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Original Research

Factors contributing to the increase in HIV and STD transmission among African American young adults in Mississippi

Shemeka Hamlin Palmer[1], Clifton C Addison[2] Brenda W. Campbell Jenkins2

[1]University of Mississippi Medical Center Jackson, MS USA
[2]Jackson State University Jackson Heart Study Jackson, MS USA

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Corresponding Author:
Clifton C Addison,
Jackson State University, Jackson Heart Study
clifton.addison@jsums.edu

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Abstract

Background: This study sought to identify factors contributing to the increase in HIV and STD transmission among African American young adults (AA-YAs) in Mississippi by examining condom use perception and HIV/AIDS and STD knowledge among this group. Over a three year span (2006-2009), Mississippi has seen an increase in HIV and STD infections among this population. The study also examined the extent of condom use, knowledge barriers and attitudes as factors that may contribute to the incidence of HIV and STD infections among AA-YAs. Methods: This study tested the hypothesis that there is no difference among AA-YAs in their level of knowledge regarding HIV/AIDS, their attitude toward condom use, their use of condoms, their likelihood of use of condoms, their risk-taking/risk assessment regarding HIV/AIDS. Convenience sampling was used to select the HBCUs to be included in the study. A total of 483 African Americans aged 18 to 24 attending Jackson State University, Alcorn State University, Mississippi Valley State University and Tougaloo College, and clients from My Brother's Keeper, Inc. were given a questionnaire adopted from the Diffusion of Effective Behavioral Intervention (DEBI). The data collected from the questionnaire were analyzed using descriptive statistics. The independent t-test, ANOVA test were used to test for variances between groups. Results: The results demonstrate that AA-YAs may have knowledge about HIV, but still lack understanding about modes of transmission. Though college students are more knowledgeable, there is still knowledge deficiencies among students attending HBCUs located in rural areas. Males scored slightly higher on HIV/AIDS knowledge compared to females, most young women do not use a condom because they trust their male partner and felt not using condoms would increase the intimacy. Conclusions: Stronger efforts must be made to build the capacity of young people to utilize existing health information to make positive choices.

INTRODUCTION

Tragically, since the beginning of the Human Immunodeficiency Virus (HIV) /Acquired Immune Deficiency Syndrome (AIDS) epidemic, more than 550.000 people have died in the United States [1]. Between the years of 2006 and 2009 young persons aged 15-24 have accounted for a total of 10.938 deaths from this disease nationally, of whom 3.550 were African Americans (AAs) [2]. HIV/AIDS was first widely recognized as a major disease entity in the early 1980s. The disease was thought initially by the general public to only affect white gay men or intravenous drug users (IDU). However, the Centers for Disease Control and Prevention (CDC) identified the first HIV/AIDS case in an African American (AA) woman, who was not an IDU user, in 1983 [3]. Thereafter, a HIV/AIDS epidemic emerged among the United States population and disproportionately among AAs [4]. By 1988, AAs accounted for half of the identified HIV/AIDS cases in the United States. Subsequently, a total of 230.000 AAs have died of AIDS, making HIV the ninth leading

cause of death in 2006 [3].

The new HIV infection rate for AA men was six times higher than white men, while the rate among AA women was almost fifteen times higher than white women in 2006 [3]. The rural South has had more reported cases of HIV/AIDS since the mid-1980 than has any other region in the United States [5]. Men living in rural southern regions accounted for an estimated 75% of rural HIV/AIDS cases. African American women living in rural areas have been affected primarily through heterosexual transmission, injection drug use and men who do not identify as being gay yet they have sex with men and women [5]. Sexual behavior patterns among African American young adults (AA-YA) remain insufficiently investigated in Mississippi. The most recent statistics from the Mississippi State Department of Health (MSDH) show an increase in 2009 compared to 2008 for chlamydia incidence cases totaling 17,832 with 15,360 of the reported cases being among the AA-YA population and 14.149 among adolescents and young adults between the ages of 10 to 29 [6]. In addition, research has shown pre-existing STDs increase the risk for acquiring and transmitting HIV [3]. By 2009, the total reported cases of AA-YA living with HIV had increased to 1.469, which was due entirely to an increase in the cases in males from 813 in 2008 to 890 in 2009 [6].

This study sought to identify factors that contribute to the increase in HIV and STD transmission among AA-YAs in Mississippi by examining condom use perception and HIV/AIDS and STD knowledge among AA-YAs age 18 to 24 in Mississippi. Over a three year span (2006-2009), Mississippi has seen an increase in HIV and STD infections among this population. The study also examined the extent of condom use, knowledge barriers and attitudes as factors that may contribute to the incidence of HIV and STD infections among AA-YAs. We tested the hypothesis that there is no difference among AA-YA in their level of knowledge regarding HIV/AIDS, their attitude toward condom use, their use of condoms, their likelihood of use of condoms, their risk-taking/risk assessment regarding HIV/AIDS.

METHODS

Cluster sampling was initially used to select the Historically Black Colleges and Universities (HBCUs) to be included in the study. Cluster sampling was used to select groups from within the HBCUs, and then looking at a study unit within the chosen clusters (AA-YAs). For HBCUs, classes were conveniently chosen from different departments. Class schedules from Jackson State University (JSU) Departments of Health, Physical Education and Recreation, Mathematics and Mass Communication, (Alcorn State University (ASU) Departments of Biological Sciences, Chemistry and Physics and Agriculture, Mississippi Valley State University (MVSU) Departments of Criminal Justice, English and Foreign Language and Social Sciences and Tougaloo College (TC) Department of Business Administration, Journalism and Computer Science were selected and obtained from the spring 2011 class registration data base. A list of professors within each department along with the number of students attending each class was obtained from departments at each school by requesting permission from the dean of each department and explaining the reason the information was needed.

A total of 483 AA young people ages 18 to 24 attending Jackson State University, Alcorn State University, Mississippi Valley State University and Tougaloo College were selected, in addition to clients from My Brother's Keeper, Inc. (MBK), an organization dedicated to the prevention, care and treatment of persons living with HIV/AIDS. Upon receiving permission from the department's dean, professors were called or emailed to ask permission to survey their students during normal instructional hours. Students were notified by their professor that the class was chosen to participate in the study. Informed consent was obtained from each student agreeing to participate prior to administering the questionnaire. No incentives were offered. From January 2011 through April 2011, questionnaires were administered to students.

Exclusion Criteria

A number of surveys collected during this project were ultimately excluded from the final analysis. There were a total of 493 surveys collected with 35 surveys being excluded from the study. The criteria for exclusion included the following:

1. Incomplete surveys-- Survey not completed.
2. Race-Non-African Americans were excluded (the purpose of this study was to examine AAs).
3. Age- Individuals outside the age group of interest were excluded (the purpose of this study was to examine YAs between the ages of 18 to 24).

The questionnaire used was adopted from the Diffusion of Effective Behavioral Intervention (DEBI). The instrument consisted of 72 questions related to the participant's demographics, AIDS related knowledge, condoms (attitude toward, use, likelihood of use), sexual behaviors as indicators of risk, HIV risk avoidance, substance use and risk reduction strategies. Participants' responded using a Likert scale (1 = strongly agree, 2 = agree, 3 = neutral, 4 = disagree, 5 =

strongly disagree) from which total scores were derived for defining the subcategories that were examined. In 1999, DEBI projects were introduced by the Centers for Disease as effective in reducing HIV infections through Evidence-Based HIV Prevention Interventions (EBI) [7]. Carey et al., (1999) identified the questionnaire as effective in facilitating responses accurately to HIV risk assessments in populations of low literacy. The questionnaire validity was established for determining HIV knowledge among this population [8]. The author validated the survey to be readable and to provide reliable responses [9].

The Statistical Package for the Social Sciences (SPSS) version 19 was utilized to perform all of the data analysis for this study. The data collected from the questionnaire were analyzed using descriptive statistics. The independent t-test, ANOVA test, Shapiro-Wilk ANOVA was used to test for variances between groups. Tukey HSD multiple comparison tests were used to determine which means differ from the rest.

RESULTS

A total of 493 surveys were administered. All 493 surveys were returned for a response rate of 100%. However, 35 of the surveys were excluded from the final analysis because those respondents were either non-African American, not within the required age bracket of 18 to 24, or submitted incomplete surveys. So, the analyses were computed from 458 surveys.

The questionnaire revealed that 56.3% were female, 43.7% were male, ranging from 18 to 24 years old. The largest group of participants was in the 19-20 age group. Heterosexuals represented the largest group, females accounting for 60.0% and males comprising 40.0%. Homosexuals represented the smallest group with 40.0% females and 60.0% males. The educational level of the participants ranged from 12 to 17+ years, with 12 years equivalent to a high school degree. The largest group of participants had 12-13 years of education.

Hypothesis one addressed the level of knowledge about HIV/AIDS (Table 1). The Shapiro-Wilk test revealed that the distribution of scores were not normal when compared by any of the demographic groups. All individuals had relatively high scores for knowledge of HIV/AIDS. Correct scores were above 70% for all groups. No statistical differences in knowledge based on any demographic characteristic could be detected. All tested individuals exhibited an excellent understanding of HIV/AIDS.

Table 1. Comparison of HIV/AIDS Knowledge

Group Comparison	Mean	Std. Dev.	SEM	P-Value
Gender				
Females (n=250)	12.44	1.476	0.113	0.827
Males (n=191)	12.51	1.231	0.102	0.592
Institutional Affiliation				
Alcorn State University (N=109)	12.33	1.28	0.137	0.228
Jackson State University (N=94)	12.72	1.05	0.143	0.058
Tougaloo College (N=85)	12.45	1.54	0.20	
Mississippi Valley State University (N=97)	12.53	1.39	0.158	
My Brother's Keeper Wellness Clinic (N=56)	12.38	1.61	0.25	
Educational Level				
12 years (n=155)	12.31	1.43	0.13	0.097
13 years (n=102)	12.62	1.47	0.17	0.508
14 years (n=87)	12.46	1.39	0.17	
15 years (n=65)	12.74	1.14	0.18	
16 years (n=36)	12.36	0.95	0.20	
17 or more years (n=13)	12.50	1.17	0.37	
Student (N=363)	12.47	1.34	0.083	
Sexual Relationships				
Not having sex	12.48	1.44	0.16	0.885
Having sex, but not with just one partner	12.52	1.36	0.14	0.819
Having sex with just one person for less than one (1)	12.55	1.19	0.14	
Having sex with just one person for one (1) year or more	12.43	1.44	0.16	

Hypothesis two concerned the attitude toward condom use. The highest score for a favorable attitude toward condom use would be 12, representing a positive response (Table 2). A Sharpiro Wilk test revealed that the responses concerning attitudes toward condom use were not normally distributed, but were skewed to a more positive attitude. The null hypothesis was rejected for gender, but retained for institutional affiliation, education, and relationship status, as shown in Table 2.

Table 2. Comparison of Attitudes Towards Condom Use

Group Comparison	Mean	Std. Dev.	SEM	P-Value
Gender				
Females (n=250)	9.25	2.13	0.16	0.049*
Males (n=191)	9.67	2.19	0.18	0.412
Institutional Affiliation				
Alcorn State University	9.5	2.03	0.21	0.135
Jackson State University	9.51	1.99	0.27	0.523
Tougaloo College	9.46	2.01	0.26	0.709
Mississippi Valley State University	9.38	2.39	0.27	
My Brother's Keeper Wellness Clinic	9.30	2.50	0.40	
Educational Level				
12 years (n=155)	9.64	2.21	0.21	0.87
13 years (n=102)	8.95	2.10	0.24	0.309
14 years (n=87)	9.40	2.27	0.29	0.419
15 years (n=65)	9.89	1.88	0.30	
16 years (n=36)	9.31	1.88	0.40	
17 or more years (n=13)	9.50	2.87	0.90	
Student (n=???)	9.42	2.11	0.13	0.209
Relationship Status				
Not having sex	9.31	2.20	0.19	0.563
Having sex, but not with just one partner	9.30	2.28	0.21	0.407
Having sex with just one person for less than one (1) year	9.56	1.95	0.20	0.550
Having sex with just one person for one (1) year or more	9.64	2.08	0.20	

Hypothesis three addressed actual use of condoms. The score for these questions was assigned based on risk, with any risk rating a score of 1. However, these questions also asked participants to estimate the number of times they had engaged in risky behavior in the previous two months. A range of responses (1-64) concerning the number of these risky encounters were reported. The responses revealed the scores were heavily skewed to a lack of condom use. Also, the distributions were significantly different based on institutional affiliation (Table 3). The null hypothesis was rejected for gender, institutional affiliation, and relationship status but retained for educational level.

Hypothesis four stated that there is no difference in the likelihood of condom use among AA-YA. A score of 9 indicate definite confidence in the use of condoms in any future behavior. Sharpiro Wilk test indicated that the responses were not normally distributed. Respondents had scores indicating that they would be more likely to use condoms in future sexual interactions (Table 4), in agreement with the reported attitudes towards condoms but in contrast to actual condom use.

The null hypothesis was rejected for institutional affiliation but retained for gender, educational level and relationship status based on the Independent T test

Table 3. Comparison of Condom Use

Group Comparison	Mean	Std. Dev.	SEM	P-Value
Gender				
Females (n=250)	0.58	0.49	0.03	0.039*
Males (n=191)	0.68	0.46	0.03	0.508
Institutional Affiliation				
Alcorn State University	0.83	0.37	0.03	0.0001*
Jackson State University	0.39	0.49	0.05	0.0001*
Tougaloo College	0.39	0.49	0.05	0.0001*
Mississippi Valley State University	0.84	0.36	0.03	
My Brother's Keeper Wellness Clinic	0.53	0.50	0.07	
Educational Level				
12 years (n=155)	0.59	0.49	0.04	0.308
13 years (n=102)	0.70	0.46	0.04	0.014*
14 years (n=87)	0.60	0.49	0.05	0.032*
15 years (n=65)	0.58	0.49	0.06	
16 years (n=36)	0.58	0.50	0.09	
17 or more years (n=13)	0.84	0.37	0.10	
Relationship Status				
Not having sex	0.40	0.49	0.04	0.0001*
Having sex, but not with just one partner	0.79	0.40	0.03	0.013*
Having sex with just one person for less than one (1) year	0.77	0.42	0.04	0.003*
Having sex with just one person for one (1) year or more	0.55	0.49	0.05	

Table 4. Comparison of Likelihood of Condom Use

Group Comparison	Mean	Std. Dev.	SEM	P-Value
Gender				
Females (n=250)	8.19	1.90	0.11	0.060
Males (n=191)	8.15	1.59	0.11	
Institutional Affiliation				
Alcorn State University	8.00	2.00	0.19	0.032*
Jackson State University	8.25	1.70	0.17	0.007*
Tougaloo College	8.28	1.61	0.17	0.102
Mississippi Valley State University	7.92	2.03	0.20	
My Brother’s Keeper	8.66	0.79	0.10	
Educational Level				
12 years (n=155)	8.28	1.55	0.12	0.059
13 years (n=102)	8.05	1.84	0.18	0.077
14 years (n=87)	8.36	1.47	0.15	0.065
15 years (n=65)	8.18	2.04	0.25	
16 years (n=36)	8.11	1.99	0.33	
17 or more years (n=13)	6.76	2.71	0.75	
Sexual Relationships				
Not having sex	8.2756	1.70283	.15110	0.474
Having sex, but not with just one partner	8.1583	1.60878	.14686	0.393
Having sex with just one person for less than one (1) year	8.1705	1.62043	.17274	0.925
Having sex with just one person for one (1) year or more	8.1481	2.12601	.20458	

Table 5. Comparison of Risk Behavior

Group Comparison	Mean	Std. Dev.	SEM	P-Value
Gender				
Females (n=250)	6.00	4.09	0.29	0.989
Males (n=191)	6.00	3.40	0.25	0.006*
Institutional Affiliation				
Alcorn State University	7.03	2.64	0.26	0.0001*
Jackson State University	3.86	3.40	0.39	0.025*
Tougaloo College	4.04	4.02	0.49	0.0001*
Mississippi Valley State University	8.18	3.39	0.36	
My Brother's Keeper	5.95	3.63	0.54	
Educational Level				
12 years (n=155)	5.76	3.64	0.32	0.631
13 years (n=102)	6.14	3.37	0.37	0.323
14 years (n=87)	5.98	3.99	0.46	0.342
15 years (n=65)	5.89	3.78	0.55	
16 years (n=36)	5.85	4.27	0.82	
17 or more years (n=13)	8.54	5.18	1.56	
Sexual Relationships				
Not having sex	4.06	3.83	0.38	0.0001*
Having sex, but not with just one partner	7.24	3.63	0.35	0.081
Having sex with just one person for less than one (1) year	6.55	3.21	0.36	0.0001*
Having sex with just one person for one (1) year or more	6.21	3.60	0.38	

analysis. However, one way ANOVA failed to demonstrate significant differences among participants with different institutional affiliations (Table 4). As with the scores for attitudes concerning condom use, participants in the survey had very positive scores in this category.

Hypothesis 5 tested differences in risk taking behaviors among the various demographic groups surveyed. A score of 18 represented zero risk in terms of personal behavior while any deviation from that indicated some level of risk taking behavior. Indeed, the lower the score, the more frequently individuals were likely to engage in a behavior that places them in danger of acquiring HIV/AIDS. The Sharpiro Wilk showed that normal distribution for risk for three demographic groups: students at Mississippi Valley State University and respondents with 15 years or more of education, and individuals having sex with one partner for more than 1 year. All others surveyed failed the test for normality. The null hypothesis was rejected for institutional affiliation and relationship status but retained for all other groups based on Independent T test analysis. A significant difference was noted among respondents based on institutional affiliation (Table 5).

DISCUSSION

Only 15.3% believed that HIV and AIDs were two names for the same thing and that a person who has HIV always has AIDS. Only 5% of the participants believed that most types of birth control protect against HIV. Ninety-five percent of the participants had adequate knowledge. The percentages are not consistent with Koumans' research that misconceptions and the lack of information concerning HIV/AIDs is a growing problem among the young adult population [10]. Forty-five percent of the participants believed that a person can get HIV through contact with saliva. A little over half of the participants (55%) correctly answered the question. According to the CDC, there have not been any documented cases of HIV transmission from saliva. However, the virus has been detected in the saliva of HIV infected persons but the quantities are extremely low [11]. This demonstrates that AA-YAs may have knowledge about HIV, but still lack understanding about modes of transmission.

Research has indicated that rural areas exhibit lower educational literacy due to lower economic status [12]. Demographical location has proven to be one of many contributing factors in exhibiting sufficient knowledge of HIV/AIDS. Education was found to be significant to the outcome of HIV/AIDS knowledge. Participants

with a higher educational background scored higher on the HIV/AIDS knowledge category with the exception of the HBCU located in a rural area. These findings are consistent with other studies that college students exhibiting higher educational background are more knowledgeable yet there is still knowledge deficiencies among students attending HBCUs located in rural areas. However, Bazargan noted that despite the fact that most college students are more knowledgeable about HIV/AIDS, their sexual behavior patterns do not mirror the statement [13]. Rich implied that college students ranked making bad grades and being a victim of homicide higher than worrying about acquiring HIV infection or other STDs [14].

Males scored slightly higher on HIV/AIDS knowledge when compared to females, varying from Ackard and Newmark-Sztainer's research stating that males usually begin experimenting with sex before they have gained knowledge about HIV and STD prevention [15]. Bradner, Duberstein, and Lindberg's research identified that males in their 20s are more likely to engage in risky sexual behaviors, placing them at a higher risk for exposure to HIV and STD infections [16]. Research revealed that most women exhibit sufficient HIV/AIDS knowledge, but adhere to riskier sexual practices to please their male partners. As a result, sexual coercion of young women with respect to risky sexual practices is becoming more rampant [17]. Dunkle established that most risky sexual behaviors among women were associated with low educational levels (HIV/AIDs knowledge) and economic hardship (unemployed) [18]. The finding from the present study is not consistent with research findings from other authors.

Data is consistent with Hobfoll research that young single women believed their risk for contracting HIV and STDs is very low because of their sexual history of one or very few partners [19]. Yet, women are having sex with partners of higher risk due to prior risk behaviors. The findings from one study indicated that relationship status has been associated with increased risk among MSMs in committed relationships. MSMs are more likely to have unsafe sex to illustrate a commitment to the relationship. Relationship status of this form is reviewed negatively because most may not know their partners HIV status prior to starting the relationship thus placing them at potential risk [20]. The research of Preston is not consistent with findings from the present research study.

The results from the present study revealed males scored higher compared to females in the category of attitudes towards condom use. These findings are not consistent with other studies. Kennedy documented frequent occurrences in which AA-YA male participants expressed unhealthy attitudes concerning the use of condoms [21]. Some of the unhealthy responses are listed below:

"If the female was beautiful and well groomed then she was disease free so there was no need to use a condom."

"Condoms break the mood because of the length of time it takes to put on."

Kennedy concluded that negative attitudes towards condom use exist in AA-YA males yet, the findings from the current study identified males had a more positive attitude towards condom use [21]. Most male participants felt that condoms made sex more stimulating and that using a condom showed concern and care towards their sexual partner. Findings from Hobfoll are consistent with the results from the present study of women's attitude towards condom use [19]. Hobfoll's study discovered most female participants felt condom use was not important since they were currently in a consensual mutually monogamous relationship despite their partner's past history or unknown HIV status. Hobfoll and Preston's research reported that most people feel if they are in a mutually monogamous relationship, the need to use a condom is lessened despite the past sexual history of their partner.

The findings from the current study revealed that students attending HBCUs had a more positive attitude towards condom use than peers of the same age group not associated with an institute of higher learning. Educational level is associated positively in regards to attitudes towards condom use. Bazargan [13] and Rich [14] noted that young adults associated with higher educational levels exhibit on an average a more positive attitude towards condom use.

Male participants had a higher mean score when compared to female participants in the category of condom use. Larkin research recognized that most young women fall prey to risky behaviors such as not using a condom because they completely trust their male partner and felt not using condoms would make the intimacy level higher [22]. These findings concerning women and condom use is consistent with the results from the current study that males exhibit higher level of condom use behavior when compared to females. The study identified that over 75% of the participants, regardless of gender, "do not" use condoms. One can conclude that AA-YAs in Mississippi have sufficient knowledge surrounding HIV/AIDS but still do not use condoms.

The study identified differences among the groups. Participants from MBK scored higher than students from JSU and Tougaloo. Labrie established that college students have accurate knowledge and are more knowledgeable concerning factors surrounding condom use [23]. However, they still do not use condoms

consistently. Studies have identified other factors that deter students from using condoms such as alcohol and drug use prior to sexual encounters.

Twenty-one percent of the participants indicated they had been treated for a sexually transmitted disease such as syphilis, gonorrhea, herpes or chlamydia. When identifying sexual behaviors, anal sex, vaginal sex and oral sex with a condom occurred as frequently as anal sex, vaginal sex and oral sex without a condom. Some participants acknowledge using drugs and alcohol prior to having sex and needle sharing to inject drugs. Over 46% of the males surveyed acknowledge having sex with another man. Over 3% of the participants indicated they had given someone money and drugs to get sex. There were no noted differences among behavior patterns of males and females in the category of risk behavior. This finding is not consistent with the literature review. Dunkle noted that males' exhibit higher risk taking patterns such as alcohol and drug use prior to sex while women choose men that are at higher risk due to alcohol and drug use prior to sex [18]. Also, males are more likely to have multiple sex partners while women cling more to one sexual partner. The assumption is that condom use is not likely to occur giving the contributing factor prior to sexual intercourse.

With regards to institutional affiliation, JSU scored the lowest among the groups on the category of risk behaviors. Associated risk factors are consistent with other studies. Graves noted that college student whom consumes alcohol or drugs were two to three times more likely to have multiple sexual partners and lower rates of condom use [24]. DeSimone acknowledged that students attend parties where alcohol is served in hopes of engaging in sexual activities with people of similar drinking preferences [25]. Literature suggests college students have higher knowledge based on HIV/AIDS and condom use, yet they exhibit the highest risk taking behaviors. Mississippi young adults mirror similar qualities. Further research in this area is needed. The study sample was chosen from different departments of four conveniently chosen HBCUs and one community based clinic. Therefore, the result described is limited to the population of AA-YAs age 18 to 24 attending those four HBCUs and that one community based clinic and not generalizable to the population as a whole.

Implications

Jackson, Mississippi has recently been cited among the top three cities in the United States with highest prevalence of HIV/AIDS. This research study was successful in identifying high risk populations based on statistical findings from the sampled population of AA-YAs 18 to 24 years of age. Public health providers within Mississippi not only need to focus on HIV prevention but also to assist AA-YAs in a more holistic manner (eg., food and housing options). Providing a safe space within the community for AA-YAs will help build their trust, enabling providers to more successfully offer HIV prevention and education. It is essential that public health educators and providers identify populations that are considered as high risk in Mississippi. It is strongly recommended that further investigation surrounding specific risk behaviors such as alcohol and drug use prior to sexual encounters, and multiple sexual partners from the sampled population, be examined.

There is a need for local and state governmental officials in Mississippi to advocate for and promote behavioral interventions that are gender specific for AA-YA MSMs and heterosexual women and men. Based on findings from the research study, policy gaps (HIV prevention within middle and high schools) need to be addressed along with the availability of adequate funding for trained public health officials to coordinate HIV behavioral interventions within the schools and throughout AA communities.

The current study was successful in defining what prevention measures are essential for the AA-YA population within Mississippi. AA-YAs were knowledgeable about HIV and STD transmission, yet their sexual behaviors did not mirror their knowledge. It is recommended that more behavioral interventions be offered to this population. The identified specific need is not a lack of education, but a need for behavioral change (eg. more consistent use of condom, restrict drinking, and drug use). Future studies surrounding the effectiveness of behavioral interventions that are gender specific (heterosexual, bi-sexual and homosexuals) age specific and race specific (AA) and the effectiveness of the behavioral intervention are recommended.

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