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STIGMATIZATION OF HIV/AIDS: A CROSS-CULTURAL ANALYSIS

A Capstone Experience/Thesis Project

Presented in Partial Fulfillment of the Requirements for

the Degree Bachelor of Science with

Honors College Graduate Distinction at Western Kentucky University

By

Jamie N. Doctrow

Western Kentucky University
2016

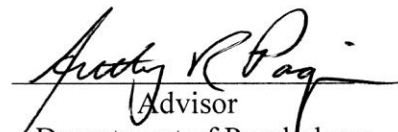
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ABSTRACT

The Human Immunodeficiency Virus (HIV) is the cause of a public health epidemic that has impacted millions of individuals worldwide. Though medical advances have decreased the number of AIDS related deaths by 42% since the peak year of 2004 (UNAIDS, 2015), many individuals with HIV/AIDS are unaware of their status and are not currently receiving antiretroviral treatment. Many experts have suggested that a significant barrier to HIV/AIDS prevention and treatment is the social stigma that has become attached to the disease. No single cause of this stigmatization has been identified, but a variety of influences may play a role. To gain a better understanding on the role of culture in this situation, this study measures cross-cultural attitudes about HIV/AIDS using a questionnaire distributed to both international and American students at Western Kentucky University. Results show that international students hold significantly more stigmatizing attitudes about HIV/AIDS than American students. Recommendations are made for methods of reducing stigmatizing attitudes globally.

Keywords: HIV, AIDS, Stigmatization, Culture, International

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TABLE OF CONTENTS

	<u>Page</u>
Abstract	ii
Acknowledgements	iii
Vita	v
Table of Contents	vi
List of Figures	viii
Chapters:	
1. Introduction	1
1.1 HIV/AIDS	1
1.2 Diagnosis, Treatment, and Prevention	3
1.3 Stigmatization of HIV/AIDS	5
1.4 Factors Contributing to HIV/AIDS Stigma	6
1.5 A Case Study: Botswana	9
1.6 Current Study	12
2. Methods	15
2.1 Participants	15
2.2 Materials and Procedure	16
3. Results	18
4. Discussion	19

4.1 Limitations	19
4.2 Interventions to Reduce HIV/AIDS Stigma	20
References.....	24
Appendix.....	29

LIST OF FIGURES

<u>Figure</u>		<u>Page</u>
Figure 1	Participant country of birth.....	16

CHAPTER 1

INTRODUCTION

HIV/AIDS

The Human Immunodeficiency Virus (HIV) is the cause of a public health epidemic that has impacted millions of people worldwide. It is a “leading cause of death”, claiming around 34 million lives throughout its course so far (World Health Organization [WHO], 2015). At the end of 2014, there were an estimated 36.9 million people living with HIV (Joint United Nations Programme on HIV/AIDS [UNAIDS], 2015). In the same year, 2 million new infections were reported (UNAIDS, 2015). While the number of AIDS related deaths has decreased by 42% since the peak year of 2004 (UNAIDS, 2015), HIV/AIDS continues to impact individuals and communities physically, economically, and socially. This is especially true in less developed regions of the world, with 70% of new infections occurring in Sub-Saharan Africa (WHO, 2015). Out of the 1.2 million HIV/AIDS related deaths in 2014, Sub-Saharan Africa accounted for 66% and Asia and the Pacific accounted for 20%, while the remaining regions of the world accounted for 5% or less each (UNAIDS, 2015). The 2014 adult prevalence rate of HIV/AIDS was highest in Swaziland, Botswana, Lesotho, South Africa, Zimbabwe, and Namibia, respectively (Central Intelligence Agency [CIA], 2015).

HIV is believed to have originated from a similar virus (Simian Immunodeficiency Virus) found in chimpanzees in Central Africa (Centers for Disease Control and Prevention [CDC], 2015). The most commonly accepted theory for how the virus was transmitted to humans is that human hunters came into contact with infected chimpanzee blood (AVERT, 2015). The first human transmission is estimated between the late 1800s and early 1900s, though research is inconclusive (CDC, 2015). However, awareness about HIV did not begin until the 1980s when rare diseases were increasingly reported in homosexual men in the United States (AVERT, 2015). Decades of research have identified the mechanisms of human transmission of HIV as bodily fluids including blood, breast milk, semen and vaginal secretions. The most common ways individuals contract HIV are by having unprotected sex, sharing contaminated needles for drug use, receiving unsafe medical procedures, and through pregnancy or breastfeeding from mother to child (WHO, 2015). Contrary to popular beliefs, however, HIV cannot be transmitted through forms of contact such as hugging, kissing, or sharing food or drink (WHO, 2015).

HIV is a lentivirus that acts by weakening the immune system, and thereby making it more difficult for the body to fight off infections and diseases (WHO, 2015). HIV specifically attacks the body's CD4 cells, or helper T cells, which normally play a key role in destroying infected cells (CDC, 2015). When individuals are first exposed to the virus, symptoms are minimal to none and may even be mistaken for the flu (WHO, 2015). As the body's immune system is progressively weakened, the symptoms become more serious and can lead to severe weight loss, diarrhea, coughing, and swollen lymph nodes (WHO, 2015). When the immune system becomes extremely weak, individuals

may develop more serious illnesses, diseases, and cancers such as tuberculosis, meningitis, and lymphoma (WHO, 2015). At this advanced stage, usually occurring two to fifteen years after infection, individuals now have Acquired Immunodeficiency Syndrome (AIDS; WHO, 2015). Without treatment, individuals with AIDS typically live around three years, though the prognosis has greatly improved with advances in treatment and prevention (CDC, 2015).

Diagnosis, Treatment, and Prevention

HIV is most often diagnosed through rapid diagnostic tests using either blood, spit, or urine (CDC, 2015). These tests measure the level of antibodies, which are produced by the immune system in response to the HIV virus (CDC, 2015). Blood tests are able to identify these antibodies more quickly than oral tests, so this method is often preferred (CDC, 2015). After HIV infection, there is a “window period” of 3-12 weeks where the antibodies may not yet be detectable (CDC, 2015), so individuals may not receive accurate results if tested too soon. While diagnostic tests can be performed at clinics and hospitals, self-testing has become more common as well (WHO, 2015). Other methods of testing used more rarely include a combination test, which measures antibodies and antigens, and a nucleic acid test, which measures the actual HIV virus (CDC, 2015). Clinicians define HIV having progressed to AIDS when an individual’s CD4 count has fallen below 200 (Mayo Clinic, 2016). Despite the various methods of diagnosis, only 54% of those with HIV were aware of their status in 2014 (WHO, 2015).

There is no cure for HIV/AIDS, but antiretroviral drugs (ARVs) are used frequently in treatment to control the virus and strengthen the immune system (WHO,

2015). Antiretroviral therapy (ART) can help a person with HIV/AIDS live a normal and productive life and can also reduce the chances of the virus being transmitted to others (CDC, 2015). The drugs used to treat HIV/AIDS fall into multiple classes, and it is recommended that individuals take at least three ARVs from at least two classes (Mayo Clinic, 2015). WHO (2015) also recommends that ARV treatment should begin immediately after diagnosis. Some common challenges with ART are unpleasant side effects and trouble adhering to the strict schedule (CDC, 2015). In 2014, an estimated 41% of adults living with HIV were receiving ART (UNAIDS, 2015). This statistic varied by region, ranging from 47% in Latin America to 14% in the Middle East and North Africa (UNAIDS, 2015).

Various public health efforts have placed heavy emphasis on identifying methods of prevention in order to reduce the risk of HIV infection and AIDS related deaths. One method of prevention is encouraging the use of condoms, which have at least an 85% protective effect against HIV transmission when used correctly (WHO, 2015). Male circumcision can also reduce the risk of HIV transmission by 60% in heterosexual encounters (WHO, 2015). A more recent prevention effort focuses on the use of ART as prevention. Pre-exposure prophylaxis (PrEP), or administering ARVs to individuals who have not been infected with HIV but are at great risk, has been successful in reducing transmission of the virus (WHO, 2015). Studies on post-exposure prophylaxis (PEP), or administering ARVs within 72 hours after infection, have shown similar results (WHO, 2015). Some prevention efforts focus more specifically on certain at risk subsets of the population. For example, needle and syringe exchange programs are used to target drug

users, while ARVs are often administered to pregnant mothers to reduce the risk of transmitting HIV to their babies (WHO, 2015).

Stigmatization of HIV/AIDS

The concept of stigma was first explored and defined by Goffman (1963) as “an attribute that is deeply discrediting” and transforms an individual “from a whole and usual person to a tainted, discounted one” (p. 3). According to this definition, stigma is based on deviance from what is considered normal (Goffman, 1963). From a social and cognitive perspective, stigma is accompanied by stereotypic beliefs and labels that often have social consequences for those being labeled (Parker & Aggelton, 2003).

Additionally, Parker and Aggelton frame stigma on a community level as resulting from structural power dynamics that create social inequality. While stigma itself is an attitude, the outcomes are referred to as discrimination (Link & Phelan, 2001). Individuals experiencing discrimination are often disadvantaged in the domains of income, education, housing, and health (Link & Phelan, 2001). These various aspects of stigma are combined into a theoretical framework by Link and Phelan that consists of four components: 1) labeling of differences, 2) linking labeled individuals with undesirable characteristics, 3) separating labeled individuals into categories, and 4) labeled individuals experiencing discrimination.

Stigma is commonly attached to diseases that are severe, incurable, and transmitted through behaviors that defy social norms (Genberg et al., 2007). HIV/AIDS is no exception, and many individuals living with this virus or disease experience strong stigma (Nyblade et al., 2003). The negative effects of HIV/AIDS stigma range from

limited access to resources to reduced social support to altered psychological well being (Nyblade et al., 2003). HIV/AIDS stigma acts as a significant barrier to treatment and prevention efforts, which is why UNAIDS has identified the reduction of stigma as one of their target goals (UNAIDS, 2015). Due to the stigma, individuals with HIV/AIDS are more hesitant to seek testing and care, less likely to disclose their status to friends and family, and less likely to adhere to treatment (Genberg et al., 2007).

Factors Contributing to HIV/AIDS Stigma

In studying the roots of HIV/AIDS stigma, a variety of contributing factors have been identified. First, lack of education and knowledge about HIV/AIDS can lead to incorrect or extreme beliefs that support stigmatizing attitudes (Bos, Schaalma, & Pryor, 2008). Nyblade et al. (2003) conducted studies in Ethiopia, Tanzania, and Zambia that delineated some of these beliefs. While most individuals possessed basic knowledge about HIV and AIDS, they lacked in-depth understanding (Nyblade et al., 2003). For example, many of the people who responded to a survey incorrectly believed HIV/AIDS could be transmitted casually and would lead to immediate death. They also lacked an understanding about the difference between HIV and AIDS (Nyblade et al., 2003). Bos et al. (2008) identified the perceived contagiousness and seriousness of the disease as reasons why individuals respond negatively to people with HIV/AIDS. Nyblade et al. (2003) suggested that the isolation that occurs between groups of people with and without HIV/AIDS is not purposeful, but rather a protective mechanism that individuals use to prevent infection due to their fear of death.

Another important factor is the perceived responsibility of those with HIV/AIDS. Because HIV/AIDS can be transmitted through chosen behaviors, many individuals feel less pity because they believe the infected people had control over their actions, yet made poor decisions (Bos et al., 2008). Additionally, many of the modes of transmission of HIV are norm-violating behaviors, such as unsafe sex, homosexuality, and drug use (Bos et al., 2008). Individuals infected with HIV have often been referred to as prostitutes, adulterers, and generally immoral people (Nyblade et al., 2003). Nyblade et al. also found that many individuals linked behaviors that led to HIV/AIDS with going against religious teachings. Some survey respondents suggested that HIV/AIDS was a punishment inflicted by God due to sins that had been committed (Nyblade et al., 2003). The degree to which religion impacts stigma varies by culture. Smith (2004) found that religion plays a greater role in sub-Saharan Africa compared to the rest of the world. Hasnain (2005) reported that stigma might be enhanced in Muslim cultures because of stricter religious teachings. Additionally, culture itself can lead to unique beliefs about HIV, such as that it is caused by witchcraft in Tanzania and Zambia (Nyblade et al., 2003).

Genberg et al. (2007) also identified some influences on HIV/AIDS stigma while testing a new stigma scale in Thailand and Zimbabwe. The scale measured three dimensions of HIV/AIDS stigma: blame, discrimination, and equity. Stigmatizing attitudes on the first and third dimensions of the scale were significantly lower in Zimbabwe than Thailand (Genberg et al., 2007). The proposed reasoning behind these results was that individuals in Zimbabwe are more likely to personally know someone with HIV/AIDS, while in Thailand, HIV is most common among marginalized groups such as drug users and sex workers (Genberg et al., 2007). Thus, the researchers

identified lack of exposure to individuals with HIV/AIDS as a factor that contributes to stigma. In contrast to previous results, stigmatizing attitudes on the second dimension of the scale were lower in Thailand than Zimbabwe (Genberg et al., 2007). Genberg et al. propose that access to treatment may be the factor underlying these attitudes. All individuals with HIV/AIDS in Thailand can access antiretroviral treatment through a government program, whereas treatment remains limited in Zimbabwe (Genberg et al., 2007). Furber, Hodgson, Desclaux, and Mukasa (2003) found that access to treatment may reduce stigmatizing attitudes by framing HIV as a chronic, yet treatable condition, rather than a death sentence.

Finally, Nyblade et al. (2003) identified certain demographic factors that shape stigmatizing attitudes. In regards to socioeconomic status, rich people experience more blame than the poor because people often believe that the rich had a say in their behavior, while the poor responded out of desperation and need. However, the poor still experience more stigma because of their inability to hide their status and seek the best care. Youth also experience greater blame because many individuals believe that youth are careless and risky in their behaviors. Gender is a more complicated factor. Both men and women can be blamed for contracting HIV, but for different reasons. Men are often blamed due to their natural increased sexual desires, while women are often blamed for dressing or acting immodest to attract attention. Due to the power dynamic often seen between males and females, females may be blamed to a greater degree regardless of which person actually contracts the virus.

A Case Study: Botswana

A powerful example of HIV/AIDS stigma is revealed through the study of the Sub-Saharan African country of Botswana. When HIV infection peaked in Botswana around 1997, the prevalence rate was estimated at more than 30 percent (Dow & Essex, 2010). Due to the long period of time between infection and death, the epidemic did not become extremely evident until AIDS related deaths peaked around 2004 (Dow & Essex, 2010). According to the book *Saturday is for Funerals*, “death and funerals in Botswana were so common that you could not plan any other event for Saturday mornings” (Dow & Essex, 2010, p. 1). However, through more than a decade of governmental responses and medical advances, the prevalence rate has decreased. Recent estimates of the HIV adult prevalence rate range between 21 and 25 percent, still making it the second highest rate in the world (CIA, 2015). Botswana is an especially interesting case because the effective governmental response has been a model for many other countries, yet the high prevalence rate shows that HIV continues to have a negative impact.

The national governmental response began with an antiretroviral program called Masa in 2002, but the treatment was not widely available until around 2006 (Dow & Essex, 2010). While ARVs were used in the United States as early as the 1980s, the extremely high cost (thousands of dollars per patient per year) and untrained medical professionals prevented similar use in Botswana until decades later (Dow & Essex, 2010). This governmental program was especially effective because treatment was provided to all citizens for free, and by 2013, 69% of adults with HIV were receiving treatment (Farharni, 2013). The other component of the government’s response was to implement an opt-out HIV testing program in 2004, where testing is offered at each

routine medical visit unless the patient refuses (Dow & Essex, 2010). A more recent change took place in 2013 when a bill was passed that allowed mandatory HIV testing at the request of the medical professional (HIV Justice Network, 2013). While the citizens of Botswana generally supported opt-out testing, many individuals felt that mandatory testing was unethical (HIV Justice Network, 2013).

As explained previously, one major barrier to ARV treatment and testing is stigmatizing attitudes. Fear of stigma leads many people to avoid testing, treatment, or even disclosing their status to friends and family (Genberg et al., 2007). In a study conducted in Botswana, Wolfe et al. (2006) found that 94% of participants did not disclose their status to the community and 69% of participants did not even disclose their status to their families. Around 27% of participants reported fearing they would lose their job if their status were discovered (Wolfe et al., 2006).

These perceived attitudes are supported by other studies conducted in Botswana, such as The Botswana AIDS Impact Survey (BAIS) conducted in 2001 (Letamo, 2003). Forty-two percent of participants reported that a teacher with HIV/AIDS should not be able to continue teaching, and 60% of participants reported that they would not buy vegetables from a shopkeeper known to have HIV/AIDS (Letamo, 2003). However, only 11% of participants reported that they would not be willing to take care of a family member with HIV/AIDS (Letamo, 2003). This suggests that being related to the individual with HIV/AIDS may lessen stigmatizing attitudes. It is important to note that these findings are old, but current studies of HIV/AIDS stigma in Botswana are limited.

It is also important to note that culture plays an important role in stigma, and studying HIV/AIDS stigma in Botswana can provide many examples of this role. For

example, the majority of women in Botswana breastfeed their babies, but women may have to switch to formula if they become infected with HIV. Many women are afraid to be seen giving formula to their children for fear of stigma (Dow & Essex, 2010). Another example stems from religious beliefs that HIV/AIDS is caused by ancestral spirits attacking the health of the individual (Dow & Essex, 2010). People in Botswana may feel less sympathy for those with HIV/AIDS if they see it is a deserved punishment (Dow & Essex, 2010). Additionally, cultural factors can also play a role in treatment and prevention. Due to these beliefs in ancestral spirits, people diagnosed with HIV/AIDS may turn to traditional healers rather than effective medical treatment (Dow & Essex, 2010). Another example is a traditional tribal ceremony called bogwera where male circumcision takes place, which simultaneously reduces the risk of transmitting HIV (Dow & Essex, 2010).

The Botswana government, as well as many individuals, has acknowledged the role of stigma in acting as a barrier to treatment and prevention. A variety of innovative programs have been implemented to directly address stigma. Mass-media campaigns are one popular method. The Ministry of Health and United Nations Development Program (UNDP) created an interactive educational video program called Talk Back that played in local schools (UNDP, 2013). A popular soap opera called Makgabaneng addressed themes related to HIV/AIDS, reaching a significant portion of the population (Botswana Ministry of Health, 2014). Other programs have included the public testing of President Festus Mogae and a “Miss HIV Stigma Free” competition (Weiser et al., 2006). Progress has been made in reducing stigmatizing attitudes, but they persist to some degree and continue to serve as a barrier to treatment and prevention.

Current Study

Based on this background research and personal observations while studying abroad in Botswana that support these research findings, the present study sought to assess the role of culture in HIV/AIDS stigmatization. A questionnaire measuring stigmatizing attitudes was administered to American and international students at Western Kentucky University (WKU). The international students who participated in the study were from 16 different countries, but most commonly identified their place of birth as Saudi Arabia, India, and Iran, respectively. According to the Western Kentucky University Fact Book (2015), these three countries all fall within the top ten countries sending international students to WKU. With this knowledge, research was also conducted to evaluate stigmatizing attitudes of HIV/AIDS in these three countries.

In Saudi Arabia, studies examining HIV/AIDS stigma are scarce. However, an important study of male college students conducted by Badahdah (2010) did reveal stigmatizing attitudes. Results of the study showed that over 70% of participants reported that they would not marry someone who had a relative with HIV/AIDS, and over 65% of participants reported feeling uncomfortable being touched by a person with HIV/AIDS. Similarly, around 60% reported that an individual with HIV/AIDS should be fired from his or her job. Shame was identified as a major predictor of HIV/AIDS stigma. For example, over 72% of participants indicated that they would be ashamed of a relative with HIV/AIDS. Another factor was limited knowledge about HIV and AIDS, particularly about transmission. For example, 50% of participants believed that kissing someone with HIV on the cheek could lead to infection. A cultural factor hypothesized to

play a role was strict Islamic principles. Seventy-five percent of participants reported that AIDS is a punishment from God.

Similar findings have been reported in India, where their National AIDS Control Organization has chosen stigma reduction as a primary goal (Vlassoff, Weiss, Rao, Ali, & Prentice, 2012). A study conducted by Nebhinani, Mattoo, and Wanchu (2012) of HIV-infected patients not receiving treatment in North India revealed stigmatizing attitudes of shame, blame, and judgment. For example, 87% of participants agreed with at least one blame and judgment statement such as “People with HIV got what they deserved” (Nebhinani et al., 2012). Another study conducted in tribal villages in Maharashtra revealed even more stigmatizing attitudes. In a series of focus group discussions, many participants indicated they had observed discrimination against individuals with HIV/AIDS such as “a married couple who were rejected by the community and banished to the fields to die alone” (Vlassoff et al., 2012, p. 398). Tribal participants also were shown to hold stigmatizing attitudes through a vignette describing a fictional story of a HIV-positive woman named Pushpa. For example, only 8% of participants indicated that they would purchase food from Pushpa (Vlassoff et al., 2012).

Studies of HIV/AIDS stigma in Iran are extremely limited. Like Saudi Arabia, Iran is often included in the Middle Eastern and Northern African (MENA) region, which may suggest similarities in stigmatizing attitudes (Badahdah, 2010). One study by Behravan and Abachi (2012) conducted extensive interviews with seven individuals known to be HIV positive. Several of the recorded statements were consistent with previously described stigmatizing attitudes. For example, one participant stated, “If I tell them, their treatment changes, they will be afraid of me. Because the level of awareness

of our people is very low. When they know about it they even don't look at me” (Behravan & Abachi, 2012, p. 214). In another interview, a student indicated that “if the manager of the school knows about it, he will not let me go to school, if he knows he will change my seat” (Behravan & Abachi, 2012, p. 217).

While the number of studies from these three countries of interest are limited, the findings overall support the presence of stigmatizing attitudes of HIV/AIDS. As a result, it was hypothesized that Western Kentucky University international students would hold more stigmatizing attitudes of HIV/AIDS than American students.

CHAPTER 2

METHODS

Participants

This study included 118 Western Kentucky University (WKU) students of age 18 or older. There were 85 American students (23 males, 61 females, and 1 unknown) and 33 international students (19 males and 14 females). The mean age of the American students was 20.38 (SD = 4.02) and the mean age of the international students was 25.88 (SD = 5.22). The majority of American students identified as White (91%), followed by Black or African American (6%), Hispanic or Latino (2%), and Other (1%). International students identified 16 different countries of birth, with the most common places of birth as Saudi Arabia (21%), India (18%), and Iran (15%).

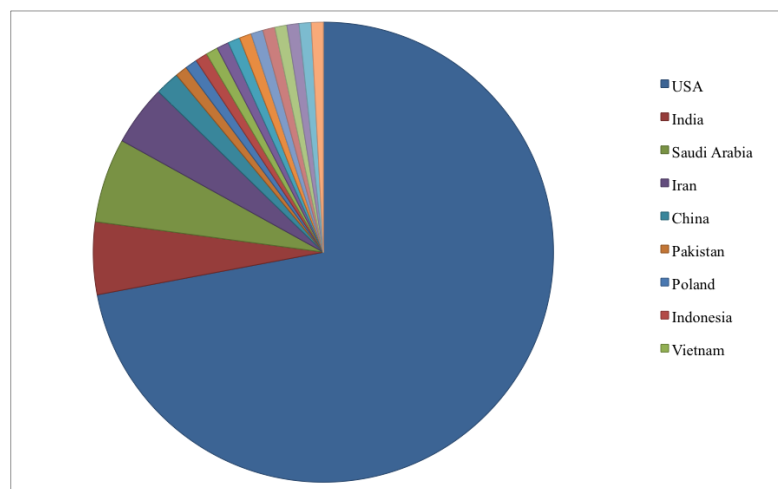


Figure 1. Participant country of birth.

The mean length of time international students indicated being in the United States was 32.88 months or 2.74 years ($SD = 21.64$ months).

Participants were recruited through multiple methods including the WKU Department of Psychology Study Board, an email sent out to all international students through a list-serve, and a few student organizations such as the African Student Union and international ministry. Students who participated through Study Board were offered a study board credit, and all students were eligible to participate in a raffle for one \$50 gift card and two \$25 gift cards.

Materials and Procedure

This study involved an online questionnaire administered through Qualtrics. The first page instructed participants that completing the questionnaire served as their consent to participate in this study. The questionnaire was anonymous and participants were free to withdraw from the study at any time. The first portion of the questionnaire assessed demographic factors. The second portion measured attitudes about HIV/AIDS using statements adapted from several resources. These included “Support for Coercive AIDS-Related Policies, Negative Feelings Toward People With AIDS (PWAs), and Attributions of Responsibility and Blame for PWAs” (Herek, Capitanio, & Widaman, 2002), “Personal Stigma for Community Members” (Visser, Kershaw, Makin, & Forsyth, 2008), and “Attitudes Toward People with HIV/AIDS” (von Collani, Grumm, & Streicher, 2010).

Each of these resources used a unique scale that focused on specific dimensions of interest within the broader realm of HIV/AIDS stigma. Some of these dimensions were

not relevant to the current study. For example, von Collani et al. (2010) included statements that assessed right wing authoritarianism and social dominance orientation. Several relevant statements were taken from each scale to create a new scale with 17 statements that were rated from Strongly Agree to Strongly Disagree. These statements assessed knowledge about modes of transmission (such as “AIDS can be contracted by kissing”) and attitudes about individuals with HIV/AIDS (such as “People with AIDS get what they deserve”). A complete copy of the questionnaire can be found in the Appendix.

Participants were able to complete the questionnaire online in any location and at any time. The questionnaire took approximately 10 to 15 minutes. After a three-week collection period, the data was coded on a scale ranging from 1 (Strongly Agree) to 5 (Strongly Disagree). The responses were then converted to a scale of 1 (low stigmatizing attitudes) to 5 (high stigmatizing attitudes), with several of the questions reverse scored. For each participant, a mean was calculated across all 17 questions to represent average stigmatizing attitudes.

CHAPTER 3

RESULTS

An independent samples t-test was conducted on mean stigmatizing attitudes. The international students had significantly more stigmatizing attitudes ($M = 2.48$, $SD = 0.72$) than American students ($M = 2.24$, $SD = 0.55$), $t_{(116)} = 1.72$, $p < .05$. There was a very weak negative correlation between age and stigmatizing attitudes, but it was not significant, $r_{(116)} = -.07$, $p > .05$. Additionally, there was not a significant difference between stigmatizing attitudes of males ($M = 2.32$, $SD = 0.64$) and females ($M = 2.31$, $SD = 0.60$), $t_{(116)} = .083$, $p > .05$. In considering only the international students and placing them into three regional groups based on country of birth (Asia, Middle East, and other), there was not a significant main effect of birth country on stigmatizing attitudes, $F_{(2,30)} = .21$, $p > .05$. Lastly, the slightly negative correlation between length of time in the United States and stigmatizing attitudes was not significant, $r_{(116)} = -.01$, $p > .05$.

CHAPTER 4

DISCUSSION

The purpose of this study was to measure cross-cultural differences in attitudes of HIV/AIDS stigmatization, specifically the difference between American and international students at WKU. It was hypothesized that international students would hold more stigmatizing attitudes of HIV/AIDS than American students, and this hypothesis was supported by the results of this study. As predicted, the mean stigmatizing attitudes score based on the administered questionnaire was significantly higher for international students than for American students. These results were consistent with previously described studies that found evidence of stigmatizing attitudes in Saudi Arabia, India, and Iran, where the majority of the international student participants were from. Other tests were also conducted to analyze the effects of age, gender, country of birth, and length of time in the United States, but none of these results were significant.

Limitations

While this study shows that international students had more stigmatizing attitudes than American students, it does not address the question of why. This is a key limitation. It is assumed that culture plays a role in this difference, but the questionnaire did not assess these factors. Nyblade et al. (2003) showed that HIV/AIDS stigma is more

prevalent in developing countries, but this factor cannot be assumed to account for the variation observed in the results. In fact, some of the international students were from very developed countries such as Switzerland, China, and Japan. In addition, this creates a limitation in that grouping all international students into one category is a generalization, as the students were from a variety of countries ranging in location, degree of development, and culture. Furthermore, stigmatization scores on the questionnaire were around 2.5, which is relatively low on a scale from 1 to 5. These scores call into question the degree to which these attitudes were actually stigmatizing.

A few limitations can also be identified in the methodology. The sample sizes differed between American and international students, though this was taken into account by computing averages. The sample size for the international students was small, which reduces the power and generalizability of the study. Additionally, because one method of recruitment was the WKU Study Board, the majority of American students had majors or minors in Psychology. It is possible that attitudes of psychology students do not reflect the attitudes of all college students. Also, the questionnaire used in this study was compiled from several published questionnaires, but was not tested for reliability or validity. Finally, language comprehension was not tested, and although steps were taken to reduce the likelihood, it is possible that international students were not able to fully comprehend the content of the questionnaire, which could compromise the results.

Interventions to Reduce HIV/AIDS Stigma

The limitations in this study suggest many improvements that could be made, as well as future directions for research. In general, studies of HIV/AIV stigma are not very

common, especially when considered on a country-by-country basis. It is helpful to know that culture contributes to HIV/AIDS stigma, but it is even more important to delineate the specific factors that contribute in order to inform intervention efforts. When considering countries like Botswana where antiretroviral treatment is universally available at no cost, yet only 69% of adults with HIV were receiving treatment in 2013 (Farharni, 2013), it is evident that intervention programs targeted specifically at reducing stigma are a necessary next step. As already described, some intervention programs of this sort have shown promise in Botswana. Through studying these and other intervention efforts, a few promising approaches of interventions that aim to reduce HIV/AIDS stigma can be identified.

At an individual level, HIV/AIDS stigma can be addressed through stereotype change programs. It is hypothesized that when individuals are presented with members of a group that have inconsistent features with the group stereotype, the stereotype may be questioned. While not always true, this is often the case when the individuals are highly motivated and the group members with inconsistent features do not differ too dramatically from the stereotype (Kunda & Oleson, 1995). One way of changing stereotypes is by facilitating contact with people with HIV/AIDS. This method provides opportunities for positive experiences that may disconfirm stereotypic attitudes (Herek & Capitanio, 1997). For example, Paxton (2002) found that an audience that listened to a speaker with AIDS showed decreased levels of fear and stigmatizing attitudes. This method of intervention is supported by previously discussed findings by Genberg et al. (2007) that personally knowing someone with HIV/AIDS is associated with less stigmatizing attitudes.

While targeting HIV/AIDS stigma at an individual level can be effective in changing attitudes among individuals, community level interventions may be more effective in reaching a greater number of people. Based on the knowledge that one component of HIV/AIDS stigma is lack of knowledge about HIV and its modes of transmission (Nyblade et al., 2003), increasing awareness through education may be another successful method. Mass media campaigns are a popular tool to distribute information, such as through television, radio, or pamphlets (Mahajan et al., 2008). For example, a soap opera called “The Bold and the Beautiful” that aired in Botswana and addressed themes related to HIV was shown to significantly decrease levels of HIV/AIDS stigma (O’Leary et al., 2007). Aspects of HIV/AIDS that are especially misunderstood should be targeted, such as the differences between HIV and AIDS, modes of transmission, and the treatments that enable people with HIV/AIDS to live normal lives (Nyblade et al., 2003).

At an even broader level, structural changes are needed in order to change policies that allow stigmatization and discrimination of those with HIV/AIDS. The targets of these interventions should be those who hold the power, such as lawmakers (Parker & Aggelton, 2003). Policy reforms are necessary in order to promote changes to laws that enable stigma, such as forbidding needle exchange programs (Rhodes, Singer, Bourgois, Friedman, & Strathdee, 2005). An example of a structural intervention program can be found in studying a non-governmental organization called the Lawyer’s Collective HIV/AIDS Unit in India, which promotes policy reform and protects the rights of individuals with HIV/AIDS (Lawyer’s Collective, 2014). Another option is to target

religious leaders. For example, one effective practice has been when religious leaders advocate male circumcision, which is an established method of prevention (WHO, 2015).

While all of these methods of intervention show promise for reducing HIV/AIDS stigma, approaches that stretch across multiple levels are often the best way to target the wide variety of factors that play a role in the stigma (Mahajan et al., 2008). One of the most important considerations is selecting methods that are most beneficial to the specific context. This is especially true in developing countries, where cultural values play a major role in HIV/AIDS stigma (Bos et al., 2008). While interventions that specifically target HIV/AIDS stigma are important, few interventions of this type have been conducted compared to other kinds of interventions (Bos et al., 2008). In a time where antiretroviral therapy is more affordable and widespread, it is simply unacceptable that so many individuals continue to die from AIDS related causes. It is, therefore, necessary to continue to conduct studies to test the effectiveness of these interventions in the hopes that reducing HIV/AIDS stigma will increase the number of individuals who get tested and seek treatment.

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APPENDIX

Default Question Block

INFORMED CONSENT DOCUMENT

Project Title: HIV/AIDS Attitudes

Investigator: Jamie Doctrow Jamie.doctrow288@topper.wku.edu
Dr. Anthony Paquin Tony.paquin@wku.edu

You are being asked to participate in a project conducted through Western Kentucky University. The University requires that you give your agreement to participate in this project.

You must be 18 years old or older to participate in this research study.

The investigator will explain to you in detail the purpose of the project, the procedures to be used, and the potential benefits and possible risks of participation. You may ask any questions you have to help you understand the project. A basic explanation of the project is written below. Please read this explanation and discuss with the researcher any questions you may have. You should keep a copy of this form for your records.

1. **Nature and Purpose of the Project:** The purpose of this questionnaire is to help researchers measure attitudes about HIV/AIDS.
 2. **Explanation of Procedures:** You are requested to complete an online questionnaire. This online questionnaire should take no more than 10 minutes.
 3. **Discomfort and Risks:** Taking this survey does not contain any anticipated risk to you as a participant. Your participation is strictly voluntary and you may exit the questionnaire at any time without penalty.
 4. **Benefits:** By completing this questionnaire, you may enter into a drawing for one \$50 gift card and two \$25 gift cards. Drawing information will be collected separately from the questionnaire.
-

5. **Confidentiality:** Information collected will be used only for the research and will be kept anonymous. You are asked to refrain from disclosing any information that may link to your identity. Once the study is completed, the results can be shared with you if you desire by contacting a member of the research team above.

6. **Refusal/Withdrawal:** Refusal to participate in this study will have no effect on any future services you may be entitled to from the University. Anyone who agrees to participate in this study is free to withdraw from the study at any time with no penalty.

You understand also that it is not possible to identify all potential risks in an experimental procedure, and you believe that reasonable safeguards have been taken to minimize both the known and potential but unknown risks.

By completing this questionnaire, you are verifying that you are currently a student of Western Kentucky University and are 18 years or older. You are also verifying that you have read the explanation about this study and that you agree to participate.

Your continued cooperation with the following research implies your consent.

THIS PROJECT HAS BEEN REVIEWED AND APPROVED BY
THE WESTERN KENTUCKY UNIVERSITY INSTITUTIONAL REVIEW BOARD
Paul Mooney, Human Protections Administrator
TELEPHONE: (270) 745-2129

[Informed consent.16 202.11.24.15 2](#)

Please answer the following questions as accurately as possible.

What is your gender?

- Male
- Female
- Other

What is your age?

Were you born in the United States?

- Yes
- No

Block 1

How do you describe yourself?

- American Indian or Alaska Native
- Asian or Asian American
- Black or African American
- Hawaiian or Other Pacific Islander
- Hispanic or Latino
- White
- Other

Block 2

Where were you born?

How long have you been in the United States?

Block 3

Please rate the following statements on a scale from Strongly Agree to Strongly Disagree based on your personal opinions.

	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
People with AIDS get what they deserve	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I would see no problem if a person infected with AIDS lived in my neighborhood	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The names of people with AIDS should be made public to protect the public health	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
AIDS can be contracted by using the same toilet as someone living with AIDS	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I would not employ someone with HIV	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A person with HIV is of good moral character	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
HIV is a punishment for bad behavior	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I would not stay friends with a close friend who contracted HIV	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I would not send my children to a school where one of the students was known to have AIDS	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel afraid to be around people with HIV	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I would not sit next to someone with HIV in public or private transport	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It is safe for a person with HIV to look after somebody else's children	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I would not date a person if I knew that he/she had HIV	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I would have no problem drinking from a tap if a person with HIV had just drunk from it	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I would stop shopping at a store if I found out the owner had AIDS	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
AIDS can be contracted by kissing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I would be willing to take care of a close friend or relative who developed AIDS	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

By completing this questionnaire, you are eligible to enter into a drawing for one \$50 gift card and two \$25 gift cards. If you choose to do so, please follow the link to enter your contact information.