

Abstract #156927: Association of MSM/Non-MSM Disclosure and Internalized Homonegativity among Black/African-American Men Enrolled at Boston Healthcare Clinics

Manuela V. Costa, MPH¹, **Seth Welles, ScD, PhD**², Anita Raj, PhD³, Elizabeth A. Reed, MPH⁴, and C. Robert Horsburgh, MD¹

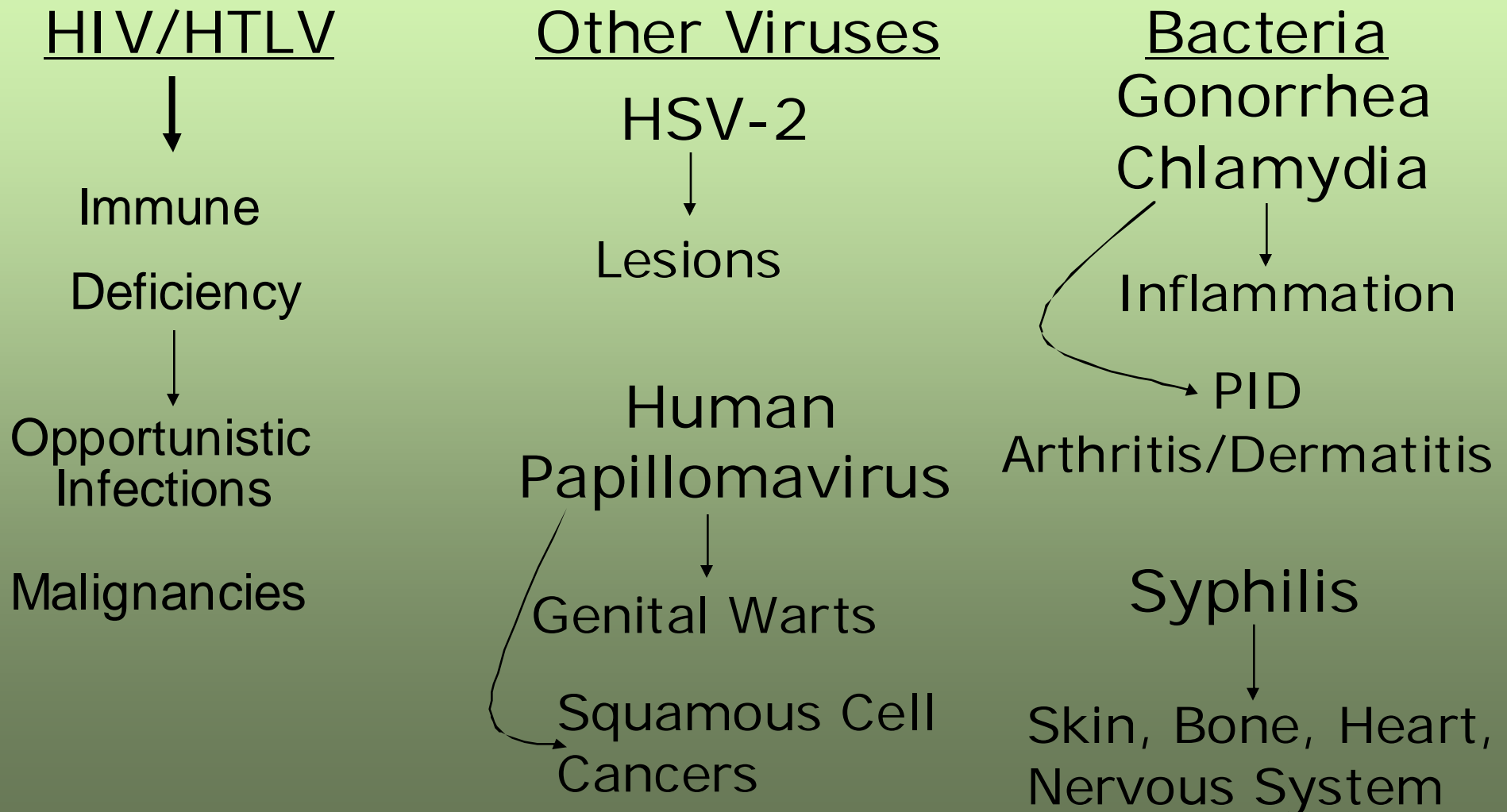
¹Dept. of Epidemiology, Boston University SPH, Boston, MA

²Dept. of Epidemiology and Biostatistics, Drexel University SOPH, Philadelphia, PA

³Dept. of Social and Behavioral Sciences, Boston University SPH, Boston, MA

⁴Dept. of Society, Human Development, and Health, Harvard SPH, Boston, MA

Background: Impact and Disease Sequelae of HIV and other STIs



Background: Racial/Ethnic Health Disparities-- HIV/STD Rates among African-Americans, 2004

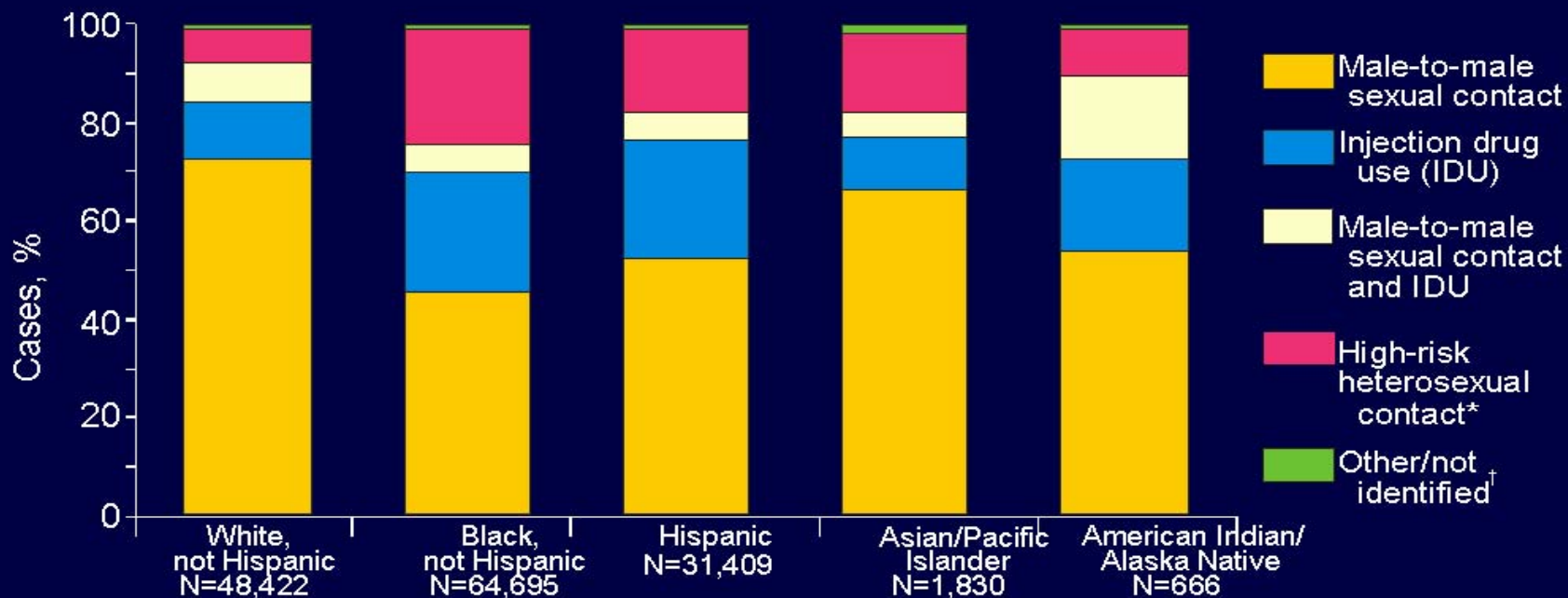
- 19-fold sharply higher gonorrhea rates: African-Americans had incidence of 630/100,000 compared with the rate for whites (33.3/100,000)
- 7.5-fold higher chlamydia rates among African-American women compared with white women: 1,722 /100,000 versus 227/100,000.
- 5.6-fold higher syphilis rates: African-Americans had incidence of 9.0/100,000 compared with the rate for whites (1.6/100,000)
- Of 38,508 new HIV/AIDS cases reported for 2004, 19,057 were among black/African-American adults and adolescents (9.1-fold rate ratio when expressed per 100,000 people at risk)

Background: Racial/Ethnic Health Disparities-- HIV/STD Rates among African-American MSM

- In 2004, black/African-American men accounted for 36% of new HIV/AIDS cases among MSM vs. whites that accounted for 43% in this risk group.
- In seven cities, young black MSM were 9-times more likely to be HIV-infected than white men— even after adjustment for known risk factors such as anal sex with men and condom use (Harawa et al., 2004).
- Original report in 2000: black MSM HIV prevalence was 6-times that of white men, and among all HIV+ MSM, only 18% knew of their HIV infection prior to testing (Valleroy et al., 2000) .

Background: Male-to-Male Sexual Contact Accounts for Half of New HIV/AIDS Cases among African-American Men, 2001-2005

Proportions of AIDS Cases among Male Adults and Adolescents, by Transmission Category and Race/Ethnicity 2001–2005—United States and Dependent Areas



Note. Data have been adjusted for reporting delays, and cases without risk factor information have been proportionally redistributed. IDU, injection drug use.

* Heterosexual contact with a person known to have, or to be at high risk for, HIV infection.

† Includes hemophilia, blood transfusion, perinatal exposure, and risk factor not reported or not identified.

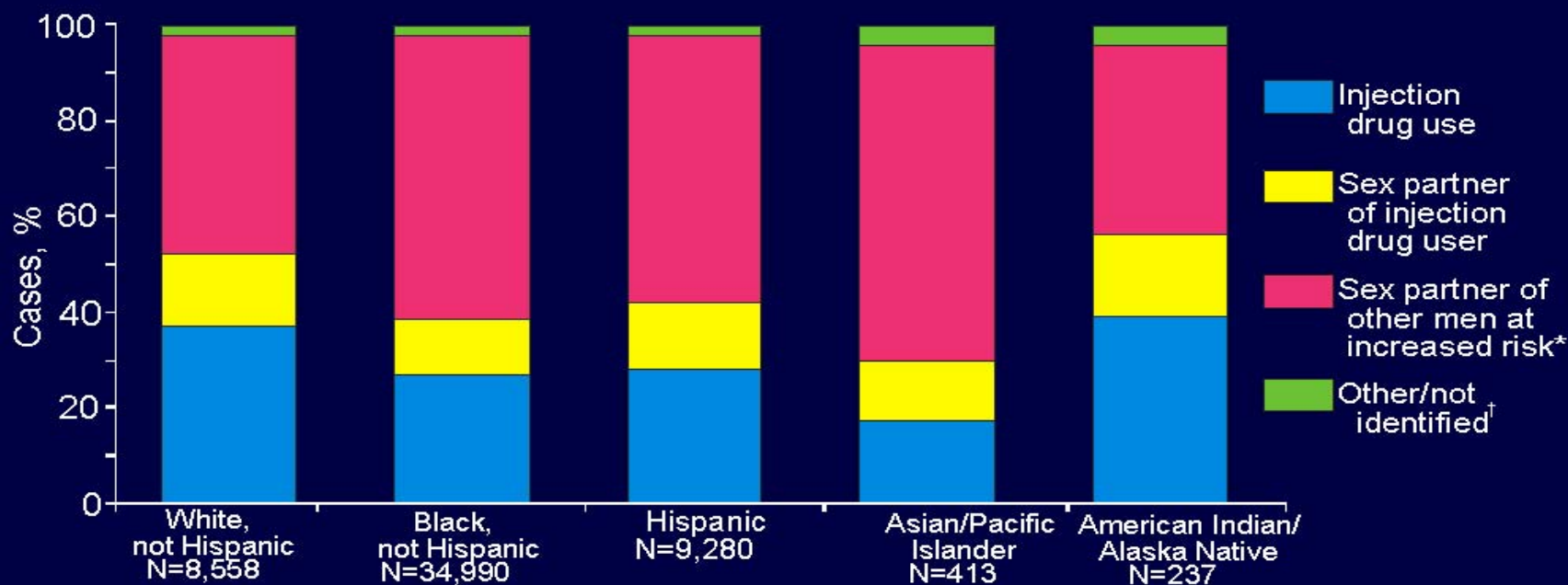


Revised June 2007



Background: Impact of Male-to-Male Sexual Contact on HIV/AIDS Cases among African-American Women, 2001-2005

Proportions of AIDS Cases among Female Adults and Adolescents, by Transmission Category and Race/Ethnicity 2001–2005—United States and Dependent Areas



Note. Data have been adjusted for reporting delays, and cases without risk factor information have been proportionally redistributed.

* Includes sex with a bisexual male, a person with hemophilia, an HIV-infected transfusion recipient, or an HIV-infected person whose risk factor was not specified.

† Includes hemophilia, blood transfusion, perinatal exposure, and risk factor not reported or not identified.



Revised June 2007



Scientific Aims of Current Analyses

1. To evaluate levels of internalized homonegativity among MSM who do not initially disclose sex with other males, in comparison with MSM who initially disclose their homosexual behaviors
2. To evaluate levels of sex role stereotyping among MSM who do not initially disclose sex with other males, in comparison with MSM who initially disclose their homosexual behaviors
3. To evaluate rate of involvement with street violence, incarceration, and beliefs around neighborhood violence among MSM who do not initially disclose sex with other males, in comparison with MSM who initially disclose their homosexual behaviors and non-MSM

Public Health Motivation for BAAHMS

- Obtain less *biased*, more *realistic* estimates of MSM behaviors among a generalizable group of sexually active (non-monogamous) black men
- Identify high risk profiles among MSM and non-MSM black/African-American men in general to develop new guidelines for physicians and healthcare workers when assessing sexual risk in adult black male patients
- Understand what psychologic and social factors are associated with high risk sexual behaviors-- to guide new approaches to STD/HIV prevention efforts

Methods

- Opened for enrollment 5/18/05
- Five clinics partnered: Codman Square Healthcare Center, Dorchester House Multi-Service Center, the Primary Care Center at BMC, the Urgent Care Center at BMC, and the Whittier Street Community Health Center: serving patients in Dorchester, Roxbury, Mattapan, and Boston's South End
- All men black/African-American men 18+ years of age, and who had 2 or more sex partners in the past year were eligible to enroll— elevated risk for HIV/STIs

Methods: Overview of BAAMHS Protocol

- Recruitment alternated between clinics
- All men who appeared to be black/ African-American were approached in waiting room areas by our recruiters
- Men escorted to computers for audio computer-assisted self-administered interviewing (A-CASI)
- A-CASI (where questions are read to participants via computer and they can respond by touch-screen technology) promotes feelings of privacy, increased “safety” by respondent— yields more honest responses.

Methods: Measures/Covariates

- **Demographics:** Age, ethnicity, level of education, household income level, employment status
- **HIV infection and sexual behaviors:** HIV infection status; male and female partners in the past 60 days, 6 mos. year, and lifetime (yes/no and counts); and number of times oral sex, or anal or vaginal intercourse with male or female sex partners (as appropriate), and number of times condoms were used.
- **Sex Role Stereotyping Scale** (Pleck et al., 1992)
- **Homonegativity Scale** (from Ross and Rosser, 1996)
- **Experiences with Street Violence and Incarceration:** Items developed specifically for the BAAMHS study

Results: Demographics among Study Participants (n = 703)

Median Age: 35 yrs

Race/Ethnicity: 76.0% African-American, 8.3% Caribbean, 7.3% African or Cape Verdean, 3.6% black Latino, 4.8% other

Education: 27.6% less than high school, 45.7% high school graduates, 26.7% beyond high school

Income: 53.3% < \$15,000, 30.3% \$15,000-\$34,999, 16.4% \$35,000+

Employment:
Status 62.0% unemployed

Homelessness: 24.3% homeless

HIV-Positivity: 5.5% HIV+, 57.0% HIV-, 37.4% unknown or not recently tested.

Disclosure Rates of Homosexual Behavior among MSM

128/703 (18.2%) of participants were *ultimately* classified as being active MSM

- 72 men **initially reported having had sex with males**: 52 reported anal intercourse & oral sex, 9 reported only oral sex, 1 reported only anal intercourse, and 10 reported neither
- 56 men **initially reported not having sex with males**. However, they **subsequently reported specific sexual behaviors with other men**: 41 reported oral sex only, 11 reported anal intercourse and oral sex, and 4 reported only anal intercourse

Therefore, 43.8% of MSM did not acknowledge men to be sex partners although they did self-report specific behaviors (mostly oral sex) with men

Self-Reported Sexual Orientation among MSM

Community or group with which one identifies

- 72 MSM who initially reported male sex partners:
 - 31.9% heterosexual
 - 29.2% gay/homosexual
 - 37.5% bisexual
 - 1.4% other
- 56 MSM who did not initially report male sex partners:
 - 83.9% heterosexual
 - 1.9% gay/homosexual
 - 7.1% bisexual
 - 7.1% other

Levels of Internalized Homophobia among BAAMHS Study Participants

Homonegative Statement	Extent of Agreement with Statement (%)					p-value
	Strongly Disagree 1	Disagree 2	Neutral 3	Agree 4	Strongly Agree 5	
I am comfortable being around gay men						<0.0001
MSM who acknowledge male sex partners (n=72)	13.9	6.9	34.7	23.6	20.8	
MSM who deny having male sex partners (n=56)	33.9	17.9	32.1	10.7	5.4	
Non-MSM (n=575)	24.9	15.0	42.6	11.7	5.9	
Homosexuality is as natural as heterosexuality						<0.0001
MSM who acknowledge male sex partners (n=72)	19.4	6.9	29.2	23.6	20.8	
MSM who deny having male sex partners (n=56)	41.1	25.0	17.9	8.9	7.1	
Non-MSM (n=575)	42.1	24.0	26.6	3.1	4.2	
When I think about homosexual men, I have negative thoughts						0.009
MSM who acknowledge male sex partners (n=72)	29.2	36.1	19.4	9.7	5.6	
MSM who deny having male sex partners (n=56)	21.4	17.9	17.9	19.6	23.2	
Non-MSM (n=575)	20.7	16.9	34.4	17.6	10.4	
Gay men make me uncomfortable						<0.0001
MSM who acknowledge male sex partners (n=72)	33.3	30.6	23.6	8.3	4.2	
MSM who deny having male sex partners (n=56)	19.6	16.1	23.2	23.2	17.9	
Non-MSM (n=575)	16.3	16.0	38.4	15.1	14.1	

Levels of Internalized Homophobia among BAAMHS Study Participants-- *continued*

Homonegative Statement	Extent of Agreement with Statement (%)					p-value
	Strongly Disagree 1	Disagree 2	Neutral 3	Agree 4	Strongly Agree 5	
Society punishes people for being gay						0.03
MSM who acknowledge male sex partners (n=72)	20.8	16.7	25.0	18.1	19.4	
MSM who deny having male sex partners (n=56)	14.3	10.7	23.2	41.1	10.7	
Non-MSM (n=575)	20.7	18.6	33.4	18.6	8.7	
Discrimination against gays is understandable						0.13
MSM who acknowledge male sex partners (n=72)	37.5	20.8	23.6	11.1	6.9	
MSM who deny having male sex partners (n=56)	21.4	17.9	30.4	16.1	14.3	
Non-MSM (n=575)	21.4	24.7	33.0	12.4	8.5	
Most people have negative reactions to gays						0.82
MSM who acknowledge male sex partners (n=72)	15.3	11.1	25.0	31.9	16.7	
MSM who deny having male sex partners (n=56)	7.1	10.7	25.0	33.9	23.2	
Non-MSM (n=575)	11.7	9.9	26.6	36.2	15.7	

Levels of Sex Role Stereotyping among BAAMHS among BAAMHS Study Participants

Sex Role Stereotyping Statement	Extent of Agreement with Statement (%)				p-value
	Agree a lot 1	Agree a little 2	Disagree a little 1	Disagree a lot 4	
It is essential for a man to get respect from others.					<0.54
MSM who acknowledge male sex partners (n=72)	42 (58.3)	19 (26.4)	6 (8.3)	5 (6.9)	
MSM who deny having male sex partners (n=56)	35 (62.5)	15 (26.8)	3 (5.4)	3 (5.4)	
Non-MSM (n=575)	362 (63.0)	145 (25.2)	28 (4.9)	40 (7.0)	
I admire a man who is totally sure of himself.					0.11
MSM who acknowledge male sex partners (n=72)	44 (61.1)	16 (22.2)	10 (13.9)	2 (2.8)	
MSM who deny having male sex partners (n=56)	34 (60.7)	12 (21.4)	5 (8.9)	5 (8.9)	
Non-MSM (n=575)	394 (68.5)	125 (21.7)	25 (4.4)	31(5.4)	
A young man should be physically tough, even if he is not big.					0.12
MSM who acknowledge male sex partners (n=72)	20 (27.8)	22 (30.6)	18 (25.0)	12 (16.7)	
MSM who deny having male sex partners (n=56)	21 (37.5)	18 (32.1)	9 (16.1)	8 (14.3)	
Non-MSM (n=575)	220 (38.3)	182 (31.7)	83 (14.4)	90 (15.6)	
Men are always ready for sex.					0.95
MSM who acknowledge male sex partners (n=72)	22 (30.6)	20 (27.8)	20 (27.8)	10 (13.9)	
MSM who deny having male sex partners (n=56)	21 (37.5)	14 (25.0)	12 (21.4)	9 (16.1)	
Non-MSM (n=575)	200 (34.8)	141 (24.5)	133 (23.1)	101 (17.6)	

Levels of Sex Role Stereotyping among BAAMHS Study Participants-- *continued*

Sex Role Stereotyping Statement	Extent of Agreement with Statement (%)				p-value
	Agree a lot 1	Agree a little 2	Disagree a little 1	Disagree a lot 4	
A man always deserves the respect of his wife and children.					0.05
MSM who acknowledge male sex partners (n=72)	42 (58.3)	14 (19.4)	13 (18.1)	3 (4.2)	
MSM who deny having male sex partners (n=56)	40 (71.4)	6 (10.7)	6 (10.7)	4 (7.1)	
Non-MSM (n=575)	400 (69.6)	109 (19.0)	35 (6.1)	31 (5.4)	
A man will lose respect if he talks about his problems					0.03
MSM who acknowledge male sex partners (n=72)	14 (19.4)	15 (20.8)	20 (27.8)	23 (31.9)	
MSM who deny having male sex partners (n=56)	9 (16.1)	11 (19.6)	14 (25.0)	22 (39.3)	
Non-MSM (n=575)	75 (13.0)	87 (15.1)	174 (30.3)	239 (41.6)	
It bothers me when a man acts like a woman.					0.0008
MSM who acknowledge male sex partners (n=72)	27 (37.5)	13 (18.1)	19 (26.4)	13 (18.1)	
MSM who deny having male sex partners (n=56)	32 (57.1)	13 (23.2)	6 (7.0)	5 (8.9)	
Non-MSM (n=575)	334 (58.1)	115 (20.0)	61 (10.6)	65 (11.3)	
I do not think a husband should have to do housework.					0.93
MSM who acknowledge male sex partners (n=72)	4 (5.6)	13 (18.1)	19 (26.4)	36 (50.0)	
MSM who deny having male sex partners (n=56)	12 (21.4)	7 (12.5)	17 (30.4)	20 (35.7)	
Non-MSM (n=575)	57 (9.9)	82 (14.3)	172 (29.9)	264 (45.9)	

Associations of Internalized Homonegativity and Sex Role Stereotyping Attitudes with Initial Non-Disclosure of Sex with Males among MSM in BAAMHS (n=128)

Factor	Unadjusted Odds Ratio (95% Confidence Interval)	Adjusted Odds Ratio (95% Confidence Interval)	p-value***
Total Homonegativity Score* (35 possible points)			
≥ 24 (Quartile 4)-- most	5.49 (1.87,16.12)	3.44 (1.07, 11.04)	0.04
21-23 (Quartile 3)	2.76 (1.02,7.50)	2.40 (0.83, 6.96)	0.11
18-20 (Quartile 2)	1.24 (0.43,3.53)	0.92 (0.29, 2.92)	0.89
≤ 17 (Quartile1)-- least	1.00 (referent)	1.00 (referent)	
Total Sex Role Stereotyping Score* (32 possible points)			
≥ 21 (Quartile 4)—least	1.00 (referent)	1.00 (referent)	
18-20 (Quartile 3)	2.25 (0.70, 7.22)	2.14 (0.58, 7.91)	0.26
15-17 (Quartile 2)	2.57 (0.88, 7.50)	2.79 (0.84, 9.26)	0.09
≤ 14 (Quartile 1)-- most	3.18 (1.09, 9.26)	2.79 (0.83, 9.33)	0.10
Age Group**			
≥ 46 yrs	0.21 (0.07, 0.65)	0.23 (0.07, 0.77)	0.02
36-45 yrs	0.19 (0.06, 0.54)	0.20 (0.06, 0.64)	0.007
26-35 yrs	0.30 (0.10, 0.86)	0.35 (0.11, 1.12)	0.08
18-25 yrs	1.00 (referent)	1.00 (referent)	

* Quartile cut-offs were determined from distribution of total scores among MSM who initially disclosed having sex with males (controls).

** Age was only demographic that was associated with this outcome.

*** p-values are for multiple regression, adjusted model

Conclusions

- MSM not initially acknowledging sex with males tended to be younger than both MSM who initially acknowledges sex with males and non-MSM. Compared with MSM who initially acknowledges sex with males, these MSM were more like non-MSM: having higher income, less likely to be homeless, and being less religious than MSM who acknowledged sex with males.
- MSM not initially acknowledging sex with males had the highest levels of internalized homonegativity among the three groups evaluated. In almost every instance their levels of homonegativity exceeded those of non-MSM. The strongest contrast was seen concerning the belief that society punishes people for being gay.

Conclusions

- MSM not initially acknowledging sex with males had the higher levels of sex role stereotyping compared with MSM who initially acknowledged sex with males and non-MSM. This association was driven by scale items that specifically measured attitudes around: 1) perceived feminine qualities such as losing respect when discussing problems or being bothered when men act like women; or 2) items explicitly comparing traditional roles of men versus women.
- In multiple regression models to evaluate the likelihood of initial non-disclosure of sex with males, young age (18-25 years), and increasing levels of internalized homonegativity (3.4-fold increase of risk among men in highest quartile) and attitudes about sex role stereotyping (2.8-fold risk among men in highest quartile) were independently associated with non-disclosure among this group of African-American MSM recruited and identified at Boston healthcare clinics.

Acknowledgments

- This project was funded under a grant from the Centers for Disease Control and Prevention (CCU123364: Anita Raj, PI)
- We would like to acknowledge our CDC Project Officers, Drs. Stephen Flores and Lisa Fitzpatrick for their support and guidance on this project.