



Published in final edited form as:

AIDS Care. 2016 ; 28(6): 731–735. doi:10.1080/09540121.2016.1146395.

HIV/AIDS stigma among a sample of primarily African American and Latino men who have sex with men (MSM) social media users

Renee Garrett, MS, LCSW¹, Justin Smith, MS^{2,3}, Jason Chiu, MPH^{2,3}, and Sean D. Young, Ph.D., M.S.^{2,3}

¹ElevateU, Los Angeles, CA USA

²Department of Family Medicine, University of California, Los Angeles (UCLA), Los Angeles, USA

³UCLA Center for Digital Behavior, Department of Family Medicine, University of California, Los Angeles, Los Angeles, CA, USA

Abstract

The recent increase in social media use allows these technologies to rapidly reach communities with higher HIV prevalence, such as African American and Latino men who have sex with men (MSM). However, no studies have looked at HIV/AIDS stigma among social media users from African American and Latino MSM communities, or the association between stigma and social media use among these groups. This study sought to assess the level of HIV/AIDS stigma among a sample of social media-using African American and Latino MSM from Los Angeles. A total of 112 (primarily African American and Latino, n = 98, 88%) MSM Facebook users completed a survey on demographics, online social network use, and HIV/AIDS stigma. A composite stigma score was created by taking the cumulative score from a 15-item stigma questionnaire. Cumulative logistic models were used to assess the association between HIV/AIDS stigma and online social network use. In general, participants reported a low level of HIV/AIDS stigma (mean = 22.2/75, SD=5.74). HIV/AIDS stigma composite score was significantly associated with increased time spent on online social networks each day (aOR: 1.07, 95% CI: 1.00, 1.15). Among this diverse sample of MSM online social network users, findings suggest that HIV/AIDS stigma is associated with usage of social media. We discuss the implications of this work for future HIV prevention.

Keywords

HIV/AIDS prevention; social media; Men who have sex with men (MSM); African American/Black and Latino men who have sex with men (BMSM/Latino MSM); Internet; online social networks

Address Correspondence to: Sean Young, UC Institute for Prediction Technology, Department of Family Medicine, 10880 Wilshire Blvd, Suite 1800, Los Angeles, CA 90024, Sdyoung@mednet.ucla.edu.

DECLARATION OF CONFLICTING INTERESTS

The authors report no conflicts of interest

1. INTRODUCTION

People living with HIV/AIDS (PLWHA) have been the target of stigma and discrimination (Cahill & Valadéz, 2013; Earnshaw, Lang, Lippitt, Jin, & Chaudoir, 2014; Herek, Capitano, & Widaman, 2002; Mahajan et al., 2008). HIV/AIDS stigma is one of the major barriers in combating HIV worldwide and is often compounded with other issues such as gender, sexuality, ethnicity, drug use, and culture (Brooks, Etzel, Hinojos, Henry, & Perez, 2005; Chen, Choe, Chen, & Zhang, 2005; Lentine, Hersey, Iannacchione, Laird, & McClamroch, n.d.; Pulerwitz, Michaelis, Weiss, Brown, & Mahendra, 2010; Swendeman, Rotheram-Borus, Comulada, Weiss, & Ramos, 2006). HIV/AIDS stigma deters individuals from disclosing their HIV/AIDS status, increases sexual risk behaviors, decreases willingness to be HIV tested, and decreases access to quality care (Brooks et al., 2005; Brown, Macintyre, & Trujillo, 2003; Chesney & Smith, 1999; Earnshaw, Smith, Chaudoir, Amico, & Copenhaver, 2013; Galvan, Davis, Banks, & Bing, 2008; Pulerwitz et al., 2010; Rao, Kekwaletswe, Hosek, Martinez, & Rodriguez, 2007; Simbayi et al., 2007; Valdiserri, 2002; Wu et al., 2008).

Minority men who have sex with men (MSM) have the highest rates of HIV in the U.S. (CDC, 2013; Hall, Byers, Ling, & Espinoza, 2007). High levels of HIV/AIDS stigma among minorities helps drive this disparity (Brooks et al., 2005). As a result, many minority MSM remain secretive about their same-sex sexual practices, avoid getting tested/practice riskier sex, and are unreachable by traditional public health interventions (Arnold, Rebchook, & Kegeles, 2014; Fullilove & Fullilove, 1999; Marín, 2003; Overstreet, Earnshaw, Kalichman, & Quinn, 2013; Young, Szekeres, & Coates, 2013).

To avoid stigma, minority MSM are increasingly using social media, such as Facebook, as a source for seeking social and sexual partners (Young et al., 2013). In 2013, 58% of the general public used a social networking site, with the number increasing to 80% for LGBT adults (PEW Research Center, 2013). When looking at racial differences, the rate of SNS use was 71% among Whites, 76% among African Americans, and 73% among Latinos (Duggan & Smith, 2013; Harris Interactive, 2007; Smith, 2010). This study sought to assess the level of HIV/AIDS stigma among a sample of social media-using African American and Latino MSM from Los Angeles.

2. METHODS

The Institutional Review Board (IRB) at the University of California, Los Angeles (UCLA) approved this study and the protocol adhered to the current recommendations for conducting HIV research using social networking technologies (Young, 2012).

A total of 122 participants were recruited from 1) online websites (n=104), 2) gay establishments in Los Angeles (n=6), and 3) participant referrals (n=12) between September 2010 and January 2011. Online recruiting was done through targeted banner ads on SNSs and posts on Craigslist. Eligibility criteria were the following: 1) male, 2) 18+, 3) Los Angeles resident, 4) registered Facebook user (participants had the opportunity to create an account), and 5) had sex with a man in the past 12 months. The study focused on recruiting

African American and Latino (English-speaking) MSM. A “Facebook Connect” technology (a Facebook owned protocol) was used to verify unique Facebook users by having each user sign in using their username/password (this minimized duplicate respondents). Only participants successfully verified by Facebook Connect participated in the study. After verifying participant identity and reducing duplicate responses, we were left with 112 valid participant responses.

2.1. MEASURES

2.1.1. BASIC DEMOGRAPHICS—Demographic questions included age, sexual orientation, race, highest education level, employment status, marital/partnership status, and primary access to the Internet (cellphones vs. computers).

2.2.2. HIV/AIDS STIGMA—A 15-item questionnaire, adapted from previous questionnaires, was designed to broadly measure a person’s opinion on HIV/AIDS stigma (Kalichman et al., 2005; Young, Nussbaum, & Monin, 2007). The responses ranged from strongly disagree to strongly agree with the provided statement in each item (strongly disagree = 1, strongly agree = 5). Agreeing or strongly agreeing indicated that an individual had high levels of stigma. Four items were reverse coded for the present analysis (see Table 2).

2.2.3. ONLINE SOCIAL NETWORK USE—Participants were asked to indicate which social, sexual, and/or general SNSs they used such as Facebook and Myspace. The participants also indicated the number of hours they spent each day using online SNSs in the past 3 months. The SNS time-use question utilized time increments instead of fill-in the blank answers in order to facilitate faster response times.

3. STATISTICAL ANALYSIS

All analyses were conducted in R-3.0.2 on Mac OSX to run a multivariate ordinal logistic model that estimated the relationship between HIV/AIDS stigma and SNS use. A composite HIV/AIDS stigma score was created by summing each HIV/AIDS stigma item ($\alpha = 0.77$). A higher score indicated that a person had a higher level of HIV/AIDS stigma. The dependent variable used in the model was categorical and indicated the amount of time participants spent on SNSs/week (ranged from 1–6, reported in table 1).

4. RESULTS

4.1. BASIC DEMOGRAPHICS AND ONLINE SOCIAL NETWORK USE (SEE TABLE 1)

Of 112 participants, the mean age was 32, and most participants identified as homosexuals (75.9%). Over 87% of participants were either African American (27.7%) or Latino (59.8%), the remaining 14 participants (13%) were grouped into an “other” category. Additionally, 75% of the participants spent 1+hours/day on SNSs in the past three months.

4.2. HIV/AIDS STIGMA (SEE TABLE 2)

The mean HIV/AIDS stigma composite score was 22.2, with a range of 15–45 (the possible range scores: 15–75) and an alpha of 0.77. 4 (3.6%) out of the 112 participants were HIV positive (15, 13.4% said they did not know their status) and had an average stigma score of 16 (compared to 22 for HIV negative individuals). However, a t-test for difference was insignificant, and one of the HIV+ subjects refused to answer more than half of the stigma questions. Ignoring this one individual, the average stigma score would be 20 for HIV+ individuals.

4.3. ADJUSTED ODDS RATIOS (SEE TABLE 3)

The HIV/AIDS stigma composite score was positively associated with increased time spent on SNSs (AOR: 1.07, 95% CI: 1.00, 1.15). When a subject's HIV stigma score increased by 1 point, the odds of increasing from the “no time spent on the internet” category to any of the other categories are multiplied by 1.07. This increase of the odds by 1.07 remains true for any other increase in the dependent variable, such as moving from 1–2 hours on SNSs/week to any other higher category.

5. DISCUSSION

To the best of our knowledge, this is the first study to assess HIV/AIDS stigma among a sample of African American and Latino MSM SNS users. With a mean score of 22.2 this low level of HIV/AIDS stigma is consistent with the decreasing trends in HIV/AIDS stigma (Herek et al., 2002). However, the low score was surprising from a sample of minority MSM, who have traditionally displayed high stigma levels (Brooks et al., 2005; Fullilove & Fullilove, 1999; Marín, 2003), however differences between minority MSM and minority communities in regards to HIV stigma has been previously established (Smit et al., 2012). Future research should explore the differences in stigma levels between the SNS-using minority MSM and the minority population at large.

There are a few limitations to the study, primary among them that the study is cross-sectional with a small sample size. Second, while there is no consensus on how to define HIV/AIDS stigma and some studies suggest that HIV/AIDS stigma exists in multiple layers (e.g., community, policy, and institutional) (Mahajan et al., 2008; Pulerwitz et al., 2010), this study only addressed individual level HIV/AIDS stigma. Finally, this study used time intervals (instead of open-ended questions) to gauge participants' internet use, possibly skewing the answers.

The finding that higher levels of stigma are associated with greater time spent online is interesting, one that deserves additional study. In previous studies (Young et al., 2013) we found that a large number of people in this sample were using social media to find sex partners in order to avoid in-person stigma. It is therefore possible that those who spend the most time online are also the ones perceiving the greatest HIV-related stigma. However, our findings do not allow us to draw causation. This becomes a call for future research on this topic.

Acknowledgments

The authors graciously acknowledge the National Institute of Mental Health (NIMH) for providing support for this project.

Source of Support: National Institute of Mental Health (Sean D. Young, K01 MH090884; 5R01MH106415).

References

- Arnold EA, Rebchook GM, Kegeles SM. “Triply cursed”: racism, homophobia and HIV-related stigma are barriers to regular HIV testing, treatment adherence and disclosure among young Black gay men. *Culture, Health & Sexuality*. 2014; 16(6):710–722. <http://doi.org/10.1080/13691058.2014.905706>.
- Brooks RA, Etzel MA, Hinojos E, Henry CL, Perez M. Preventing HIV among Latino and African American Gay and Bisexual Men in a Context of HIV-Related Stigma, Discrimination, and Homophobia: Perspectives of Providers. *AIDS Patient Care and STDs*. 2005; 19(11):737–744. <http://doi.org/10.1089/apc.2005.19.737>. [PubMed: 16283834]
- Brown L, Macintyre K, Trujillo L. Interventions to reduce HIV/AIDS stigma: what have we learned? *AIDS Education and Prevention: Official Publication of the International Society for AIDS Education*. 2003; 15(1):49–69. [PubMed: 12627743]
- Cahill S, Valadéz R. Growing Older With HIV/AIDS: New Public Health Challenges. *American Journal of Public Health*. 2013; 103(3):e7–e15. <http://doi.org/10.2105/AJPH.2012.301161>. [PubMed: 23327276]
- CDC. HIV Among Gay, Bisexual, and Other Men Who Have Sex With Men – Google Search. 2013. Retrieved October 23, 2015, from <https://www.google.com/search?q=Among+Gay%2C+Bisexual%2C+and+Other+Men+Who+Have+Sex+With+Men&ie=utf-8&oe=utf-8>
- Chen J, Choe MK, Chen S, Zhang S. Community environment and HIV/AIDS-related stigma in China. *AIDS Education and Prevention: Official Publication of the International Society for AIDS Education*. 2005; 17(1):1–11. <http://doi.org/10.1521/aeap.17.1.1.58689>. [PubMed: 15843106]
- Chesney MA, Smith AW. Critical Delays in HIV Testing and Care The Potential Role of Stigma. *American Behavioral Scientist*. 1999; 42(7):1162–1174. <http://doi.org/10.1177/00027649921954822>.
- Duggan, M.; Smith, A. Social Media Update 2013. 2013. Retrieved from <http://www.pewinternet.org/2013/12/30/social-media-update-2013/>
- Earnshaw VA, Lang SM, Lippitt M, Jin H, Chaudoir SR. HIV Stigma and Physical Health Symptoms: Do Social Support, Adaptive Coping, and/or Identity Centrality Act as Resilience Resources? *AIDS and Behavior*. 2014; 19(1):41–49. <http://doi.org/10.1007/s10461-014-0758-3>. [PubMed: 24715226]
- Earnshaw VA, Smith LR, Chaudoir SR, Amico KR, Copenhaver MM. HIV Stigma Mechanisms and Well-Being Among PLWH: A Test of the HIV Stigma Framework. *AIDS and Behavior*. 2013; 17(5):1785–1795. <http://doi.org/10.1007/s10461-013-0437-9>. [PubMed: 23456594]
- Fullilove MT, Fullilove RE. Stigma as an Obstacle to AIDS Action The Case of the African American Community. *American Behavioral Scientist*. 1999; 42(7):1117–1129. <http://doi.org/10.1177/00027649921954796>.
- Galvan FH, Davis EM, Banks D, Bing EG. HIV stigma and social support among African Americans. *AIDS Patient Care and STDs*. 2008; 22(5):423–436. <http://doi.org/10.1089/apc.2007.0169>. [PubMed: 18373417]
- Hall HI, Byers RH, Ling Q, Espinoza L. Racial/Ethnic and Age Disparities in HIV Prevalence and Disease Progression Among Men Who Have Sex With Men in the United States. *American Journal of Public Health*. 2007; 97(6):1060–1066. <http://doi.org/10.2105/AJPH.2006.087551>. [PubMed: 17463370]
- Harris Interactive. Gays, Lesbians and Bisexuals Lead in Usage of Online Social Networks. 2007 Jan 2. Retrieved December 1, 2015, from <http://www.prnewswire.com/news-releases/gays-lesbians-and-bisexuals-lead-in-usage-of-online-social-networks-53289807.html>

- Herek GM, Capitanio JP, Widaman KF. HIV-related stigma and knowledge in the United States: prevalence and trends, 1991–1999. *American Journal of Public Health*. 2002; 92(3):371–377. [PubMed: 11867313]
- Kalichman SC, Simbayi LC, Jooste S, Toefy Y, Cain D, Cherry C, Kagee A. Development of a brief scale to measure AIDS-related stigma in South Africa. *AIDS and Behavior*. 2005; 9(2):135–143. <http://doi.org/10.1007/s10461-005-3895-x>. [PubMed: 15933833]
- Lentine, D.; Hersey, J.; Iannacchione, V.; Laird, G.; McClamroch. HIV-Related Knowledge and Stigma — United States, 2000. (n.d.)Retrieved December 1, 2015, from <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm4947a2.htm>
- Mahajan AP, Sayles JN, Patel VA, Remien RH, Sawires SR, Ortiz DJ, Coates TJ. Stigma in the HIV/AIDS epidemic: a review of the literature and recommendations for the way forward. *AIDS* (London, England). 2008; 22(Suppl 2):S67–79. <http://doi.org/10.1097/01.aids.0000327438.13291.62>.
- Marín BV. HIV prevention in the Hispanic community: sex, culture, and empowerment. *Journal of Transcultural Nursing: Official Journal of the Transcultural Nursing Society / Transcultural Nursing Society*. 2003; 14(3):186–192. [PubMed: 12861921]
- Overstreet NM, Earnshaw VA, Kalichman SC, Quinn DM. Internalized stigma and HIV status disclosure among HIV-positive black men who have sex with men. *AIDS Care*. 2013; 25(4):466–471. <http://doi.org/10.1080/09540121.2012.720362>. [PubMed: 23006008]
- PEW Research Center. A Survey of LGBT Americans – Attitudes, Experiences and Values in Changing Times. 2013. Retrieved November 30, 2015, from http://www.pewsocialtrends.org/files/2013/06/SDT_LGBT-Americans_06-2013.pdf
- Pulerwitz J, Michaelis A, Weiss E, Brown L, Mahendra V. Reducing HIV-related stigma: lessons learned from Horizons research and programs. *Public Health Reports* (Washington, D.C.: 1974). 2010; 125(2):272–281.
- Rao D, Kekwaletswe TC, Hosek S, Martinez J, Rodriguez F. Stigma and social barriers to medication adherence with urban youth living with HIV. *AIDS Care*. 2007; 19(1):28–33. <http://doi.org/10.1080/09540120600652303>. [PubMed: 17129855]
- Simbayi LC, Kalichman SC, Strebel A, Cloete A, Henda N, Mqeketo A. Disclosure of HIV status to sex partners and sexual risk behaviours among HIV-positive men and women, Cape Town, South Africa. *Sexually Transmitted Infections*. 2007; 83(1):29–34. <http://doi.org/10.1136/sti.2006.019893>. [PubMed: 16790562]
- Smit, Peter J.; Brady, M.; Carter, M.; Fernandes, R.; Lamore, L.; Meulbroek, M.; Ohayon, M.; Platteau, T.; Rehberg, P.; Rockstroh, J.; Thompson, M. HIV-related stigma within communities of gay men: A literature review. *AIDS Care*. 2012; 24(3–4):405–412. [PubMed: 22117138]
- Smith, A. Technology Trends Among People of Color. 2010. Retrieved from <http://www.pewinternet.org/2010/09/17/technology-trends-among-people-of-color/>
- Swendeman D, Rotheram-Borus MJ, Comulada S, Weiss R, Ramos ME. Predictors of HIV-related stigma among young people living with HIV. *Health Psychology: Official Journal of the Division of Health Psychology, American Psychological Association*. 2006; 25(4):501–509. <http://doi.org/10.1037/0278-6133.25.4.501>.
- Valdiserri RO. HIV/AIDS Stigma: An Impediment to Public Health. *American Journal of Public Health*. 2002; 92(3):341–342. [PubMed: 11867303]
- Wu S, Li L, Wu Z, Liang LJ, Cao H, Yan Z, Li J. A brief HIV stigma reduction intervention for service providers in China. *AIDS Patient Care and STDs*. 2008; 22(6):513–520. <http://doi.org/10.1089/apc.2007.0198>. [PubMed: 18462076]
- Young SD. Recommended Guidelines on Using Social Networking Technologies for HIV Prevention Research. *AIDS and Behavior*. 2012; 16(7):1743–1745. <http://doi.org/10.1007/s10461-012-0251-9>. [PubMed: 22821067]
- Young SD, Nussbaum AD, Monin B. Potential moral stigma and reactions to sexually transmitted diseases: evidence for a disjunction fallacy. *Personality & Social Psychology Bulletin*. 2007; 33(6): 789–799. <http://doi.org/10.1177/0146167207301027>. [PubMed: 17488871]

Young SD, Szekeres G, Coates T. Sexual risk and HIV prevention behaviours among African-American and Latino MSM social networking users. *International Journal of STD & AIDS*. 2013; 24(8):643–649. <http://doi.org/10.1177/0956462413478875>. [PubMed: 23970575]

Author Manuscript

Author Manuscript

Author Manuscript

Author Manuscript

TABLE 1

BASIC DEMOGRAPHICS AND DAILY ONLINE SOCIAL NETWORK USE

(N=112)		N (mean)	% (SD)
Age	(mean)	32	10.2
	18–20	10	8.9%
	21–30	51	45.5%
	31–40	26	23.2%
	41–50	18	16.1%
	51+	7	6.3%
Sexual orientation			
	Homosexual	85	75.9
	Bisexual	21	18.8
	Heterosexual/others ⁺	6	5.4
Race			
	Black/African American	31	27.7
	Latino	67	59.8
	Others ⁺⁺	14	12.5
Highest education level			
	High school/GED	44	39.3
	Associate degree	25	22.3
	Bachelors degree	30	26.8
	Graduate school	13	11.6
Employment status			
	Unemployed/student/others ⁺⁺⁺	47	42
	Part-time	25	22.3
	Fulltime	40	35.7
Marital/partnership status			
	Single	92	82.1
	Married/partner	13	11.6
	Divorced/widowed/others ⁺⁺⁺⁺	7	6.3
Primary access to Internet			
	Cellphone	17	84.8
	Computers/others ⁺⁺⁺⁺⁺	95	15.2
Daily online social networks use			
	None	2	1.8
	Less than 1 hour	27	24.1
	Between 1 hour and less than 2 hours	38	33.9
	Between 2 hours and less than 3 hours	19	17
	Between 3 hours and less than 5 hours	12	10.7

(N=112)		N (mean)	% (SD)
	5 hours and greater	14	12.5

⁺: Heterosexual and don't know

⁺⁺: White, Asian/Pacific Islanders, and American Indian/Alaska Native

⁺⁺⁺: Unemployed, disabled (not able to work), fulltime stay home dads, students, and retired

⁺⁺⁺⁺: Divorced, separated, widowed, and others

⁺⁺⁺⁺⁺: Home, library, office/work, school, and Internet cafés

TABLE 2

MEAN AND STANDARD DEVIATION FOR EACH HIV/AIDS STIGMA ITEM

Questions ($\alpha = 0.77$)	Mean	Stan dev	% Scoring ≥ 4
I am comfortable with people who are HIV positive ⁺	1.85	1.00	5.4%
Nurses with HIV should not be allowed to work in hospitals	1.78	1.01	8.0%
How comfortable would you be with sharing a meal with a person that you knew or suspected had HIV/AIDS ⁺	1.97	1.13	11.6%
If a relative of yours became sick with the virus that causes AIDS, how comfortable would you be with caring for him in your household ⁺	1.60	0.81	2.7%
If a teacher has HIV but is not sick how comfortable would you be with him/her continuing to teach in school ⁺	1.37	0.60	.9%
Most people believe that a person who has HIV is dirty	1.57	0.94	6.3%
People with HIV are likely to use illegal drugs	2.18	1.04	8.0%
People with HIV are thieves	1.27	0.60	0%
People with HIV are cheaters	1.46	0.73	0%
People with HIV are liars	1.55	0.81	.9%
People with HIV deserve to have AIDS	1.12	0.37	0%
People with HIV are stupid	1.31	0.65	.9%
People with HIV should be ashamed of themselves	1.27	0.63	.9%
I am afraid of people with HIV	1.40	0.7	.9%
People with HIV deserve to be treated badly	1.08	0.31	0%
Stigma composite score	22.2	5.74	

⁺: These items were reversed coded

TABLE 3

ADJUSTED ODDS RATIO (AOR) FOR DAILY TIME SPENT ON ONLINE SOCIAL NETWORKS IN THE PAST 3 MONTHS BY HIV/AIDS STIGMA COMPOSITE SCORE

Outcomes ⁺	AORs	95% CI	
Time spent on online social networks daily in the past 3 months [*]	1.07	1.00	1.15

^{*}
: p < 0.05

⁺: These models adjusted for age, race, and employment status

Author Manuscript

Author Manuscript

Author Manuscript

Author Manuscript