HIV Stigma and Knowledge in the African American Church Community

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HIV is a significant problem among African Americans, a population that represents 44% of new HIV cases each year. Previous research has shown the effectiveness of the African American church in implementing health interventions for African Americans. Yet, as more studies begin to address HIV in the African American church, there is limited research on exploring HIV stigma and knowledge in this setting. Previous studies have shown the relationship between HIV knowledge and stigma. The detrimental effects of HIV stigma and knowledge on prevention of HIV have also been shown. This paper used survey data from 538 African American church affiliates to study how HIV knowledge and HIV-related stigma variables (e.g., fear of HIV-positive people, belief that HIV-positive people are responsible for their illness) are related to demographic variables (e.g., sex, age, education), religiosity, and HIV testing. Males and older age were found to be associated with beliefs that people with HIV are responsible for their illness. Higher participation in formal practices of religiosity (e.g., church attendance, reading scripture, meditation) was correlated with not trusting scientists to be truthful about HIV and with lower confidence in being tested for HIV. Formal practices of religiosity and non-heterosexual orientation were found to be associated with lower levels of HIV knowledge. This study's findings can be used to develop comprehensive HIV stigma messages to enhance church-based HIV intervention components for the African American.

Human immunodeficiency virus (HIV) has been a significant health concern in the United States since the 1980s (Centers for Disease Control and Prevention [CDC], 2012). HIV impacts the immune system's ability to fight diseases in the body, and is primarily transmitted through sexual contact and contaminated needles. Advanced HIV infection leads to development of acquired immune deficiency syndrome (AIDS), diagnosed when the person's immune system has been severely compromised. Without early diagnosis and proper management with medication, HIV infection results in developing numerous other illnesses, such as cardiovascular disease, liver and kidney disease, and cancer. Those infected often show few to no symptoms early on, resulting in a lack of screening for those at risk.

Through 2010, it is estimated that 636,048 people with an AIDS diagnosis had died in the United States (CDC, 2013a). Prevalence data available up to 2009 noted that of those who had died with an AIDS diagnosis, more than 250,000 were African Americans (CDC, 2013b). According to the CDC (2013), in 2010 African Americans made up only 12-14% of the United States population but accounted for 44% of all new HIV infections in the United States. Because African Americans have been affected so disproportionately by HIV/AIDS, it is essential to increase efforts to reduce HIV

transmission and promote HIV screening among African Americans.

Churches are an important aspect of African American culture. A national study by the Pew Forum on Religion and Public Life (2007) found that 59% of African Americans attend church once a week or more. African American churches have historically had a strong influence on the African American community concerning spiritual, social, and public health issues(Berkley-Patton et al. ,InPress). In particular, the church has addressed health issues through existing church activities, such as preaching, church education classes, and health promotion programs (Khosrovani, Poudeh, & Parks-Yancy, 2008; Muturi & Soontae,2010). Studies have shown that the African American church is a practical setting for addressing health issues related to HIV (Berkley-Patton et al., 2010; Derose et al., 2010). Khosrovani et al. (2008) surveyed an African American church population in Texas, and 90% believed that the churches must get involved in educating the public about HIV/AIDS.

HIV-related stigma is considered one of the major barriers for developing effective HIV prevention and care programs in the general population (Herek, Capitanio, & Widaman, 2002; Reidpath & Chan, 2005) and in the African American church (Berkley-Patton et al., In Press; Fullilove & Fullilove, 1999). Deacon (2006) defined stigma as a complex social process involving blame placed on a specific group for having a preventable or controllable illness with a cause that is identified by society as being taboo. These groups then experience perceived status loss in society, which could lead to discrimination. Fear of being stigmatized has been found to prevent individuals from seeking HIV testing, disclosing their HIV status, and seeking treatment (Sengupta et al., 2011). Indeed, to expand HIV prevention and testing in the African American community, particularly in churches, HIV-related stigma will need to be better understood and addressed.

There are a number of personal demographic and belief factors that are related to HIV stigma. For example, Collani, Grumm, and Streicher (2010) found high levels of stigma to be associated with older age, negative attitudes towards homosexuality, and lower levels of contact with HIV positive persons. Herek et al.(2002) found that mistrust of HIV experts is related to high HIV stigma. Muturi and Soontae (2010) found high religiosity and low levels of education to be predictors of HIV stigma in the African American community. One of the most consistent correlates of HIV stigma has been an inaccurate belief about HIV, especially about the transmission of HIV (Collani et al., 2010; Herek et al., 2002; Herek, Capitanio, & Widaman, 2005; Muturi & Soontae, 2010). Examples of inaccurate beliefs would include that HIV can be transmitted through casual contact such as sharing a drinking glass, through a cough or sneeze, (Herek et al., 2002) or that HIV could be transmitted between two individuals who do not have HIV (Herek et al., 2005).

Hereketal. (2005) found several predictors for correct and incorrect beliefs about HIV (HIV knowledge). They found that higher levels of education and higher income were predictors of accurate beliefs about HIV. They also found women to be more likely to have the false belief that HIV can be transferred between individuals without HIV. African Americans of both sexes were also more likely than non-African Americans to believe that HIV can be transmitted between two healthy individuals, even after controlling for income, mistrust of health experts, and education.

This study sought to explore the relationship between HIV stigma and HIV knowledge and the

following personal factors: a) religiosity, b)HIV testing, c) perceptions about HIV, and d) demographics among African American church members and community members who used church outreach services (e.g., food pantries, social services).

Methods

Participants and Procedures

Participants aged 18 to 64 were recruited from four African American churches and their affiliated community outreach activities in the Kansas City metropolitan area. The original sample consisted of 542 participants; however, four participants were removed for not responding to any stigma items, resulting in a final sample of 538.

The majority of the sample was female (63.8%, n = 343), heterosexual (85.1%, n = 458), and had some form of insurance (72.5%, n = 390). The sample was more heterogeneous on education and income. A third 33.3%(n=179) of the sample had only a high school education or lower, and (36.1%, n=194) of participants had a college education or higher. In regards to income, 18.6%(n=100) of the sample made less than $1,000 per month and 33.3% (n = 179) of the sample reported their monthly household income as greater than $3,000 per month. See Table1 for a description of the sample and frequency values for all key variables.

ParticipantscompletedasurveyafterchurchservicesforthebaselinestageofTakingIttothePews(TIPS) project, an HIV education and screening intervention in African American churches. In order to ensure anonymity, no personal identifiers were collected during data collection. Participants received $10 upon completion of the survey, which took approximately twenty to thirty minutes. All study procedures were approved by the University of Missouri-Kansas City Institutional Review Board.

Measures

HIV-Related Stigma.

Stigma was measured with five items adapted from national studies on HIV/AIDS stigma (Herek, 1999; et al., 2002). Stigma items included: “How comfortable would you be sharing a pew with an HIV positive person?” (labeled as “Comfortable”), “How strongly would you agree or disagree that HIV+ people are responsible for their illness?” (labeled as “Responsible”), “How strongly would you agree or disagree that scientists and doctors can be trusted to tell the truth about HIV?” (labeled as“Truth”), “How afraid are you of people who are infected with HIV?” (labeled as “Afraid”), and “If you were going to be tested for HIV, how concerned would you be that you might be treated differently or discriminated against if you test results were positive for HIV?” (labeled as“Concerned”). Participants responded using four-point Likert scales, with higher scores indicating higher stigma.These items had poor reliability as a scale (a= .36), so they were analyzed as separate items.

HIV Knowledge. Participants answered ten items regarding HIV knowledge (e.g., “A person can get HIV by using a cup or plate that has been used by a person with HIV/AIDS;” “It is possible to get HIV when a person gets a tattoo”), adapted from the HIV Knowledge Questionnaire, with response categories “true,” “false,” and “don’t know” (Carey, Morrison-Beedy, & Johnson, 1997). Correct

responses were coded as “1” and incorrect or do not know responses were coded as “0.” All items were summed to create a sum score with higher scores indicating more knowledge.

Religiosity. Participants reported their church denomination. They then indicated whether they were a member of the church in which they completed the survey, and if yes, whether they had a leadership role in the church. Religious beliefs and behaviors were measured with a seven-item version of the Religious Background and Behavior (RBB; Connors, Tonigan, & Miller, 1996) scale on participants’ engagement in church activities in the past year using an eight-point Likert scale (Never = 0toMorethanonceaday=7) and one item regarding their description of the irreligiosity (atheist,agnostic, unsure, spiritual, religious). The RBB was examined by its subscales: God Consciousness(e.g.,description, thought of God, prayed) and Formal Practices (e.g., meditation, attended a worship service, read scriptures or holy writings, had direct experiences with God).

HIV Testing

Participants were asked how many times they had been tested for HIV in their lifetime and how confident they were that they would be tested in the next 12 months on an 11-point Likert scale (0 = “Not confident I will get tested” to 10 = “Very confident I will get tested”).

Perceptions About and Exposure to HIV Issues. Participants completed an item that assessed their opinion of how serious HIV/AIDS was in their community, responding on a four-point Likert scale (0=Not at all to 3 = Very serious). Participants also reported the number of people they knew who are infected with HIV. Finally, they reported whether their church had discussed the following five topics in the past six months: HIV/AIDS testing, how HIV/AIDS is transmitted, how to prevent HIV/AIDS, assessment of personal risk for HIV, and any other topics related to HIV/AIDS.

Demographics. Participants provided demographic information including age, sex, race, sexual orientation, relationship status, number of children, highest level of education, health insurance, and average monthly household income.

Data Analysis

Correlational analyses will be conducted with all continuous items (e.g., HIV stigma, HIV knowledge, age,religiosity, number of times tested for HIV,confidence in likelihood of future HIV testing, number of HIV positive people known) to identify the variables significantly correlated with stigma items and knowledge score. One-way analysis of variances (ANOVAs) and independent t-tests were conducted with categorical variables (e.g., sexual orientation, race, relationship status, education, health insurance, income, having children, church membership, opinion on seriousness of HIV, exposure to HIV topics in church) as the independent variables and stigma items and knowledge score as the dependent variables.

Results

Religiosity. There were two significant correlations: the stigma item Truth was positively correlated with Formal Practices and HIV knowledge was negatively correlated with Formal Practices,

as shown in Table2. There were no significant stigma or knowledge differences regarding the participants' religious denomination or whether the participant was a church member or a community member. There was a significant difference regarding church leadership and the stigma item Afraid,$t(351.07)=2.79, p<.01$. Participants who had a leadership role in church were less afraid of those with HIV ($M = .44$, $SD = .72$) than those who did not have a leadership role ($M = .66$, $SD = .87$). HIVtesting. Confidence in likelihood of future testing was positively correlated with Knowledge, and the number of HIV positive people known was negatively correlated with the stigma item Responsible. See Table 2 for additional correlations.

Perceptions and exposure regarding HIV issues.

There were no significant stigma or knowledge differences regarding whether one's church had talked about HIV/AIDS testing, how to prevent HIV/AIDS, or other topics related to HIV/AIDS. There was a significant difference regarding how serious one perceived HIV/ AIDS to be and knowledge score, $F(3, 494) = 4.11$, $p < .01$. Participants who did not consider HIV/AIDS to be a serious issue at all had a lower knowledge score ($M = 5.82$,$SD=2.52$) than those who perceived HIV/AIDS to be a somewhat serious issue($M=7.52$,$SD=1.61$) or a very serious issue ($M = 7.59$, $SD = 1.66$).

There was a significant difference regarding whether one's church had talked about how to get HIV/AIDS and the stigma item Concerned, $t(491)=2.55$, $p<.05$. Participants who reported their church had talked about HIV/AIDS transmission were less concerned that they would be treated differently or discriminated against ($M = 1.21$, $SD = 1.01$) than those whose church had not discussedHIV/AIDS transmission($M=1.52$,$SD=.99$). Additionally, there was a significant difference regarding whether one's church had talked about personal risk for HIV and the stigma item Comfortable, $t(515) = -2.14$, $p < .05$. Participants who reported their church had talked about personal risk for HIV were less comfortable sharing a pew with an HIV-positive person ($M = .91$, $SD = 1.15$) than those whose church had not discussed personal risk($M=.65$,$SD=1.03$).

Demographic factors. Age was negatively correlated with both the stigma item Responsible and with Knowledge and positively correlated with the stigma item Afraid. There was also a significant difference regarding one's sex and the stigma item Responsible, $t(526) = -2.50$, $p < .05$. More male participants ($M = 1.54$, $SD = .84$) strongly agreed that people with HIV were responsible for their illness than female participants($M=1.35$,$SD=.86$).).There were no significant stigma or knowledge differences found regarding race, relationship status, insurance, and parenthood.

There was a significant difference found in how much education one has attained and score on the stigma item Afraid, $F(4, 529) = 3.29$, $p < .05$. Participants who completed high school only were more afraid of people infected with HIV($M=.79$,$SD=.90$) than those who had some graduate training or a graduate degree ($M = .43$,$SD=.71$). There was also a difference regarding how much education one attained and knowledge score, $F(4, 505) = 6.77$, $p < .001$. Those with only a high school degree had lower HIV knowledge($M=6.95$,$SD=1.76$) than those who had some college or technical training ($M=7.61$,$SD=1.74$), had an associate's or bachelor's degree($M=7.74$,$SD=1.59$), or had some graduate training or a graduate degree ($M = 8.01$, $SD = 1.25$).

There were significant findings regarding one's sexual orientation. There was a difference regarding sexual orientation and how comfortable a participant was with sharing a pew with an HIV-positive person, $F(4, 522) = 2.85$, $p < .05$; those who chose not to disclose their sexual orientation were less comfortable ($M = 1.26$, $SD = 1.21$) than those who identified as heterosexual($M = .65$, $SD = 1.03$). There was also a difference with how afraid a participant was of people infected with HIV, $F(4, 520) = 4.52$, $p < .001$. Participants who chose not to disclose their sexual orientation were more afraid of HIV-positive individuals ($M = 1.00$, $SD = 1.10$) than those who identified as homosexual ($M = .70$, $SD = 1.25$) or bisexual ($M = .71$, $SD = 1.11$). Finally, there was a difference in HIV knowledge and sexual orientation, $F(4,496)=8.99, p<.001$; those who identified as heterosexual had greater knowledge ($M = 7.65$, $SD = 1.65$) than those who identified as some other orientation ($M=6.18, SD=1.67$) or who chose not to disclose ($M = 6.16$, $SD = 1.74$).

There was a significant difference regarding one's income and the stigma item Afraid,$F(4,469)=4.34, p <.01$. Participants who made more than $3000 a month were less afraid of those with HIV ($M=.50, SD=.78$) than those who made $0-$1000 per month($M=.81, SD = .99$) or $1001-$2000 per month ($M = .84$, $SD = .93$).

Discussion

In addressing religiosity, we determined that formal religious practices such as attending church and studying scripture were associated with low knowledge of HIV and with believing that scientists cannot be trusted to tell the truth about HIV. In order for HIV interventions to be more effective in the African American church setting, researchers should consider using a community-based participatory research approach, whereby African American church leaders and members are fully engaged in all phases of the intervention project (Israel, Eng, Schulz, & Parker, 2005). Their participation could greatly enhance delivery of accurate HIV information in church settings and receptivity of such information by church members and community members who use church outreach services (Berkley-Patton et al., InPress). Future research should further explore how church leaders and members can serve as interventionists in church-based intervention planning and implementation and the effectiveness of their participation assisting in reducing HIV stigma and increasing HIV knowledge.

This study's findings also indicated that HIV knowledge is positively correlated with confidence in being tested for HIV within the next 12 months. This finding suggests that future church-based interventions intending to promote HIV testing should include an HIV education component. In addition, we found that if church members had talked about HIV transmission, they were less concerned that they would be treated differently if they were diagnosed with HIV. Because studies have found that fear of stigmatization tends to be associated with decreased testing for HIV (Sengupta et al., 2011), it will be important for future church-based interventions that focus on increasing access to HIV testing explore strategies to reduce fear of stigmatization. Strategies from the Taking It to the Pews project suggested to reduce fear of stigma include having the pastor of the church model getting tested and encouraging all adults to be tested for HIV regardless of their personal risk (Berkley-Patton et al., 2012). Unexpectedly, we discovered that participants who had discussed how HIV is transmitted within church were less comfortable sharing a pew with an HIV-positive person. This may be due to church

members potentially sharing inaccurate information, as actual content discussed was not assessed in this study. Future studies should further explore this topic.

We also found that heterosexuals had more knowledge about HIV than non-heterosexuals. It is especially important for interventions to address this issue with non-heterosexuals in the church, especially in light of the disproportionate prevalence of HIV among African American men who have sex with men(BlackAIDSInstitute,2012;CDC,2011). Again, the African American church could be an optimal setting to provide HIV transmission, prevention, and screening information to everyone. However, consideration should be given to how communication of this information could be conveyed in a non-judgmental, non-threatening manner. Further research is needed on how to best tailor this information to the general church population and to segmented populations, such as non-heterosexuals, in the church setting.

It was found that being male was associated with the stigma item Responsible. Older participants were less likely to believe that those who are HIV positive are responsible for their illness,but more likely to be afraid of individuals who were HIV positive. Furthermore, participants who had only completed a high school education were more afraid of HIV positive people. We also found that those who chose not to disclose their sexual orientation were both less comfortable around and more afraid of those with HIV. Anecdotally,some participants reported unfamiliarity of terms related to sexual identification during survey completion. Clarifying these terms in future studies would likely increase accuracy of results.

For HIV-stigma reduction interventions to be effective in theAfrican American churchgoing community,it is important to target men, older church and community members, and those with less formal education.

Limitations

A primary limitation in this study was our ability to operationalize HIV stigma. The survey assessed stigma with five items, which is limited given the complexity of the concept. Also, the stigma items did not hold together as a scale, making it difficult to measure it as a single construct. Future studies could benefit from exploring use of a wider range of HIV stigma questions and determining whether the items hold together as a scale. This might best be done by developing new items specifically for use with the African American church population.

Additionally, very few participants identified themselves as non-heterosexual. Recruiting larger numbers of non-heterosexual individuals would benefit future studies in accurately representing this population.

Furthermore, 6.3 % of participants selected “Choose not to answer” for sexual identification in this study. During data collection, some participants expressed confusion about what the terms“heterosexual”and“homosexual” meant. This unwillingness to disclose could be a reflection of low knowledge by participants who did not ask the researchers for clarification. An alternate explanation is that these could be homosexual or bisexual individuals who were unwilling to disclose their orientation even on an anonymous survey, suggesting that they might have internalized stigma.

Further research is needed to understand this finding.

Finally, in using a self-report survey format, the sensitive nature of some of the survey questions, such as the HIV stigma questions, may have resulted in limiting participants' comfort with being honest on their surveys.

Conclusions

African American communities continue to be disproportionately burdened by HIV. Given the influence and reach of the African American churches, a critical role that the African American church can play in addressing HIV could be promoting delivery of accurate information about the disease. Specifically, this study suggests that these roles could include reducing HIV stigma and enhancing HIV knowledge as strategic intervention components in church-based HIV intervention projects. Also, although overall church-based HIV interventions may need to target all church and community members, intervention components related to HIV stigma and knowledge may need to be tailored for specific church populations, such as males, non-heterosexuals, and older adults. Finally, communication of information regarding HIV stigma and knowledge by church leaders should be comprehensible for all church and community members.

Acknowledgments

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Table 1

Participant Characteristics

Variable	%[a] (n)
Sex	
Female	63.8% (n = 343)
Male	36.2% (n = 195)
Race	
African American	90.3% (n = 486)
Caucasian	6.1% (n = 33)
Other	3.0% (n = 16)
Sexual Orientation	
Heterosexual	85.1% (n = 458)
Homosexual	1.9% (n = 10)
Bisexual	1.3% (n = 7)
Other	3.3% (n = 18)
Choose Not to Answer	6.3% (n = 34)
Relationship Status	
Currently Have a Spouse or Main Relationship Partner	63.4% (n = 341)
Do Not have Spouse or Partner	35.1% (n = 189)
Have Children?	
Yes	74.7% (n = 402)
No	24.9% (n = 134)
Education	
Did not Complete High School	7.6% (n = 41)
High School Diploma or G.E.D.	25.7% (n = 138)
Some College or Post-Technical Training	30.5% (n = 164)
Associate's Degree or Bachelor's Degree	22.7% (n = 122)
Some Graduate School or Graduate Degree	13.4% (n = 72)
Health Insurance	
None	27.1% (n = 146)
Medicare/Medicaid	21.4% (n = 115)
Private Insurance	51.1% (n = 275)
Average Monthly Household Income	
$0-$1000	18.6% (n = 100)
$1001-$2000	16.2% (n = 87)
$2001-$2500	8.9% (n = 48)
$2501-$3000	11.3% (n = 61)
More than $3000	33.3% (n = 179)
Member of Church	
Yes	71.6% (n = 385)
No	28.1% (n = 151)
Have Leadership Role in Church	
Yes	27.5% (n = 148)
No	44.2% (n = 238)
Church Denomination	
Baptist	35.9% (n = 193)
Church of God	32.5% (n = 175)
Pentecostal	5.0% (n = 27)
Catholic	18.4% (n = 99)
Non-Denominational	3.7% (n = 20)
Other (Muslim, Lutheran, Jehovah's Witness, etc.)	3.7% (n = 20)
How Serious of an Issue is HIV/AIDS	
Not At All	2.2% (n = 12)
Not Too Serious	5.4% (n = 29)
Somewhat Serious	16.2% (n = 87)
Very Serious	73.2% (n = 394)
In the Past Six Months, Your Church Talked About…	
HIV/AIDS Testing	13.8% (n = 74)
HIV/AIDS Transmission	15.6% (n = 84)
How To Prevent HIV/AIDS	16.4% (n = 88)
Personal Risk for HIV	16.9% (n = 91)
Other Topics Related to HIV/AIDS	19.5% (n = 105)

[a]*Note*. All percentages will not equal 100% because of missing data from some participants

Table 1

Participant Characteristics

Variable	***M* (*SD*; Range)**
Stigma	
Comfortable	.69 (*SD* = 1.0; 0-3)
Responsible	1.4 (*SD* = .86; 0-3)
Truth	1.0 (*SD* = .88; 0-3)
Afraid	.63 (*SD* = .87; 0-3)
Concerned	1.5 (*SD* = 1.0; 0-3)
Age	42.3 (*SD* = 13.5; 18-65)
Religiosity	
God Consciousness	16.5 (*SD* = 2.1; 6-18)
Formal Practices	18.1 (*SD* = 6.9; 0-28)
HIV Knowledge	7.5 (*SD* = 1.7; 0-10)
Number of Times Tested for HIV in Lifetime	2.8 (*SD* = 4.3; 0-40)
Number of People Known Who Have HIV/AIDS	1.9 (*SD* = 6.4; 0-100)

Table 2

Correlations Between HIV Stigma Items, HIV Knowledge, RBB Subscales, HIV Testing, and HIV-positive persons known

	1	2	3	4	5	6	7	8	9	10	11
1. Comfortable	--										
2. Responsible	.02	--									
3. Truth	.07	-.20***	--								
4. Afraid	.29***	.03	.12**	--							
5. Concerned	.21***	-.05	.09*	.35***	--						
6. Knowledge	-.18***	-.02	-.11*	-.27***	-.06	--					
7. God Consciousness	-.05	-.06	.07	-.04	-.05	-.05	--				
8. Formal Practices	-.04	-.05	.10*	-.07	-.06	-.10*	.64***	--			
9. Times Tested for HIV	-.05	.02	-.04	-.05	-.03	.08	.03	-.04	--		
10. Confidence in Testing	.01	-.01	-.08	.01	-.06	.09*	-.01	-.11*	.27***	--	
11. Age	-.05	-.09*	.07	.09*	-.003	-.15***	.19***	.28***	-.04	-.212***	--
12. Positive People Known	.01	-.11*	.04	-.03	.04	.11	.02	.07	-.01	.10	.09

* p < .05, ** p < .01, *** p < .001