

# The Impact of Exposure to Transphobia on HIV Risk Behavior in a Sample of Transgendered Women of Color in San Francisco

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This study examined the relationship between exposure to transphobia—societal discrimination and stigma of individuals who do not conform to traditional notions of gender—and risk for engaging in unprotected receptive anal intercourse (URAI) among 327 transgendered women of color. Overall, 24% of participants had engaged in URAI at least once in the past 30 days. Individuals who self-identified as pre-operative transsexual/transgendered women were significantly more likely than self-identified females to have engaged in URAI. Although exposure to transphobia was not independently related to URAI, an interaction between age and experiencing discrimination was observed. Among transgendered women 18–25 years old, those reporting higher levels of exposure to transphobia had a 3.2 times higher risk for engaging in URAI compared to those reporting lower levels. Findings from this study corroborate the importance of exposure to transphobia on HIV risk, particularly among transgendered young adults.

**KEY WORDS:** Transgendered; HIV risk; unprotected sex; transphobia; discrimination.

## INTRODUCTION

*Transgender* is commonly used as an umbrella term to describe individuals who do not conform to gender norms or whose biological sex conflicts with their gender identity (Green, 1994; Lombardi, 2001a; Meyer *et al.*, 2001). Male-to-female (MtF) transgendered individuals—referred to as transgendered women throughout this paper—are born biologically male, but identify as female and desire to live as female (Israel and Tarver, 1997). Gender identity refers to people's core sense of being a partic-

ular gender and many transgendered individuals will seek to change their appearance in order to better reflect that identity. There are no definitive data on the prevalence of individuals who self-identify as transgendered individuals.

Transphobia, analogous to homophobia, refers to societal discrimination and stigma of individuals who do not conform to traditional norms of sex and gender. Although the term has not been used widely in previous literature, researchers have theorized that exposure to transphobia manifests itself through experiences with discrimination in applying for employment and housing, violence, harassment, and barriers to health care (Clements *et al.*, 1999; Lombardi *et al.*, 2001b; Sykes, 1999; Xavier and Simmons, 2000).

Studies examining HIV prevalence and risk behaviors among certain subgroups of the transgender population have identified them as a high-risk population. HIV prevalences ranging from 11 to 68% have been reported in samples of transgendered women (Clements-Nolle *et al.*, 2001; Kellogg *et al.*, 2001;

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Kenagy, 2002; Modan *et al.*, 1992; Nemoto *et al.*, 1999; Sykes, 1999; Xavier and Simmons, 2000). A study by the San Francisco Department of Public Health showed that transgendered women had the highest HIV infection rate among all populations that had been tested—7.8 per 100 person-years—comparable with rates observed among gay men at the height of the epidemic in the 1980s (Kellogg *et al.*, 2001). Epidemiological studies have shown significant associations between HIV seropositivity and specific risk behaviors, particularly unprotected receptive anal intercourse (URAI) and injection drug use (IDU), in addition to race/ethnicity (Clements-Nolle *et al.*, 2001; Kellogg *et al.*, 2001). Studies have also reported notable levels of engagement in sex work among transgendered women—i.e., engaging in sexual activities for the exchange of goods and services—which increases their risk for HIV and other sexually transmitted infections (STI) (Clements *et al.*, 1999; Nemoto *et al.*, 1999, 2004a; Sykes, 1999). Economic and housing discrimination and societal stigmatization have all been identified as contributing factors to high prevalence of sex work in this population (Bockting *et al.*, 1998; Clements *et al.*, 1999; Nemoto *et al.*, 1999).

Transgendered individuals also experience a disproportionate amount of other health risks including high rates of lifetime depression, suicidal ideation, and suicide attempts (Bockting *et al.*, 1998; Clements-Nolle *et al.*, 2001; Dean *et al.*, 2000; Stevens and Morgan, 1999). Low self-esteem and social isolation have also been found through interviews and focus groups in this population (Bockting *et al.*, 1998; Clements *et al.*, 1999). Transgendered individuals tend to avoid accessing health care due to past and/or repeated negative experiences with the health care system, including health care providers who are insensitive and do not have knowledge and experience in providing services to transgendered individuals (Clements *et al.*, 1999; Feinberg, 2001; Xavier and Simmons, 2000). Finally, studies have documented transgendered individuals' experiences with violence, harassment, and other forms of discrimination as a result of their appearance or disclosed gender identity (Bockting *et al.*, 1998; Lombardi *et al.*, 2001b; Stevens and Morgan, 1999; Xavier and Simmons, 2000).

Thus far, studies with this community have principally focused on gender group differences in HIV risk behaviors and HIV status. It has been shown that self-identified transgendered women are significantly more likely to be HIV-infected or engage in

HIV risk behaviors compared to self-identified transgendered men (Clements-Nolle *et al.*, 2001); homosexual or bisexual males and heterosexual females (Nemoto *et al.*, 1999); or biological females (Modan *et al.*, 1992). The impact of discrimination resulting from other people's transphobia on transgendered individuals' risk for HIV has received minimal attention in epidemiological studies. The current study seeks to fill this gap by exploring the impact of exposure to transphobia on HIV risk behaviors.

Two studies have examined the impact of social discrimination on mental health and have found significant associations (Diaz *et al.*, 2001). Diaz *et al.* (2001) found that experiences of homophobia, racism, and financial hardship directly predicted negative mental health outcomes among Latino, non-heterosexual men. Nemoto *et al.* (2004c), utilizing the same study sample as this paper, found that experience with transphobia had a significant positive association with current depression while transgender community involvement had a significant negative association with depression.

The current study aims to determine the effect of exposure to transphobia on engaging in current HIV risk behavior in relation with other psychosocial factors and demographic variables. In addition, we examined whether or not the impact of transphobia would differ among young adults as compared to older adults.

The data presented here come from an epidemiological study of transgendered women of color in San Francisco who reported a history of sex work. Prior findings from this study population have documented high HIV prevalence and significant correlates of sexual risk behavior (Nemoto *et al.*, 2004a); utilization rates of health and social services (Nemoto *et al.*, *in press*); qualitative data regarding the social context of HIV risk (Nemoto *et al.*, 2004b); and the impact of exposure to transphobia on mental health (Nemoto *et al.*, 2004c). This is among the first known papers examining association between HIV risk and exposure to transphobia.

## METHODS

### Participants

Transgendered individuals in the study were self-identified pre-sexual reassignment surgery (pre-operative) or post-sexual reassignment surgery (post-operative) transgendered women. All study

participants were 18 years old or older, either lived or worked in San Francisco, and were able to communicate in English or Spanish. The methods for participant recruitment are described elsewhere (Nemoto *et al.*, [in press, 2004a](#)). Only participants who identified themselves as African American, Latina, or Asian or Pacific Islander (API) were included in the study. In addition, all participants had a history of exchanging sex for money or drugs. About half of the participants were recruited on the basis of referrals from four AIDS service organizations (ASOs) in San Francisco, and the other half were recruited from the streets and venues, which were identified by mapping. A total of 332 transgendered women were interviewed. Structured interviews using a questionnaire were conducted in person by trained transgendered women, matched according to race and ethnicity, either in a private room in the project office or at a collaborating ASO. Each participant was reimbursed after completion of the survey interview.

## Measures

### *Exposure to Transphobia*

A standardized scale for exposure to transphobia was constructed using responses to 11 items on the survey, which asked about respondents' negative experiences associated with being transgender (modified from a homophobia scale by Diaz *et al.* (2001) to reflect participants' transgender identity). Sample items include statements such as: *How often were you made fun of or called names for being transgender or effeminate?*; *How often were you hit or beaten up for being transgender or effeminate?*; and *How often did you hear that transgenders were not normal?*. Responses were scored on Likert scales with higher numbers reflecting more frequent experiences. Cronbach's alpha for all 11 items was .82. Because some items were on a scale of 1–4 and some on a scale of 1–3, scores were linearly transformed such that all items used to construct the transphobia scale had the same range of 0–12. Means were calculated only for respondents with at least 80%, or 9 out of the 11 items answered. Only three respondents did not have scores for at least 9 items and were not included in analyses.

### *URAI in the Past 30 Days*

The frequency of URAI with any type of sexual partners (e.g., primary, casual, and commer-

cial) was measured and coded as a binary variable: "1" for individuals who engaged in URAI at least once in the past 30 days and "0" for individuals who did not engage in URAI in the past 30 days. The latter category included those who did not engage in receptive anal intercourse (RAI) and those who engaged in RAI but always used condoms.

### *Demographic Characteristics*

Covariates were based on the study question of interest and on previous similar studies. Sociodemographic variables included ethnicity (African American, Latina, API), age (18–25 years vs. >25 years), birthplace (US vs. outside US), highest education level attained (less than high school, high school/GED/technical or vocational schooling, some college, college degree or above), income source (full-time job, part-time job or sex in exchange for money), income in the past 30 days (\$0–749, \$750–1999, ≥\$2000), gender identity (female, pre-operative transgender/transsexual, or other), sexual orientation (heterosexual vs. homosexual/bisexual), HIV status (positive vs. negative), and having sex while under the influence of substances in the past 30 days (yes vs. no). Substances included alcohol, marijuana, ecstasy, stimulants, hallucinogens, heroin, and injection of any drugs.

### *Psychosocial Measures*

Measures included depression, transgender community involvement (modified from (Luh-tanen and Crocker, 1992), e.g., *Belonging to the transgender community is an important part of my self-image*), self-esteem (Rosenberg, 1965), and social support with four subscales: social support received from family, transgender friends or other friends and social support needed (adapted from Nemoto, 1988). Center for Epidemiologic Studies Depression scale (CES-D) was used to measure depression, and a standard cutoff score of 16 was used to classify depression (Radloff, 1977). Transgender community involvement consisted of 8 items with  $\alpha = .87$ ; self-esteem consisted of 10 items with  $\alpha = .88$ . Each social support measure was composed of 5 items with Cronbach's alphas ranging from .57 to .66. Using the same method as

for the transphobia scale, means were calculated only for respondents with at least 80% of the items not missing. No more than six individuals lacked a score for each psychosocial measure. Social support needed was measured as a sum score.

### Statistical Analyses

To identify potential confounding variables associated with exposure to transphobia, one-way ANOVA or *t*-tests were conducted to test for differences in mean scores of standardized exposure to transphobia among categorical variables, and Pearson's *r* was used to evaluate the correlation of continuous scales. Exposure to transphobia had a unimodal, although slightly skewed distribution in the study population (skewness = .63, kurtosis = -0.002). Since the *t*-test has been shown to be robust to slight deviations from the normal (Blommers and Forsyth, 1983), the scale was not transformed. Chi-square and *t*-tests were performed to identify variables associated with having engaged in URAI in the past 30 days. In order to ensure that potential confounders were not eliminated from final analyses, they were selected if associated with both exposure to transphobia and URAI at  $p < .2$  level. Significant associations in bivariate analyses were assessed at  $p < .1$  level; this significance level was chosen so as not to overlook relationships between variables, but to simultaneously maintain a reasonable Type I error.

Potential confounders were clustered into four blocks of conceptually grouped variables. Multiple logistic regression models were fit using hierarchical regression analysis whereby stepwise selection within blocks and forward selection of each block, in order of conceptual importance, were conducted to examine the adjusted effects of exposure to transphobia on URAI. Variables that were significant ( $p < .05$ ) were added onto the previous model and remained if  $p < .1$  after entrance. Two different cutoff *p*-values were used so that the model remained selective, but also ensured the inclusion of significant variables. All multivariate models were controlled for age and ethnicity. Interactive effects of age and ethnicity on exposure to transphobia were tested and resulted in the inclusion of one interaction term of age  $\times$  exposure to transphobia. To create the interaction terms, the exposure to transphobia scale was dichotomized at the median score to indicate higher and lower levels of exposure. Odds ratios (OR) and 95% confidence intervals were calculated. Significance in

logistic models was assessed at  $p < .1$  level. All analyses were carried out using SAS version 8.1 software.

## RESULTS

The majority of participants were over the age of 25 years (82%), with a range of 18–60 years, and 58% were born in the US. Self-identification as female (36%) was the most common gender identity followed by self-identification as pre-operative transgendered or pre-operative transsexual women. Ten percent had completed sexual reassignment surgery. Most individuals (84%) identified as heterosexual, were followed by homosexual (11%) and bisexual (5%). More than half of the participants had attained a high school education or below (59%) and earned less than \$1000 in the past 30 days (53%). Twenty-eight percent reported having a full-time job while about half (51%) reported currently engaging in commercial sex work as a source of income during the past 6 months. Although only 5% reported being homeless in the past 6 months, only 49% were in a permanent living situation. Self-reported HIV prevalence was 26%; approximately 7% of participants either had never been tested, or had been tested but did not know or refused to give their test results.

### Exposure to Transphobia

A higher proportion of individuals reported experiencing verbal and physical harassment during childhood compared to during adulthood (80% vs. 37% and 64% vs. 20%, respectively). Over half (54%) of individuals reported moving away from friends or family due to being transgender, suggesting separation from traditional sources of social support. Economic discrimination because of one's transgender identity, through the loss of a job or career opportunity, was experienced by 39% of participants.

Exposure to transphobia differed significantly by ethnicity, with African Americans and Latinas experiencing higher levels of exposure than Asian or Pacific Islanders (Table I). Compared to individuals between the ages of 18 and 25 years, those who were greater than 25 years old reported higher levels of exposure. A significant difference in exposure to transphobia was found on the basis of HIV status

**Table I.** Exposure to Transphobia and Having Engaged in URAI in the Past 30 Days by Sociodemographic Characteristics and Psychosocial Measures

Characteristic	Exposure to transphobia			Test statistic	URAI in the past 30 days		$\chi^2$ statistic
	<i>n</i> <sup>a</sup>	<i>M</i>	<i>SD</i>		Yes ( <i>n</i> )	Yes (%)	
<b>Sociodemographics</b>							
Ethnicity				8.0***,c			1.9
African American	108	3.9	2.4		30	27.8	
Latina	109	4.0	2.4		25	22.9	
API <sup>b</sup>	110	2.9	2.0		22	20.0	
Age group (years)				-1.9*,d			1.5
≤25	57	3.1	1.9		17	29.8	
>25	269	3.7	2.4		60	22.3	
Highest education level				1.4 <sup>c</sup>			0.3
Less than high school	120	3.8	2.4		29	24.2	
HS/GED/tech/voc	89	3.7	2.3		22	24.7	
Some college	84	3.3	2.2		18	21.4	
At least college degree	34	3.2	2.3		8	23.5	
Income in past 30 days				7.7***,c			1.4
0-749	105	4.3	2.3		25	23.8	
750-1999	134	3.3	2.2		35	26.1	
≥2000	84	3.1	2.4		16	19.1	
Gender identity				1.9 <sup>c</sup>			10.7***
Female	118	3.2	2.5		16	13.6	
Pre-operative Ts/Tg woman	169	3.7	2.0		51	30.2	
Other <sup>e</sup>	40	3.9	2.9		10	25.0	
HIV status				-3.5***,d			1.2
Positive	85	4.2	2.3		23	27.1	
Negative	218	3.2	2.2		46	21.1	
Sex while on substances <sup>f</sup> , past 30 days				-2.8***,d			38.7***
Yes	184	3.9	2.4		67	36.4	
No	143	3.2	2.2		10	7.0	
<b>Psychosocial Measure</b>							
Depression (CESD)				-7.5***,d			3.9**
<16 (No)	182	2.8	1.9		36	19.8	
≥16 (Yes)	140	4.6	2.4		41	29.3	

<sup>a</sup>Due to missing responses, not all variables have *n* = 327.

<sup>b</sup>Abbreviations—API: Asian or Pacific Islander; HS/GED/tech/voc: high school/GED/technical/vocational school; Ts/Tg: transsexual/transgendered.

<sup>c</sup>F statistic.

<sup>d</sup>*t* statistic.

<sup>e</sup>“Other” includes androgynous, post-operative transsexual, transvestite, cross-dresser, gender bender, drag queen.

<sup>f</sup>Substances include alcohol, marijuana, ecstasy, stimulants (crack, cocaine, crystal, speed), hallucinogens (LSD, mushrooms), opiates (heroin, codeine, Demerol), and injection drugs (heroin, cocaine, speedball).

\**p* < .1; \*\**p* < .05; \*\*\**p* < .01.

with HIV positive individuals reporting higher levels of exposure.

Depressed individuals reported levels of exposure that were significantly higher than their counterparts (Table I). Self-esteem was negatively correlated with exposure to transphobia, *r* = -.39, *p* < .01, while social support received from other transgendered individuals, *r* = .13, *p* < .05, friends, *r* = .11, *p* < .05, and social support needed, *r* = .42, *p* < .01, were all positively correlated with exposure to transphobia. Involvement in the transgender community was

not significantly correlated with exposure to transphobia.

**Characteristics of Transgendered Women Who Engaged in URAI in the Past 30 Days**

As shown in Table I, overall, 24% of participants had engaged in URAI in the past 30 days. No significant ethnic or age differences in the proportions of those engaging in URAI were found. URAI behavior differed significantly by



self-identified gender with a higher percentage of pre-operative transsexual/transgendered women engaging in URAI compared to self-identified females. Transgendered women who had sex while under the influence of substances in the past 30 days were significantly more likely to have engaged in URAI than those who had not.

Chi-square and *t*-tests showed that depression and self-esteem were significantly associated with URAI. A higher proportion of individuals experiencing depression were significantly more likely to have engaged in URAI compared to individuals who were not depressed, while individuals with lower self-esteem and less involvement in the transgender community had a significantly higher likelihood of engaging in this behavior,  $t(319) = 1.97, p < .05$ , and,  $t(321) = 2.05, p < .05$ . Neither social support received nor social support needed was significantly associated with engaging in URAI.

### Predictors of Engaging in URAI in the Past 30 Days

Overall, neither ethnicity, age nor self-esteem was significantly associated with URAI behavior when controlling for other selected characteristics in the final multivariate regression model. Both self-reported gender identity and having had sex under the influence of substances had a strong independent effect on URAI (Table II). Compared to self-identified females, self-identified pre-operative transsexual/transgendered women experienced a nearly three times higher odds for engaging in URAI. Having sex while under the influence of substances significantly increased the likelihood of engaging in URAI by a factor of 7.2.

Although no significant main effect of exposure to transphobia was found, an interaction effect was found for exposure to transphobia and age ( $p < .05$ ), after controlling for ethnicity, self-esteem, gender identity, and having had sex while under the influence of substances. Among transgendered women 18–25 years old, those reporting higher levels of exposure to transphobia—or in the top 50th percentile—had a 3.2 times higher odds for engaging in URAI compared to those reporting lower levels of exposure (Table II). However, among transgendered women older than 25 years, higher levels of exposure had no significant impact on engaging in URAI compared to lower levels of exposure.

### DISCUSSION

This study is among the first epidemiological studies that examines the impact of exposure to transphobia on an HIV risk behavior. We found an interaction between age and exposure to transphobia, suggesting a developmental context wherein such exposure yields a powerful effect among younger adults. Younger participants reporting higher levels of exposure were 3.2 times more likely to have engaged in URAI compared to younger participants reporting lower levels of exposure. A similar effect was not found among the older participants suggesting that they may have more effective coping strategies for dealing with exposure to transphobia.

The difference between the older and the younger adult groups in response to exposure to transphobia may be indicative of the age proximity of the latter group to the adolescent period. With more transgendered individuals “coming out” at earlier ages as a result of the increasing public awareness and visibility of sexual minorities during the past decade (Kreiss and Patterson, 1997), it is possible that younger adults are consequently more likely to have had exposure to transphobia during adolescence. Prior studies have noted the youth-specific challenges experienced by sexual minority and transgendered youth as a result of social discrimination (Kreiss and Patterson, 1997; Lombardi and van Servellen, 2000; Stevens and Morgan, 1999). Transgendered youth face stigmatization and alienation in multiple environments—at school from teachers and fellow classmates, at home from parents and siblings, and in public settings (Lombardi and van Servellen, 2000; Stevens and Morgan, 1999). Consequently, they may lack social role models and have few resources available to them (Kreiss and Patterson, 1997; Lombardi and van Servellen, 2000).

Results also showed that self-reported gender identity had a strong independent effect on engaging in URAI (Table II). A plausible interpretation of this significant association could be through the mediation of self-acceptance among transgendered women. Self-identification of one’s own gender may be indicative of an individual’s particular stage in gender transition (Sykes, 1999) and may be a proxy for a transgendered individual’s level of self-acceptance. Individuals who self-identify as women may be more conscientious about their health and may be more assertive and have increased efficacy at practicing safer sex. Moreover, in our study population, we found that self-identified females had higher self-esteem

**Table II.** Odds Ratios and 95% Profile Likelihood Confidence Intervals for URAI Controlling for Selected Characteristics

Characteristic	Model without interaction		Model with interaction	
	Odds ratio	95% CI	Odds ratio	95% CI
Transphobia	1.0	0.8, 1.1		
Ethnicity (vs. API)				
African American	1.1	0.5, 2.3	1.1	0.5, 2.3
Latina	0.6	0.2, 1.2	0.6	0.2, 1.3
Age (vs. >25 years)				
≤25	1.4	0.7, 2.8		
Self-esteem	0.8	0.5, 1.2	0.8	0.5, 1.3
Gender identity (vs. Female)				
Pre-op Ts/Tg woman	2.8***	1.4, 5.9	3.0***	1.5, 6.2
Other identity	2.7*	1.0, 7.3	2.9**	1.0, 8.0
Sex while on substances				
Yes (vs. No)	7.2***	3.6, 15.7	7.2***	3.6, 15.7
Age × transphobia (vs. ≤25/low)				
≤25/high			3.2*	0.9, 12.8
>25/low			1.7	0.6, 5.6
>25/high			1.2	0.4, 4.1

<sup>a</sup>Median cutoff for transphobia was used in order to create the interaction term; “high” refers to individuals who experienced higher levels of transphobia.

<sup>b</sup>*p* = .04 for interaction term.

\**p* < .1; \*\**p* < .05 \*\*\**p* < .01.

compared to self-identified pre-operative transsexual/transgendered women. Future studies may benefit from including variables that can measure a continuum of comfort with one’s identity, social contextual factors (e.g., passing as a women) that contribute to a personal sense of gender identity comfort, and health protective correlates of gender identity comfort such as increased efficacy to engage in safer sex.

Sexual reassignment surgery (SRS) status may also play a role in the association between gender identity and URAI. Gender identity was associated with whether or not a transgendered woman had undergone SRS. A higher proportion of individuals who had undergone SRS, self-identified as female, compared to those who had not undergone SRS. Furthermore, among self-identified females, a higher percentage (16%) of pre-operative individuals compared to post-operative individuals (4%) had engaged in URAI. This is consistent with the fact that pre-operative transgendered women have fewer ways of practicing sexual intercourse (oral or anal) compared with post-operative transgendered women (vaginal, oral or anal).

Boles and Elifson (1994), reported that playing a receptive role in intercourse is viewed as more feminine among transgendered women. Pre-operative transgendered women may desire to be more feminine or seek affirmation as a woman and

thus be more inclined to engage in RAI. Among pre-operative individuals, 66% had engaged in RAI compared to 28% of post-operative individuals. Further examination of sexual risk and protective behaviors associated with SRS status is warranted.

It is important to note limitations related to the study’s sampling and measurement instruments. Given that study participants were recruited through targeted sampling techniques, and had a history of commercial sex work, study results should not be generalized to all transgendered women. The study was also limited to transgendered women of color. Therefore, the impact of exposure to transphobia, as reported here, is unique to these ethnic minority groups that experience racism as well as gender discrimination.

Challenges in measuring and analyzing exposure to transphobia for transgendered women merit consideration. Unlike depression or self-esteem, there is no standard scale to measure exposure to transphobia. Three items in our scale measured exposure during adolescence, but because of the cross-sectional study design and low proportion of young adult participants, the impact of exposure to transphobia during adolescence on URAI behavior could not be isolated. Although we acknowledge that mixing time ranges for exposure may not be an ideal reflection of an individual’s experiences with dis-

crimination, we conducted a reanalysis excluding the three items, and the interaction of age and exposure to transphobia maintained marginal significance ( $p = .09$ ) in our study population. In addition, without these three items, the median score for exposure to transphobia was lowered, suggesting that excluding such items may underestimate measurement of transphobia. Future research should focus efforts on developing and refining a scale that may more accurately assess stigmatization and societal discrimination specific to being transgendered. Inclusion and additional scrutiny of exposure to transphobia in future research will further efforts in understanding HIV risk among this population.

Findings from this study have important implications for HIV prevention programs and other health care programs serving this high-risk population as well as further studies with transgendered individuals. First, providers should recognize social and legal barriers toward self-identification as women. It is likely that such self-identification has been suppressed among some individuals due to marginalization and societal stigmatization. Indeed, a community-level HIV prevention intervention, conducted in two US communities, aimed to increase comfort level of young gay men's identity—as part of their multi-faceted intervention—and reported significant reductions in the proportions of men having unprotected anal intercourse between pre- and post-intervention (Kegeles *et al.*, 1996; Kegeles *et al.*, 1999).

Second, HIV prevention programs should incorporate substance abuse prevention as part of their continuum of services and address barriers to stop substance use as one method of preventing sexual risk behaviors. Our findings showed that engaging in sex while on substances was highly predictive of engaging in URAI, independent of exposure to transphobia, ethnicity, age, gender identity, and self-esteem. Nemoto *et al.* (2004a) also found that engaging in sex while on substances in the past 30 days was a significant and independent correlate of engaging in URAI with primary and casual sex partners but not with commercial sex partners. Multiple adverse social factors, including discomfort with one's body during sex, may play a role in substance use.

Finally, programs tailored to younger transgendered individuals, including youth under the age of 18 years, can help them cope with exposure to transphobia during adolescence. Such programs may provide social role models who may be older and may have endured similar discrimination. Several qualita-

tive studies have emphasized the importance of addressing discrimination within service delivery protocols (Bockting *et al.*, 1998; Clements *et al.*, 1999; Green, 1994; Lombardi and van Servellen, 2000; Nemoto *et al.*, *in press*; Schilder *et al.*, 2001). HIV prevention programs could also benefit from research involving transgendered youth participants and assessing the impact of exposure to transphobia during adolescence on HIV risk and health outcomes. By focusing research on transgendered youth and young adults, HIV prevention programs may minimize the challenges they face during adolescence and facilitate their transition into self-acceptance and desired gender identity, as well as protecting them from HIV and other sexually transmitted infections.

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