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The role of neighborhoods in shaping perceived norms: An exploration of neighborhood disorder and norms among injection drug users in Baltimore, MD

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Abstract

A large literature suggests that social norms contribute to HIV and substance use related behaviors. Less attention has been given to neighborhood factors that may contribute to the development of norms about risky behaviors. We examined the cross-sectional associations between perceptions of one's neighborhood and norms of perceived prevalence of, and peer support for sex exchange and risky injection behaviors. The sample consisted of 719 people who reported injecting heroin and cocaine and did not move in the past 6 months in Baltimore, MD. Living in a neighborhood with disorder was associated with believing that others exchanged sex, practiced risky injection behaviors (descriptive norms) and approved of risky injection behavior (injunctive norms).

Keywords

Norms; neighborhood; disorder; HIV; drug use

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Introduction

HIV and drug use are prevalent public health problems in urban cities (Centers for Disease Control and Prevention (CDC) 2012), particularly in areas with socioeconomic distress (Centers for Disease Control and Prevention (CDC) 2014, Friedman et al. 2013, Rhodes et al. 2005, Roberts et al. 2010). Substance use and sexual behavior are typically social behaviors, and thus social norms may be particularly relevant sources of influence on these behaviors. The influence of norms on both drug and sexual risk behaviors is well established (Ahern et al. 2009, Albarracín et al. 2001, Davey-Rothwell, Latkin 2007, Davey-Rothwell, Latkin 2008, Davey-Rothwell, Latkin & Tobin 2010, Dedobbeleer, Morissette & Rojas-Viger 2005, Flom et al. 2001, Latkin et al. 2010, Tobin et al. 2012, Latkin et al. 2003). The association between norms and behavior has been demonstrated with regard to sharing injection drug equipment (Davey-Rothwell, Latkin & Tobin 2010) and exchange sex for money or drugs (Davey-Rothwell, Latkin 2008, Tobin et al. 2012). Furthermore, people who inject drugs (PWID) who endorse needle sharing norms tend to also endorse sex exchange norms (Latkin et al. 2010). Given the powerful influence of norms and their implications for the health of PWID, it is important to understand how social norms are established and maintained.

Psychological literature posits that norms may be developed, transferred, and mutually reinforced through observing others' behaviors, receiving positive and negative reinforcement for behaviors, and verbal communication (Oostveen, Knibbe & De Vries 1996). Significant others such as risk behavior partners, family, and peers tend to have a strong social influence. In addition, norms exert powerful influence on behavior even when the referent others are not known acquaintances (e.g., drug and exchange partners), nor are perceived as sources of influence (Cialdini 2005). To date, there is a limited body of research that has examined macro-level contributors to norms. While research has focused on individual factors associated with these HIV risk and drug use behaviors, less attention has been given to structural factors such as neighborhoods. Neighborhoods are likely to be a key location for observing or talking about health and risk behaviors, thus leading to the development of norms.

While a body of literature on neighborhoods and health has considered the influence of physical stressors on health, less attention has been given to the intermediary social processes between macro-level influences and health (Browning, Cagney 2003). The neighborhood can be conceptualized as an ecosystem that influences networks, attitudes, norms, and resources (Akers, Muhammad & Corbie-Smith 2011, Maas et al. 2007, Oetting, Donnermeyer & Deffenbacher 1998, Williams, Latkin 2007). As a social context, the neighborhood is a site for interactions with and observations of others (Tobin et al. 2012, Cohen et al. 2003, Latkin et al. 2013). Within neighborhoods, spatial clustering of risk behaviors and norms may also occur (Tobin et al. 2012). While existing research has documented the influence of norms within specific contexts, there is a paucity of research examining the neighborhood context as it relates to norms relevant to HIV risk behaviors (Tobin et al. 2012, Latkin et al. 2013, Musick, Seltzer & Schwartz 2008).

Social characteristics of the neighborhood (e.g., stability, affluence) may influence health beyond the effects of individual-level characteristics. Neighborhood disorder, or the clustering of negative physical and social conditions such as violence, housing problems, economic stress, and drug market activity (Latkin et al. 2013) has well-documented negative impacts on health (Tobin et al. 2012, Browning, Cagney 2003, Cohen et al. 2003, Chung, Docherty 2011, Hill, Ross & Angel 2005, Karasek, Ahern & Galea 2012, Latkin, Curry 2003). For example, neighborhood disorder and its components are associated with poor mental health (Hill, Ross & Angel 2005, Latkin, Curry 2003, Latkin et al. 2007, Ross 2000, Ross, Mirowsky 2009, Zule et al. 2008), drug use (Latkin et al. 2007, Winstanley et al. 2008), sexual behavior (Bowleg et al., 2014) (Akers, Muhammad & Corbie-Smith 2011, Bobashev et al. 2009, Bowleg et al. 2014) sexually transmitted infections, and incarceration. (Cohen et al. 2000, Ford, Browning 2011, Jennings, Woods & Curriero 2013, Whitaker et al. 2011) The components of neighborhood disorder and their associated outcomes can be understood as a dynamic interplay between individual, social, and structural factors (Rhodes et al. 2005, Latkin et al. 2010) that explain social and environmental aspects of HIV risk beyond the individual behavioral level. For example, Bowleg et al. (Bowleg et al. 2014) suggest both individual-level (social stressors trump HIV prevention priorities) as well as sociostructural level pathways (the effects of mass incarceration, and reincarceration, of African American men) by which neighborhood disorder may influence HIV risk. Given these well-documented impacts on health, it is critical to examine the mechanisms underlying the associations of disorder with poorer health (Latkin et al. 2013, Hill, Ross & Angel 2005).

Of relevance to this paper is the potential for associations between neighborhood disorder and norms. Among individuals residing in a neighborhood with signs of physical and social disorder, do riskier norms prevail? If so, this may occur via several mechanisms. First, health behavior norms may be more salient when there is not consistent, visible defiance of the norms (Oetting, Donnermeyer & Deffenbacher 1998). Along these lines, risk behaviors may become more public and normative in the absence or attenuation of social policing and social control. Low levels of collective efficacy may fail to check socially deviant behavior. Disadvantaged neighborhoods may also experience isolation and lack of mobility, resulting in the segregation of such neighborhoods or communities from other, external pro-health influences (Browning, Cagney 2003, Latkin, Curry 2003, Stead et al. 2001).

Open-air drug markets are a relevant example of deviant behavior that is public in some impoverished urban neighborhoods. When behaviors are viewed publicly, they are likely to be perceived to be more prevalent and hence, normative. Within this concentrated and isolated environment, norms may be particularly salient in terms of cuing, behavioral modeling, and enforcement.

Also, normative influence is contingent upon communication and social connection, and thus disruption in the social context may attenuate the transmission or influence of norms (Ahern et al. 2009, Musick, Seltzer & Schwartz 2008, Karasek, Ahern & Galea 2012, Snowden 2005). That is, neighborhoods characterized by disorder may experience breakdowns or constraints on social relationships from which individuals might otherwise develop a subjective evaluation of descriptive or injunctive norms. Conversely, spatial

characteristics associated with neighborhood disorder may amplify the transmission or influence of norms. For example, in neighborhoods characterized by high disorder, the close proximity of referent others in crowded residential housing might confer more salient descriptive and perceived norms (Tobin et al. 2012). Prior work also indicates that smaller peer network may yield normative influence (Davey-Rothwell, Latkin 2008).

In this paper, we examined the relationship between perceived neighborhood disorder and perceived norms about HIV risk behaviors. We focused on perceived norms, which are individuals' perception of existing norms in their social network. (Lapinski, Rimal 2005) We hypothesized that participants living in neighborhoods with high levels of disorder were more likely to believe that risky behaviors were common and approved. We examined descriptive norms (perceived prevalence of the behavior) and injunctive norms (perceived approval of behavior) pertaining to injection drug use and exchanging sex for money or drugs (Cialdini, Reno & Kallgreen 1990). We made this distinction because neighborhood disorder may affect descriptive and injunctive norms differently. For example, a lack of social policing may be particularly relevant to injunctive norms, while social fragmentation may be more salient for descriptive norms. It is important to differentiate between the influence of descriptive and injunctive norms, as normative influence has differed across studies that have incorporated both types of norms to examine norm-risk behavior associations among people who inject drugs (Davey-Rothwell, Latkin 2008, Davey-Rothwell, Latkin & Tobin 2010). The sample consisted of people who injected drugs and were not transient.

Methods

Data for the present study was taken from the baseline survey of the STEP into Action (STEP) project, an HIV risk reduction intervention (Tobin et al. 2011). In this study, there were two types of participants- "index" participants and "network" participants. Index participants were active injection drug users who were recruited through targeted street outreach, advertisements, and word-of-mouth. Potential participants were screened by telephone or face-to face to determine eligibility. Eligibility criteria were: 1) aged 18 years and older; 2) a Baltimore city resident; 3) report of injection of cocaine or heroin in the past 3 months; and 4) willingness to refer social network members into the study. Each index participant referred up to 5 social network members, which included their drug or sex partners, into the study. Inclusion criteria for network participants included: 1) 18 years or older; 2) Baltimore city resident; and 3) one of the following risk behaviors: a) self-reported use of heroin or cocaine in the past 6 months; b) used drugs with index participant; c) shared injection paraphernalia with index participant; or d) sex partner of index participant.

After providing written informed consent, both index and network participants completed a face-to-face interview with a trained interviewer at a community-based research clinic. Audio-Computer-Assisted-Self-Interview (ACASI) software was used to gather information on drug and sex risk behaviors. All participants were paid \$35 for completion of each assessment. Baseline interviews were completed from March 2004–March 2006. All study protocols were reviewed by the JHSPH Institutional Review Board prior to implementation.

The present study is limited to index and network participants who reported injecting heroin or cocaine in the past 6 months.

Measures

The main outcomes were sex exchange norms and injection norms. Sex exchange, rather than condom use, was chosen as a behavioral dependent variable because it was relevant to both neighborhood disorder as well as HIV risk. First, sex exchange is a typical indicator of neighborhood social disorder. (Sampson, Morenoff & Gannon-Rowley 2002, Sampson, Raudenbush 2004) Second, sex exchange is an HIV risk behavior that manifests more publicly than other HIV risk behaviors, such as condomless sex. Condom use is a private, interpersonal behavior and is typically not subject to public observation or policing. When behavioral privacy is relevant, norms, particularly injunctive norms, are less likely to influence behavior (Lapinski & Rimal, 2005). Conversely, sex exchange is more likely to be initiated or negotiated in public spaces and is thus more visible to residents. The main independent variable was neighborhood disorder.

Norms—In this study, we focus on four types of norms- 1) descriptive sex exchange norms; 2) injunctive sex exchange norms; 3) descriptive injection norms; and 4) injunctive injection norms. The norms items were developed after conducting in-depth interviews with people who inject drugs and two rounds of piloting.

Sex exchange norms: *Descriptive sex exchange norm* was measured by the item “How many of your friends turn tricks to get money or drugs?” *Injunctive sex exchange norm* was measured with the item “How many of your friends would disapprove if you were to have sex or turn a trick to get money or drugs?” Responses for both of these items were recorded on a 5 point scale: *none*; *a few (About 25%)*; *about half (About 50%)*; *most (About 75%)*; and *all (100%)*. Data were coded as none vs. a few-all.

Injection risk behavior norms: *Descriptive injection norm* were measured by the item *How many of your drug buddies share needles with other people?* Response options included for each item was: *none*; *a few (About 25%)*; *about half (About 50%)*; *most (About 75%)*; and *all (100%)*. Data were coded as none vs. a few-all.

Injunctive injection norms were assessed by asking participants to rate their level of agreement with 8 statements on a five-point Likert scale (1=strongly disagree to 5=strongly agree). For example “My drug buddies would get upset if I refused to lend them a needle after I used it”. Responses were summed for a range of 8–40 (median=22). Cronbach’s alpha indicated an acceptable level of internal consistency ($\alpha = 0.76$). The median value was 22. Higher scores indicate approval of injection behavior. Due to the non-normal distribution of the scores, we analyzed the data as low norms (less than 22) vs high norms (22 or more).

Neighborhood disorder—Neighborhood disorder was measured by an adapted 10-item scale developed by Perkins and colleagues (Perkins, Meeks & Taylor 1992). Participants were asked to rate how much the following occurrences were a problem: 1) vandalism, 2) vacant housing, 3) people who don’t keep up their property or yards, 4) people who say insulting things or bother other people when they walk down the street, 5) litter or trash, 6)

groups of teens hanging out on the street, 7) people fighting or arguing, 8) burglary, 9) selling drugs, and 10) people getting robbed or beat up on the street. Response options include *not a problem*, *somewhat of a problem*, *a big problem*.

Items were added to a total score; higher scores indicated higher levels of neighborhood disorder. The range was 0–20 and the scale had high internal consistency ($\alpha=0.90$). Prior to analysis, the data were standardized (i.e. z-scores). This standardization, which provides a basis for interpretation, indicates that any change in the outcome is based on change in one standard deviation of the independent variable.

Covariates

Data on sample characteristics were also collected at baseline. Participants reported their age, racial identity (African American vs. other), and education level (high school diploma or less). Relationship status was coded as married/in a committed relationship or not in a relationship (i.e. divorced, widowed, or single). Current employment status was coded as employed (full or part-time) and not employed while income in the past 30 days was assessed as less than \$500 vs \$500 or more). Participants reported whether they had been homeless or in prison in the past 6 months. Also, participants were asked if they had sex in exchange for money, drugs, food, or shelter in the past 90 days. Participants self-reported their HIV status was assessed. Depressive symptoms were assessed through the Centers for Epidemiological Studies Depression Scale (CES-D).(Radloff 1977) The range of possible scores was 0–60. The data were dichotomized as high depressions symptomology or “Depressed” (16 or higher) vs. low symptomology or “Not Depressed” (less than 16).

Data Analysis

As noted previously, the study was restricted to people who injected drugs in the past 6 months and were not transient. Baseline data were collected from 1,024 individuals. Approximately 82% ($n=842$) of the sample (both index and network participants) reported injecting heroin, cocaine, or speedball in the previous 6 months. We excluded 123 individuals (14.6%) who were transient, measured as not moving more than once in the past 6 months. Therefore, the final sample consisted of 719 people.

Four logistic regression models were computed with a norms variable as the outcome: 1) Sex exchange descriptive norms, 2) sex exchange injunctive norms, 3) injection descriptive norms, and 4) injection injunctive norms. All multivariate models were adjusted for demographics including age, gender, race, and homelessness.

Since the sample included both index and network participants, there was a need to account for possible clustering of responses within social networks. To account for this correlation, General Estimating Equation (GEE) was employed (Zeger, Liang 1986). GEE adjusts for variance within and between clusters of network members. Data were analyzed using SPSS 20.0 and Stata 12.0.

Results

Sample characteristics are shown in Table 1. The sample was comprised predominantly of African Americans (82.5%). The mean age was 43.4 years. Economic deprivation was common as indicated by low levels of income (50.2%) and employment (17.3%).

While 28.4% reported being homeless in the past 6 months, participants reported living in their current neighborhood for an average of 10.1 years. Approximately 14% self-reported an HIV positive serostatus, and 60.6% experienced depressive symptoms as measured through the CESD.

Sex exchange norms

Unadjusted and adjusted associations between norms and neighborhood disorder are shown in Table 2. Approximately 67.2% of participants perceived that their friends exchanged sex (descriptive sex exchange norms) while 32.7% reported none of their friends exchanged sex. Also, 72.9% believed their friends would disapprove if they exchanged sex (injunctive sex exchange norms) while 27.1% felt that none of their friends would disapprove. In the unadjusted models, neighborhood disorder was independently associated with believing that sex exchange was prevalent (i.e. descriptive sex exchange norm). Neighborhood disorder remained significantly associated with descriptive exchange norms [AOR: 1.44, 95% CI: 1.21, 1.69] in the multivariate model. There was no significant association between neighborhood disorder and injunctive sex norms.

Injection norms

Seventy percent of participants believed that their drug partners shared needles while 29% thought none of their drug partners shared needles. The injection injunctive norms scores ranged from 8–40 (mean: 21.6, sd: 5.59). Neighborhood disorder was significantly associated with both descriptive and injunctive injection norms in the unadjusted models. These relationships between neighborhood disorder and descriptive injection norms [1.41, 95% CI: 1.18, 1.69] and injunctive descriptive norms [1.28, 95% CI: 1.10, 1.49] remained after controlling for individual factors.

Discussion

In this study, we sought to learn more about how one's environment influences social norms. Specifically, we explored whether neighborhood disorder, or perceptions of both social and physical attributes of the neighborhood, was associated with norms about HIV risk behaviors. Indeed, our study found an association between social norms and neighborhood disorder. Specifically, living in a neighborhood with higher levels of social disorder was associated with believing that others exchanged sex (descriptive norms) and would approve of risky injection behavior (injunctive norms).

Neighborhood disorder as assessed in the current study is not a measure of only surface factors such as litter, but reflects the economic conditions of abandoned buildings, violence, and crime. In addition, this construct includes social elements of one's neighborhood. In urban areas in the U.S. these factors are linked to poverty, the drug economy and associated

crime, inadequate social services and limited economic opportunities. Experiencing physical and social disorder may contribute to perceptions that unhealthy or risky behaviors are common in one's environment. It is important to note that as a sub-analysis, we explored the impact of neighborhood social disorder and physical disorder separately. The results were consistent with the analyses of the whole scale.

Extensive literature has shown that specific risk environments, such as shooting galleries and crack houses, are associated with HIV risk behaviors and transmission (Chitwood et al. 1990). Our findings can be contextualized within and supported by the body of literature that has documented associations between neighborhood disorder and HIV risks, including sexual risk behavior (Akers et al., 2011; Bowleg et al., 2014; Latkin et al., 2007), exchange sex (Bobashev et al., 2009), substance use (Latkin et al., 2007; Williams et al., 2007; Winstanley et al., 2008), sexually transmitted infections (Ford et al., 2011; Jennings et al., 2013), and incarceration (Whitaker et al., 2011). Research on the influence of the neighborhood environment on risk behavior is also critical to help understand how structural and geographic factors may promote and perpetuate health behaviors and illness. By understanding how neighborhood factors impact norms, an antecedent of behavior, neighborhood and network interventions designed to alter norms may prevent HIV infection.

As shown through our analysis of two HIV risk behaviors, the relationship between neighborhoods and norms may vary by behaviors. While sexual behaviors tend to be private, transactions between individuals exchanging sex for money or drugs may happen in public where others can observe the interactions. Exchange sex may be more prevalent in neighborhoods with disorder when economic opportunities are scarce. In areas where disorder is visible, it may be more normative to engage in risky behaviors. Also, since drug economy interactions may take place in public space, sex exchange may be viewed as byproduct. In a sub-analysis (data not shown), we found that the relationship between perceiving that friends exchanged sex and neighborhood disorder was stronger among women as compared to men (women- (AOR: 2.21 [1.43, 3.42]); men- (AOR: 1.29[1.08, 1.56])). This finding may be a result of higher levels of sex exchange by women.

Both descriptive and injunctive injection norms were associated with neighborhood disorder. Injection drug use is a behavior that may occur alone or in the presence of other people. By observing troubling interactions among neighborhoods and physical signs of disorders such as vacant housing and litter, residents may believe that injection drug use is common and thus allowed in this environment. The injection items focused on norms among drug partners.

Neighborhood disorder conveys disarray and disruption in the physical and social context of the neighborhood (Cohen et al. 2003, Chung, Docherty 2011). Such disarray can engender feelings of powerlessness (Chung, Docherty 2011, Latkin, Curry 2003, Ross, Mirowsky 2009, Geis, Ross 1998), and that there is no policing of socially deviant behavior (Oetting, Donnermeyer & Deffenbacher 1998, Cohen et al. 2003). Additionally, neighborhood disorder can inhibit or strain social ties (Latkin, Curry 2003, Geis, Ross 1998). Strained social ties in disordered neighborhoods can reduce or inhibit collective efficacy and social control of deviance (Latkin et al. 2013, Chung, Docherty 2011, Latkin, Curry 2003, Geis,

Ross 1998, Simons et al. 1996). Accordingly, disorder begets disorder. For example, drug use and the presence of drug markets in disordered neighborhoods can exacerbate disorder in a feedback loop (Latkin et al. 2007), and disorder itself can be normative in the neighborhood (Friedman et al. 2007). Neighborhood norms, and their shifts and recalibrations evolve via these “patterns of interaction over many years.” (Friedman et al. 2007)

The study has several limitations that should be noted. First, all data were self-reported. The sample for the current study was drawn from a larger behavioral intervention study. The data may have been influenced by social desirability bias about one’s own behaviors and norms. Thus, generalizability may be limited. In addition, the data were cross-sectional. We cannot establish directionality between disorder and the norms of interest. For example, it is plausible that individuals who endorse riskier norms tend to reside in, or gravitate to, higher disorder neighborhoods. However, we do note that there is a robust body of literature that demonstrates the influences of neighborhood disorder on both physiological health and mental health. Longitudinal studies are needed to assess how living in neighborhoods with disorder impacts norms and ultimately behaviors over time. Finally, the study was conducted in a single city of Baltimore, MD, which may limit generalizability to other locales. We again note the existing research that has documented links between disorder and HIV risks in several North American cities and regions, including Vancouver (Maas et al. 2007), Baltimore (Williams, Latkin 2007, Jennings, Woods & Curriero 2013), Philadelphia (Bowleg et al. 2014), both rural and urban areas in North Carolina (Akers, Muhammad & Corbie-Smith 2011, Bobashev et al. 2009), as well as in nationally representative U.S. samples such as Add Health (Ford, Browning 2011) or the National Survey on Drug Use and Health (Winstanley et al. 2008). However, findings may not be generalizable to other U.S. or international contexts.

We also note several strengths of the present analyses. First, we assessed distinct types of norms (descriptive and injunctive), rather than non-descript, general norms often measured in research. The norms items were also developed using formative research with the population of focus, people who inject drugs. Additionally, participants had lived in their current neighborhood for an average of 10 years, which likely engenders detailed perceptions of neighborhood conditions.

Our study focused on one’s perceptions of HIV risk norms and neighborhood disorder. Further research is needed to explore how geographical residence is associated with norms. Tobin and colleagues found that sex exchange and norms clustered in parts of Baltimore city (Tobin et al. 2012) Thus, living in a given area may influence your perceptions of appropriate behaviors. Our previous work demonstrated that objective measures of neighborhood disorder, such as crime rates are associated with perceptions of one’s neighborhoods (Curry, Latkin & Davey-Rothwell 2008).

The influence of neighborhood characteristics and norms has implications for the initiation or cessation of risk behavior (Ahern et al. 2009, Akers, Muhammad & Corbie-Smith 2011, Karasek, Ahern & Galea 2012). Public health interventions often seek to change norms at the social level, but neighborhood disorder can preclude or inhibit this process. Because of

its influence on the social context, it is necessary to account for neighborhood and community characteristics when designing and enacting interventions (Ahern et al. 2009, Akers, Muhammad & Corbie-Smith 2011). Structural interventions should address both norms and neighborhood factors. Given that norms are linked to neighborhoods, perhaps neighborhood improvement interventions that integrate both social and structural elements may alter norms. With the myriad health behaviors influenced by norms, neighborhood-based interventions that increase cohesion and social control could have implications for these health behaviors. Moreover, programs to increase neighborhood cohesion, social control, and empowerment could integrate health promotion programs to reduce disorder, promote healthy norms, and increase health behaviors. It is also possible that poverty leads to both social disorder and social norms and hence without addressing poverty it may be difficult to alter social disorder and social norms.

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Table 1

Sample description of people who inject drugs in the STEP study (n=719)

Characteristic	n (%)
African American	593 (82.5)
Age (years)	43.4 (sd=8.03)
Married/in a committed relationship	211 (29.4)
Homeless in the past 6 months	207 (28.4)
Length of time lived in the neighborhood (years)	10.1 [Range: 1 day-56 years]
In prison in the past 6 months	188 (26.2)
Income in the past 30 day \$500 or more	358 (50.2)
High school diploma or higher	332 (46.2)
Had Full or part-time employment	125 (17.3)
Depressed- CESD 16	436 (60.6)
Self-reported HIV+	103 (14.3)
Exchanged sex for money or drugs in the past 90 days	114 (19.3)

Table 2

Unadjusted and adjusted models of the associations between neighborhood disorder and norms.

	Unadjusted Odds Ratio [95% CI]	Adjusted Odds Ratio [95% CI]
Model A: Descriptive sex exchange norms	1.44 [1.21, 1.73]***	1.44 [1.21, 1.72]***
Model B: Injunctive sex exchange norms	0.88 [0.75, 1.04]	0.90 [0.77, 1.07]
Model C: Descriptive injection norms	1.46 [1.22, 1.74]***	1.41 [1.18, 1.69]***
Model D: Injunctive injection norms	1.30 [1.13, 1.51]***	1.28 [1.10, 1.49]**

Notes: Models adjusted for age, gender, race, and homelessness.

*
p<0.01