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Intervention-end outcomes for Guy2Guy, a text messaging-based HIV prevention program for gay, bisexual, and queer adolescent men

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* Thank you for your interest in this presentation. Please note that analyses included herein are preliminary. More recent, finalized analyses may be available by contacting CIPHR.



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Introduction: Sexual minority teen men bear a disproportionate HIV burden

- Over 70% of new HIV infections among youth in the United States are adolescent gay, bisexual, and other teen men who have sex with men. (Centers for Disease Control and Prevention, 2014)
- Gay, bisexual and other sexual minority young men are more likely than other adolescents to have not used a condom at last intercourse. (Everett, 2014)
- Few validated prevention programs are available for sexual minority youth and none exist for teens 16 years of age and younger. (Mustanski, 2011; Centers for Disease Control and Prevention, 2013)

Introduction: Text messaging is a promising intervention delivery method

- Adolescent teens send and receive an average of 30 text messages per day, and it is the primary mode of communication between peers, and is preferred over other communication modes. (Lenhart, Ling, Campbell, Purcell, 2010)
- Cell phone ownership is high across racial and ethnic groups and income levels. (Lenhart, Ling, Campbell, Purcell, 2010)
- Recent reviews suggest optimism for mHealth interventions. (Head, Noar, Iannarino, Harrington, 2013; Catalani, Philbrick, Fraser, Michael, Israelski, 2013)



Image from: <http://www.magicsoftware.com/media/2012-year-text-messaging-died>

Guy2Guy: Program description

- Text-messaging-based healthy sexuality and HIV-prevention program specifically for gay, bisexual, and queer teen guys
- Six-module program based upon the Information-Motivation-Behavior Model of HIV Preventive Behavior
- Randomized controlled trial (n=302), balanced on sexual identity and sexual experience.
- We purposefully recruited the sample to be 50% sexually experienced and equivalent across age groups (i.e., 40% were 14-15 years of age)
- Control group was blinded and attention matched
- Intervention content tailored on sexual experience

Eligibility criteria

- 14-18 years of age
- Cisgender (male sex assigned at birth and male gender identity)
- Self-identify as: gay, bisexual, and/or queer
- Owns cell phone
- Enrolled in unlimited text messaging plan
- Has texted for at least 6 months
- Plans to have cell phone number for at least 6 months



Image from <http://www.feedtime.com/2011/05/08/fox-offshore-3-glee-gay-teen-propaganda/>

Participant demographics (n=302)

Personal characteristics	Control (n=152)	Intervention (n=150)	P-value
Demographic characteristics			
Age (Range: 14-16)	16.3 (1.4)	16.0 (1.3)	0.07
Non-white race	34.2% (52)	30.7% (46)	.51
Hispanic ethnicity	23.7% (36)	20.7% (31)	0.53
Sexual identity			
Gay	69.1% (105)	76.0% (114)	0.18
Bisexual	39.5% (60)	36.7% (55)	.62
Queer	7.9% (12)	8.7% (13)	0.81
Sexual experience			
Vaginal sex	14.5% (22)	11.3% (17)	.42
Receptive anal sex	36.8% (56)	38.0% (57)	0.84
Insertive anal sex	36.2% (18)	31.3% (47)	.37

Guy2Guy Intervention end outcomes: Condomless sex acts

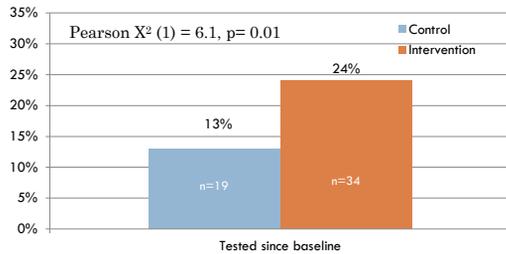
- The median number of condomless sex acts (CSAs) in the past 90 days for both intervention and control group participants at baseline was 0 (Range: 0-92)
- Holding the baseline number of CSAs constant, the rate of CSAs over the intervention period was



61% lower for intervention versus control youth:
aIRR = 0.39
95% CI: 0.16, 0.96

Picture from: <http://www.hercampus.com/love/everything-you-need-know-about-condoms-were-scared-ask>

Guy2Guy Intervention end outcomes: HIV testing



Odds ratio is adjusted for HIV testing history at baseline: aOR = 2.37, 95% CI: 1.23, 4.56

Conclusions

- Exposure to Guy2Guy appears to be related to increased HIV preventive behaviors at intervention end. Intervention participants are:
 - More than 2 times as likely to get tested for HIV and
 - The rate of CSAs is 61% lower
- *Although we are still looking at the data, there is some suggestion that the impact of the intervention on CSAs is mediated by age. Stay tuned...*

Thank you!

For more information, please contact:

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Image from <http://www.nyccyouth.org/finding-yourself-as-a-gay-teen-come-first>

References

1. Centers for Disease Control and Prevention. HIV Surveillance in Adolescents and Young Adults. 2014; http://www.cdc.gov/hiv/pdf/statistics_surveillance_Adolescents.pdf. Accessed December 30, 2014.
2. Everett BG, Schnarrs PV, Rosario M, Garofalo R, Mustanski B. Sexual orientation disparities in sexually transmitted infection risk behaviors and risk determinants among sexually active adolescent males: Results from a school-based sample. *Am J Public Health*. 2014;104:1107-1112.
3. Mustanski B, Newcomb ME, DuBois SN, Garcia SC, Grov C. HIV in young men who have sex with men: A review of epidemiology, risk and protective factors, and interventions. *J Sex Res*. 2011;48(2):218-253.
4. Centers for Disease Control and Prevention. Effective Behavioral Interventions. 2013; <http://www.cdc.gov/hiv/prevention/programs/ebis/>. Accessed January 12, 2015.