Published in final edited form as:

J Ethn Subst Abuse. 2013 ; 12(2): 124–139. doi:10.1080/15332640.2013.788897.

“EL Lado Oscuro”: “The Dark Side” of Social Capital in Mexican American Heroin Using Men

David V. Flores, Luis R. Torres, Isabel Torres-Vigil, Yi Ren, Ali Haider, and Patrick S. Bordnick

University of Houston Graduate College of Social Work, Huston, Texas

Abstract

This article describes social capital in a cohort of 227 Mexican American men who are long-term injection heroin users. Social capital scores for current and former users were similar, suggesting equal absolute values of capital, but associated with illicit activities in current users and with cessation efforts in former users. Stable drug-using relationships provided high negative capital, whereas conventional relationships provided positive capital. Thus, social capital functions dichotomously in positive and negative contextualized roles. This study provides an alternative understanding of the dynamic interactions between individuals, environment, and drug abuse and can inform prevention and treatment interventions for an important demographic group.

Keywords

illicit drugs; social capital; heroin; Mexican American; health; substance use

INTRODUCTION

Hispanics have a high prevalence of substance abuse and dependence (9.7%) compared with Whites (8.9%) and Blacks (8.2%), and their current illicit drug use increased from 6.2% in 2008 to 8.1% in 2010 (Substance Abuse and Mental Health Services Administration, 2011). Between 2000 and 2010, the Hispanic population increased 43% and is projected to be approximately one-third of the U.S. population by 2050 (Humes, Jones, & Ramirez, 2011; United States Census Bureau, 2007). These trends suggest greater substance-related consequences for this population. More significantly, U.S. heroin consumption has risen due to increased regulations on prescription opiates and inexpensive heroin from Mexico (Riordan & Rappleye, 2012; U.S. Department of Justice National Drug Intelligence Center, 2011). Among Hispanic opiate users, heroin is the preferred illicitly obtained opiate, and injection heroin use is most common in older Mexican American men (Valdez, Neaigus, & Kaplan, 2008). Noninjection heroin use is increasing in younger opiate users (Lankenau et al., 2012).

A disproportionate amount of injection drug use occurs in minority communities. Mexican Americans are among the largest number of injection heroin users (Estrada, 1998, 2005; Martinez, Bluthenthal, Flynn, Anderson, & Kral, 2011). Consequences of long-term injection drug use include overdose, incarceration, homelessness, depression, human immunodeficiency virus, Hepatitis C, and suicide ideation (Devlin & Henry, 2008; Musto,

1999; Torres, Kaplan, & Valdez, 2011; Valdez, Neaigus, & Cepeda, 2007). Nonetheless, Hispanics are seeking and receiving less treatment than Whites or Blacks (Office of Applied Studies, 2008). Of Hispanics who do seek and are admitted for treatment, heroin was the primary substance in 26% of admissions compared with 12% for Whites (Reif, Horgan, & Ritter, 2008). Opiates are second only to alcohol for Hispanic drug use treatment admissions (32% vs. 36%) (Alegria et al., 2006). An important but little explored factor in Hispanic drug use is the role of social capital and how it may influence initiation, use, cessation and relapse (Cloud & Granfield, 2008; Granfield & Cloud, 2001).

Social Capital

Social capital is defined as the sum of actual or potential resources individuals have at their disposal via social networks, including material capital, human capital, civic participation, and community cohesion (Bourdieu, 1986; Coleman, 1988; Putnam, 1995). It is the exchanging of resources that strengthen communities and allows individuals to benefit from group association. Social capital has been widely used to study societal conditions, distribution of resources, and related phenomena in individuals and groups (Portes, 2000). Strong family networks, quality education, financial stability, and stable communities have all been identified as social capital.

Social capital exists along a continuum from strong positive to strong negative social capital (Cloud & Granfield, 2008; Portes, 1998, 2000; Streeten, 2002).

That is, social capital also has a darker side, consisting of the inverse of traditionally perceived forms of capital, such as those that may exist in the context of illicit group lifestyles (Liu, 2004). Research has typically focused on socially accepted types of capital, or positive capital (Bourgois, 1995; Browning, 2009; Browning, Feinberg, & Dietz, 2004; Burchfield, 2009; Kirst, 2009), whereas negative paradigms of capital have garnered less attention in the literature (Pih, De La Rosa, Rugh, & Mao, 2008; Streeten, 2002). Negative social capital is made of the assets, resources, and networks established by nonconventional groups or systems, such as gangs and organized criminal networks. Finances and resources obtained from illicit activities, such as the selling of drugs or participation in criminal activities, and the social support provided by other group members are types of negative social capital (Liu, 2004).

Negative capital is not only assets derived from illicit activities, but also the absence of capital. Lack of capital or poor access to capital affects health and health-risk behaviors (Adler & Stewart, 2010; Boyce et al., 2010; Schultz, O'Brien, & Tadesse, 2008). In drug use, absence of capital or limited resources (negative capital) has been found to influence onset, initiation, duration, and cessation (Cheung & Cheung, 2003; Cloud & Granfield, 2008), whereas access to resources (positive capital) provides increased chances of successful treatment (Cloud & Granfield, 2008) and improves posttreatment outcomes (Cheung & Cheung, 2003). Thus, social capital is a critical element in dealing with substance use.

Social Capital and Mexican American Users

Heroin is typically used in groups, and Mexican American heroin users form closed enclaves and tight social networks (Valdez et al., 2008). These enclaves of heroin users may engage in illicit activities, but they can possess high levels of negative capital (Liu, 2004). Familial and community tolerance of illicit behaviors can be part of drug users' negative capital. Social networks, including family and friends, can function as both risk and protective factors for drug use. One study on networks of exchange found that culture was created through dense clusters of exchange among large multiple household networks of

Mexicans living along the U.S.–Mexico border (Vélez-Ibáñez, 1988). These same processes in marginalized Hispanic neighborhoods, such as *barrios*,¹ may help attenuate the effects of living in lower socioeconomic conditions but are unable to resolve deeply embedded disparities in these communities (Vélez-Ibáñez, 1988). Both conventional (i.e., law abiding) and criminal residents in these *barrios* achieve a culture of negotiated coexistence and collective efficacy via social exchange through extensive neighborhood networks (Browning, 2009; Rose & Clear, 1998; Sampson & Raudenbush, 1997). Thus, individuals involved in illicit activities are protected by their interconnectedness in these closed neighborhood enclaves (Browning, 2009; Rose & Clear, 1998; Sampson & Raudenbush, 1997).

Participants in the current study reside in similar ethnically distinct, closed but interconnected enclaves situated within *barrios*, which provide both positive and negative capital through collectivism (social connectedness) and through the Hispanic cultural value of *familismo* (familial connectedness). For Hispanics, family is highly valued and the focus is on a collective orientation as opposed to the individual (Smith, Sudore, & Perez-Stable, 2009). *Familismo* is a cultural concept that refers to a strong sense of identification, loyalty to family, protection of family honor, respect, and cooperation (Gonzalez-Castro et al., 2006; Perez & Cruess, 2011). Emphasis on the family collective is central among Hispanics and provides strong positive capital. Attributes central to *familismo* can also provide negative unintended outcomes, such as enabling and increased tolerance of high-risk behaviors by family members (Cloud & Granfield, 2008; Valdez et al., 2008). Collectivism and *familismo* may result in residents being less likely to report illicit activities, or do something about it, because of the culture of negotiated coexistence and collective efficacy created through social exchange and interactive networks. Family members may be less likely to expel an active drug-using family member from the home, which can be protective for health. However, these same family members may not take a strong stance on treatment, which can be a risk for continued use.

Gaps in Knowledge

Significant gaps remain in the literature about the relationship between social capital and substance use (Browning, 2009; Kirst, 2009). This gap is even more pronounced regarding Hispanic drug use (Reynosa-Vallejo, 2011). Recently, numerous studies have reported poorer health outcomes for Hispanics and indicated an increased need for health services (Alegria et al., 2006; Amaro, Arevalo, Gonzalez, Szapocznik, & Iguchi, 2006; Canul, 2010; Organista, 2007; Smedley, Stith, & Nelson, 2003). However, research on substance abuse treatment outcomes for Hispanics continues to be insufficient (Alegria et al., 2006; Amaro et al., 2006; Smedley et al., 2003). A few studies have found an association between social capital and substance abuse and the ability to cease use in minority populations (Cheung & Cheung, 2003; Cloud & Granfield, 2008). Social capital has been examined in gangs and substance users before, but to our knowledge this is first study to investigate social capital in a cohort of Mexican American injection drug users. Identifying the relationship between social capital and substance use in this important population can inform the development of culturally and contextually grounded interventions.

Current Study

Identifying the phase of drug use (e.g., sustained sobriety, methadone maintenance, or active use) is important in determining how to intervene with each specific group. The current study examined the association between social capital and user status in a sample of long-term, Mexican American injection heroin users and to examine the properties (e.g.,

¹ *Barrios* are inner city Hispanic neighborhoods typically of lower socioeconomic status, with high levels of poverty and social strife.

reliabilities) of a modified social capital scale used for the first time with this population. The study aimed to test the hypothesis that former users not in treatment would exhibit higher levels of social capital than current users or former users in methadone treatment, due to their ability to cease heroin use and reestablish personal and working relationships. Those in methadone treatment programs were hypothesized to have higher levels of social capital than current users due to their desire to stop heroin use and willingness to enter a methadone treatment program to achieve cessation. Current users were hypothesized to have the lowest levels of capital due to their current drug use and the individual, familial, and neighborhood consequences of long-term drug use.

METHODS

Design

The study used a cross-sectional, mixed-methods, field-intensive outreach methodology augmented with respondent-driven sampling. Recruitment was focused in two Houston neighborhoods that are predominantly Mexican American areas with high rates of crime, poverty, and psychosocial challenges. Trained Outreach Specialists familiar with these communities identified community gatekeepers and gained their trust through continued presence in the community and ongoing dialogue about the study. These gatekeepers then helped identify individuals meeting the inclusion criteria: Mexican American men aged 45 years or older with a history of injection drug use for at least 3 years who were either current injectors (current group), former injectors not in treatment (former group), or former injectors currently enrolled in methadone maintenance treatment programs (MMTP group). Participants were interviewed using a semi-structured instrument that included a modified social capital scale. Although the main questionnaire collected data on various drug-related issues, the focus of this article is the social capital data. Participants were compensated \$40 per interview and an additional \$10 finders fee for referrals of up to two other individuals who met inclusion criteria. Each referral chain was stopped after three links (i.e., the original individual, the two referred by him, and the four referred by those two) to ensure representation from a broad range of networks rather than focusing on all individuals from the same network.

Data Collection

Measures

CHIVA² questionnaire: The CHIVA Questionnaire, a comprehensive 72-page survey instrument, was created to collect demographic variables and information about living circumstances, family trajectory and family conflicts, and history of illegal/criminal activities and incarceration. The survey instrument focused extensively on substance abuse history, including drug career trajectory, history of injection drug use, drug markets (e.g., access, availability, methods of purchase), drug treatment history, and comprehensive medical and sexual histories. The questionnaire was computerized for laptop administration. Data were collected in the field, typically in respondents' homes. A subsample of participants (20 from each group; 60 total) was also selected for the qualitative portion of the study and interviewed with an ethnographic interview guide at a later date.

Social capital scale: The original scale (Onyx & Bullen, 2000) consisted of 68 Likert-type items, with responses ranging from 1 to 4. The actual wording of each response varies by item, but follows the convention of moving from less capital (e.g., 1 = no, not much) to more capital (e.g., 4 = yes, very much) (original scale is available in Onyx & Bullen, 2000;

²CHIVA is slang for heroin in Mexican-American Spanish.

modified items in). Eight social capital factors are measured: Participation in the Local Community, Social Agency or Proactivity in a Social Context (personal and collective efficacy and capacity to plan and initiate an action, Feelings of Trust and Safety, Neighborhood Connections, Family and Friends Connections, Tolerance of Diversity, Value of Life, and Work Connections.

To our knowledge, this social capital scale has never been used to assess social capital among Hispanics. The current research team sought to improve the content validity of the scale by making modifications that would make the scale more culturally relevant to this population. Two types of modifications were needed because the original scale was developed with a sample of individuals ages 18–65 years in rural and urban New South Wales, Australia (Chronbach's $\alpha = 0.84$). First, some questions were reworded into American English (e.g., "people's rubbish" was replaced with "people's garbage") (see Appendix A). Second, we excluded the work connections subscale items from the analysis (used to assess paid employment only) because two-thirds of our sample was either unemployed or disabled. Scoring of the social capital questionnaire is achieved through summation of the scale responses. Lower scores indicate less capital and higher scores indicating higher capital.

Data Analysis Plan

For this article, the main dependent variable was social capital, and user status (former, current, or in MMPT) was the independent variable. Primary dependent and independent variables were examined for missing data, outliers, and normality. Analyses were then conducted to examine the relationship between social capital scores and user status. A between-groups analysis of variance (ANOVA) was conducted to assess mean differences across all three groups. Post-hoc multiple comparison were conducted when an overall main effect was found to determine significant differences between user statuses. All statistical analyses were conducted with IBM PASW version 19.0 software.

RESULTS

A total of 227 participants completed the surveys, with 77 participants in the current group, 75 in the former group, and 75 in the MMTP group. Almost half of the participants were separated or divorced ($n = 112$, 49.3%), and the remaining were single ($n = 56$, 24.7%), married ($n = 50$, 22.0%), or widowers ($n = 9$, 3.9%). One-third of participants report being employed ($n = 76$, 33.5%), with the remaining unemployed ($n = 74$, 32.6%) or disabled ($n = 54$, 23.8%). On average, participants first used heroin at age 19 years ($x^2 = 18.93$, $SD = 5.98$) and were injecting weekly by age 21 years ($x^2 = 20.65$, $SD = 6.39$). The average duration of injection heroin use was 31 years ($x^2 = 31.15$, $SD = 11.54$) (see for a detailed summary of participant characteristics).

The overall reliability score for the modified social capital scale used in this study ($\alpha = .87$) was consistent with the original scale ($\alpha = .84$) (Onyx & Bullen, 2000). Although modifications were made to questions in the scale and work connections items were excluded, reliability remained robust. Individual subscale Chronbach's alphas varied from a low of 0.49 for Proactivity in a Social Context to a high of 0.84 for Participation in the Local Community (Neighborhood Connections = .71; Tolerance of Diversity = .78; Value of Life = .54; Family Connections = .51; and Trust and Safety = .51).

The modified social capital questionnaire full scale consisted of 31 items and a range of 31 to 124. The mean social capital score for the full sample ($N = 227$) was 66.5 ($SD = 12.00$). Subscale mean scores for the full sample ranged from 4.19 ($SD = 1.56$) for value of life to 17.19 ($SD = 1.56$) for Social Agency/Proactivity. In the current group, subscale scores

ranged from 4.27 (SD = 1.47) for the Value of Life subscale to 18.10 (2.86) for Social Agency/Proactivity. Subscale scores for the former group ranged from 4.76 (SD = 1.53) for the Value of Life subscale to 17.88 (SD = 2.42) for Social Agency/Proactivity. Lastly, subscale scores for the MMTP group ranged from 3.53 (SD = 1.44) for Value of Life to 15.55 (SD = 2.26) for Social Agency/Proactivity.

There was an overall main effect for group status on social capital, $F(2, 224) = 15.33, p < .001, \eta^2 = .12$. The current group had the highest level of social capital ($\bar{x} = 70.12, SD = 12.36$) followed by the former group ($\bar{x} = 68.64, SD = 10.26$) and the MMTP group ($\bar{x} = 60.65, SD = 11.14$). Post-hoc comparisons (Scheffe) found significant differences between the current and MMTP groups and between the former and MMTP groups ($p < .001$), with large ($d = .82$ between current and MMTP) and moderate ($d = .75$ between former and MMTP) effect sizes (Cohen, 1988). Differences in social capital scores between the current and former groups were non-significant (Table 2). Post-hoc comparisons for individual subscales yielded significant differences for Social Agency/Proactivity (current-MMTP and former-MMTP), Feelings of Trust/Safety (current-MMTP and former-MMTP), Neighborhood Connection (current-MMTP), Tolerance of Diversity (current-MMTP), and Value of Life (current-MMTP and former-MMTP) (Table 2).

DISCUSSION

Data from this study indicate that marginalized populations such as injection drug using populations have significant amounts of social capital. Conventional literature may suggest that groups involved in illicit behaviors are devoid of capital, but as shown in the current study drug-using groups can have high levels of capital. These findings add to the limited literature on social capital in nonconventional groups such as gangs, organized criminal organizations, and drug-using networks. Social capital can exist in either positive or negative forms, depending on its context.

When social capital differences were explored by user status, current users had the highest levels of social capital. This finding was unexpected and contrasts the initial hypothesis of this study, which was that current users would have the least capital. On further review of the literature, the concept of negative capital was identified and applied to understand these findings. The contextualization of social capital is behavior-neutral and specific to participants' perceptions of their behaviors. The scale used in this study assessed levels of capital in various categories but not the direction of that capital (i.e., the positive or negative ends to which the capital is applied). Thus, it is possible that our failure to detect significant differences in levels of social capital between former and current users—which would be an expected finding—resulted from the scale's inability to differentiate in a more nuanced manner between negative and positive social capital.

Research has demonstrated that individuals who cease substance abuse live healthier and more productive lives (Cloud & Granfield, 2008; Laudet & White, 2008; Lyons & Lurigio, 2010; Sterling, Slusher, & Weinstein, 2008). The current study hypothesized that former users would have higher levels of social capital than current users. However, findings indicate that current users had levels of social capital similar to those of former users, and participants in MMTP had significantly lower levels of social capital. Thus, individuals who maintain stable drug-using relationships and connections in the drug-using community that contribute to sustained drug use have high, although negative, levels of social capital when compared with former users in MMTP, who may be in a transition phase. Methadone clients might be literally between groups (the drug-using and the drug-free) but do not belong to either, resulting in less social capital (Zaller, Bazazi, Velazquez, & Rich, 2009). Many factors are listed in the literature as possible reasons for retaining high negative capital in

drug users: continued drug use, maintaining drug use connections, criminal activities aimed at supporting drug use, and enabling behaviors family members (Liu, 2004; Pih et al., 2008; Reynosa-Vallejo, 2011; Rice & Rugh, 2007; Rose & Clear, 1998; Sampson & Raudenbush, 1997; Wen, Browning, & Cagney, 2003). Conversely, former users have reestablished positive social capital relationships consisting of positive familial relations, employment, sobriety, and new sober networks (Brisson, Roll, & East, 2009; Cloud & Granfield, 2008; Laudet & White, 2008; Lyons & Lurigio, 2010; Sterling et al., 2008). These factors may account for the nonsignificant relationship in social capital levels between current and former users; in essence, their social capital may be equal in absolute value, but one is negatively and one is positively associated. In other words, former users may be using their capital to maintain their cessation efforts, whereas current users may be using their capital to maintain continued drug use.

As noted earlier, the modified social capital scale produced a robust Chronbach's alpha ($\alpha = .87$), which was slightly higher than the original measure ($\alpha = .84$). Social Agency/Proactivity and Neighborhood Connections scores were high and similar to findings in the extant literature given the context of these closed, tight-knit enclaves (Cheung & Cheung, 2003; Cloud & Granfield, 2008; Granfield & Cloud, 2001). On the other hand, scores on the Feelings of Trust and Safety, Participation in the Community, and Tolerance of Diversity subscales were low and may reflect attitudes described in the drug use literature regarding authority, community, trust, and suspiciousness of others (Browning, 2009; Cloud & Granfield, 2008; Liu, 2004; Pih et al., 2008; Streeten, 2002). These subscale scores may also reflect, to a lesser degree, attitudes toward neighborhood conditions (Cloud & Granfield, 2008; Laudet & White, 2008; Lyons & Lurigio, 2010; Sterling et al., 2008). The Family and Friend Connections and Value of Life subscales were the lowest, perhaps reflecting an awareness of the health consequences of injection drug use behaviors and the effect of long-term drug use on interpersonal relations.

The study used a novel approach to investigate similarities and distinctions of contextualized capital in this heterogeneous population. Moreover, examining social capital in hidden and understudied drug-using Hispanic populations provides an alternative perspective for understanding determinants of drug abuse initiation and cessation. Understanding the dynamic interaction between social capital and substance abuse in Mexican American communities can help inform culturally specific treatment and prevention strategies.

One limitation of the study was that the instrument used to measure social capital was designed for non-drug using Australian populations. Many questions used to measure distinct areas of social capital were not applicable or nonexistent in the lives of the participants involved in this study. In particular, many statements measuring community engagement are one-dimensional, do not consider multiple ways of community involvement, and are extremely limited in variety. For example, the item "How often do you help pick up trash around your neighborhood?" does not take into account the neighborhood characteristics associated with socioeconomically challenged communities where participants from this study might live or if it is even safe to walk around freely in the community, let alone pick up trash.

In addition, the instrument lacks a variety of contextualized questions to assess social capital, particularly negative forms of social capital, in a more nuanced manner. Scale items assume that current users, former users, former users in MMTP, and all behave in their environment in the same way. However, as evidenced through the literature (Cheung & Cheung, 2003; Onyx & Bullen, 2000; Pih et al., 2008) and through the results of this study, social capital cannot accurately be measured without concurrent analysis of the specific environment and subgroup behaviors (i.e., by phase of treatment). However, using this

instrument, we were able to detect important group differences across the three groups. Further refinements to the scale are needed to obtain an instrument that can more accurately measure social capital in the specific context of drug-using populations. This would provide increased accuracy in assessing social capital in multiple populations. The identification of the determinants of drug use can better inform methods for treatment and prevention. A final limitation is that the study did not use toxicology reports to confirm group affiliation or abstinence. The former group self-reported being heroin-free, but participants in the MMTP group reported occasional injection drug use relapse. In addition, alcohol and tobacco use were ubiquitous, and many participants in the MMTP group also acknowledged use of illicit drugs other than heroin.

These findings are expected to provide an alternative understanding of the dynamic interactions between individuals, environmental factors, and drug abuse and addiction. Identifying the role of social capital as a risk (negative) or protective (positive) factor related to substance abuse can inform interventions that are tailored to the specific phase of treatment, leading to better treatment outcomes.

CONCLUSION

Identifying the phase of drug use (e.g., abstinence, methadone maintenance, and active use) is important in determining how to intervene with each specific group (Cheung & Cheung, 2003; Cloud & Granfield, 2008; Laudet & White, 2008; Lyons & Lurigio, 2010; Schultz et al., 2008; Sterling et al., 2008; Valdez et al., 2008). Increasingly, the focus is on tailoring adaptations to enhance treatment outcomes, and phase of drug use is yet another realm for adaptation. Increasing positive social capital or identifying negative capital and helping drug users learn to turn it into positive capital (e.g., channeling family and neighborhood supports toward cessation efforts rather than toward continued use) can be a useful approach to treatment.

In Hispanic communities, family and neighborhood supports are important and can help improve the delivery of culturally grounded drug interventions, which could reduce the long-term health consequences of substance abuse and increase quality of life for members of this growing population. Furthermore, these findings support the need for policy changes in favor of developing environmental capacity to maintain positive social capital. Maintaining the infrastructure of community centers, parks, after school programs, streets, and sidewalks in economically challenged neighborhoods is vital to positive capital. Holistic interventions taking into account the ecological factors specific to a population can increase access to quality treatment. This study lends support for including social capital as a construct in new and innovative interventions for communities dealing with substance abuse.

Social capital highlights the importance of community building and relationships, as well as focusing on systems (Cloud & Granfield, 2008). Therapeutic approaches based on context and environmental circumstances specific to individuals and culture may result in positive outcomes. To effectively address substance abuse, programs must take neighborhood, familial, and socioeconomic factors into account. An individual's environment influences social capital type and perceptions of acceptable behaviors. Future studies are needed to explore the use of social capital as a determinant for substance use, prevention, and treatment. Additional research on marginalized populations such as immigrants, gang members, and LGBT communities is needed because both positive and negative social capital can take different forms in these populations. Understanding the relationship between social capital and substance abuse in these populations may elucidate both psychosocial and socioeconomic factors that contribute to substance use initiation and cessation.

Acknowledgments

This research was supported by the National Institute on Drug Abuse-funded University of Houston Drug Abuse Research Development Program (5R24DA019798-05; P. Bordnick, PI/L. Torres, Co-Investigator and Project Director, *Health Consequences of Long-Term Heroin Use in Aging Mexican-American Men* Project).

REFERENCES

- Adler NE, Stewart J. Health disparities across the lifespan: meaning, methods, and mechanisms. *Annals of the New York Academy of Sciences*. 2010; 1186:5–23. [PubMed: 20201865]
- Alegria M, Page JB, Hansen H, Cauce AM, Robles R, Blanco C, et al. Improving drug treatment services for hispanics: Research gaps and scientific opportunities. *Drug Alcohol Depend*. 2006; 84(Supplement 1):S76–S84. [PubMed: 16781087]
- Amaro H, Arevalo S, Gonzalez G, Szapocznik J, Iguchi MY. Needs and scientific opportunities for research on substance abuse treatment among Hispanic adults. *Drug Alcohol Depend*. 2006; 84(Suppl. 1):S64–S75. [PubMed: 16766137]
- Bourdieu, P. The forms of capital. In: Richardson, JG., editor. *Handbook of theory and research for the sociology of education*. New York: Greenwood Press; 1986. p. 241-258.
- Bourgois, PI. *In search of respect: selling crack in El Barrio*. Cambridge, New York: Cambridge University Press; 1995.
- Boyce WT, Den Besten PK, Stamperdahl J, Zhan L, Jiang Y, Adler NE, Featherstone JD. Social inequalities in childhood dental caries: The convergent roles of stress, bacteria and disadvantage. *Social Science & Medicine*. 2010; 71:1644–1652. [PubMed: 20870333]
- Brisson D, Roll S, East J. Race and ethnicity as moderators of neighborhood bonding social capital: Effects on employment outcomes for families living in low-income neighborhoods. *Families in Society*. 2009; 90:368–374.
- Browning CR. Illuminating the downside of social capital: Negotiated coexistence, property crime, and disorder in urban neighborhoods. *American Behavioral Scientist*. 2009; 52:1556–1578.
- Browning CR, Feinberg SL, Dietz RD. The paradox of social organization: networks, collective efficacy, and violent crime in urban neighborhoods. *Social Forces*. 2004; 83:503–534.
- Burchfield KB. Attachment as a source of informal social control in urban neighborhoods. *Journal of Criminal Justice*. 2009; 37:45–54.
- Canul GD. Review of “Solving Latino psychosocial and health problems: Theory, practice, and populations”. *Cultural Diversity and Ethnic Minority Psychology*. 2010; 16:296–297.
- Cheung YW, Cheung NWT. Social capital and risk level of posttreatment drug use: Implications for harm reduction among male treated addicts in Hong Kong. *Addiction Research & Theory*. 2003; 11:145–162.
- Cloud W, Granfield R. Conceptualizing recovery capital: Expansion of a theoretical construct. *Substance Use & Misuse*. 2008; 43:1971–1986. [PubMed: 19016174]
- Cohen, J. *Statistical power analysis for the behavioral sciences*. 2nd edition.. Hillsdale, NJ: L. Erlbaum Associates; 1988.
- Coleman JS. Social capital in the creation of human capital. *The American Journal of Sociology*. 1988; 94:S95–S120.
- Devlin RJ, Henry JA. Clinical review: Major consequences of illicit drug consumption. *Critical Care*. 2008; 12:202–202. [PubMed: 18279535]
- Estrada AL. Drug use and HIV risks among African-American, Mexican-American, and Puerto Rican drug injectors. *Journal of Psychoactive Drugs*. 1998; 30:247–253. [PubMed: 9798790]
- Estrada AL. Health disparities among African-American and Hispanic drug injectors—HIV, AIDS, hepatitis B virus and hepatitis C virus: A review. *AIDS*. 2005; 19:S47–S52. [PubMed: 16251828]
- Gonzalez-Castro F, Barrera JM, Pantin H, Martinez C, Felix-Ortiz M, Rios R, et al. Substance abuse prevention intervention research with Hispanic populations. *Drug Alcohol Depend*. 2006; 84(Suppl. 1):S29–S42. [PubMed: 16787713]

- Granfield R, Cloud W. Social context and “natural recovery”: The role of social capital in the resolution of drug-associated problems. *Substance Use & Misuse*. 2001; 36:1543–1570. [PubMed: 11693955]
- Humes, KR.; Jones, NA.; Ramirez, RR. Census 2010 brief: Overview of race and Hispanic origin. LOCATION: US Government Printing Office; 2011.
- Kirst MJ. Social capital and beyond: A qualitative analysis of social contextual and structural influences on drug-use related health behaviors. *Journal of Drug Issues*. 2009; 9:653–676.
- Lankenau S, Teti M, Silva K, Bloom J, Harocopos A, Treese M. Patterns of prescription drug misuse among young injection drug users. *Journal of Urban Health*. 2012; 89:1004–1016. [PubMed: 22684424]
- Laudet AB, White WL. Recovery capital as prospective predictor of sustained recovery, life satisfaction and stress among former poly-substance users. *Substance Use and Misuse*. 2008; 43:27–54. [PubMed: 18189204]
- Liu J. Subcultural values, crime, and negative social capital for Chinese offenders. *International Criminal Justice Review*. 2004; 14:49–68.
- Lyons T, Lurigio AJ. The role of recovery capital in the community reentry of prisoners with substance use disorders. *Journal of Offender Rehabilitation*. 2010; 49:445–455.
- Martinez AN, Bluthenthal RN, Flynn NM, Anderson RL, Kral AH. HIV risks and seroprevalence among Mexican American injection drug users in California. *AIDS Behav*. 2011; 15:95–102. [PubMed: 20020194]
- Musto, DF. *The American disease: Origins of narcotic control*. 3rd edition.. New York: Oxford University Press; 1999.
- Office of Applied Studies. Substate estimates from the 2004–2006 National Surveys on Drug Use and Health. Rockville, MD: Substance Abuse and Mental Health Services Administration; 2008.
- Onyx J, Bullen P. Measuring social capital in five communities. *The Journal of Applied Behavioral Science*. 2000; 36:23–42.
- Organista, KC. *Solving Latino psychosocial and health problems: Theory, practice, and populations*. Hoboken, NJ: John Wiley & Sons; 2007.
- Perez GK, Cruess D. The impact of familism on physical and mental health among Hispanics in the United States. *Health Psychology Review*. 2011:1–33.
- Pih KK-H, De La Rosa M, Rugh D, Mao K. Different strokes for different gangs? An analysis of capital among Latino and Asian gang members. *Sociological Perspectives*. 2008; 51:473–494. [PubMed: 19578563]
- Portes A. Social capital: Its origins and applications in modern sociology. *Annual Review of Sociology*. 1998; 24:1–24.
- Portes A. The two meanings of social capital. *Sociological Forum*. 2000; 15:1–12.
- Putnam RD. Bowling alone: America’s declining social capital. *Journal of Democracy*. 1995; 6:65–78.
- Reif S, Horgan CM, Ritter GA. Hispanics in specialty treatment for substance use disorders. *Journal of Drug Issues*. 2008; 38:311–333.
- Reynosa-Vallejo H. Social capital influence in illicit drug use among racial/ethnic groups on the United States. *Journal of Ethnicity in Substance Abuse*. 2011; 10:91–111. [PubMed: 21678144]
- Rice C, Rugh D. Understanding Latino family attitudes in relation to Latino gang members’ substance abuse: A content analysis. *Journal of Human Behavior in the Social Environment*. 2007; 16:1–18.
- Riordan LS, Rappleye H. Crackdown on painkiller abuse fuels new wave of heroin addiction. 2012 Retrieved from http://openchannel.msnbc.msn.com/_news/2012/06/07/12091096-crackdown-on-painkiller-abuse-fuels-new-wave-of-heroin-addiction?lite.
- Rose DR, Clear TR. Incarceration, social capital, and crime: Implications for social disorganization theory. *Criminology*. 1998; 36:441–479.
- Sampson RJ, Raudenbush SW. Neighborhoods and violent crime: A multilevel study of collective efficacy. *Science*. 1997; 277:918–924. [PubMed: 9252316]
- Schultz J, O’Brien AM, Tadesse B. Social capital and self-rated health: Results from the US 2006 social capital survey of one community. *Social Science & Medicine*. 2008; 67:606–617. [PubMed: 18555571]

- Smedley BD, Stith AY, Nelson AR. Unequal treatment: Confronting racial and ethnic disparities in health care. 2003
- Smith AK, Sudore RL, Perez-Stable EJ. Palliative care for latino patients and their families: Whenever we prayed, she wept. *The Journal of the American Medical Association*. 2009; 301:1047–1057.
- Sterling R, Slusher C, Weinstein S. Measuring recovery capital and determining its relationship to outcome in an alcohol dependent sample. *The American Journal of Drug and Alcohol Abuse*. 2008; 34:603–610. [PubMed: 18821453]
- Streeten P. Reflections on social and antisocial capital. *Journal of Human Development and Capabilities*. 2002; 3:7–22.
- Substance Abuse and Mental Health Services Administration. Results from the 2010 National Survey on Drug Use and Health: Summary of National Findings NSDUH Series H-41. Rockville, MD: 2011.
- Torres LR, Kaplan C, Valdez A. Health consequences of long-term injection heroin use among aging Mexican American men. *Journal of Aging and Health*. 2011; 23:912–932. [PubMed: 21451118]
- U.S. Department of Justice National Drug Intelligence Center. 2011 national drug threat assessment. 2011. (Product No. 2011-Q0317-001). Retrieved from <http://www.justice.gov/ndic>
- United States Census Bureau. American community survey statistical portrait of Hispanics in the United States. Washington, DC: Pew Hispanic Center; 2007.
- Valdez A, Neaigus A, Cepeda A. Potential risk factors for injecting among Mexican American non-injecting heroin users. *Journal of Ethnicity in Substance Abuse*. 2007; 6:49–73. [PubMed: 18192204]
- Valdez A, Neaigus A, Kaplan CD. The influence of family and peer risk networks on drug use practices and other risks among Mexican American noninjecting heroin users. *Journal of Contemporary Ethnography*. 2008; 37:79–107. [PubMed: 19337564]
- Vélez-Ibáñez CG. Networks of exchange among Mexicans in the U.S. And Mexico: Local level mediating responses to national and international transformations. *Urban Anthropology and Studies of Cultural Systems and World Economic Development*. 1988; 17:27–51.
- Wen M, Browning CR, Cagney KA. Poverty, affluence, and income inequality: Neighborhood economic structure and its implications for health. *Social Science & Medicine*. 2003; 57:843–860. [PubMed: 12850110]
- Zaller ND, Bazazi AR, Velazquez L, Rich JD. Attitudes toward methadone among out-of-treatment minority injection drug users: Implications for health disparities. *International Journal of Environmental Research and Public Health*. 2009; 6:787–797. [PubMed: 19440415]

TABLE 1

General Demographics (N = 227)

	No.	%	$\bar{x}$	SD
Age, y (range, 45–80)			55.14	8.27
Nativity				
United States	223	98.2		
Mexico	4	1.8		
Language spoken				
English	118	51.9		
Spanish	6	2.6		
Both	103	45.4		
Education				
No high school	187	82.4		
GED	117	51.5		
Some college or graduate school	21	9.3		
Years of formal education		9	9.23	2.37
Marital status				
Single	56	24.7		
Married	50	22.0		
Separated or divorced	112	49.3		
Widower	9	3.9		
Employment				
Employed	76	33.5		
Unemployed	74	32.6		
Disabled	54	23.8		
Retired	20	8.8		
Currently homeless	32	14.1	7.74	13.53
Age of first heroin use, y			18.93	5.98
Age started weekly use, y			20.65	6.39
Average duration of heroin use			31.15	11.54

GED = general educational development; MMTP = methadone maintenance treatment programs; SD = standard deviation.

TABLE 2

Social Capital Scores

	Total Sample (N = 227) x̄ (SD)	Current Users^a (n = 77) x̄ (SD)	Former Users^b (n = 75) x̄ (SD)	MMTP^c (n = 75) x̄ (SD)
Total score	66.50 (3.00)	70.12 (12.00) *** _c	68.64 (10.26) *** _c	60.65 (11.14) *** _{A,B}
Subscale scores				
Participation in community	8.32 (3.00)	8.96 [†] (3.86)	8.23 (2.69)	7.77 (2.05)
Social agency proactivity	17.19 (2.80)	18.10 (2.86) *** _c	17.88 (2.42) *** _c	15.55 (2.26) *** _{A,B}
Feelings of trust/safety	9.93 (2.60)	10.74 (3.05) *** _c	10.04 (2.15) *** _c	8.97 (2.21) *** _{A,B}
Neighborhood connections	12.57 (3.29)	13.16 (3.41) * _c	12.72 (3.19)	11.81 (3.15) * _A
Family/friends connections	5.86 (1.22)	6.09 (1.66)	5.87 (1.07)	5.61 (0.66)
Tolerance of diversity	6.23 (2.30)	6.69 (2.48) *** _c	6.44 (2.28)	5.56 (1.98) *** _A
Value of life	4.19 (1.56)	4.27 (1.47) *** _c	4.76 (1.53) *** _c	3.53 (1.44) *** _{A, *B}

MMPT = methadone maintenance treatment programs; SD = standard deviation.

*
 $p < .05$;

**
 $p < .01$;

 $p < .001$.

APPENDIX A

Modified Social Capital Scale Questions

Item number	Version	Modified question and original question
3	CHIVA	Have you ever picked up other people's garbage in a public place?
	Onyx & Bullen	Have you ever picked up other people's rubbish in a public place?
13	CHIVA	How often would you say you have attended a local community event in the past 6?
	Onyx & Bullen	Have you attended a local community event in the past 6 months (e.g., church fete, school concert, craft exhibition)?
24	CHIVA	In the past 3 years, have you ever taken part in a local community project?
	Onyx & Bullen	In the past 3 years, have you ever taken part in a local community project or working bee?
28	CHIVA	I you have a dispute with your neighbors, are you willing to negotiate a solution?
	Onyx & Bullen	I you have a dispute with your neighbors (e.g., over fences or dogs), are you willing to seek mediation?
29	CHIVA	Do you think that having people from different cultures in your community makes life in your area better?
	Onyx & Bullen	Do you think that multiculturalism makes life in your area better?
32	CHIVA	Do you feel like part of the local community where you work?
	Onyx & Bullen	Do you feel part of the local geographic community where you work?
33	CHIVA	Are the people you work with also your friends?
	Onyx & Bullen	Are your workmates also your friends?
35	CHIVA	At work do your take the responsibility to do what needs to be done even if no one asks you to?
	Onyx & Bullen	At work, do you take the initiative to do what needs to be done even if no one asks you to?
36	CHIVA	In the past week at work have you helped someone at work even though it was not in your job description?
	Onyx & Bullen	In the past week at work have you helped a workmate even though it was not in your job description?