



Drug Users' Involvement in the Drug Economy: Implications for Harm Reduction and HIV Prevention Programs

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ABSTRACT *The purpose of this article is to explore individual and social characteristics associated with drug users' involvement in the drug economy among a sample of low-income heroin and cocaine users (n = 1,288) in Baltimore, Maryland. The study sample had participated in a network-oriented intervention study of human immunodeficiency virus (HIV) risk behaviors among drug users. Of the sample, 44% (n = 569) held at least one role in the drug economy, performing an average of 1.17 roles. A significantly higher percentage of those involved in the drug economy reported being daily drug users (60.6% vs. 40.2%), injecting heroin daily (36.0% vs. 21.8%), injecting speed daily (23.6% vs. 14.7%), and snorting heroin daily (18.3% vs. 13.4%). In terms of social networks, those involved in the drug economy reported a significantly larger social network (9.98 vs. 8.97), greater percentage of active drug users in their social network (47% vs. 44%), greater percentage of daily drug users in their social network (40% vs. 33%), and larger drug support networks (6.7 vs. 5.6). The study indicates the far-reaching influence of drug use on many aspects of their lives, including their involvement with the drug economy. Reducing drug users' frequency of use could have the consequence of decreasing this involvement. Being a part of the drug economy exposes drug users to many risks, but also places them in a position to influence others. Examining drug users' social networks could provide insight into the composition of their immediate social environment and could inform HIV prevention programs.*

KEYWORDS *Drug Economy, Drug Users, HIV Prevention, Social Networks.*

INTRODUCTION

Drug use has far-reaching medical, economic, and social effects on the lives of drug users, their families, their social networks, and the broader community. Drug use influences and is influenced by a broad array of factors, including such structural factors as impoverishment, the lack of licit employment opportunities, and interaction with the criminal justice system.^{1,2} Some drug users' lives are largely organized around drug use and acquisition.³ Drug users often work in low-level positions within the drug economy to support their drug use.⁴ This article focuses on the involvement of drug users in frontline, low-level positions in the drug economy. Specifically, the purpose of this article is to explore individual and social character-

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istics associated with drug users' involvement in the drug economy among a sample of low-income drug users in Baltimore, Maryland. Understanding the scope of involvement with the drug economy has implications for drug use prevention, as well as health promotion, among drug users, such as human immunodeficiency virus (HIV) prevention efforts.

According to Levy,⁵ the slack economy of the late 1970s resulted in high unemployment rates and a labor surplus among many low-skilled workers. This trend was followed by the internationalization of labor markets, particularly in the field of unskilled industry jobs. In a study of five cities with the largest job loss from 1970 to 1984, Kasarda⁶ states that inner cities have transformed from "centers of production and distribution of material goods to centers of administration, information exchange, and higher-order service provision." Northern cities have had consistent job losses in industries in which employee education averaged less than a high school degree. Accordingly, low-skilled job losses in urban centers have disproportionately affected African American men, who do not have the prerequisite skills or education to enter the job market. Due in part to the shrinking pool of economic success through licit job opportunities in inner cities, the pursuit of non-mainstream activities, such as drug trafficking, is perceived as offering an opportunity for economic and social advancement and for establishing a power base for individuals who have been denied access to mainstream opportunities.^{7,8}

For many inner-city drug users, involvement in the street scene is a part of their heroin use trajectory.³ The street scene is the street-level culture that has developed around the procurement, sale, or acquisition of drugs. In examining the progression of drug users' involvement in the street scene, researchers have applied the concept of career deviance.⁹⁻¹² After individuals first use heroin and then increase their use to the point of addiction, they may turn to the drug economy to sustain their addiction. The majority of these drug users involved in the drug economy are employed in low-level positions for the exchange of money or drugs.^{4,13} These positions include steering potential customers, publicizing or touting the drugs, being "look-outs" for police, selling drugs, holding drugs, or cutting and packaging the drugs.⁷

A number of studies have delineated the roles in the drug economy and have primarily focused on the extent of drug trafficking, defined as the selling or delivering of drugs, among ethnic minority, urban young men who do not use drugs. Women's role in the drug economy has also been examined, particularly with the proliferation of crack use in the 1980s.^{5,8,14-16} Many aspects of the explosion of crack use in American inner cities in the 1980s have been described, including its role in the proliferation of the drug economy.^{17,18}

Criminal behavior of drug users is one of the most examined topics in the field of drug use research. One aspect of that research is the link between increasing drug dependence and the number of crimes perpetrated.^{3,19,20} In their extensive study of the economic life of heroin users, Johnson and colleagues⁴ found parallel increases between the amount and seriousness of crimes committed by drug users and the extent of their addiction. Compared to regular users, defined as using drug 3 to 4 days per week, daily users reported committing 10% more crimes annually. Crimes included drug-related crimes such as the sale and distribution of drugs, as well as non-drug-related crimes. In this study, the annual criminal income, both drugs and cash, roughly equaled the value of their drug consumption.

Involvement in the drug economy can increase individuals' exposure to violence, experiences of victimization and incarceration, as well as further marginalize them from mainstream society. Because of the danger and threat of arrest that

accompanies these frontline positions, turnover is high. Understanding the characteristics of drug users that are associated with casual involvement in the drug economy could be informative in harm reduction strategies aimed to improve the lives and well-being of drug users.

Researchers have also examined the relationship between drug users' involvement in the drug economy and their risk of contracting HIV.²¹⁻²³ An unexplored area in terms of HIV prevention is an examination of drug users' social networks in relation to their involvement in the drug economy. As heroin addiction increases, heroin users increasingly adopt street addict values, norms, and behaviors, including the legitimization of their involvement in the drug economy.^{3,24,25} This involvement further isolates them from non-drug users and increasing their commitment to the role of being an addict. In public health research, the study of social networks has illuminated individuals' immediate social context. Studies have shown that social network characteristics are significant predictors of HIV risk behaviors among injection drug users (IDUs).²⁶⁻³¹ We hypothesize that heroin and cocaine users who are involved in the drug economy will spend more time on the street, will have contact with more drug users on a daily basis, and will have a greater percentage of drug users in their social networks.

METHODS

The data used in this analysis were collected as a part of the SHIELD (Self-Help in Eliminating Life Threatening Diseases) project, a network-oriented experimental pre- and posttest intervention. To gain an understanding of social aspects of risk behavior, as well as the diffusion of information from the intervention, individuals screened for the intervention, called "indexes" ($n = 1,070$) and members of their social networks ($n = 567$) were interviewed. Five hundred indexes brought in members of their social network and were randomly placed in intervention or control study arms. The study was approved by the Johns Hopkins School of Public Health Committee on Human Research in March 1997. SHIELD was designed to empirically alter social processes, such as norm formation and peer influence, to reduce HIV risk behaviors. The data presented here were collected at baseline interviews administered between August 1997 and March 1999. The current analyses were limited to SHIELD participants, both indexes and members of their social networks, who had used heroin and or cocaine within the 6 months prior to data collection ($n = 1,288$).

Participants

Participants were recruited through targeted outreach, a common tool used in reaching hidden populations such as street IDUs.³² Recruitment areas in Baltimore City were identified through ethnographic observations, focus groups, and geocoding the locations of all the drug-related arrests in Baltimore over a 3-year period. During the recruitment stage of the study, staff went to targeted neighborhoods and handed out study descriptions. Outreach staff were African Americans who had extensive experience working with Baltimore IDUs. Potential participants were provided with a written description of the study and a telephone number to call. The description informed them of an opportunity to participate in an HIV prevention intervention study working with drug users. Those who contacted the study were briefly screened. SHIELD study criteria for inclusion were being 18 years of age or older, having weekly contact with drug users, reporting a willingness to

conduct peer education, and being able to bring in two members of their social network for a baseline interview. All participants signed informed consent before entering the study. Participants were paid \$20 for completion of the interview, and indexes were paid up to \$25 for bringing in network members for an interview. The data for the present study were restricted to all study participants, both indexes and network members, who had reported using heroin, cocaine, or crack cocaine in the 6 months prior to being interviewed. In the following analyses, these individuals are referred to as “drug users” ($n = 1,288$). In examining social network characteristics of drug users, analyses were restricted to index drug users ($n = 835$) because of potential correlations with drug-using network members who had completed a baseline interview.

Instruments

All eligible participants were administered a detailed face-to-face interview on their sociodemographic background, patterns of drug use, HIV prevention and risk behaviors, and social networks. In assessing participants’ involvement in the drug economy, they were asked if they had performed at least one of the following six roles in the 6 months prior to being interviewed: (1) sold drugs; (2) steered customers to or touted (publicized) drugs; (3) held drugs or money for drugs; (4) provided street security for drug sellers, which includes being a “lookout” for police; (5) cut, packaged, or cooked drugs; and/or (6) sold or rented drug use paraphernalia such as pipes, syringes, or cookers.

Through the use of a personal support network inventory, participants were asked to name the first name and first letter of the last name or pseudonym of members of their social networks who they had known for at least 1 month. The reporting period was 6 months prior to being interviewed. A series of questions regarding the type of support provided, relationship between individuals, and drug-using practices were asked about all named network members. All named individuals comprised participants’ “social networks.” Drug support networks were comprised of all social network members who used heroin, cocaine, or crack in the past month. Information was also ascertained as to the frequency of drug network members’ drug use, as well as the types of drugs they used and routes of drug administration.

Analysis

The first series of analyses was descriptive, comparing drug users who were and were not involved in the drug economy in terms of selected sociodemographic characteristics, drug utilization patterns, and social aspects of drug use. Chi-square and Mann-Whitney U nonparametric tests were used to detect differences between the groups. In addition, the range of drug users’ involvement in the six drug economy roles was portrayed. In examining drug users’ social network characteristics’ relationship to drug economy involvement, the data were limited to index study participants to control for the correlated nature of combined index and network data. In the second set of analyses, multiple logistic regression was employed to determine which of the significant variables were associated with involvement in the drug economy in the presence of other variables.

RESULTS

As shown in Table 1, compared to those that did not report a role in the drug economy, drug users who had a role were significantly less likely to be women

TABLE 1. Sociodemographic characteristics of drug users by roles in the drug economy (past 6 months), SHIELD study, Baltimore, MD, 1997–1999 (n = 1,288)

Demographic characteristics	Drug economy role (n = 569), %	No drug economy role (n = 719), %
Female*	32.5	42.8
Mean years of age (SD)†	38.1 (7.3)	39.6 (6.8)
African American‡	94.3	96.8
High school graduate	54.3	52.0
Licit part-time or full-time employment†	17.8	23.4
Homeless in the last 6 months	84.8	84.5
Married or main partner	56.8	61.9
Monthly income ≥US\$1,000‡	33.8	28.3
Sources of income		
Salaries or wages*	20.2	24.6
Welfare/public assistance	36.0	34.9
Food stamps	51.6	53.3
Social security†	13.9	20.4
Hustling (legal or illegal)*	56.6	26.8
Friends/family/sexual partner*	63.4	50.9
Incarcerated in last six months†	18.8	12.4
Selected reasons for arrest		
Shoplifting	11.6	10.2
Possession*	39.4	21.6
Drug sales†	10.9	3.9
Probation violation	8.8	10.6
Mean number of times arrested (SD)*	1.18 (1.87)	0.66 (1.66)

* $P < .001$; † $P < .01$; ‡ $P < .05$.

(32.5% vs. 42.8%), above 39 years of age (50th percentile), African American (94.3% vs. 96.8%), and married or with a main partner (56.8% vs. 61.9%). Regarding employment and income, drug users involved in the drug economy were significantly less likely to report licit current part-time or full-time employment (17.8% vs. 23.4%); more likely to report a monthly income over US \$1,000 (33.8% vs. 28.3%); and less likely to report receiving income from a salary (20.2% vs. 24.6%) or social security (13.9% vs. 20.4%), but more likely to report receiving income from hustling (56.6% vs. 26.8%) and from friends or family (63.7% vs. 50.9%). In the past 6 months, those involved in the drug economy were significantly more likely to have been incarcerated compared to those not involved (18.8% vs. 12.4%) and reported a significantly higher number of times arrested in the past 6 months (1.18 vs. 0.64).

Of study participants, 44% (n = 569) held at least one role in the drug economy, performing an average of 1.2 roles (SD = 1.6) (see Table 2). In terms of specific roles, 24.1% of drug users sold drugs and held money for drugs; 18.8% of drug users steered or touted drugs; 16.6% of drug users provided street security; 14.8% of drug users cut, packaged, or cooked drugs; and 18.3% of drug users sold or rented drug paraphernalia. Of the 45% of the study sample who had a role,

TABLE 2. Drug user involvement in the drug economy (past 6 months), SHIELD study, Baltimore, MD, 1997–1999 (n = 569)

Roles in the drug economy	Percentage
Sold drugs	24.1
Steered or touted	18.8
Held drugs or money for drugs	25.0
Provided street security	16.6
Cut, packaged, or cooked drugs	14.8
Sold or rented pipes/tools/rigs	18.3
Range of roles	
1–2 roles	51.2
3–4 roles	35.2
5–6 roles	13.6
Mean number of roles (SD)	1.2 (1.6)

over half held one or two roles, 35.2% held three or four roles, and 13.6% held five to six roles.

Drug utilization patterns differed between drug users involved and not involved in the drug economy (see Table 3). A significantly higher percentage of those involved in the drug economy reported being a daily drug user (60.6% vs. 40.2%), injecting heroin daily (36.0% vs. 21.8%), injecting speed daily (23.6% vs. 14.7%), and snorting heroin daily (18.3% vs. 13.4%). Those involved in the drug economy reported more severe withdrawal symptoms compared to those not involved. They were significantly more likely to: perceive their withdrawal symptoms as worse

TABLE 3. Drug utilization patterns of drug users by roles in the drug economy (past 6 months), SHIELD study, Baltimore, MD, 1997–1999 (n = 1,288)

Drug utilization patterns (past 6 months)	Drug economy role (n = 569), %	No drug economy role (n = 719), %
Drug utilization patterns*		
Daily drug user†	60.6	40.2
Inject heroin daily†	36.0	21.8
Inject speed daily†	23.6	14.7
Snort/sniff heroin daily‡	18.3	13.4
Smoke crack daily	12.0	13.0
Ever been in drug treatment†	73.4	63.1
Average street value of drugs used daily in US\$ (SD)	62.7 (60.7)	50.2 (75.7)
Withdrawal severity		
My symptoms are worse than others†	54.2	43.1
I worry about getting sick†	72.4	61.2
Had withdrawal-related cramps or diarrhea in the last week†	46.0	35.1

*Behaviors do not add up to 100% because they are not mutually exclusive.

† $P < .001$; ‡ $P < .05$.

TABLE 4. Social aspects of drug use by roles in the drug economy (past 6 months), SHIELD study, Baltimore, MD, 1997–1999 (n = 1,288)

Drug utilization patterns (past 6 months)	Drug economy role (n = 622), Mean (SD)	No drug economy role (n = 701), Mean (SD)
Number of people with whom you share drugs*	4.00 (7.23)	2.8 (3.03)
Hours spent on the street per day*	8.40 (5.1)	5.3 (4.7)
How many drug users talked to last week*	38.78 (94.9)	21.4 (61.0)
How many users talked to last week about purchasing drugs*	22.9 (58.1)	8.4 (18.1)
How many drug users talked to last week about HIV/AIDS	3.6 (11.8)	2.5 (11.7)

**P* < .001.

than others (54.2% vs. 43.1%), report worrying more about getting sick (72.4% vs. 61.2%), and report weekly withdrawal-related cramps or diarrhea (46.0% vs. 35.1%). Injectors who were involved in the drug economy had injected a significantly longer time compared to those not involved in the drug industry (29 years compared to 17 years). Data on the length of drug use were not collected on noninjecting drug users.

There were many significant differences in terms of social aspects of drug users depending on their drug economy involvement (see Table 4). Compared to those who did not perform a role in the drug economy, those who held a role were significantly more likely to share drugs with an average larger number of people (4.0 vs. 2.8), spend a significantly longer average time on the street a day (8.41 hours vs. 5.3 hours), talked to an average larger number of drug users a week (38.8 vs. 21.4) and to a larger number of drug users about purchasing drugs each week (22.9 versus 8.4).

There were many significant differences in drug users' social network characteristics that depended on their drug economy involvement (see Table 5). Indexes involved in the drug economy reported a significantly larger social network (10.0 vs. 9.0), greater percentage of active drug users in their social network (47% vs.

TABLE 5. Network characteristics of indexes by roles in the drug economy (past 6 months), SHIELD study, Baltimore, MD, 1997–1999 (n = 1,288)

Drug utilization patterns (past 6 months)	Drug economy role (n = 389)	No drug economy role (n = 446)
Size of social network*	10.0 (3.83)	9.0 (3.63)
Percentage of active drug users in social network*	0.47 (0.21)	0.44 (0.26)
Percentage of daily drug users in social network*	0.40 (0.22)	0.33 (0.22)
Size of drug support network*	6.7 (3.3)	5.6 (2.8)
Percentage of speed injectors in drug support network	0.18 (0.27)	0.16 (0.26)
Percentage of crack users in drug support network	0.17 (0.25)	0.19 (0.25)

**P* < .001.

TABLE 6. Multiple logistic regression models of drug users' involvement in the drug industry (past 6 months), SHIELD study, Baltimore, MD, 1997–1999 (n = 1,288)

Variables	Method: backward step	
	Adjusted odds ratio (CIs)	<i>P</i>
Female	0.53	.000
African American	0.70	.264
Licit employment	0.62	.004
Monthly income ≥US\$1000	1.35	.036
≥High school graduation	1.24	.106
Age above 39 years (50th percentile)	0.58	.000
Daily drug user	2.10	.000
Snorting/sniffing drugs (not injecting)	0.67	.004
In prison (last 6 months)	1.44	.047

CI, confidence interval.

44%), greater percentage of daily drug users in their social network (40% vs. 33%), and larger drug support networks (6.7 vs. 9.6). There were no significant differences in the percentage of speed injectors and crack users in their drug support network.

As shown in Table 6, multiple logistic regression was used to examine multivariate associations of selected variables associated in the bivariate analyses with involvement in the drug economy. Significant factors that were negatively associated with involvement in the drug economy were being female (adjusted odds ratio [AOR] = 0.53, $P < .001$), having licit employment (AOR = 0.62, $P < .01$), being older than 39 years of age (AOR = 0.58, $P < .001$), and not being an injection drug user (AOR = 0.67, $P < .001$). Significant factors that were positively associated with involvement in the drug economy were having a monthly income equal to or greater than US\$1,000 (AOR = 1.35, $P < .05$), being a daily drug user (AOR = 2.10, $P < .001$), and having been in prison in the past 6 months (AOR = 1.44, $P < .05$).

DISCUSSION

The study demonstrates the pervasiveness of involvement in the drug economy among a sample of predominantly low-income, African American Baltimore drug users. Of the 1,288 drug users, 44% reported involvement in the drug economy 6 months prior to being interviewed. This study points to the far-reaching effects of drug use in the lives of drug users. This study is one example of the importance of examining the broader economic and social context in which drug use occurs. Drug users involved in the drug economy had less-stable licit employment, which is a common finding in many studies of urban drug users.^{3,4,17,33} Even without stable employment, they are resourceful in having multiple sources of income, such as hustling, friends, and family. Although causality cannot be assessed from this cross-sectional study, those involved in the drug economy reported twice the mean number of times arrested compared to those not involved in the drug economy, most

probably related to this involvement. Drug users were involved in a range of roles within the economy, with close to half reporting they have performed three or more roles. But, regardless of the degree of involvement of the users, researchers have documented that the majority of income derived from the drug economy does not change their impoverishment.

Heroin and cocaine users involved in the drug economy were significantly more likely to be daily users of all examined drugs except for crack cocaine, and they reported a higher average amount of drugs consumed on a daily basis and were more likely to report earning higher daily incomes. This is consistent with many previous studies that have found such correlations with drug economy involvement and more severe drug addiction, as measured by frequency of drug use.^{3,19,20} Drug users involved in the drug economy were significantly more likely to perceive worse withdrawal symptoms and to worry more about getting sick. In the multivariate model, daily drug use and injecting drugs, both indicators of severity of addiction, were significantly associated with having at least one role in the drug economy. These higher rates of daily drug use, injecting drugs, and withdrawal symptoms among drug users involved in the drug economy indicate their higher level of addiction, severity of use, and the extensive role of drugs in their lives. Interventions and programs that target IDUs that utilize a harm reduction philosophy should educate them about the potential far-reaching benefits of cutting down their frequency of use in addition to the immediate health effects of frequent drug use, such as the increased risk of overdose, abscesses, and endocarditis. Such programs could have an effect on reducing drug users' needs to be involved in the drug economy and accompanied threats of arrest and violence.

The data supported the hypothesis that drug users who are involved in the drug economy will spend more time on the street, will have contact with more drug users on a daily basis, and will have a greater percentage of drug users in their social networks. Although the entire sample spent a significant amount of time on the street, those involved in the drug economy spent more time on the street. These differences are congruent with previous research, which has discussed that two of the most time-consuming aspects of using heroin are copping, or the search for heroin, and hustling.³⁴ Most drug treatment programs focus on the individual drug user devoid of the context in which they use drugs. Since drug use is oftentimes all encompassing and related to a complex range of factors, treatment focused solely on the individual devoid of the context in which they use drugs will have minimal effects on sustainable behavior change. Drug treatment programs would benefit from working with social service, job training, and housing programs to address the range of factors that are related to and affected by their drug use. It is an unrealistic expectation for individuals to stop using drugs when their lives, activities, and identities are so deeply embedded in the street scene. Again, reducing users' drug consumption could have many other benefits in the lives of drug users, but success will only be achieved when former drug users have positive and healthy alternatives to occupy their time, such as job training programs, as well as focus on more positive roles, such as employee or parent, in their lives that are incompatible with being a drug user. Research has shown that prison recidivism rates are greatly decreased when drug offenders are provided drug treatment and job training after release as well as educational opportunities.^{30,31}

Being a part of the drug economy exposes drug users to many risks, but also places them in a position to influence others. Examining the social networks of drug users could provide insight into the composition of their immediate social

environment and could inform HIV prevention programs. Including drug users' social networks in HIV prevention programs, such as peer-based street outreach, could build on their natural roles within the street scene and possibly reach drug users who are traditionally difficult to reach. Network-based outreach is an effective mechanism for establishing the necessary relationships to conduct effective HIV programming in hidden populations.^{35,36}

There are limitations to these data. Frequency of involvement in the drug economy could have provided further information about the various gradations of involvement as they relate to drug use behaviors. Because the sample was comprised of volunteers who were recruited by word of mouth, it is possible that these volunteers were different from individuals who met the inclusion criteria but did not enter the study. This might restrict the external generalizability of the study's findings to Baltimore city drug users who volunteer to participate in research and have social network members who are willing to be interviewed. Although social network members' drug utilization patterns were reported by the indexes and not validated by self-report, this segment of the analysis focused on drug users' perceptions of their network members' drug behaviors. Social network studies have demonstrated that individuals are accurate in recalling those with whom they typically interact.^{36,37}

The issue of drug users' involvement in the drug economy is complex and needs to be addressed on a variety of levels that are far beyond the scope of drug treatment. Interventions and policies that focus on structural factors such as education and licit employment opportunities might be useful in addressing these issues.

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