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HIV Prevention with Young Men Who Have Sex with Men: Parents Know and Parents Matter; Is it Time to Develop Family-Based Programs for This Vulnerable Population?

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Abstract

We examined the potential for a family-based HIV prevention approach for gay and bisexually-identified young men who have sex with men (MSM). The majority of our urban, ethnically-diverse sample disclosed their sexual orientation to parents, who were generally supportive. Family connectedness significantly decreased the odds of an HIV positive status.

Recent surveillance data suggest that in the United States the majority of HIV-infected adolescent (76%) and young adult males (74%) are infected through sex with other men (MSM).¹ From 2001-2005 the total number of young men age 13-24 who acquired HIV from same-sex sexual activity was greater than the total number of similarly aged young women summed across all HIV transmission categories.^{1,2} Furthermore, Hall et al (2007) reported that from 2001-2004, HIV diagnosis rates increased 13-14% per year among young MSM age 13-24 years in comparison to decreasing rates among intravenous drug users and persons exposed through heterosexual contact.³ HIV disparities also exist for MSM in the absence of targeted intervention efforts. Four recent meta-analyses of randomized controlled trials or quasi-experimental studies on adolescent HIV risk did not identify any effective intervention targeting young MSM.⁴ In fact, no effective behavioral interventions have been reported with MSM a mean age younger than age 23 and school-based programs do not generally address the unique concerns of many young MSM.⁴

A large body of research documents a central role of parents and families in adolescents' sexual values and behaviors, including characteristics such as family cohesion, support or connectedness that mitigate high-risk behaviors.⁵ Family-based approaches to HIV prevention have been prioritized by the National Institutes of Health and have shown promise in other populations of youth, but as of yet have not been developed or implemented with young MSM.⁶ The failure to develop family-based approaches for young MSM may reflect the misperception that families are unavailable for interventions because they are not involved in

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the lives of sexual minority youth or they are unaware of their child's sexual identity. In fact, a recently published qualitative study of 30 families with a gay son indicated that feeling obligated to remain healthy for parents was an important factor in a youth's decision to practice safer sex.⁷ Moreover, 83% of the parents worried that their sons' would contract HIV and tried to discuss safer sex with them.⁷ These data suggest that family or specific family members may play an important role in comprehensive HIV prevention efforts for this population. This paper presents preliminary data on the potential for a family-based HIV prevention approach for young MSM.

Methods

Participants were a cross-sectional, community-based convenience sample of 302 urban gay and bisexual identified young MSM ranging in age from 16 - 24 (mean = 20.3; SD = 2.34). Participants were recruited consecutively over 12 months in 2004-2005 from multiple sources including: flyers posted in retail locations, flyers posted in agencies serving gay youth, email advertisements posted on high school and college list-serves, palm cards distributed in gay-identified neighborhoods and snowball sampling. No recruitment occurred in traditional high-risk venues such as bars, dance clubs or bathhouses. Participants received \$30 after completing a 90 minute computer-assisted survey. The Institutional Review Boards of Children's Memorial Hospital and Howard Brown Health Center approved all study procedures. Additional details regarding the study population and research design have been published elsewhere.⁸

Thirty percent of participants identified as White, 33% Black, 26% Latino, 3% Asian, and 8% Other/Multiracial. Participants reported on their living situation and family disclosure or each parent's knowledge of and reaction to their sexual minority status using measures previously used by D'Augelli with sexual minority youth.⁹ Participants further described three characteristics of family functioning or connectedness using scales or subscales from validated measures previously used with adolescent/young adult populations: family support (*Multidimensional Scale of Perceived Social Support – Family Subscale*), family loneliness (*Social and Emotional Loneliness Scale – Family Subscale*), and family cohesion (*Family Adaptability and Cohesion Evaluation Scale-II*; coefficient alpha = 0.91).¹⁰⁻¹² From our sample the coefficient alphas for each of the three measures ranged from 0.90-0.92. Participants also self-reported their sexual risk behaviors and if they ever received a positive HIV test result. Sexual risk behaviors included: (1) multiple anal sex partners in the past 3 months (defined as two or more) and (2) having any unprotected anal intercourse (insertive or receptive) in the past 12 months. Descriptive statistics characterized the sample and participants experiences with family disclosure. Factor analysis determined whether a latent factor measuring family connectedness existed for the three family measures and logistic regression was used to identify associations between the latent family factor, HIV status and sexual risk behaviors.

Results

Fourteen percent of the young MSM reported receiving a positive HIV diagnosis; 40.1% reported having multiple anal sex partners in the past 3 months and 44.4% reported having had any unprotected anal intercourse in the past year. Forty two percent of participants reported living with parents or family, which as expected decreased with increasing age (OR = .73, $p < 0.001$). Among participants with a mother/step-mother, 82.7% reported that their mother definitely knew their sexual orientation (77.5% of the overall study population), and most of these mothers were described as accepting (53.4%) or tolerant (30.3%). Fewer fathers definitely knew their sons' sexual orientation (Chi square = 20.10, $p < 0.01$); among participants with a father/step-father, 70.4% reported that their father definitely knew their sexual orientation (57.6% of the overall study population), with the majority of these fathers accepting

(48.9%) or tolerant (25.3%). Mothers in comparison to fathers were more likely to be described as accepting or tolerant of their sons' sexual orientation ($p < 0.001$).

Controlling for age, significantly more White youth disclosed their sexual orientation to their mothers relative to some other ethnic groups (Black OR = 0.36; Latino OR = 0.29; $ps < 0.05$; not significant for Asian and Other) and their fathers (Black OR = 0.16; Latino OR = 0.20; Other OR = 0.18 $p < 0.01$; not significant for Asian). However, in all racial/ethnic groups disclosure was $>50\%$ to mothers and fathers. Controlling for age, there were no statistically significant racial/ethnic differences in mothers' acceptance among disclosing youth ($p = 0.52$), but White participants reported higher levels of acceptance by fathers (Chi square = 3.80, $p = 0.05$).

In a principal components factor analysis, family support, loneliness, and cohesion formed a single latent factor that explained 80% of the variance in the scales; higher scores indicative of positive family connectedness. In a logistic regression model, family connectedness as measured by our standardized family factor significantly decreased the odds of an HIV positive status, controlling for age and race/ethnicity (Table 1). After controlling for age, race/ethnicity and HIV serostatus, family connectedness was not significantly associated with risky sexual behaviors such as unprotected anal intercourse in the past year or multiple anal sex partners in the past 3 months (Table 1). Neither age nor disclosure was significantly associated family connectedness as measured by our standardized factor ($p > 0.05$); whereas living at home was positively correlated with family connectedness ($p = 0.014$) – Table II. See Table II for a detailed description of correlations between some of our demographic variables, scaled measures, independent and dependent variables.

Discussion

High rates of HIV, coupled with a lack of prevention resources, indicate the need for innovative HIV prevention approaches targeting adolescent and young adult MSM. In this sample of gay or bisexually-identified, urban, young MSM, the majority of parents—especially mothers—were both aware and accepting of their son's sexual orientation. While disclosure, and to a lesser extent acceptance, differed by race/ethnicity, the majority of youth in our sample had discussed their sexual orientation with their mother and/or father. Although some young gay and bisexual men may continue to be secretive, or “closeted” regarding their sexual identities, these data suggest that in certain communities many young MSM do disclose their identity to supportive family members, making them potentially available for family-based HIV prevention efforts or programs. However, the differences in disclosure to mothers or fathers and acceptance among fathers reported by some racial/ethnic minority participants underscores the importance of better understanding these youths' family dynamics when evaluating the potential feasibility of family-based approaches towards HIV prevention in certain racial or ethnic minority communities. However, as in studies of heterosexual youth, our data suggest that family factors are significantly associated with HIV among young MSM after controlling for age and race/ethnicity. There was a 30% reduction in HIV seroprevalence for each standard deviation increase in the standardized factor measuring family connectedness; however no statistically significant relationship was found between risky sex and our family factor. Cross-sectional data cannot establish the direction of this influence; that is, whether lack of family connectedness leads to high-risk behaviors or if family relationships deteriorate after a young MSM becomes HIV-infected. Nevertheless, these data suggest that family, specifically parents, are available for many young MSM as feasible and potentially under-utilized resources for comprehensive primary and/or secondary HIV prevention efforts for this high-risk group.

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Table 1

Logistic Regression Results for Association between Family Factor, HIV Status and Sexual Risk Behaviors – Controlling for Age and Race/Ethnicity

	HIV+ Status	Unprotected Anal Intercourse (past 12 months)	Multiple Anal Sex Partners (past 3 months)
	OR (95% CI)	OR (95% CI)	OR (95% CI)
Family Factor	.70 (.50 - .98) [*]	.97 (.76 - 1.24)	1.15 (.90 - 1.48)
Age	1.34 (1.14 - 1.57) [*]	1.07 (.96 - 1.19)	1.13 (1.01 - 1.26) [*]
Black	2.26 (.98 - 5.24)	.60 (.32 - 1.12)	1.29 (.69 - 2.43)
Latino	1.08 (.42 - 2.82)	.822 (.43 - 1.57)	1.13 (.58 - 2.19)
Asian	0	1.13 (.30 - 4.24)	1.31 (.34 - 5.09)
Other Race/Ethnicity	.62 (.12 - 3.10)	.67 (.25 - 1.76)	2.65 (1.02 - 6.94) [*]
HIV + status	N/A	5.00 (2.29 - 10.92)	3.13 (1.54 - 6.36) [*]

* p-value < 0.05.

No confidence interval was provided for the relationship between Asian ethnicity and HIV status as there was no variability in this group (i.e. all Asian participants were HIV negative).

Table II
Correlation Matrix for Demographics, Scaled Measures, Independent and Dependent Variables

	Living Situation	Age	Disclosure to Mother	Disclosure to Father	Social Support	Loneliness-Family	Family Cohesion	Latent Family Factor	HIV +	Unprotected Anal Sex	Multiple Sex Partners
Living Situation	1										
Age	-.340 *	1									
Disclosure to Mother	-.162 *	.203 *	1								
Disclosure to Father	-.165 *	.096	.591 *	1							
Social Support	.107	.084	.084	.108	1						
Loneliness-Family	.147 *	-.062	.096	.071	.765 *	1					
Family Cohesion	.126 *	-.068	.096	.071	.663 *	.663 *	1				
Latent Family Factor	.142 *	-.105	-.017	-.061	.651 *	.910 *	.860 *	1			
HIV +	-.059	-.087	.063	.046	.905 *	.910 *	.860 *	1	1		
Unprotected Anal Sex	-.186 *	.193 *	.053	.061	-.130 *	-.098	-.111	-.127 *	1	1	
Multiple Sex Partners	-.072	.154 *	.106	.139 *	-.077	-.024	-.043	-.054	.264 *	1	1
		.151	.078	.030	-.028	.010	.080	.022	.207 *	.331 *	

* Correlation is significant at the 0.05 level (2-tailed)