

Factors related to high-risk sexual behavior and HIV acquisition among U.S. Latino MSM: Lessons learned from Project EXPLORE

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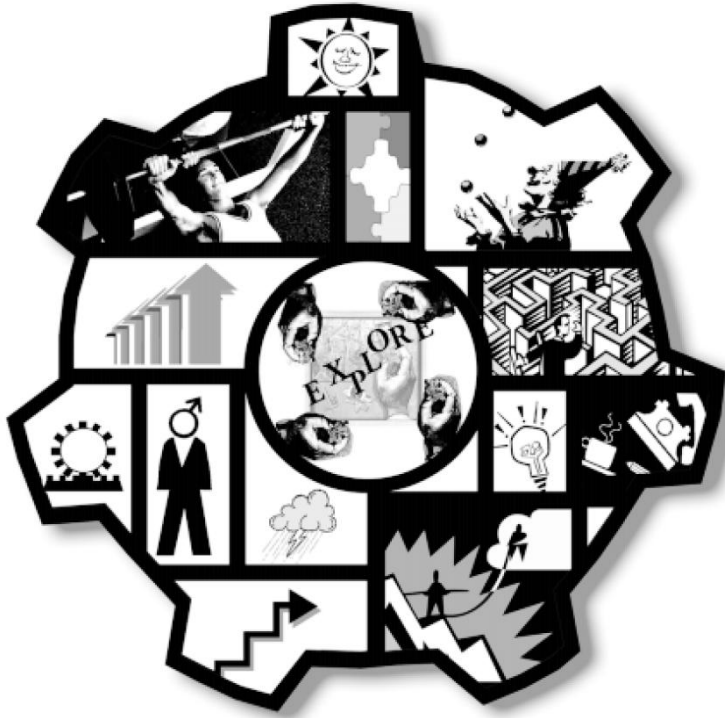
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Conference on HIV Infection among Hidden Groups, Namely Men Who have Sex with Men and Commercial Sex Workers (March 2011)

Acknowledgments



Project EXPLORE (1999 – 2003)

- secondary data analysis
- Bedoya, Mimiaga, Beauchamp, Donnell, Mayer, & Safren (in press). Predictors of HIV transmission risk behavior and seroconversion among Latino men who have sex with men. *AIDS & Behavior*.

Information on sponsorship and funding for this project:

HIV Prevention Trials Network (HIVNET 015)

http://www.hptn.org/research_studies/HIVNET015StudyResults.htm



Background

Latinos disproportionately affected by HIV

- 15% of U.S. population
- 18% of newly HIV infected in 2007
among men
 - 7% heterosexual contact
 - 11% injection drug use
 - 60% male-to-male sexual contact

Limited clinical research on HIV prevention in

- Latinos generally
- Latino MSM in particular

Lack of information on HIV risk patterns in Latino MSM
as barrier to appropriate intervention development



Methods

Project EXPLORE (1999 – 2003)

- first randomized control trial that studied efficacy of a behavioral intervention for HIV prevention among MSM with HIV seroincidence as primary outcome

Conducted across six sites

- Boston
- Chicago
- Denver
- New York
- San Francisco
- Seattle



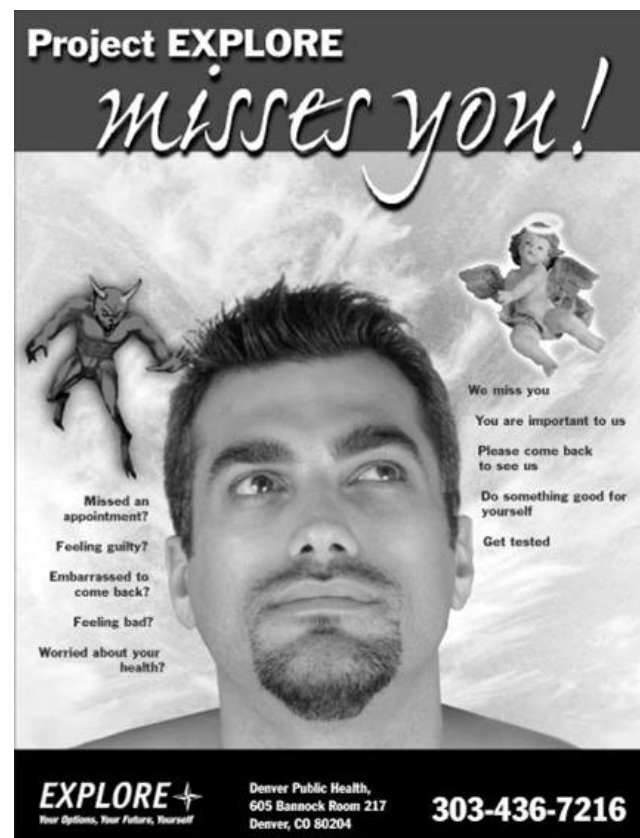
Recruitment period from 1999-2001

Inclusion criteria:

- male, ≥ 16 years of age
- HIV negative
- reported anal sex with another man in past year
- not in a monogamous relationship in past 2 years with HIV- male partner

Study participation:

- randomized into either a one-on-one behavioral intervention or standard risk reduction counseling
 - intervention arm received 10 core counseling sessions
- at baseline and follow-up (every 6 months), participants completed study measures and HIV test



Potential Predictors of Sexual Risk Taking and HIV

Demographics

- age, education, ethnicity, income, employment status, study site

Substance Use (over past 6 months)

- alcohol, marijuana, poppers, crack/cocaine, amphetamines, hallucinogens, injection drugs

Depressive Symptoms

- shortened version of Center for Epidemiologic Studies Depression scale

History of Childhood Sexual Abuse

Attitudes related to unsafe sexual behavior

- self-efficacy, communication skills, social norms, perceived enjoyment of unsafe sex

Sexual behavior



Results: Sample

Demographic characteristics of MSM sample at baseline

Latino (n=652) compared to non-Latino white (n=3112):

- younger
- less educated
- lower annual income
- more unemployed
- geographic location

p<.01



Substance Use and Psychosocial Characteristics By Latino Ethnicity

	Latino	Non-Latino white	Latino compared to non-Latino white	
	%	%	Adjusted OR ^a	95% CI
Alcohol and Substance Use				
Alcohol Use				
None	10.5	9.6	1.00	--
Light	46.1	46.3	0.87	(0.63, 1.19)
Moderate	27.4	34.1	0.66*	(0.47, 0.92)
Heavy	15.9	10.0	1.13	(0.78, 1.64)
Marijuana Use	47.1	46.5	0.81*	(0.67, 0.97)
Popper Use	34.1	38.8	0.98	(0.81, 1.19)
Crack Use	3.7	3.8	0.64	(0.40, 1.04)
Amphetamines Use	11.8	12.9	0.69**	(0.52, 0.91)
Hallucinogens Use	24.6	24.4	0.68**	(0.55, 0.84)
Injection drug Use	13.0	8.9	1.46**	(1.10, 1.94)
Psychosocial factors related to HIV risk taking				
Depression	51.0	45.9	1.00	(0.83, 1.20)
Low self-efficacy for safe sex behaviors	15.6	15.8	1.06	(0.82, 1.36)
Poor communication skills about safe sex	35.6	34.9	1.12	(0.93, 1.36)
Weaker safe-sex norms	17.1	18.0	0.95	(0.74, 1.21)
History of childhood sexual abuse	58.3	35.1	2.44**	(2.03, 2.93)
Perceived enjoyment of risky sex	72.9	80.3	0.79**	(0.64, 0.97)

^aAdjusted for study site, age, and education; *P<.05; **P<.01

SDUA by Latino Ethnicity

	Latino	Non-Latino white	Latino compared to Non-Latino white	
	%	%	Adjusted OR ^a	95% CI
SDUA	52.6	47.7	1.20*	(1.00, 1.44)

^aAdjusted for study site, age, and education; *P<.05; **P<.01

Latinos were 1.2 times more likely to report SDUA compared to non-Latino whites at baseline



Longitudinal Predictors of SDUA among Latino MSM

	Univariate AOR ^b	95% CI	Multivariable AOR ^b	95% CI
Alcohol and Substance Use				
Alcohol Use				
None	1.00	--		
Light	1.56**	(1.14, 2.12)	1.02	(0.71, 1.46)
Moderate	2.10**	(1.51, 2.91)	1.17	(0.80, 1.72)
Heavy	2.96**	(2.02, 4.36)	1.56*	(1.03, 2.36)
Marijuana Use	1.65**	(1.37, 1.98)	1.32*	(1.04, 1.68)
Popper Use	2.35**	(1.93, 2.87)	1.91**	(1.50, 2.44)
Crack Use	1.46*	(1.01, 2.11)	1.12	(0.69, 1.81)
Amphetamines Use	2.32**	(1.82, 2.96)	1.98**	(1.44, 2.73)
Hallucinogens Use	1.45**	(1.16, 1.81)	0.94	(0.70, 1.26)
Injection drug Use	1.01	(0.73, 1.38)		
Psychosocial factors related to HIV risk taking				
Depression	1.49**	(1.26, 1.76)	1.22	(0.98, 1.50)
Low self-efficacy for safe sex behaviors	2.54**	(1.93, 3.33)	1.80**	(1.27, 2.55)
Poor communication skills about safe sex	2.03**	(1.66, 2.48)	1.88**	(1.49, 2.36)
Weaker safe-sex norms	1.36**	(1.10, 1.68)	1.39*	(1.05, 1.86)
History of childhood sexual abuse	1.22	(0.97, 1.55)		
Perceived enjoyment of risky sex	1.87**	(1.51, 2.33)	2.17**	(1.66, 2.83)

^bAdjusted for study site and randomization arm; *P<.05; **P<.01

HIV-seroconversion by Latino Ethnicity Over Course of Study

	Latino	Non-Latino white	Latino compared to Non-Latino white	
	%	%	Adjusted HR ^a	95% CI
HIV sero-conversion	8.0	5.5	1.44*	(1.05, 1.99)

^aAdjusted for study site and randomization arm; *P<.05; **P<.01

Latinos had 1.4 times higher overall rate of HIV infection over study follow-up compared to non-Latino whites



Predictors of Acquiring HIV among Latinos Over Course of Study

	Univariate AHR ^b	95% CI	Multivariable AHR ^b	95% CI
Alcohol and Substance Use				
Alcohol Use				
None	1.00	--		
Light	3.20	(0.75, 13.59)		
Moderate	2.91	(0.65, 13.02)		
Heavy	4.28	(0.94, 19.57)		
Marijuana Use	1.81*	(1.02, 3.23)	(dropped)	
Popper Use	2.35**	(1.35, 4.09)	1.97*	(1.08, 3.59)
Crack Use	0.61	(0.08, 4.53)		
Amphetamines Use	2.16*	(1.07, 4.35)	(dropped)	
Hallucinogens Use	2.36**	(1.33, 4.18)	(dropped)	
Injection drug Use	1.43	(0.66, 3.10)		
Psychosocial factors related to HIV risk taking				
Depression	1.69	(0.96, 3.00)		
Low self-efficacy for safe sex behaviors	1.68	(0.87, 3.25)		
Poor communication skills about safe sex	1.21	(0.67, 2.18)		
Weaker safe-sex norms	1.70	(0.87, 3.33)		
History of childhood sexual abuse	1.06	(0.60, 1.86)		
Perceived enjoyment of risky sex	1.75	(0.84, 3.65)		
Sexual risk taking				
SDUA	2.31**	(1.24, 4.33)	1.94*	(1.02, 3.66)

^bAdjusted for study site and randomization arm; *P<.05; **P<.01

Limitations

Project EXPLORE not developed specifically for Latino MSM, including in

- areas assessed
- intervention components

Results may not generalize to all Latino MSM

- non-English speakers



Conclusions

In this US sample, Latino MSM more likely to engage in SDUA and acquire HIV compared to non-Latino whites

Mixed-methods research may aide in understanding contextual reasons

- attitudes towards safe sex
- substance use

Further study is needed among Latino MSM in order to develop culturally appropriate HIV prevention interventions



THANK YOU!

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