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A social-media based HIV prevention intervention using peer leaders

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Abstract

This study seeks to investigate qualities of peer leaders in a social media-based peer-led HIV intervention. African American and Latino men who have sex with men (MSM) peer leaders were recruited through online/offline methods. They were required to have experience with health communication and social media. Over 57% of reported using social networking for seeking sex partners within 3 months. Over 53% spent over 3 hours per week online and about 53% of peer leaders had fewer than 200 Facebook friends. Results suggest that peer leaders can be recruited for social media-based health interventions. Qualities of peer leaders are discussed.

Keywords

African American MSM; Latino MSM; social-media; HIV prevention; peer health leaders

INTRODUCTION

Community peer leader diffusion of innovations interventions have been successfully employed to increase health behaviors in the United States and abroad. (Castaneda et al. 2010; Medley et al. 2009; Mellanby et al. 2001) These interventions involve recruiting and training peer leaders who are qualified and knowledgeable in public health and sending them into the community to change social norms. (Rogers 1995; Maiorana et al. 2007) The effectiveness of peer health interventions may be due to the social support that peers give to community participants including emotional, appraisal, informational, and instrumental support. (Heaney and Israel 2002) Peer leaders can often provide more help, or their support may be more easily received than from adults because of their ability to communicate information and feelings in a culturally and socially appropriate manner. (Mellanby et al. 2001) Peer health interventions have been successfully used in areas as diverse as bicycle safety, (Hall et al. 2004) drug prevention, (Cuijpers 2002) and sexual attitudes and behaviors. (Mellanby et al. 2001) For example, a peer leader intervention aimed to reduce sexual risk behaviors resulted in increasing condom use up to 16% and decreasing

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unprotected anal intercourse up to 25%, with sustained behavior change seen at follow-up up to 3 years later. (Kelly et al. 1991; Lawrence et al. 1994) While peer leader community-based interventions have been effective in promoting behavioral change, researchers are looking for cost-effective alternatives to peer-led interventions because these interventions can require considerable time and money.

Social networking use has rapidly grown, allowing these technologies to be platforms for scaling community-based interventions. The earliest social networks began in 1997 and quickly attracted millions of users. However, around 2002–2006, as social networks such as Friendster, Myspace, and Facebook were created and became popular, the number of social network users quickly grew into the hundreds of millions. (Boyd and Ellison 2008) As of 2010, there were over 2.1 billion online social network profiles, and this number is expected to reach over 3.6 billion by 2014.(Radicati 2010) While a digital divide initially existed, making people of high socioeconomic status more likely to use the Internet, this divide has rapidly decreased and allowed people of all racial, sexual, and economic backgrounds to use social networking technologies. (Horrigan and Smith 2007; Harris Interactive 2007; Young, Szekeres, and Coates In press) Taken together, online social networking technologies may prove to be a useful platform for peer leader health interventions.

Social networking has created a large number of opportunities for connecting to others in order to improve health and awareness about HIV prevention. (Young and Rice 2011) In a typical (offline) community-based peer leader intervention, peer leaders would be recruited, trained in HIV prevention, and sent to community venues to raise communication about HIV prevention. If a feasibility study can show that peer leaders can have expertise in both HIV prevention and in using social networking technologies as a method for outreach, then the time and resources needed to deliver such an intervention could be cut down considerably. If peers with this experience can be located without needing face-to-face interventions, this process can be cut down even more.

While research suggests that HIV prevention peer leader experts can be identified and recruited for social media-based peer-health interventions, no research exists as to describe the qualities of successful peer leaders. This work describes the qualities of peer leaders in the HOPE UCLA study, the first NIH-funded study to scale a community-based HIV prevention intervention using social media.

METHODS

Peer Leader Recruitment and Criterion

Health educators were recruited from referrals by community-based outreach organizations and through specified key-word searches on online social networking profiles. Adhering to criteria proposed in the diffusion of innovations model, eighteen peer leaders were chosen. (Rogers 1995) The model suggests that peer leaders should represent 15% of the population or sample size (112 participants) in order to create a “tipping point” for behavioral change.

As peer leaders were going to be educating Los Angeles-based African American and Latino men who have sex with men (MSM), having the same background (either African American or Latino MSM) was listed as an inclusion criteria to be a peer health leader. Community-based outreach organizations were given recruitment fliers and told that UCLA is conducting an HIV prevention study and needs peer health outreach workers who: 1) are over 18 years of age, 2) are existing popular opinion leaders or capable of being leaders in their community, 3) are interested in educating others about health through online social networks, 4) are male, 5) have had sex with a man in the past 12 months, 6) are African American or Latino, 7) live in the Los Angeles area, and 8) are experienced using Facebook.

The staff at the outreach organizations told eligible applicants to respond through email if interested. To recruit peer leaders from online social networks, searches on Facebook and Myspace for groups focused on health community outreach were conducted. Administrators of these groups were contacted, sent fliers if requested, and informed about the eligibility criteria then asked to refer any eligible people.

Health Education and Training

According to the HOPE UCLA randomized controlled trial protocol, peer leaders were randomly assigned to be peer health educators who would deliver either HIV prevention or general health information to participants. While all peer leaders were initially expected to have expertise in HIV/general health knowledge and be comfortable using social media technologies, 3 training sessions were scheduled for the HIV group and 3 sessions for the general health group to ensure that all peer leaders, if they were not already qualified, would by the end of the training have the needed skills to be certified as social media peer health educators. Each of the training sessions lasted 3 hours, provided food for the peer leaders, and was based at UCLA.

The first training session covered essentials of epidemiology and public health (e.g., HIV incidence/prevalence and risk factors was taught to the HIV group peer leaders; background on obesity, nutrition and stress was taught to the general health group peer leaders). Peer leaders were given a training guide at the first session, with an overview of topics and logistical information about the study and how to be an effective peer leader. The second training session for both groups covered methods of communicating sensitive topics that were specific to their group. The final training session for both groups focused on ways to use social media for communication, along with general study logistics. Each peer leader was then evaluated to make sure he was qualified to receive certification as a HOPE UCLA peer leader.

Assessment

At the conclusion of the training, a questionnaire was given to peer leaders to ensure that they possessed all the skills needed in a peer health educator. Peer leaders were informed that they would take a baseline survey, approximately 45 minutes long, and then receive a $30 gift certificate to Amazon.com for completion. Questionnaire items included information about demographics; Internet and social media usage (including comfort using Internet and social media to talk about health and sexual risk behaviors); general health behaviors such as exercise and nutrition; sex and sexual health behaviors (including HIV testing and treatment); alcohol and drug usage; and perceptions of HIV-related stigma. Participants' number of Facebook friends was recorded to determine the number of connections they have online.

RESULTS AND DISCUSSION

Fifteen peer leaders completed the baseline survey. The results of this feasibility study show that the peer leaders recruited possessed the qualities desired to be effective in online HIV prevention interventions. The individuals displayed the appropriate demographics set in the recruitment criteria. Seven identified as African American and 8 identified as Latino. All participants were over 18 years of age and had reportedly had sex with a man within the past 12 months. All peer leaders reported having experience using Facebook as a form of social media, and all reported having used online social networks to communicate to others about their general health in the last 3 months.

Additional characteristics of the peer leaders were collected and demographic results are displayed in Table 1. The majority of peer leaders had completed at least a high school level

of education. Almost 47% of the sample had at least a college education. The average age of participants was 34 years of age. Half of all Latino peer leaders had received a bachelor's degree or higher. More than half of Latino peer leaders recruited were either a student or worked full time.

Further assessment of the 15 men revealed possible trends in how they used the Internet and social media (Table 2). Almost all peer leaders had a computer at home and just over 53% had spent 3 hours or more per week online. Latino peer leaders spent anywhere between 1–4 hours online per week while African American peer leaders spent as much as over 5 hours online per week. Over 57% of peer leaders reported using online social media for seeking new sex partners in the last 3 months.

The majority of respondents who reported using online social networks to communicate to others about their general health were also comfortable speaking to their partners about their sexual health, as well as their HIV/STD status. About 53% percent of peer leaders had less than 200 Facebook friends and 46% had over 200 Facebook friends.

CONCLUSION

The present study shows that it is possible for peer leaders to be recruited for HIV prevention and general health interventions using social media and describes the demographic, social media-related and sexual risk behaviors of successfully recruited peer leaders. The sample of individuals recruited illustrated that they consistently met the specifications and had the traits necessary to be good candidates for becoming peer leaders in an online forum. Furthermore, the results suggests that appropriate inclusion criteria and training can ensure that peer leaders are comfortable delivering health information using social media and likely to have many connections to others on social networks.

Social media technologies are currently being used to facilitate sexual risk behaviors. For example, social media is being used by individuals as a way to find sexual partners, including searching for others to contact for sex, chatting with others about sex, and posting naked pictures for others to contact them for sex. (Verrinder 2007) Research suggests that people who use the Internet to find sex partners are at high risk for contracting HIV. (McFarlane, Bull, and Rietmeijer 2000; Tashima et al. 2003) Since social networking technologies increase the ability to rapidly connect and find sex partners, they have the potential to facilitate HIV transmission. However, these technologies can also be used for ways to promote health behaviors and decrease HIV transmission. Training peer leaders who are respected and well connected in their online and offline communities could help to diffuse HIV prevention attitudes and behaviors.

The present results have a number of limitations such as the localization within the city of Los Angeles and the concentration on the demographic of Latino and African American men. We report data from a small sample of peer leaders, making it unlikely to find significant differences between peer leaders group. However, we believe it is important to present descriptive information about peer leaders in order to provide guidance for researchers on the qualities needed and possible when recruiting peer leaders for HIV prevention social media research. Further research is called for to better understand the capabilities of the recruitment of peer leaders to deliver a social-media based HIV prevention intervention. It is imperative that researchers and public policymakers use the same technologies that are being used to facilitate risk behaviors to promote positive health behaviors so that research does not lag too far behind HIV transmission.

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References

Boyd, Danah M.; Ellison, Nicole B. Social Network Sites: Definition, History, and Scholarship. Journal of Computer-Mediated Communication. 2008; 13(1):210–230.

Castaneda, Heide; Nichter, Mark; Nichter, Mimi; Muramoto, Myra. Enabling and Sustaining the Activities of Lay Health Influencers: Lessons From a Community-Based Tobacco Cessation Intervention Study. Health Promotion Practice. 2010; 11(4):483–492. [PubMed: 18540006]

Cuijpers P. Effective ingredients of school-based drug prevention programs. A systematic review. Addict Behav. 2002; 27(6):1009–23. [PubMed: 12369469]

Hall M, Cross D, Howat P, Stevenson M, Shaw T. Evaluation of a school-based peer leader bicycle helmet intervention. Inj Control Saf Promot. 2004; 11(3):165–74. [PubMed: 15764103]

Harris Interactive. Gays, Lesbians and Bisexuals Lead in Usage of Online Social Networks. 2007. http://www.witeckcombs.com/news/releases/20070102_socialnetworks.pdf

Heaney, CA.; Israel, BA. Social support and social networks. In: Glanz, BRK.; Lewis, F., editors. Health Behavior and Health Education: Theory, Research and Practice. Vol. 3. San Francisco: Josey-Bass; 2002.

Horrigan, JB.; Smith, A. Home Broadband Adoption 2007. Washington, D.C: Pew Internet & American Life Project; 2007.

Kelly JA, St Lawrence JS, Diaz YE, Stevenson LY, Hauth AC, Brasfield TL, Kalichman SC, Smith JE, Andrew ME. HIV risk behavior reduction following intervention with key opinion leaders of population: an experimental analysis. American Journal of Public Health. 1991; 81(2):168–171. [PubMed: 1990853]

St Lawrence, Janet S.; Brasfield, TL.; Diaz, YE.; Jefferson, KW.; Reynolds, MT.; Leonard, MO. Three-year follow-up of an HIV risk-reduction intervention that used popular peers. American Journal of Public Health. 1994; 84(12):2027–2028. [PubMed: 7998654]

Maiorana A, Kegeles S, Fernandez P, Salazar X, Caceres C, Sandoval C, Rosasco AM, Coates T. Implementation and evaluation of an HIV/STD intervention in Peru. Eval Program Plann. 2007; 30(1):82–93. [PubMed: 17689315]

McFarlane M, Bull SS, Rietmeijer CA. The Internet as a newly emerging risk environment for sexually transmitted diseases. JAMA. 2000; 284(4):443–6. [PubMed: 10904506]

Medley, Amy; Kennedy, Caitlin; O'Reilly, Kevin; Sweat, Michael. Effectiveness of Peer Education Interventions for HIV Prevention in Developing Countries: A Systematic Review and Meta-Analysis. AIDS Educ Prev. 2009; 21(3):181–206. [PubMed: 19519235]

Mellanby AR, Newcombe RG, Rees J, Tripp JH. A comparative study of peer-led and adult-led school sex education. Health Education Research. 2001; 16(4):481–492. [PubMed: 11525394]

Radicati, Sara. Social networking report. Palo Alto, CA, USA: The Radicati Group, Inc; 2010.

Rogers, EM. Diffusion of innovations. 4. New York: Free Press; 1995.

Tashima KT, Alt EN, Harwell JI, Fiebich-Perez DK, Flanigan TP. Internet sex-seeking leads to acute HIV infection: a report of two cases. International Journal of Std & Aids. 2003; 14(4):285–6. [PubMed: 12716501]

Verrinder, Mathew. Sex, meth and Internet spark new AIDS fears. reuters.com. 2007. http://www.reuters.com/article/latestCrisis/idUSN11273971

Young SD, Szekeres G, Coates T. Sexual risk and HIV prevention behaviors among African American and Latino MSM social networking users. International Journal of STD and AIDS. In press.

Young SD, Rice E. Online Social Networking Technologies and HIV Knowledge, Sexual Risk Behaviors, and Testing for Sexually Transmitted Infections. AIDS and Behavior. 2011; 15(2):253–60. [PubMed: 20848305]

Young SD, Cumberland W, Lee SJ, Jaganath D, Szekeres G, Coates T. Social networking technologies as emerging tools for HIV prevention: A randomized controlled trial. Annals of Internal Medicine. 2013; 159(5):318–324. [PubMed: 24026317]

Table 1

Socio-demographic Characteristics of Study Participants (N=15), Los Angeles, CA, 2011

	African American n=7	Latino n=8	Total Sample n=15
Participant Population (%)	47	53	100
Highest Education			
Less Than HS	0	0	0
HS	28.6	50	40
GED	28.6	0	13.33
Associates	42.9	0	20
Bachelors	0	37.5	20
Graduate School	0	12.5	6.7
Age (mean, SD)	33.8, 9.6	29.5, 6.4	34
Work Situation			
Disabled	0	12.5	6.67
Unemployed	28.57	12.5	20
Stay at home Dad	0	0	0
Part-time	14.3	0	6.7
Full-time student	14.3	50	33.3
Working full-time	42.9	25	33.3
Retired	0	0	0

Table 2

Internet and social media usage (N=15), Los Angeles, CA, 2011

	African American	Latino	Total Sample
	n=7	**n=8**	**n=15**
Participant Population (%)	47	53	100
Have a computer at home			
Yes	85.7	100	93.3
Hours using online social networks/day			
None	0	0	0
0–1	14.3	0	6.7
1–2 hours	42.9	62.5	53.3
3–4 hours	14.3	37.5	26.7
4–5 hours	0	0	0
5+ hours	28.6	0	13.3
Comfortable discussing the following topics with sex partners			
Sexual health	57.1	62.5	66.7
HIV/AIDS status	42.9	75	60
Used online social networks in past 3 months to find new sex partners			
Yes	57.1	50	73.3
Used social networks to discuss to others about their general health			
Yes	100	100	100
Facebook Account?			
Yes	100	100	100
Number of Facebook friends			
<200			53.8
>200			46.1