Faith, Physiography, and Fallacy:

Understanding Stigmatization Towards Individuals with HIV and AIDS in Botswana

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Introduction

While the Human Immunodeficiency Virus (HIV) and Acquired Immune Deficiency Syndrome (AIDS) can now be traced as a disease found in humans since the 1950s, the virus was not discovered until several decades later in the 1980s (Farrow, 1999, 143). As of 1999, the World Health Organization approximates that 33.6 million people around the world suffer from the virus, with 70% residing in sub-Saharan Africa (Farrow, 1999, 143). While the disease has claimed the life of over 13 million Africans, it has also devastated the lives of countless others (Farrow, 1999, 145). In addition to the physical suffering that comes with the HIV/AIDS virus, individuals and their families are also dramatically impacted by social stigmatization and discrimination that follows a positive diagnosis.

A comparatively wealthy nation, Botswana is an important example of a sub-Saharan country that may have had the means to limit the spread of HIV/AIDS through education and condom access but still has one of the highest rates of the virus (Heimer, 2007, 553). The country's government has legitimized HIV testing as both important and routine since 2004, yet social attitudes still prevent early detection and societal acceptance (Ntshebe, 2004, 52). In studying both the personal characteristics as well as the contextual characteristics of many sub-Saharan nations, I plan to examine the question, "Why are some people in Botswana more tolerant of individuals with HIV/AIDS than others?" My goal is to understand if the social success of individuals with stigmatized diseases is at risk depending upon where they live.

Building on various sources of literature, I plan to also use individual-level data from Afrobarometer in order to better understand my question of why some individuals in Botswana may be more tolerant than others. I will compare both literature and data from public opinion surveys and other sources of descriptive data in order to establish a more general understanding

of discrimination against HIV/AIDS and the various differences in attitudes within Botswana. It is my ultimate goal that this research may help to more effectively target education policies and human rights law in areas impacted by HIV and AIDS (Sherill, 1992, 688).

Sources of Tolerance

A vast amount of literature finds that discrimination against individuals with communicable diseases is common. A virus associated with negative connotations, HIV and AIDS greatly impact both the physical and the emotional wellbeing of those it infects (Moremen, 2010, 145). Stigma, intolerance, and discrimination may affect a variety of factors that are integral to one's prosperity in their community; including but not limited to government support, overall quality of life, and even survival (MacLean, 2004, 103). It is because of this intense judgment that some scholars have chosen to analyze the causes of this discrimination with the hopes of spreading knowledge and subsequent acceptance that may help to better integrate individuals with HIV and AIDS in to their own communities. I will analyze various schools of thought that provide different explanations for why some individuals stigmatize and others do not. Religiosity, geography, gender, age, and education will act as my independent variables and may assist in identifying a better understanding of why discrimination exists towards individuals with HIV and AIDS, particularly in Botswana.

Religiosity

An important aspect of life in many sub-Saharan nations, religiosity as a logical explanation for why discrimination exists is outlined in vast amounts of literature and research. Focused on the southern region of Africa, a total of 376 publications connecting religion and HIV/AIDS have been produced between the years of 2007 and 2013 alone (Denis, 2013, 45). A

common aspect of many religions, narratives surrounding particular forms of sexuality as deviant or morally wrong may create stereotypes and judgments surrounding those suffering from HIV/AIDS (Amo-Adjei, 2013, 52). The connection between religion and stigma associated with sexual behavior casts those affected by sexually transmitted diseases as inferior or sometimes cursed, with little regard of whether or not the individual affected actually contracted the disease from sexual contact (Ladebo, 2002, 52). It is important to study the connection between religion and discrimination towards HIV/AIDS as any form of association with one who is infected with HIV/AIDS may result in negative social standing within one's community. This intolerance creates a norm of discrimination under the façade of religion and morality and casts individuals suffering from the disease as a social pariah undeserving of basic human decency.

Another set of studies focuses on the variables of sexuality and religion in order to gain a better understanding of how HIV/AIDS impacts social attitudes. The research by Ladebo and Tanimowo concluded that while there was no variation regarding awareness of HIV/AIDS (all respondents reported to be aware), most could only identify sexual intercourse as the main transmission of the virus, giving the disease a slightly deviant connotation. This research surveyed 176 men, 70% of which reported to be Christian, and 40 women, 75% of whom also self-reported as Christian (Ladebo, 2002, 55). The overwhelming Christian majority in this study highlights a specific way in which religiosity, and specifically Christianity, impacts the negative attitudes of individuals with HIV and AIDS. This study reports that 85% of respondents had negative feelings towards people living with HIV/AIDS, proving how widespread and socially acceptable it is to discriminate against individuals living with the virus, likely impacted by intolerance throughout various religious practices and beliefs.

In comparison, the more frequent one practices religion may correspond with their willingness to sympathize and connect with those in need. Social interactions in Africa are largely shaped and organized through religion, and in Botswana this is done through Christianity specifically (Regnerus, 2007, 387). This was highlighted in Regnerus' study that emphasizes the relationship between stigma and assumptions surrounding sexual immorality (Regnerus, 2007, 387). A variable that largely correlates to the stigmatization of individuals with HIV/AIDS, religion influences members of a community to not only passively neglect but also to actively refuse the favorable treatment of those who may be suffering (Regnerus, 2007, 388). This literature is similar to others that suggest HIV/AIDS positive individuals suffer greatly from the burden of discrimination that permeates the minds of many through religious views of particular forms of sex as deviant (Ladebo, 2002, 52).

This discussion of religion in sub-Saharan Africa helps to establish context in the area of greatest concern to my research. By including data from the Demographic and Health Surveys and the World Fertility Survey, this essay provides data that may be useful in analyzing a variety of countries in sub-Saharan Africa that are both tolerant and intolerant of individuals living with HIV/AIDS. It is significant to note that Regnerus and Salinas openly critique the argument that religion is positively correlated to stigma when discussing Christian religions, as they draw most of these connections between discrimination and Muslim/non-Christian religions (Regnerus, 2007, 385).

Consistent with the belief that religiosity is not a strong predictor of intolerance, individuals affiliated with Christianity were found to be more likely to use condoms during sexual encounters than those affiliated with non-Christian religions (Letamo, 2012, 103). This indicates a sensitivity and awareness towards the virus, which may in turn signify a tolerance and

understanding of those who suffer from the disease (Letamo, 2012, 84). A country that is comprised mainly of Christians, Botswana may be further understood as a more tolerant nation because of this connection as highlighted in the analysis of safe sex and the inclination to use protection (Letamo, 2012, 84).

Urbanism

Found in a 2006 UNAIDS study, a recorded 60% of the individuals in the world who suffer from HIV/AIDS can be found in sub-Saharan Africa (Barrett, 2007, 154). This astounding statistic highlights the importance of geographic location when discussing susceptibility towards the disease as the virus is seen to affect specific regions with significantly higher rates than others. Various regions have specific values and norms, which in turn impact how individuals living in those regions are socialized. Raised to believe in a specific code of ethics, or what is right and what is wrong, one may be more likely to adopt discriminatory views against individuals who are seen to be deviating from the generally accepted sense of what is right. HIV/AIDS makes people sick, takes them out of the workforce, kills them painfully, and therefore it is often associated with intense feelings of negativity (Farrow, 1999, 146). However, with some countries and regions having higher prevalence rates, certain areas may be forced to adapt to the harsh realities of the virus more than others. In studying geographic variation in attitudes and discrimination towards HIV/AIDS, one may gain a greater understanding of how prevalence and community norms based on location impact the lives of individuals suffering from the disease.

Through statistical analysis and data from the 2008 Ghana Demographic and Health Survey, one may see both why and how young people have certain attitudes towards those

infected by HIV and AIDS. Controlling for beliefs, myths, and knowledge surrounding the sources of the virus, studies show that geographical region greatly correlates with a degree of knowledge surrounding HIV and AIDS (Amo-Adjei, 2013, 51). This work emphasizes the significant correlation between rural environments and the intolerance of individuals with HIV/AIDS (Amo-Adjei, 2013, 51). Both Heimer and Amo-Adjei discuss the fact that urban prevalence rates are significantly higher than prevalence rates in rural areas (Heimer, 2007, 553; Amo-Adjei, 2013, 52). This information suggests that there is greater exposure and awareness surrounding the virus in more urban areas, as one is more likely to have a personal connection to the disease.

Gender

Often victims to traditional and stereotypical gender roles of femininity, women are more subject to risky sexual practices than men (Phaladze, 2006, 25). On average, women in Botswana engage in sex for the first time around age 16 (Phaladze, 2006, 25). Due to both societal and economic pressures younger women are encouraged to engage in sexual activities with men of higher status and age who are more likely to have had a plethora of partners and sexual experiences (Phaladze, 2006, 26). Additionally, jobs that are available to women are often lower paying, which forces many women into risky sexual relationships so they may provide for their families or sick relatives with HIV (Phaladze, 2006, 26). Cultural factors in Botswana prohibit women from maintaining agency over their sex lives and women do not typically have the right to request condoms during sexual encounters, making them more susceptible to the virus (Phaladze, 2006, 27). These blatantly sexist and oppressive norms are therefore an example of why women may be less tolerant and more resentful of the virus than men.

Another way in which women are more likely to encounter the negative impacts of the virus can be seen in the quote, "women bear the brunt of responsibility for the cause and spread of the disease, whether it is infertility and sterility of HIV/AIDS," (Upton, 2011, 101). Due to this unequal distribution of blame women are more likely to fear and resent the HIV/AIDS virus. It is also more likely that a woman may be intolerant towards individuals with HIV because they fear the responsibility of care (Regnerus, 2007, 392). The terms moopa, meopa, and moopana describes a woman who is barren, and is often used as derogatory slang in Botswana (Upton, 2011, 97). Terms like these further degrade women and generate their fear of infertility and utility in society. The fear of a lower social capital through infertility or sterilization sparks increased fear of HIV and is another reason why women may be more intolerant towards the virus than men.

Age

A virus that most often impacts young adults in the southern countries of Africa, HIV and AIDS prohibits those infected from experiencing the many benefits of living a healthy young life and contributing economically (Amo-Adjei, 2013, 52). When asked, 63% of younger males and 59% of younger females reported higher levels of stigma and discrimination towards individuals with the virus (Amo-Adjei, 2013, 54). A virus that also causes infertility and sterility, younger individuals may have particularly negative views towards the disease in fear of these consequences (Upton, 2011, 96). Sparked by anger or sadness that may result from an HIV positive woman's infertility, young adults of childbearing age may develop intolerance towards individuals with the virus. Since the 1990s, infant mortality rates in Botswana have increased,

which may cause young parents to resent and condemn the virus along with any individuals suffering from the same disease (Motlaleng, 2006, 137).

Similarly, when a younger person is born with HIV/AIDS, or contracts the virus at a young age, they are more likely to require more time and resources dedicated towards the care of their illness. Assuming an individual is born with the virus, they may then grow-up to be the primary caretaker of the parent(s) who infected them. Eventually needing their own caretaker, the presence of HIV in one's family proves both economically and physically devastating as those who are sick are often taken out of the workforce indefinitely (Farrow, 1999, 147). Thus, this devastating pain and hardship that is inflicted upon young people and their families may cause a hatred/fear of the virus and a general intolerance towards those who are also impacted by it.

Additionally, when asked a variety of questions surrounding the logistics of contracting and spreading HIV, youth in South Africa aged from 15 years old to 24 years old proved to be relatively knowledgeable about the disease (Haile, 2007, 195). While seemingly knowledgeable, the respondents did not necessarily maintain a sense of complete awareness surrounding the subject (Haile, 2007, 196). There is a stark difference between knowing statistics and understanding them, and the same young respondents from this study also perceived their risk of contracting the virus as low despite their knowledge of the high prevalence rates in their own communities (Haile, 2007, 196). Either blissfully unaware of their own risk or distraught by the effects of HIV on their own families, young people are more likely to be intolerant towards those with the HIV/AIDS virus. While the virus largely affects the age group of 20-29 year olds, the lengthy latency period of HIV/AIDS allows for infected individuals to mature and possibly develop a better reaction to either their own or their loved ones' diagnosis later in life (Farrow,

1999, 145). As individuals age, they will most likely develop more exposure to the disease. With increased experience, older individuals may become more tolerant of the virus proving why youths may have more negative attitudes.

Ignorance and Education

One's exposure to education may play a role in one's attitudes toward those suffering from HIV and AIDS. A lack of education may greatly impact an individual's sensitivity toward the disease, as complicated language surrounding the illness often makes it difficult for a general understanding and comprehension of the methods of transmission and overall effect of the virus (Maluwa, 2002, 11; Moremen, 2010, 144). In response to a lack of information, HIV/AIDS education, and general sense of ignorance, misconceptions and preconceived notions surrounding the disease are likely to persist and grow. This persistence of misunderstandings may lead to discrimination against individuals with HIV/AIDS as people wrongly assume the threat of transmission where it does not exist. Understanding the lack of knowledge surrounding communicable diseases such as HIV/AIDS is a significant part in improving the lives of individuals suffering from commonly misunderstood diseases.

Stigma, or a phenomenon that "occurs when individuals are set apart from others and linked to negative evaluations because they have or are imagined to have a particular trait," develops from a lack of awareness and exposure (Cunningham, 2009, 225). Due to a lack of education and awareness of health problems, communicable disease is often attributed to individual character flaws or deviance from one's society (Haile, 2007, 197). Research suggests that this understood deviance hinders the willingness of individuals to be screened for diseases like HIV and AIDS that are perceived as sinful or shameful (Haile, 2007, 197). In fear of social

exclusion, individuals risk their own health as well as the health of others to maintain a façade of virtue and cleanliness that may be damaged by the discrimination and stigmatization of communicable yet controllable diseases like HIV/AIDS. As education levels increase, so does the knowledge of the testing and transmission of HIV and AIDS (Haile, 2007, 201). Consistent with the findings of Cunningham, this increased knowledge leads to a sense of awareness and control that may cause individuals to both sympathize and also tolerate individuals with the virus.

Similarly, individuals living with AIDS may be labeled or treated as outcasts because of a lack of formal education, and are therefore are more likely to be both judged and discriminated against in a particular society (Desai, 1987, 1179). There is an issue in science and health regarding the study of AIDS, as fear caused by a lack of knowledge is likely to inhibit both the measured and widespread research of the disease (Desai, 1987, 1179). In discussing the viral aspect of the disease, transmission rates were greater due to a lack of knowledge and tolerance (Desai, 1987, 1181). There is much confusion and stigma revolving around the disease, and early research such as this proves how the scientific community is largely tied to its corresponding social environment.

Fear and denial is also found to be a common coping mechanism used by individuals in the face of difference or the unknown (Amo-Adjei, 2013, 52). Although many communities in sub-Saharan Africa have a percentage of individuals suffering from HIV/AIDS, the disease is associated with a variety of stigmas that prohibit discussion and exposure among those who either do not have the virus or do not know someone who carries the virus (Amo-Adjei, 2013, 52). A plethora of literature agrees that a lack of education greatly contributes to a lack of awareness regarding the disease, and the less education one has the less likely they are to get

tested for HIV (Haile, 2007, 202). Similarly, individuals who reported as having higher levels of education were more likely to also report using condoms during sexual intercourse (Letamo, 2012, 102). This is true for both males and females and shows an important connection between education, awareness, proactive protection, and potentially the understanding of individuals with HIV/AIDS that may lead to tolerance (Letamo, 2012, 102).

Both the general and sex educational systems in particular areas may impact the way in which morality, particularly sexual morality, is shaped in a society (Browne, 2001, 23). In communities that focus on sex and sexually transmitted diseases as deviant and morally wrong, suicide is not an uncommon response to an HIV/AIDS diagnosis (White, 20005, 348). This highlights the severity of stigma against individuals with the virus and shows how detrimental it is to the wellbeing of individuals with HIV and AIDS (White, 2005, 348). Community togetherness suffers as a result of various socially discriminatory practices, and therefore one's HIV/AIDS positive status is often kept a secret because of a lack of awareness-based education and sensitivity training (White, 2005, 348). Without the widespread education of HIV and AIDS in various countries in Africa, individuals remain uninformed and subsequently intolerant of this disease that often only propagated as deviant and evil (Amo-Adjei, 2013, 52).

As mentioned above, stigma is result of apprehension stemming largely from fear of difference and otherness that may be a consequence of one's lack of exposure through an educational deficit (Dwyer, 2003, 108). Writers, lawmakers, and the common citizen have all contributed to the modern-day notion that disease is negative and worthy of fear and disdain (Dwyer, 2003, 108). When relating this concept to sub-Saharan Africa, one may use Malawi as an example of how the government may limit the access to knowledge and disease education, which in turn promotes stigma and hatred towards individuals with HIV and AIDS (Browne,

2001, 27). Serving a largely Christian nation, the leaders of Malawi were less than receptive to educational measures that promote condom use and education in response to the genesis of the AIDS crisis (Browne, 2001, 27). A short story in the Malawi News was named, "AIDS is punishment from God," proving the intense condemnation and stigmatization of the disease that came before educational initiates later in the 1990s (Browne, 2001, 27). Due to a suppression of HIV and AIDS information and knowledge in schools and a lack of other health-care initiatives, Malawi is a good example of how an absence of education may lead to stigma (Browne, 2001, 27).

Contrary to above literature, educated populations are also found to be intolerant towards individuals with HIV and AIDS. Although health-care workers in sub-Saharan Africa are aware of how HIV is transmitted, many display discriminatory attitudes against the people who they are hired to treat (Sadoh, 2006, 40). In analyzing the difference between workers who are employed by a private hospital versus a government owned health facility, health-care professionals are more likely to display tolerance and give treatment to patients depending on how the HIV was transmitted (Sadoh, 2006, 42). The more sexually deviant, the less likely they were to both touch and treat the patient, showing that even health-care workers are intolerant due to a lack of understanding surrounding transmission (Sadoh, 2006, 42). While equipped with the education and knowledge to understand the HIV/AIDS virus, this study of health-care providers proves that stigma may persist even among the more educated.

Additionally, the response of international non-governmental organizations (NGOs) to the assist in the quelling of the HIV/AIDS crisis is less than exemplary despite many educated professionals existing in the field (James, 2004, 575). Burdened with immense responsibility and often limited funding, employees of local NGOs are sometimes exposed to HIV/AIDS,

which further prohibits their ability to efficiently aid the communities originally in need (James, 2004, 583). Based on research conducted by The World Bank in 1998, almost half of Malawi's working professionals were predicted to have died from the epidemic despite their increased knowledge and awareness of transmission than the general public (James, 2004, 575). Despite one's increased access to education through one's pursuit of both teaching and health-care professions, 40% of this demographic suffers from HIV/AIDS in Malawi (James, 2004, 575). When diagnosed, these professionals often suffer from a variety of mental health issues and other problems that impact quality of life for both the individual and their families (James, 2004, 575). Thus, this case of Malawi weakens the argument that higher education leads to higher tolerance in all cases.

The independent variable of ignorance as shown through a lack of education is significant as it highlights the natural instinct of individuals to discriminate against people with illness, and to self-preserve in a way that dehumanizes their community members and peers. This dehumanization as a result of a lack of awareness often manifests itself as discrimination and hatred. It is important to study this discrimination as a means to gain a greater understanding of how to combat ignorance surrounding the disease in order to mediate the shame surrounding HIV and AIDS and eventually slow the spreading that results from this damaging stigma (Upton, 2011, 97; Ntshebe, 2004, 48).

Hypotheses

To guide my research I will test a variety of hypotheses. I hypothesize that religiosity, geographical differences, gender, age, and knowledge/ignorance (tested through education) all contribute (with ranging significance) to why some individuals have negative feelings toward

HIV/AIDS while others may not. I plan on looking at Afrobarometer's survey data from the years of 2014 and 2015 specifically, which provides individual-level data for Botswana.

I hypothesize that religiosity will negatively impact the tolerance of individuals with HIV and AIDS. I believe the more an individual may practice their religion, the more likely they are to internalize its traditionalist values and codes. As Botswana is predominantly Christian, I believe there is an emphasis that is placed on religion that may in turn result in lower tolerances of individuals engaging in risky sexual behaviors that lead to sexually transmitted diseases. Additionally, an individual's emphasis on religious practices may correlate with one's association between anti-homosexual sentiments and the HIV/AIDS virus (White, 2005, 347). As the HIV/AIDS virus is often misconstrued as a disease that is characteristic of homosexual preferences, I hypothesize that more religious individuals may be less willing to both accept and tolerate individuals who are infected.

Based on many sources of literature as outlined above I hypothesize that geography measured by whether an individual lives in either an urban or rural area is one of the most significant variables in explaining tolerance. I believe that individuals who live in more urban areas will be more tolerant mainly because of Botswana's particularly high prevalence rate of the HIV virus. Additionally, individuals in urban areas are more likely to both have access to and also report the use of condoms (Letamo, 2012, 102). I anticipate that urban areas of Botswana are more likely to have hospitals and health-care resources that decrease both patient and overall community anxiety surrounding the disease and therefore increase tolerance. In urban areas with more clinics, hospitals, and job opportunities, I hypothesize that the financial and emotional burden on families is lower (than in rural areas) and may also cause for higher tolerance rates.

With a women's increased likelihood to be both anatomically susceptible to HIV and also submissive to male control in the case of Sub-Saharan Africa, I hypothesize that females are less likely to be tolerant of the HIV/AIDS virus (Phaladze, 2006, 25; Farrow, 1999, 146). Burdened with the responsibility to bear children and the inability to demand condom-use during sexual intercourse, women are more likely to experience emotional distress in response to the HIV/AIDS virus (Farrow, 1999, 146). In sum, I believe the agony and trauma associated with the potential of contracting and then passing along the devastating virus to the next generation causes increased intolerance among the female population.

A virus that most frequently infects young adults during prime reproductive and working age, I hypothesize that as age increases so does the tolerance of HIV/AIDS (Farrow, 1999, 146). Oftentimes with youth comes inexperience, which may in turn lead to fear and intolerance in the face of the unknown. Similarly, the younger an individual is the less likely they are to have experience with information and exposure to the disease, which may lead to a decrease of overall tolerance out of fear.

Additionally, I hypothesize that increased education levels positively correlate with an individual's likelihood to display tolerant attitudes. Benefiting from a kind of formal education one may be more knowledgeable about communicable but controllable disease (Amo-Adjei, 2013, 57). Similarly, when exposed to educational settings individuals are more likely to be around other individuals who share similar ambitions and goals. This commonality may foster a sense of community and togetherness that manifests itself as tolerance. Finally, people involved in various forms of education are more likely to be exposed to literature and other resources surrounding sexual education that will improve attitudes towards those who suffer with HIV and AIDS.

Case Selection and Data

To investigate my research question, I am choosing to study a single country that has a particularly high prevalence rate of HIV and AIDS. In Botswana, this deadly disease is recorded as the most significant cause of death throughout the entire country (Phaladze, 2006, 23). While there is a high rate of HIV/AIDS in Botswana there is also a profound sense of awareness and action as seen in the country's "multi-sectional" approach as organized by the National AIDS Council (Phaladze, 2006, 23). It is because of this optimistic approach and general acceptance toward the virus that I have chosen to study Botswana through a variety of questions asked in Afrobarometer's 2014/2015 public opinion surveys.

In order to study tolerance, I use the question labeled "Q89D" as my dependent variable. This question reads, "For each of the following types of people, please tell me whether you would like having people from this group as neighbors, dislike it, or not care: People who have HIV/AIDS (Afrobarometer, 2014/2015)." The value of 1 corresponds to a respondent answering, "strongly dislike," a value of 2 corresponds to, "somewhat dislike," 3 corresponds to, "would not care," 4 is, "somewhat like," 5 is, "strongly like," and I coded the response, "don't know" to missing as opposed to a value of 9 so it would not skew the results of the regression. As you may see in figures 1 and 2 below, Botswana paints a relatively positive picture when discussing the tolerance of individuals living with HIV and AIDS. Through these two images, one may see that roughly 48% of individuals living in Botswana, "would not care," about living next to an individual with the communicable but controllable disease, an exceptionally high percentage of the individuals observed (Afrobarometer, 2014/2015).

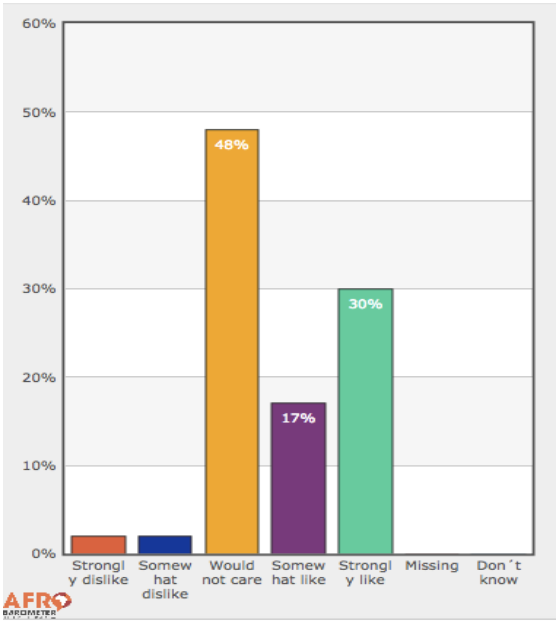

Figure 1. "The Online Data Analysis Tool." *Afrobarometer*, afrobarometer.org/online-data-analysis/analyse-online.

Category	%/Total	Frequence
Strongly dislike	1.9%	23
Somewhat dislike	2.1%	26
Would not care	47.6%	572
Somewhat like	17.1%	206
Strongly like	30.4%	365
Missing	0.3%	4
Don´t know	0.4%	5
(N)	(100%)	(1,200)

Afrobarometer R6 2014/2015 (Botswana)
Figure 2. "The Online Data Analysis Tool." *Afrobarometer*, afrobarometer.org/online-data-analysis/analyse-online.

With question Q89D as my dependent variable, I then collected data to test my hypothesis through questions that measured religiosity, urbanism, gender, age, and education all found in Afrobarometer's round 6 of data. I tested religiosity through the question Q98B, which reads, "People practice their religion in different ways. Aside from weddings and funerals, how often do you personally engage in religious practices like prayer, reading a religious book, or attending a religious service or a meeting of a religious group (Afrobarometer, 2014/2015)?"

After re-coding category 7 (that corresponds with an answer of "no religion") to 0, the values increase in one's frequency of practice from, "no religion," to the highest value of one practicing their religion, "more than once a day (Afrobarometer, 2014/2015)." The next independent variable of URBRUR asked for the respondent to answer 1 if they lived in an urban area and 2 if they lived in a rural area (Afrobarometer, 2014/2015). Through this, I measured geographical location within Botswana and sought to analyze the significant of various regions within the same country. Additionally, I used question Q1 to measure age, and Q101 to measure gender so that "male" corresponded to a value of 1 and "female" corresponded to a value of 2 (Afrobarometer, 2014/2015). Finally, to test one's level of personal ignorance as outlined in my hypothesis, I included the question Q97 that asks, "What is your highest level of education (Afrobarometer, 2014/2015)?" Respondents answered 0 to indicate that they had no formal schooling, 1 to indicate informal schooling, 2 is some primary schooling, 3 is primary school completed, 4 is intermediate school or some secondary school / high school, 5 is high school completed, 6 is post-secondary qualifications other than university, 7 is some university, 8 is university completed, and 9 is post-graduate education (Afrobarometer, 2014/2015). I chose to study education as a measure of ignorance to highlight how knowledge my impact the stigmatization of HIV and AIDS in an area where formal education may not necessarily be greatly emphasized.

Through these five independent variables, I sought to expand on various works of literature to create a multiple regression model that illuminates the statistical significance of particular variables all within Botswana. As of the year 2000, 33% of the adults in Botswana were recorded to have the HIV virus (Taylor and Francis Group, 2000, 179). This helps to illuminate why Botswana was the best case to study by noting that not only does this country

have one of the highest prevalence rates in the world, but also has a staggeringly low life-expectancy of 39 years old despite the seemingly tolerant population (Taylor and Francis Group, 2000, 179). A counter-intuitive statistic, one may assume that a region with higher tolerance should result in greater awareness, research, and eventually less prevalence, while in reality this may not be the case. Thus, through the comparison of religiosity, location, gender, age, and ignorance (education), I sought to gain a more comprehensive understanding of what exactly leads some people to be more tolerant towards individuals with HIV/AIDS while others are not.

Results

	Model 1 *DV:* For each of the following types of people, please tell me whether you would like having people from this group as neighbors, dislike it, or not care: People who have HIV/AIDS.
Religiosity	.048*** (.014)
Urban	.114*** (.041)
Female	.035 (.057)
Age	-.002 (.002)
Education	-.023 (.017)
Constant	3.63*** (.161)
N	1,185
Adjusted R^2	.014

Ordinary Least Squares regression
Note: *p < 0.1; ** p < 0.05; *** p < 0.01

Figure 3. Question from: "The Online Data Analysis Tool." *Afrobarometer*, afrobarometer.org/online-data-analysis/analyse-online.

Figure 3 above shows the regression results as organized in an OLS (ordinary least squares) model made using software from Stata. As previously mentioned, I used data imported from Afrobarometer that measures individual-level attitudes towards individuals with HIV and AIDS. The data was taken from 1,185 individuals (n value) with about an equal split of male and female respondents. The ages of respondents ranged from 18 years old to 80 years old, with an average age of 39 years old. When asked about the religiosity variable and how often they practice, the typical respondent was between the 2 and 3 value range meaning that they self-reported to practice about once a month to about once a week. When asked about their highest level of education, respondents answered with an average value of 4, or that they had some secondary school or high school experience, which is relatively high on a scale from 0-9.

The adjusted r^2 shows a value of .014, meaning that the data explains 1.4% of the variation in how people responded to the dependent variable. Additionally, the model shows that both religiosity, which measures how religious a person is, and the urban/rural variable, measuring physiography, are both statistically significant when explaining what impacts an individual's attitudes towards people with HIV/AIDS. Statistical significance is proven with a p-value of less than .05, which both the religiosity and the urban/rural p values are. The data shows that the more an individual in Botswana practices their religion, the more tolerant they are, which is counter to my original hypothesis. Similarly, individuals who live in urban areas are more likely to be tolerant as well, a theory that is consistent with my original hypothesis. These findings are also consistent with literature by Regnerus, Letamo, Heimer, and various others, while counter to the findings by Ladebo and Tanimowo. Further analysis of the regression shows that gender, age, and education were all variables that prove not statistically significant and therefore provide no results.

Discussion

In this paper, I find that the frequency of one's religious practices is statistically significant when understanding positive attitudes towards people with HIV and AIDS. While initially I agreed with the school of thought that emphasized religiosity as a way to understand negative attitudes and intolerance towards the virus, my research proved otherwise. I believe this significance may be specific to my unique case study, as Botswana has a majority Christian population that has proved to use religion as a means to support as opposed to condemn. Although I initially hypothesized that the predominantly Christian population would reject individuals who suffer from HIV/AIDS due to sexualized stigma and perceived immorality, literature like that of Regnerus leads me to believe that this assumption applies only to Muslim and other non-Christian religions (Regnerus, 2007, 385).

Additionally, Botswana has one of the highest HIV prevalence rates in sub-Saharan Africa, suggesting a certain familiarity and acceptance towards the disease. With this distinct characteristic in mind, it is not surprising that individuals who report to be living in more urban areas are also more likely to be tolerant. Exposed and surrounded by larger populations of people, the likelihood of one affiliating with an individual who is HIV positive increases significantly. These findings are consistent with my initial hypothesis and may confirm the notion that more work needs to be done in rural populations to combat intolerance. This work may include the increase of previously ineffective/expensive NGO participation or governmental intervention from Botswana to extend condom supply to the rural areas of the country and to increase health-care worker's knowledge of the virus (Sadoh, 2006, 42; James, 2004, 575; Letamo, 2012, 83). In Nigeria, only 56% of health-care workers reported a willingness to

perform surgery or deliver the child of an HIV positive patient, proving significant deficit in quality care and knowledge in sub-Saharan Africa (Sadoh, 2006, 42). In the same study, many nurses and other health-care professionals report that they are likely to deny the care of a patient based on their HIV status (Sadoh, 2006, 42). This upsetting fact suggests that individuals in rural areas like those surveyed in Nigeria are less likely to receive preventative and life-saving care, and may explain why these areas are also less tolerant towards the virus (Sadoh, 2006, 42).

While religiosity and urbanism both proved statistically significant, the independent variable measuring the gender identification of respondents did not. A seemingly unpopular opinion, I originally agreed with literature suggesting that a women's increased susceptibility to the virus and the pressure to provide care leads to a greater intolerance of HIV and AIDS (Phaladze, 2006, 31). Similarly, I initially believed women to be more resentful of the virus because of gender inequality in Botswana that limits women from both obtaining and demanding the use of contraceptives (Phaladze, 2006, 29). Phaladze and Tlou highlight how women's lack of agency over their sexual health may lead to intolerance in the Botswana Human Development Report of 2000 (Phaladze, 2006, 29). In this, a female participant of the study notes that while she was physically able to receive free contraception, her husband would not allow her to use it (Phaladze, 2006, 29). Initially believing that this blatant gender inequality to cause resentment, anger, and subsequent intolerance in women, I was surprised by the data suggesting that gender is not significant in understanding the intolerance of HIV and AIDS in Botswana.

Another statistically insignificant hypothesis focused on the study of the correlation between age and intolerance in Botswana. Consistent with the findings of Phaladze and Tlou, the age variable may also be associated with gender, as young girls are more likely to contract the virus (Phaladze, 2006, 25). From the beginning of my research, I hypothesized that the older

someone was, the less tolerant they would be towards the HIV/AIDS virus. I thought this because older individuals may be more likely to be set in their ways and therefore less open to tolerating or learning about the disease of others' who they are either unfamiliar with or bias against. Interestingly, my regression shows that this relationship has no statistical significance, meaning that age is not an important factor when discussions variables that may lead to stigmatization on HIV and AIDS.

Education is another variable that proved statistically insignificant but may prove bias and slant in my research. A relatively wealthy nation, more individuals in urban areas of Botswana may have the financial flexibility to receive higher levels of formal education than many other countries. Additionally, even without a level of formal education individuals in these surveyed areas are more likely exposed to roadside billboards, flyers, and other educational documents throughout their day-to-day lives. Due to the high prevalence rates, people in Botswana are also more likely to be surrounded by the virus from an early age. While not studied here, this shows that methods of informal education like daily exposure and public openness may also be important for the study of tolerance. Therefore, the education variable as well as the age and gender variables might be more significant when studying other countries in sub-Saharan Africa as opposed to just Botswana due to the abnormally high prevalence rates.

Conclusions

Although disease varies in terms of both severity and length of impact, the discussion of the discrimination and stigmatization of disease is important to all individuals and societies. This paper identifies statistics surrounding discrimination in African countries and seeks to analyze the causes and larger impacts to particular communities as well as sub-Saharan countries as a

whole. The study of the stigmatization of HIV/AIDS and communicable disease lends itself to various public policy implications as well as discussions surrounding human rights violations and general equality.

With more time and resources, I would have sought to explore more possible causes of tolerance such as political stability and socioeconomic status. Additionally, as the religiosity variable proved significant, I would delve deeper in to the religiosity variable and seek to explore ways in which Muslim and non-Christian religions impact tolerance in a more meaningful way. My data also signals an emphasis on geographical location, which could be related to Afrobarometer's ability to survey particular regions of Botswana. It would be interesting to have data on where exactly each respondent was asked and also to have data on *how* the tolerance question was asked. Tone of voice, context, and setting are all factors that may have influenced each respondent's answer.

Moving forward, it would be helpful if I as able to hold interviews or acquire panel data as a means to better understand the questions I explore above. This would allow me the opportunity to ask more questions surrounding tolerance and to gain a more detailed view of the different kids of tolerance one may feel towards certain groups of people. I would compare this data with data surrounding other communicable diseases in the hopes of analyzing whether Botswana is in fact more tolerant or just simply more exposed to the HIV/AIDS virus. With this additional data, more detailed information could be gathered and used as a means to better understand tolerance and how it impacts various communities.

This project seeks to promote awareness and to establish a better way to understand the tolerance of a disease that claims more lives than any other single cause of death in Botswana. The relatively optimistic results prove that while there is hope for communal and societal

tolerance, this tolerance does not always result in prevention and the ability to combat the disease effectively. Turning passive tolerance in to active prevention through community and rural outreach initiatives in Botswana may eventually lead to a future in which HIV/AIDS is not only less stigmatized but also less prevalent.

Works Cited

"Afrobarometer Survey." *The Online Data Analysis Tool*, Afrobarometer, afrobarometer.org/online-data-analysis/analyse-online.

Amo-Adjei, Joshua, and Eugene KM Darteh. "Drivers of Young People's Attitudes towards HIV/AIDS Stigma and Discrimination: Evidence from Ghana." *African Journal of Reproductive Health / La Revue Africaine De La Santé Reproductive*, vol. 17, no. 4, 2013, pp. 51–59. *JSTOR*, JSTOR, www.jstor.org/stable/24362086.

Barret, Hazel. "As Easy as ABC...? Uganda's Fight against HIV/AIDS." *Geography*, vol. 92, no. 2, 2007, pp. 154–157. *JSTOR*, JSTOR, www.jstor.org/stable/40574189.

Baume, Peter. "AIDS and Discrimination (1999)." *A Dissident Liberal: The Political Writings of Peter Baume*, edited by John Wanna and Marija Taflaga, ANU Press, 2015, pp. 277–282. *JSTOR*, www.jstor.org/stable/j.ctt183q3f4.43.

Bindu T. Desai. "AIDS: Scourge of Our Times?" *Economic and Political Weekly*, vol. 22, no. 29, 1987, pp. 1179–1181. *JSTOR*, JSTOR, www.jstor.org/stable/4377244.

Browne, Angela W., and Hazel R. Barrett. "Moral Boundaries: The Geography of Health Education in the Context of the HIV/AIDS Pandemic in Southern Africa." *Geography*, vol. 86, no. 1, 2001, pp. 23–36. *JSTOR*, JSTOR, www.jstor.org/stable/40573505.

The Taylor and Francis Group. "Botswana Proposes Mandatory Disclosure of HIV Status to Sex Partners." *Reproductive Health Matters*, vol. 8, no. 16, 2000, pp. 179–179. *JSTOR*, JSTOR, www.jstor.org/stable/3775299.

Campbell, Catherine, et al. "AIDS Stigma, Sexual Moralities and the Policing of Women and Youth in South Africa." *Feminist Review*, no. 83, 2006, pp. 132–138. *JSTOR*, JSTOR, www.jstor.org/stable/3874387.

Cunningham, Shayna D., et al. "Relationships Between Perceived STD-Related Stigma, STD-Related Shame and STD Screening Among a Household Sample of Adolescents." *Perspectives on Sexual and Reproductive Health*, vol. 41, no. 4, 2009, pp. 225–230. *JSTOR*, JSTOR, www.jstor.org/stable/20697074.

Denis, Philippe. "HIV/AIDS and Religion in Sub-Saharan Africa: an Emerging Field of Enquiry." *Archives De Sciences Sociales Des Religions*, vol. 58, no. 164, 2013, pp. 43–58. *JSTOR*, JSTOR, www.jstor.org/stable/23785692.

Dowsett, Gary W. "HIV/AIDS and Homophobia: Subtle Hatreds, Severe Consequences and the Question of Origins." *Culture, Health & Sexuality*, vol. 5, no. 2, 2003, pp. 121–136. *JSTOR*, JSTOR, www.jstor.org/stable/4005357.

Dwyer, June. "Disease, Deformity, and Defiance: Writing the Language of Immigration Law and the Eugenics Movement on the Immigrant Body." *MELUS*, vol. 28, no. 1, 2003, pp. 105–121. *JSTOR*, JSTOR, www.jstor.org/stable/3595248.

Farrow, Patricia. "An Overview of the HIV/AIDS Pandemic and Its Impact on Botswana." *Botswana Notes and Records*, vol. 31, 1999, pp. 143–149. *JSTOR*, JSTOR, www.jstor.org/stable/40980247.

Gostin, Lawrence O., et al. "The Law and the Public's Health: A Study of Infectious Disease Law in the United States." *Columbia Law Review*, vol. 99, no. 1, 1999, pp. 59–128. *JSTOR*, JSTOR, www.jstor.org/stable/1123597.

Haile, Barbara J., et al. "Correlates of HIV Knowledge and Testing: Results of a 2003 South African Survey." *Journal of Black Studies*, vol. 38, no. 2, 2007, pp. 194–208. *JSTOR*, JSTOR, www.jstor.org/stable/40034975.

Heimer, Carol A. "Old Inequalities, New Disease: HIV/AIDS in Sub-Saharan Africa." *Annual Review of Sociology*, vol. 33, 2007, pp. 551–577. *JSTOR*, JSTOR, www.jstor.org/stable/29737775.

Ladebo, Olugbenga Jelil, and Adewunmi George Tanimowo. "Extension Personnel's Sexual Behaviour and Attitudes toward HIV/AIDS in South-Western Nigeria." *African Journal of Reproductive Health / La Revue Africaine De La Santé Reproductive*, vol. 6, no. 2, 2002, pp. 51–59. *JSTOR*, JSTOR, www.jstor.org/stable/3583130.

Letamo, Gobopamang. "Factors Associated with Condom Use in the Era of HIV/Aids in Botswana: The Application of the Health Belief Model." *Southern African Journal of*

Demography, vol. 13, no. 1, 2012, pp. 83–110. *JSTOR*, JSTOR, www.jstor.org/stable/soutafrijourdemo.13.1.83.

MacLean, R. "Stigma against People Infected with HIV Poses a Major Barrier to Testing." *International Family Planning Perspectives*, vol. 30, no. 2, 2004, pp. 103–103. *JSTOR*, JSTOR, www.jstor.org/stable/3181038.

Miriam Maluwa, et al. "HIV- and AIDS-Related Stigma, Discrimination, and Human Rights: A Critical Overview." *Health and Human Rights*, vol. 6, no. 1, 2002, pp. 1–18. *JSTOR*, JSTOR, www.jstor.org/stable/4065311.

Monjok, Emmanuel, et al. "HIV/AIDS - Related Stigma and Discrimination in Nigeria: Review of Research Studies and Future Directions for Prevention Strategies." *African Journal of Reproductive Health / La Revue Africaine De La Santé Reproductive*, vol. 13, no. 3, 2009, pp. 21–36. *JSTOR*, JSTOR, www.jstor.org/stable/27802605.

Motlaleng, Gaotlhobogwe R. "Botswana's 2003/04 to 2006/07 Budgets: The State with the Nation's Interest as a Priority in the War Against HIV and AIDS." *Botswana Notes and Records*, vol. 38, 2006, pp. 137–139. *JSTOR*, JSTOR, www.jstor.org/stable/41235992.

Moremen, Robin D. "One Starfish at a Time: Using Fundamentals in Sociology to Rethink Impressions about People Living with HIV/AIDS." *Teaching Sociology*, vol. 38, no. 2, 2010, pp. 144–155. *JSTOR*, JSTOR, www.jstor.org/stable/25677743.

Niehaus, Isak. "Death before Dying: Understanding AIDS Stigma in the South African Lowveld." *Journal of Southern African Studies*, vol. 33, no. 4, 2007, pp. 845–860. *JSTOR*, JSTOR, www.jstor.org/stable/25065255.

Ntshebe, Oleosi. "Gaps Relating to Social Science and HIV/AIDS Research in Botswana." *Botswana Notes and Records*, vol. 36, 2004, pp. 48–54. *JSTOR*, JSTOR, www.jstor.org/stable/40980359.

Ntshebe, Oleosi, and Kenabetso Bainame. "Components of Regional Difference in HIV Prevalence Rates in Botswana." *Southern African Journal of Demography*, vol. 13, no. 1, 2012, pp. 59–82. *JSTOR*, JSTOR, www.jstor.org/stable/soutafrijourdemo.13.1.59.

Phaladze, Nthabiseng, and Sheila Tlou. "Gender and HIV/AIDS in Botswana: A Focus on Inequalities and Discrimination." *Gender and Development*, vol. 14, no. 1, 2006, pp. 23–35. *JSTOR*, JSTOR, www.jstor.org/stable/20461113.

Pope, Cynthia K., and Gerald Shoultz. "An Interdisciplinary Approach to HIV/AIDS Stigma and Discrimination in Belize: the Roles of Geography and Ethnicity." *GeoJournal*, vol. 77, no. 4, 2012, pp. 489–503. *JSTOR*, JSTOR, www.jstor.org/stable/23254365.

Regnerus, Mark D., and Viviana Salinas. "Religious Affiliation and Aids-Based Discrimination in Sub-Saharan Africa." *Review of Religious Research*, vol. 48, no. 4, 2007, pp. 385–400. *JSTOR*, JSTOR, www.jstor.org/stable/20447458.

Rick James, and Dan Mullins. "Supporting NGO Partners Affected by HIV/AIDS." *Development in Practice*, vol. 14, no. 4, 2004, pp. 574–585. *JSTOR*, JSTOR, www.jstor.org/stable/4029847.

Ruth C. White, and Robert Carr. "Homosexuality and HIV/AIDS Stigma in Jamaica." *Culture, Health & Sexuality*, vol. 7, no. 4, 2005, pp. 347–359. *JSTOR*, JSTOR, www.jstor.org/stable/4005418.

Sadoh, A. E., et al. "Attitude of Health-Care Workers to HIV / AIDS." *African Journal of Reproductive Health / La Revue Africaine De La Santé Reproductive*, vol. 10, no. 1, 2006, pp. 39–46. *JSTOR*, JSTOR, www.jstor.org/stable/30032442.

Sherrill, Kenneth S., et al. "What Political Science Is Missing by Not Studying AIDS." *PS: Political Science and Politics*, vol. 25, no. 4, 1992, pp. 688–693. *JSTOR*, JSTOR, www.jstor.org/stable/419671.

Smillie, Wilson G. "Morbidity Reporting...: The Basis of Communicable Disease Control." *Public Health Reports (1896-1970)*, vol. 67, no. 3, 1952, pp. 287–292. *JSTOR*, JSTOR, www.jstor.org/stable/4588062.

The Kaiser/Pew Global Health Survey. "A Global Look At Public Perceptions of Health Problems, Priorities, and Donors:" *Pew Research Center*, 13 Dec. 2007. *Pew Research Center*, www.pewglobal.org/2007/12/13/a-global-look-at-public-perceptions-of-health-problems-priorities-and-donors/.

Upton, Rebecca L, and Edward Myers Dolan. "Sterility and Stigma in an Era of HIV/AIDS: Narratives of Risk Assessment among Men and Women in Botswana." *African Journal of Reproductive Health / La Revue Africaine De La Santé Reproductive*, vol. 15, no. 1, 2011, pp. 95–102. *JSTOR*, JSTOR, www.jstor.org/stable/41329780.