orientation, about half of the sample, 106 (52.7%), identified as heterosexual, 60 (30%) identified as gay, and 35 (17.4%) identified as bisexual. The data was also broken down by sex, ethnicity, and sexual orientation. In African American males there were 23 (39%) gay, 16 (27%) bisexual, and 20 (33.9%) straight. In Caucasian males there were 25 (69.4%) gay, 7 (19.4) bisexual, and 4 (11%) straight. In Hispanic males, there were 6 (60%) gay, 2 (20%) bisexual, 2 (20%) straight. In African American females, there was 1 (2%) gay, 5 (10%) bisexual, and 44 (88%) straight. In European American females, there was 1 (3.6%) gay, 4 (14.3%) bisexual, and 23 (82.1%) straight. In Hispanic females, there was 1 (10%) gay, no bisexuals, and 9 (90%) straight. The mean age of the sample was 41.5 years ($SD = 8.1$). The majority of the participants (137, 68.2%) reported having an income less than 10,000 a year. The average level of education was high school (56.7%) ranging from 6 to 20 years of education, 18 (9%)
participants reported their highest level of education as middle school, and 63 (31.3%) reported completion of some college.

Medical Variables

The average number of years participants reported they were infected with HIV/AIDS was 8 years (range 1.02 months – 23 years; $SD = 5.3$ years). Fifty five (27%) participants reported no HIV symptoms, whereas 146 (72.6%) reported one or more symptoms such as night sweats, recurring fever of more than 100 degrees, and fatigue. Most of the participants (159) reported use of HIV medication (79%). Table 1 and Table 2 present frequencies, percentages, means and standard deviations of demographic variables.

Scales

Principal component analyses using varimax rotation were performed on each of the four instruments used to assess how in our data items loaded on factors and to compare these to the factor loadings of the original instruments. The Berger HIV Stigma scale yielded 4 factors, which are the subscales that Berger identified: personalized stigma, disclosure, negative self –image, and public attitudes. However, several of the items in our database loaded on different subscales than those in the original scales. This may be due to our limited sample, since the standardizing sample of the scale was obtained from different states and different service organizations and clinical settings. The Perceived Stigma of HIV/AIDS Scale yielded 5 factors, similar to the original scale. However, the authors recommended use of only the two overall scores (Personal View
and Public View) because the items of the subscales all worked similarly on the overall scores. The Multigroup Ethnic Identity Measure (MEIM) yielded two factors, total ethnic identity and other group orientation. However, some items loaded on different scales than the original, which may be because the sample on which the instrument was standardized was not an HIV/AIDS population, it was a high school and college population that was much younger than our sample. The Abbreviated Multidimensional Acculturation Scale (AMAS), loaded on six factors with all items lining up with the original scale.

Table 3 presents univariate statistics of the scales used in the study. All scales were normal.

**Chi-Square, t-Tests, and ANOVAs**

Differences between demographic variables and scale variables were assessed. Chi Square analysis was used to assess gender and ethnic minority differences in income. Among male participants, 70 (63.6%) reported having an income of less than $10,000, and 40 (36.4%) reported having an income of more than $10,000. Among female participants, 67 (73.6%) reported an income of less than $10,000, and 24 (26.4%) reported an income of more than $10,000. Income did not significantly differ along gender, $X^2 (1, N = 201) = 2.29, p = .17$. Among non-minority participants, 39 (60.9%) reported an income of less than $10,000, and 25 (39.1%) reported an income of more than $10,000. Among minority participants, 98 (71.5%) reported having an income of less than $10,000, and 39 (28.5%) reported having an income of more than $10,000. Income did not differ significantly based on ethnic identification, $X^2 (1, N =
T-tests were used to assess gender and ethnic minority status differences in age and education level. Males were older than females, where males had an average age of 43.2 years ($SD = 7.9$), whereas females had an average age of 39.4 ($SD = 7.8$). The age difference between genders was significant, $t(199) = 3.35$, $p < .01$.

Males also had a higher level of education, where the average number of years of education for males was 12.7 ($SD = 2.4$), and for women it was 11.4 ($SD = 2.2$). This difference between males and females in terms of education was significant, $t(199) = 4.06$, $p < .001$. Ethnic minorities and non-minorities did not differ in age or education. The average age for non-minorities was 41.7, and for ethnic minorities was 41.3. The mean level of education for non-minorities was 12.5 years, and for minorities it was 12.0. There was no significant difference between non-minorities and minorities in terms of age ($t(199) = .31$, $p = .18$) or education level ($t(199) = 1.33$, $p = .75$).

T-tests were also used to assess differences between gender, income, ethnic minority status, education level, symptoms, and medications by scale variables. There were no gender, or medication differences found in scale variables. Tables 4, 5 and 6 present the means and standard deviations of those variables that were significantly different in regards to scale items. The tables present data related to income, ethnic minority status, education level, and symptoms. Participants who reported an income less than $10,000 a year had higher levels of stigma related to disclosure ($t(199) = 2.33$, $p = .02$), negative self-image ($t(199) = 2.36$, $p = .01$), and overall stigma ($t(199) = 2.07$, $p = .04$). Those with an income higher than $10,000 had a higher level of other group orientation ($t(199) = -2.93$, $p = .004$) as well as a higher identification with U.S. American culture ($t(199) = -2.74$, $p = .007$).
Participants who were ethnic minorities had higher levels of public view stigma ($t(199) = -2.71, p = .007$), than non-minorities. Non-minority participants reported a higher identification with U.S. American culture ($t(199) = 1.90, p = .05$), compared to ethnic minorities. In terms of education, those with more than 12 years of education (college or more) had higher levels of public view stigma ($t(199) = 2.07, p = .03$), and had a higher identification with their culture of origin ($t(199) = -1.98, p = .04$). Participants who had symptoms vs. those who reported having no symptoms, had a higher level of personalized stigma ($t(199) = -2.48, p = .01$), and a higher level of stigma in view of public attitudes ($t(199) = -1.92, p = .05$). Those who reported having one or more symptoms also had a higher level of identification with U.S. American culture ($t(199) = -3.78, p < .001$), as well as a higher level of identification with the culture of origin ($t(199) = -2.85, p = .005$). Age (4 groups: 20-35, 36-40, 41-55, 56-70) and sexual orientation (gay, bisexual, straight) differences in scale variables were assessed with one-way ANOVA tests with Scheffe post hoc tests. There were no differences in any of the age groups and scales variables. Participants who identified as straight ($M = 3.5, SD = .67$) had a higher level of cultural identity ($F(2, 198) = 3.47, p = .03$) than participants who identified as gay ($M = 3.1, SD = .88$).

Correlations

Pearson Product Moment Bivariate correlations were used to determine the association among demographic variables, medical variables and scale variables. Correlations were also used to determine the association among perceived stigma, ethnic identity and acculturation. Income was significantly positively correlated with
education \( (r = .27, p < .01) \). As the level of income increases, the level of education also increases. Number of symptoms was significantly correlated with level of education \( (r = -.17, p < .05) \) and number of months living with HIV/AIDS \( (r = .25, p < .001) \). As level of education increases, the number of symptoms reported also increases. The longer the participant had lived with HIV/AIDS, or the more months with HIV/AIDS, the higher the number of symptoms reported.

From the HIV Stigma Scale significant correlations were found between personalized stigma and symptoms \( (r = .17, p < .05) \), the more symptoms reported, the more personalized stigma experienced by the participant. Disclosure and income were also significantly correlated \( (r = -.16, p < .05) \), where the higher the income of the participant, the less likely they will be to disclose their status. Negative self-image and income \( (r = -.16, p < .05) \) were significantly correlated, where the higher the income of the participant, the lower the level of negative self-image experienced. Overall stigma and income \( (r = -.14, p < .05) \) were significantly correlated where higher income was associated to a lower level of perceived stigma. The Personal view of stigma was also significantly correlated with income \( (r = -.25, p < .01) \), and public view of stigma was significantly correlated with number of months the person had lived with HIV/AIDS \( (r = .16, p < .01) \). The greater the number of months the person has had HIV/AIDS, the higher the level of stigma as perceived by the public.

Ethnic identity was significantly correlated with education \( (r = .14, p < .05) \). Participants who reported a higher level of education reported a higher level of ethnic identity. Other group orientation was correlated with income \( (r = .20, p < .01) \), where
higher income of the participant was associated with a higher level of orientation towards other ethnic groups.

Acculturation was significantly correlated with education (American dimension, \( r = .19, p < .01 \); culture of origin dimension \( r = .15, p < .05 \)), higher levels of education were correlated with higher levels of acculturation. U.S. American dimension was significantly correlated with income \( (r = .19, p < .01) \), where higher levels of income were correlated with a higher level of identification with U.S. American culture (See Table 7 for Correlation Matrix).

Hypothesis 1: Ethnic identity will be negatively associated with HIV/AIDS stigma. Higher levels of ethnic identity will be associated with lower levels of HIV/AIDS stigma.

Ethnic Identity was significantly negatively correlated with the Personal View subscale \( (r = -.148, p < .05) \) of the Perceived Stigma of HIV/AIDS Scale (Westbrook and Bauman). The personal view subscale was also significantly positively correlated with other group orientation \( (r = -.33, p < .01) \). No significant correlations were found between ethnic identity and any of the subscales from the Berger HIV Stigma Scale.

Hypothesis 2: Acculturation will be negatively associated with HIV/AIDS stigma. Higher levels of acculturation will be associated with lower levels of HIV/AIDS stigma.

Stigma was not significantly correlated with either the American dimension of acculturation, or the culture of origin dimension.

Regression

Hypothesis 3: A model predicting HIV/AIDS stigma will indicate that as the level of ethnic identity and acculturation increase, the perception of HIV/AIDS stigma will decrease.

An exploratory hierarchical linear regression was used to analyze the relationship between HIV stigma: Personal View and ethnic identity and other group orientation.
Acculturation was not included in the regression model because it was not significantly correlated with HIV stigma, and it was highly correlated with ethnic identity.

A stepwise linear regression was used, where HIV stigma was the dependent variable. Demographic variables (gender, sexual orientation, age, income, education, being African American, being Hispanic) were entered in block 1. In block 2, medical variables (months with HIV/AIDS, number of symptoms, and taking medications) were entered. Demographic and medical variables were entered directly (not via stepwise method) in the model to control for them. Only in block 3 were variables entered in a stepwise fashion. In this block ethnic identity and other group orientation were entered as our main independent variables. These two were entered in the model as stepwise in order to allow for those variables that were not contributing to the variance of stigma to drop out of the model, and only leave those significantly contributing to it.

In the final multiple regression model, income was significantly associated with HIV/AIDS stigma ($B = -.171, t = -2.38, p = .01$), suggesting that lower income was associated with higher levels of HIV/AIDS stigma. No other demographic variables or medical variables were associated with HIV/AIDS stigma. Other group orientation was also significantly associated with HIV/AIDS stigma ($B = -.288, t = -4.26, p < .001$). Our model accounted for 13% of the variance in HIV/AIDS stigma, $R^2 = .13$, $\Delta R^2 = .079$, $F(11, 189) = 3.74, p < .001$, suggesting that an orientation and acceptance of ethnic groups other than one’s own has a significant relationship on HIV/AIDS stigma.

However, ethnic identity was dropped from the model because it did not contribute significantly to the variance (See Table 8 for regression results). We did not find that ethnic identity was significantly associated with HIV/AIDS stigma, suggesting
that other group orientation has a stronger relationship to HIV/AIDS stigma. Our model tested the effects of ethnic identity and other group orientation on HIV stigma and revealed that only other group orientation was significantly associated with HIV stigma. The higher the level of other group orientation, or the more opened a person is towards people of other ethnicities, the less HIV stigma they will perceive.
CHAPTER IV

DISCUSSION

The purpose of this study was to describe the proposed variables and identify the differences that exist in various groups (low income, ethnic minority, gender, sexual orientation). The study also evaluated the relationship among HIV/AIDS stigma, ethnic identity and acculturation. There is a lack of research in this area, and this study aimed at providing a basic ground for future research.

Demographics

There were several significant differences found between participants who had an income of less than $10,000, and those who had an income of more than $10,000. Participants who reported a higher income reported a lower level of perceived stigma related to disclosure, negative self-image, overall stigma, and personal view of stigma. This suggests that higher income may act as a buffer against stigma for some people living with HIV/AIDS. Those with a higher level of income also reported a higher level of education, which may also serve as a buffer against stigma. However, our data is not specific enough to be able to discern between different levels of income and how these relate to stigma.

Participants with higher income were also more likely to be accepting of other ethnic groups. Again, this may be related to their level of education, which could influence more openness to other ethnicities. However, it is important to note that income and education may be related to having more opportunities and exposure to more diverse groups. Participants with higher incomes also reported higher levels of
acculturation, or higher level of U.S. American dimension, identifying more with the American culture. Individuals that identify with the American culture may be more successful in American society and therefore, may have higher incomes than those that identify with their culture of origin.

Ethnic minority status had an effect on HIV Stigma: Public View, and U.S. American dimension of acculturation. Ethnic minority participants reported higher levels of perceived HIV stigma from the public than non-minorities. According to Goffman (1963), stigma refers to people that are viewed negatively. Minorities may perceive a compound stigma effect, stigma from being part of a minority group, as well as stigma from having HIV/AIDS, where as those that are not part of a minority group, perceive a lower level of HIV stigma. Ethnic minorities and non-minorities also differed in the level of acculturation related to U.S. American dimension. Non-minorities had a higher level of identification with U.S. American culture than minorities. According to Berry’s (1980) acculturation theory, the individual experiences changes as a result of the dominant culture. Because non-minorities are part of the dominant culture, there are no changes that take place. In addition, their culture of origin is American culture; therefore their identification with U.S. American culture will be higher. Conversely, minorities are often not part of the dominant culture and their level of acculturation related to their identification with U.S. American culture may be lower than that of non-minorities.

Participants who had a college education perceived more public stigma than those who had an education of less than college. This may be because those with a higher education have a higher perception of stigma because of their college education, or the opportunities that college education has provided them. Those with less than
college may have had less of opportunities and less varied life experiences and so they will be less perceptive about public stigma.

Participants with no symptoms vs. those who reported one or more symptoms differed in level of personalized stigma and view of public attitudes. Participants who had one or more symptoms had a higher level of personalized stigma and stigma related to the view of public attitudes than those who reported having no symptoms. Symptoms and personalized stigma were also significantly correlated. Higher number of symptoms reported by a participant was related to higher levels of personalized stigma. As Klitzman (1997) pointed out, physical changes and deformities are likely to evoke stigma. Having symptoms may increase perceived stigma in the PWA because it is a physical manifestation of the disease. Disclosure may not be voluntary when an individual is experiencing symptoms that are visible to others. Individuals without symptoms may be more able to hide their illness, and my therefore have more control over disclosure, may have lower levels of stress, and may experience less stigma.

Level of cultural identity was significantly different between gay and straight participants. Straight participants reported a higher level of cultural identity than gay participants. This may be because gay participants may identify more with their gay culture as opposed to their ethnic culture, since gay identity formation has a similar process to that of cultural identity or ethnic identity formation (Elliot, 1985). A recent study by Rosario, Schrimshaw, and Hunter (2004) found that cultural factors delay gay identity integration in adolescents. Participants were less likely to report a gay identity if they belonged to an ethnic minority. Because the acculturation scale used in the study looked at ethnic culture, identification with gay culture may not have been reported in
the survey. Often, ethnic gay individuals are challenged to choose between two identities, their ethnic identity vs their sexual identity. Many individuals choose to identify with their sexual identity instead because they feel a greater acceptance from the gay community. Conversely, they may feel a higher level of discrimination from their ethnic community because of certain cultural beliefs and traditions within that community. Another possible explanation is that more than half of our sample was comprised of African Americans, and women. The majority of women in this sample identified as straight. African Americans may have a higher level of cultural identity than European Americans because they identify highly with their African America culture.

Hypotheses

Hypothesis 1: Ethnic identity will be negatively associated with HIV/AIDS stigma. Higher levels of ethnic identity will be associated with lower levels of HIV/AIDS stigma.

The first hypothesis was confirmed, higher levels of ethnic identity and other group orientation were associated with lower levels of perceived HIV stigma. The more a participant identified with an ethnic group, the less HIV/AIDS stigma they perceived. This relationship is supported by Tajfel’s (1981) social identity theory, since ethnic identity contributes to a positive self-concept. As several studies have found (Phinney and Alipuria, 1990; Phinney, Cantu, and Kurtz, 1997; Martinez and Dukes, 1997, Smith et al., 1999; Carlson, 2000) ethnic identity is associated with self-esteem, which may explain the buffering effects that it has against HIV stigma. Other studies have similar findings in regard to discrimination and ethnic identity, such that higher levels of ethnic identity were associated with lower levels of perceived discrimination (Roberts & Roberts, 2003). However, this is contrary to Tajfel and Turner’s social identity theory.
(1986), which posits that a comparison occurs between the in-group, or group of membership, and out-groups. This creates a situation where there is in-group bias and negative attitudes toward out-groups. Instead, other group orientation may have buffering effects similar to ethnic identity. Participants who are more inclusive of other groups may experience less stigma than those who do not. Similar to our findings, Romero and Roberts (1998) found that students who had a stronger sense of belonging to one’s group had more positive attitudes toward out groups. This may be explained by the relationship between ethnic identity and self-esteem, which in turn, a higher self-esteem may be related to acceptance of other groups.

In addition, past studies have found conflicting results as to the relationship of ethnic identity and negative behaviors (Brook et al., 1998; Kulis & Marsiglia, 2002; Belgrave, Marin, & Chambers, 2000; Faryna & Morales, 2000; Beadnell et al., 2003; Chng & Geliga-Vargas, 2000). Moreover, these studies have only looked at ethnic identity and have overlooked other group orientation as a possible explanation of the effects of ethnic identity on stigma, discrimination, and behaviors. These findings are important because they contribute to the understanding of the complex relationship between stigma and ethnic identities. Further research is needed that looks at these two variables, ethnic identity and other group orientation, to further explain its effect on the individual as well as helping to explain and improve relationships among different ethnic groups.

Hypothesis 2: Acculturation will be negatively associated with HIV/AIDS stigma. Higher levels of acculturation will be associated with lower levels of HIV/AIDS stigma.

The second hypothesis was not supported. HIV/AIDS stigma was not associated with acculturation. HIV/AIDS stigma was not related to the level of identification a
person had to American culture, neither was it related to the level of identification a
person had with their culture of origin. The level of biculturalism, or a high identification
with U.S. American culture and high identification with the culture of origin, was not
related to HIV/AIDS stigma either. One reason for not finding any association may be
because our acculturation instrument is a new instrument that measures acculturation
throughout all cultures. The acculturation process varies depending on the group being
studied because they have different histories and different issues. Only recently have
researchers looked at an acculturation process in African Americans. Because our
sample was more than half African American, the acculturation scale used may not
have been the most appropriate one. A more sensitive African American acculturation
scale, such as Landrine and Klonoff’s (1994) African American Acculturation Scale,
could have provided more information about the association between acculturation and
HIV/AIDS stigma. The field of acculturation is relatively new, and there are still many
contradictions throughout the acculturation literature. High levels of acculturation have
not always been found to be associated with less negative behaviors or negative
factors, and vice versa. More research is needed regarding acculturation and stigma to
better understand the relationship between them and develop effective interventions.

Hypothesis 3: A model predicting HIV/AIDS stigma will indicate that as the level of
ethnic identity and acculturation increase, the perception of HIV/AIDS stigma will
decrease.

The third hypothesis was not supported; however, our model explained 13% of
the variance of HIV/AIDS stigma, where other group orientation explained a significant
amount of the variance, and ethnic identity did not. Being more inclusive of other
groups helps the PWA perceive a lower level of HIV/AIDS stigma. As PWAs increase
their understanding of other groups, be it ethnic, cultural, or sexual, they become more
accepting of other groups. This helps the PWA feel less discrimination and less stigma from groups other than their own. Although as mentioned before, ethnic identity has been found to act as a protective factor, other studies have found no relationship between ethnic identity and discrimination (Lee, 2003; 2005). The results of our model suggest that we should also look at the level of inclusiveness of other ethnic groups as well as one’s own as it may explain how HIV/AIDS stigma is related to ethnic identity as well as other group orientation. Previous research has only looked at ethnic identity as the sense of belonging to a certain ethnic group; however, it may be important to know not only how the person relates to their ethnic group, but also to other ethnicities as well.

Moreover, our sample may be more open about their HIV/AIDS status and perceive less stigma than the rest of the HIV/AIDS population. Participants were clients of AIDS Service Organizations (ASO), and may be more open about their illness than others that do not seek such services. As previous research has found, stigma is associated with a delay in testing and treatment, which are services that are often provided by ASO’s (Myers et al., 1993; Stall et al., 1996). Several studies have found that participants who have not sought testing or treatment have higher levels stigma (Worthington and Myers, 2003; Fortenberry et al., 2002). Stigma may be preventing people with HIV/AIDS from seeking services at ASO’s. Furthermore, attending an ASO may mean a disclosure of HIV status. Studies have found that stigma is related to reasons not to disclose to friends or parents (Derlaga et al., 2002; Clark et al., 2003; Letteneny & LaPorte, 2004; Lester et al., 2002). This may be especially difficult for ethnic minorities, since HIV/AIDS stigma may be higher because of certain cultural
beliefs (Stansbury & Sierra, 2004; Mill, 2003). Furthermore, denial may also be a factor preventing PWA’s from obtaining services from ASO’s. In 2003 the Centers for Disease Control and Prevention estimated that there are 1,039,000 to 1,185,000 persons in the United States living with HIV/AIDS, with 24-27% undiagnosed and unaware of their HIV infection. This population may be significantly different from our sample.

In addition, participants from our study may also be more inclusive of other ethnicities and more accepting of others because the ASO’s provide services to a wide range of people from all walks of life. This environment may help the client become more understanding and more opened to others who are in the same situation as them.

The result of our regression analysis points to the importance of looking not only at ethnic identity, but also at other group orientation as a buffer against HIV/AIDS stigma. Future studies should more deeply into this issue in order to explain the relationship among them.

Limitations

This study had several limitations. Participants answered a survey and data is based on self-reported answers. Results may be affected by social desirability and recall bias. The generalizability may only be applied to those who decided to participate in the study, and may only apply to clients of AIDS Services Organizations (ASO) since all participants were recruited from such agencies. Generalizability is also affected due to our sample being exclusively from the state of Texas. This may mean that our sample is very different from those that do not attend ASO’s because it would mean a disclosure of their HIV/AIDS status. The population that is not served by one of these
organizations may have a higher level of perceived stigma than those who do attend an ASO. Our Texas sample may also be very different from a sample from California, or New York, which are states that are more liberal, and where stigma may not be as high.

A screening was done before the survey to screen those that were under the age of 18, and anybody who did not speak, read, or write English. Those left out of the study either because of age or language use may be different from our sample. Such is the case of many Latino/a participants that were left out of the study because of language use, since they could not read or write English. This may have had a significant effect on the acculturation scale, which included a subscale related to language use. Limited variability may have affected the relationship between acculturation and HIV/AIDS stigma. In addition, the population that is under 18 may be significantly different from our sample, especially in terms of ethnic identity development, as well as acculturation. Younger individuals may still be developing their identity, as it is in the teenage years when identity formation occurs (Erickson, 1968).

Furthermore, selection of participants may result in a restricted range, and may affect the variability of our sample. Restricted range may reduce the correlations between the variables studied. Any significant results found may be conservative due to the restricted range of the sample. If we had a sample with more variability and less restricted range, then we could have found more significance and more relationships among our variables.

Sampling bias may also be a part of our study’s limitations. Our sample was a convenience sample obtained from different ASO’s and participants were self-selected, which may indicate a greater willingness to participate in research than those who are
Moreover, our study is a cross-sectional correlation study from which causality cannot be inferred. This study cannot speak to one variable causing the other; only relationships among variables can be inferred.

Future Research

Future research should include a more diverse sample, not only from ASO’s but also from clinics, health departments, and other such agencies. Because our sample was predominantly poor, future studies should recruit a more diverse sample regarding socioeconomic status. PWA’s with higher incomes could be recruited from private clinics and hospitals where more affluent patients may seek HIV/AIDS services. Studies looking at ethnic identity should recruit equal numbers of different ethnic groups to be able to make comparisons among them and better explain the relationship between ethnic identity and HIV/AIDS stigma. As part of ethnic identity, a further exploration of other group orientation could also provide more information about how this construct affects HIV/AIDS stigma. In addition, racial identity scales should be included because ethnic identity and racial identity may be different and affect an individual in a different way. Other constructs that may be important to look at are self-esteem, since ethnic identity increases self-esteem; discrimination, since ethnic identity is a buffer against discrimination; and social support, since this may affect disclosure and perceived HIV/AIDS stigma in an individual. Furthermore, several acculturation scales should be included, such as an acculturation scale for Latinos, an acculturation scale for African Americans, and other acculturation scales that are specific to certain ethnic groups. This would clarify any relationships that acculturation may have on HIV/AIDS stigma.
The implications of this study provide a basis for further research and greater understanding of ethnic identity, acculturation, and HIV/AIDS stigma. As we begin to build better regression models with ethnic identity and acculturation, and understand their relationship to HIV/AIDS stigma, we can develop interventions that target these two variables in order to lower perceived HIV/AIDS stigma and modify behaviors of the person with HIV/AIDS. This could result in greater medication adherence, greater level of disclosure, decrease in risky sexual behaviors, etc. This could reduce the level of disparities among minorities that currently exist in the number of AIDS cases in the United States.
Table 1

*Frequencies and Percentages of Demographic and Medical Variables*

<table>
<thead>
<tr>
<th>Variables</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Males</td>
<td>110</td>
<td>55%</td>
</tr>
<tr>
<td>Females</td>
<td>91</td>
<td>45%</td>
</tr>
<tr>
<td>Straight</td>
<td>106</td>
<td>52%</td>
</tr>
<tr>
<td>Gay</td>
<td>60</td>
<td>17%</td>
</tr>
<tr>
<td>Bisexual</td>
<td>35</td>
<td>29%</td>
</tr>
<tr>
<td>Income &lt; $10,000</td>
<td>137</td>
<td>68%</td>
</tr>
<tr>
<td>Income &gt; $10,000</td>
<td>64</td>
<td>32%</td>
</tr>
<tr>
<td>African American</td>
<td>109</td>
<td>54%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>20</td>
<td>10%</td>
</tr>
<tr>
<td>European American</td>
<td>64</td>
<td>31%</td>
</tr>
<tr>
<td>Medications None</td>
<td>42</td>
<td>21%</td>
</tr>
<tr>
<td>Medications one or more</td>
<td>159</td>
<td>79%</td>
</tr>
</tbody>
</table>

Table 2

*Means, Standard Deviations, and Ranges of Demographic and Medical Variables*

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean (SD)</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demo. Age</td>
<td>41.5 (8.09)</td>
<td>23-68</td>
</tr>
<tr>
<td>Education</td>
<td>12.16 (2.48)</td>
<td>6-20</td>
</tr>
<tr>
<td>Med. Months with HIV/AIDS</td>
<td>95.9 (63.3)</td>
<td>1-276</td>
</tr>
<tr>
<td>Symptoms</td>
<td>1.5 (1.6)</td>
<td>0-9</td>
</tr>
</tbody>
</table>
Table 3

*Means, Standard Deviations, and Ranges of Scale Variables*

<table>
<thead>
<tr>
<th>Scale Variable</th>
<th>Mean</th>
<th>SD</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>HIV Stigma Scale (Berger) α = .95</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Personalized Stigma</td>
<td>2.3</td>
<td>.71</td>
<td>1.0 - 4.0</td>
</tr>
<tr>
<td>Disclosure</td>
<td>2.6</td>
<td>.66</td>
<td>1.3 - 4.0</td>
</tr>
<tr>
<td>Negative Self-Image</td>
<td>2.2</td>
<td>.66</td>
<td>1.0 - 4.0</td>
</tr>
<tr>
<td>View of Public Attitudes</td>
<td>2.4</td>
<td>.68</td>
<td>1.0 - 4.0</td>
</tr>
<tr>
<td>Overall Stigma</td>
<td>2.4</td>
<td>.61</td>
<td>1.1 - 3.9</td>
</tr>
<tr>
<td><strong>Perceived Stigma of HIV/AIDS (Westbrook and Bauman) α = .84</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Personal View</td>
<td>3.0</td>
<td>.60</td>
<td>1.0 - 3.9</td>
</tr>
<tr>
<td>Public View</td>
<td>2.4</td>
<td>.44</td>
<td>1.0 - 4.0</td>
</tr>
<tr>
<td><strong>Multigroup Ethnic Identity Measure α = .86</strong></td>
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<td></td>
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<tr>
<td>Ethnic Identity</td>
<td>2.7</td>
<td>.58</td>
<td>1.2 - 4.0</td>
</tr>
<tr>
<td>Other group orientation</td>
<td>3.0</td>
<td>.58</td>
<td>1.7 - 4.0</td>
</tr>
<tr>
<td><strong>Abbreviated Multidimensional Acculturation Scale α = .96</strong></td>
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<td></td>
<td></td>
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<tr>
<td>US American Dimension</td>
<td>3.4</td>
<td>.55</td>
<td>1.0 – 4.0</td>
</tr>
<tr>
<td>Culture of Origin Dimension</td>
<td>3.3</td>
<td>.65</td>
<td>1.0 – 4.0</td>
</tr>
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Table 4  
*Means of Income Levels*

<table>
<thead>
<tr>
<th>Scale Variable</th>
<th>Mean (SD)</th>
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<td>&lt; $10,000</td>
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<td>Disclosure</td>
<td>27.28* (6.83)</td>
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<td>Negative Self-Image</td>
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<td>Overall Stigma</td>
<td>101.24* (26.11)</td>
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<tr>
<td>HIV Stigma: Personal View</td>
<td>51.86** (15.77)</td>
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<tr>
<td>Other group orientation</td>
<td>2.92** (.59)</td>
</tr>
<tr>
<td>US American Dimension</td>
<td>3.41** (.61)</td>
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</table>

* p < .05  ** p < .01

Table 5  
*Means of Minority Status*

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<tr>
<th>Scale Variable</th>
<th>Ethnic Minority</th>
<th>Non-Minority</th>
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<tr>
<td>HIV Stigma: Public View</td>
<td>59.56** (10.48)</td>
<td>55.21** (10.71)</td>
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<td>US American Dimension</td>
<td>3.43* (.62)</td>
<td>3.59* (.31)</td>
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* p < .05  ** p < .01
<table>
<thead>
<tr>
<th>Scale Variable</th>
<th>Mean (SD)</th>
<th>Less than College</th>
<th>College or more</th>
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<tr>
<td>Stigma: Public View</td>
<td>60.69* (9.99)</td>
<td>63.97* (11.76)</td>
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<tr>
<td>Culture of Origin Dimension</td>
<td>3.2* (.71)</td>
<td>3.46* (.48)</td>
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<td>No Symptoms</td>
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<td>One or More Symptoms</td>
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<td>Personalized Stigma</td>
<td>39.65* (12.63)</td>
<td>44.84* (13.42)</td>
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<tr>
<td>View of Public Attitudes</td>
<td>47.35* (13.23)</td>
<td>51.58* (14.16)</td>
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<tr>
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<td>3.25** (.72)</td>
<td>3.57** (.43)</td>
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<td>Culture of Origin Dimension</td>
<td>3.12** (.83)</td>
<td>3.41** (.54)</td>
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* p < .05  ** p < .01
Table 7
Correlation Matrix

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</table>

*p < .05, **p < .01
Table 8
Summary of Regression Analysis for HIV Stigma: Personal View

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Std. β</th>
<th>t</th>
<th>p</th>
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Adj. $R^2 = .13$, $F (11,189) = 3.74$, $p < .01$
REFERENCES


