Journal of Adolescent Health 53 (2013) 486–491

ELSEVIER

JOURNAL OF ADOLESCENT HEALTH

www.jahonline.org

Original article

Gender Differences in Sexual Risk and Sexually Transmitted Infections Correlate With Gender Differences in Social Networks Among San Francisco Homeless Youth

Annie M. Valente, M.D. [a], and Colette L. Auerswald, M.D., M.S. [b,*]

[a] *Family Medicine Residency of Idaho, Boise, Idaho*

[b] *Department of Pediatrics, School of Medicine, University of California, San Francisco, San Francisco, California, and UC Berkeley-UCSF Joint Medical Program, School of Public Health, University of California, Berkeley, Berkeley, California*

Article history: Received June 20, 2012; Accepted May 28, 2013

Keywords: Homeless youth; Social networks; Gender; STIs; Social capital

A B S T R A C T

Purpose: To explore whether gender differences in sexual risk and sexually transmitted infections (STIs) among homeless youth may be explained in part by gender differences in their social networks.

Methods: Our sample includes 258 youth (64% male) recruited in San Francisco from street venues and transitional programs. Participants completed an audio computer-administered self-interview survey regarding their housing status and risk behaviors and an interviewer-administered survey regarding their social networks, and were tested for STIs (chlamydia and gonorrhea). We examined relationships between sexual risk and STI rates and social network characteristics by gender.

Results: Condom use was lower in young women than in young men, whereas young women were more likely to have an injection drug user (IDU) sex partner and to be diagnosed with an STI. Homeless young men were more likely to have stably housed contacts and same-sex friendships in their social networks than were young women. Stably housed network contacts were associated with increased condom use and decreased STI prevalence in young men. Same-sex friends were associated with increased condom use in young women. No young woman with a family member in her network had an IDU sex partner. Having a network member who had been recently incarcerated was associated with having an IDU sex partner for young women.

Conclusions: Homeless young women's networks may place them at greater risk for STIs than young men. Increasing mainstream contacts and same-gender friendships may protect all homeless youth from STIs. Interventions addressing homeless young women's social networks may decrease their gender-disparate STI risk.

IMPLICATIONS AND CONTRIBUTION

Our findings suggest that the social networks of male and female homeless youth are different and that their sexually transmitted infection risk is tied to these differences. Further exploration of this social network gender disparity among homeless adolescents may inform future sexual health interventions.

Runaway and homeless youth (RHY) are more likely to engage in sexual risk behaviors than their housed peers [1–3] and are therefore at increased risk for sexually transmitted infections (STIs) [4–6]. Compared with homeless young men, homeless young women have lower rates of condom use [7,8] and higher rates of STIs [6,9]. The street social environment that RHY inhabit is complex, with gender power dynamics contributing to the development of sexual and drug-related risk behaviors and the likelihood of STI transmission [9,10]. The social networks of homeless youth can be highly influential, affecting their participation in risky sexual behaviors [11,12].

"Social capital" refers to both the tangible and intangible resources available to individuals through their social position and social networks [13,14]. Although social capital can be measured at

* Address correspondence to: Colette L. Auerswald, M.D., M.S., c/o UCB-UCSF Joint Medical Program, 570 University Hall #1190, University of California, Berkeley School of Public Health, Berkeley, CA 94720.

E-mail address: coco.auerswald@gmail.com (C.L. Auerswald).

1054-139X/$ – see front matter
http://dx.doi.org/10.1016/j.jadohealth.2013.05.016

the individual or community level, we refer here to individual social capital. Social capital has been linked to multiple health outcomes [15,16] but has only been employed in a limited fashion to examine the health of homeless youth [17]. For RHY, who are often leaving a resource-poor home environment, the decision to leave home may be a logical attempt to generate resources or social capital in a different setting, specifically within the street community [18]. This social capital may be generated through their social position and social networks on the street.

Social network theory posits that an individual's social network, including the number, type, and content of network ties, affects an individual's health-related behaviors and risk of negative health outcomes [15,16]. Specifically, social network studies have demonstrated that RHY's social network characteristics are associated with sexual health outcomes [11,19–23]. For example, RHY who have social contacts who are doing well at home and attending school are less likely to engage in unprotected sex and other sexual human immunodeficiency virus (HIV) risk behaviors than RHY without such contacts [11,21,22]. Similarly, RHY with a social network that includes risky contacts who inject drugs or are involved in the justice system are more likely to engage in sexual health risk than RHY without such contacts [11,23].

Recent work has suggested that the social networks of female RHY may differ from those of male RHY. Homeless young women are more likely than homeless young men to be at the core of networks of other homeless youth [24], and thus to be more isolated from mainstream society. Ethnographic work with homeless young adults in San Francisco describes a male-controlled social hierarchy in which women lack ways to gain respect and power in the street community, and often must seek protection from sexual relationships with men [10,25]. Furthermore, homeless young women are more likely to have social network contacts who are injection drug users (IDUs) and to have overlapping drug-using and sexual networks, which places them at increased risk of infection and transmission of STIs, HIV, and hepatitis C [26,27].

The aim of this study was to explore whether gender differences in sexual risk and STIs among homeless youth can be explained in part by gender differences in social network composition. To achieve our aim, we first identify the gender differences in sexual risk behaviors and STI prevalence in our sample. We then describe the gender differences in social network composition. Finally, we consider for each gender how social network composition is related to sexual risk and STI rates.

Methods

Study population and recruitment

Data were collected as part of the Street Youth in Social Environments study, a longitudinal study of the relationship among street culture, social networks, and STI/HIV risk in homeless youth in San Francisco (National Institute for Child Health and Development K23 HD01490; P.I.: C. Auerswald). At the time of our baseline survey in 2004, it was estimated that there were around 1,600 homeless youth at any given time in San Francisco [28].

The study of marginalized, hard-to-reach populations presents a challenge to recruiting a statistically representative sample [29]. We employed venue-based sampling, recruiting homeless youth by approaching them at the venues where they spend time, such as street corners or parks [30,31].

Before enrollment, we conducted a mixed qualitative-quantitative assessment of venues to inform the selection of our recruitment sites. Based on findings from ethnographic interviews with homeless youth, providers, and outreach workers, and from street observations, a list of 62 preliminary venues in six neighborhoods was compiled. Brief street interviews were subsequently conducted at each venue to characterize the volume and composition of the youth population at each site. Based on these findings, the list of venues was narrowed to 28 in three neighborhoods. Because of resource constraints, we focused on the Polk, Market Street, and Haight Street neighborhoods, which are frequented primarily by white and African-American homeless youth. Thus, the Mission District, the neighborhood where most unstably housed Latino youth spend time, was not included in our sample. Inclusion in the final list of venues was based on gender composition, number of youth, and redundancy. Our approach to venue selection is further described elsewhere [30,32]. Although most of our sample was recruited from street venues, we also purposively recruited youth from two transitional housing programs using fliers and sign-up sheets to ensure inclusion of youth attempting to leave street life.

Study staff approached youth at the chosen sites and invited them to enroll in a youth health study. Youth were eligible if they were 15–24 years of age and reported having been homeless in the prior 6 months. We defined homelessness as "having to stay two nights or more in a place that is not your home because you could not stay in your home or you did not have a home, including having to stay in one of the following places: a shelter, outdoors, a squat, with a stranger or someone you did not know well, a car, on public transportation, or SRO/hotel" (an SRO is a single-room occupancy hotel or "welfare hotel" rented by marginally housed individuals on a short-term basis). Youth who had been homeless within a window of 6 months were sampled to include all homeless youth, including youth who were intermittently homeless or who were entering or exiting street life. We did not employ the term "homeless" as part of our inclusion criterion because of the stigma associated with the term for some subgroups of homeless youth [33]. Exclusion criteria included being visibly under the influence of substances or emotionally distressed. Youth provided written consent and received $20 for the completion of the survey instrument and an additional $10 for providing a urine sample for STI testing. A diverse team of study staff, including formerly homeless youth and former street outreach workers, administered informed consent and collected the data. The University of California at San Francisco Committee for Human Subjects approved the protocol.

A total of 229 youth were recruited from street venues, and 48 from transitional programs. We excluded six duplicates and five ineligible youth. We excluded seven transgender youth, because their small number precluded subgroup analyses. Finally, we excluded one youth as an outlier because he reported having had 999 sex partners in the prior 3 months. This yielded a final analytic sample of 258.

Data collection

Participants completed an audio computer-administered self-interview survey, including questions about demographics, housing status, and HIV/STI risk behaviors, which took from 30 to 45 minutes. An interviewer administered a paper-based social network survey, which took another 15 minutes.