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Substance-Abusing Urban Homeless in the Late 1990s: How Do They Differ From Non-Substance-Abusing Homeless Persons?

Thomas P. O'Toole, Alicia Conde-Martel, Jeanette L. Gibbon, Barbara H. Hanusa, Paul J. Freyder, and Michael J. Fine

ABSTRACT *Much of our understanding of substance abuse and homelessness comes from data from the 1980s and may not necessarily reflect issues or trends prevalent during the 1990s. We report data from a two-city, community-based, populations-proportionate sample of 531 randomly selected homeless adults; the study was conducted in 1997 and compared substance-abusing to non-substance-abusing respondents. Most (78.3%) met criteria for substance abuse/dependence and were abusing either cocaine or alcohol and cocaine (68.5%). In the multiple logistic regression model, male gender (odds ratio [OR] 2.94, 95% confidence interval [CI] 1.70–5.09), less than a 12th grade education (OR 1.96, 95% CI 1.11–3.46), hustling or stealing for sustenance (OR 3.14, 95% CI 1.15–8.55), and identifying a need to learn how to manage one's money (OR 2.41, 95% CI 1.45–3.98) were independently associated with substance abuse/dependence. Drug abuse/dependence and polysubstance use among urban homeless persons became a more prevalent issue in the late 1990s. These individuals have unique needs that will require tailored interventions.*

KEYWORDS *Comorbidities, Homelessness, Needs, Substance abuse.*

INTRODUCTION

Much of our understanding of the association between substance abuse and homelessness comes from data collected in the 1980s and may not necessarily reflect trends and issues contributing to overall rates of homelessness or patterns of substance use prevalent during the mid- and late 1990s. Understanding the effect these trends have on homelessness is necessary to better target and tailor substance abuse interventions and treatment services for homeless persons.

A literature review by Fischer[1] of homelessness and substance abuse between 1980 and 1990 identified a range for alcohol abuse of 12.2%–68.8% and for drug abuse of 1%–37.1% across studies. Lehman[2] conducted a meta analysis of data collected between 1980 and 1991; Lehman used more rigorous inclusion criteria and concluded that the prevalence of substance abuse among homeless samples in the 1980s ranged from 43% to 52% for lifetime alcohol use disorders, 47% to 60% for lifetime substance use disorders, and 27% to 42% for current substance use disorders.

Dr. O'Toole is with the Georgetown University School of Medicine; Dr. Conde-Martel is with the University Hospital of Gran Canaria Dr. Negrin; Ms. Gibbon is with the Maricopa County Department of Public Health; Drs. Hanusa and Fine are with the University of Pittsburgh Center for Research on Health Care; Mr. Freyder is with the Pittsburgh Salvation Army Public Inebriate Program; and Dr. Fine is with the Center for Health Equity Research and Promotion, VA Pittsburgh Healthcare System.

Correspondence: Thomas P. O'Toole, MD, Georgetown University School of Medicine, 1111 NE Med Dent Building, 3900 Reservoir Road NW, Washington, DC 20007. (E-mail: Tpo6@georgetown.edu)

Age, sex, and race were strongly associated with homeless substance abuse according to Health Care for the Homeless data.[3] Men aged 30 to 49 (40%) and 50 to 64 (43%) years had the highest age-adjusted rates of alcohol abuse; women had lower rates of alcohol abuse, but similar rates of drug abuse as men. The strongest correlate of drug abuse was younger age. Homeless men and women diagnosed as alcohol abusers were also significantly more likely compared with other homeless patients to have liver disease, seizure disorders, injuries, trauma, nutritional deficiencies, mental illness, hypertension, pulmonary disease, and arterial disease.[4] Although drug use in domiciled urban populations has been associated with educational attainment, employment status, and marital status, findings from the Washington, DC, Metropolitan Area Drug Study (DCMADS) found these factors were nonsignificant among homeless persons. Instead, past-year institutionalization, stage of homelessness, and location within an urban center were associated with active drug use in this 1991 sample of 908 homeless adults.[5]

Several trends occurred during the 1990s that were likely to alter this profile of homeless substance-abusing adults. First, particularly in the latter part of the decade, the robust economy created more employment opportunities not previously available to homeless persons. Those individuals remaining homeless in the context of regional economic prosperity had more pronounced needs and often less capacity to access services.[6] Second, since 1988 the cost of drugs, specifically heroin and cocaine, has gone down dramatically.[7] The epidemic use of crack cocaine in urban communities during the 1990s has been singled out as contributing to the growing number of homeless women and families.[8] Finally, the health and social service sector witnessed dramatic changes, including the advent of mandatory Medicaid managed care[9] and passage of welfare reform legislation nationally and at the state level.[10] Taken together, these factors are likely to affect who becomes homeless, what their needs are, and which services are available to meet those needs.

In this article, we report data from a two-city, community-based sample of homeless adults, comparing non-substance-abusing individuals with individuals who were alcohol-only, cocaine-only, and cocaine-and-alcohol-abusing or dependent. Our specific hypotheses were that (1) substance-abusing homeless persons continue to be substantially different in demographics and needs compared with non-substance-abusing homeless persons, and (2) substance-abusing homeless people have distinctly different needs and associated behaviors based on the type of substance used.

METHODS

We conducted a cross-sectional survey of 531 homeless individuals in Pittsburgh and Philadelphia, Pennsylvania, using face-to-face interviews conducted over a 5-month period, April–August 1997. Selection of individuals was done with probabilities proportionate sampling of interview sites and random selection of interviewees at each site. Approval from the institutional review boards at the University of Pittsburgh and the University of Pennsylvania was obtained for this study.

Study Population

Inclusion criteria included age older than 18 years and homeless (defined as being unsheltered or living in an emergency shelter, transitional housing unit, or "doubled-up" with friends or family) for at least the majority of the previous 3 months. Individuals were excluded if they were demented, incoherent, abusive, psychotic, or acutely intoxicated at the time of interview, as determined by the interviewer. Participants

received $5 in cash or a $5 equivalent in bus tokens and a list of area health and social service providers on completion of the interview.

Study Sites

Survey sites were clustered as (1) unsheltered enclaves (including abandoned buildings, cars, and outdoors) and congregate eating facilities; (2) emergency shelters; and (3) transitional housing or single room occupancy (SRO) dwellings to ensure representation by all sheltering-based subgroups of homeless persons. Sites within each cluster were selected with probabilities proportional to size with random sampling at each selected site.

Permission was received from all site supervisors. Site capacity was determined from each site supervisor and from the Pittsburgh Office of Hunger and Homeless Services and the Philadelphia Office of Emergency Sheltering Services. In Pittsburgh, 10 emergency shelter sites, 16 transitional housing sites, and 13 soup kitchen/public sites were used. In Philadelphia, 26 emergency shelter sites, 11 transitional housing sites, and 15 soup kitchen/public sites were used. Interviewers were assigned 8–20 interviews to be completed per week at 10–15 preidentified sites to control for seasonal and monthly variation in city-specific homelessness.

Subject Identification and Recruitment

The selection of interviewees at a site varied depending on the type of site and the number of people present at the time of the interview, using one of four selection plans. When only one subject was encountered, that person was approached and screened for eligibility. If there were fewer than seven people at the site, the interviewer assigned each person a number from 1 to 6 and a die was tossed to determine which person was interviewed. For those sites with a sign-in list or where a list could be created, the interviewers were given a randomly assigned number that was used to select the person from the list to screen. Finally, for sites with no sign-in list and seven or more individuals present, the interviewers selected a fixed geographic marker and numbered the people in relation to that marker using the same randomly assigned digit to select the person for screening. To ensure that a person was interviewed only once, a list of all previously interviewed participants with social security numbers and birth dates was distributed bimonthly to the interviewers.

Survey Instrument

A modified version of the National Technical Center Telephone Substance Dependence Needs Assessment Questionnaire was used.[11] It was modified for face-to-face interviews with questions specific to homeless individuals added. The survey included questions on baseline demographics, past and current alcohol and other drug use, medical and mental health comorbidities, associated health care utilization, prior substance abuse-related treatments, interactions in the criminal justice system, and a self-reported needs assessment. Drug dependence and treatment needs using American Society of Addiction Medicine (ASAM) criteria were computed with modified software provided by the National Technical Center. All additions to the questionnaire were either used in our previous Homeless Health Utilization Survey[12] or by Robertson et al.[13] in her survey of homeless in Los Angeles County, California, or were extensively pilot tested in sample interviews prior to use.

Definitions of substance abuse, dependence, treatment need, and treatment demand followed the *Diagnostic and Statistical Manual of Mental Disorders* (third edition, revised; *DSM-III-R*) criteria.[14] We combined abuse with dependence to be

consistent with earlier reporting on substance use prevalence among homeless persons.[15] We also limited our analysis of specific drug use to alcohol-only, cocaine-only, and cocaine-and-alcohol abuse/dependence as these were the most commonly reported substances used either alone or in combination.

Data Collection

Four interviewers were employed for this study; all were formerly homeless and in recovery for an alcohol or other drug disorder for a minimum of 3 years. It was felt that this greatly facilitated the acceptance of this project by study participants, enhanced participation rates, and encouraged trust in the interviewing process. They all received extensive, structured training prior to the study with a scheduled "refresher" session midway through data collection. All interviews were audiotaped, with 10% of interview tapes randomly selected each week for review to ensure data integrity. A separate consent was obtained to audiotape the interview; only three individuals refused to provide consent for this and were excluded from the study. Weekly debriefing sessions were also conducted with interviewers in both cities to discuss problems and issues that may have arisen related to site selection, participant recruitment, or administration of the survey instrument.

Methods of Analysis

Differences and similarities among the different racial groups, age groups, gender, sheltering arrangements, and length of time homeless within each city were assessed with χ^2 analyses for categorical data and analysis of variance for continuous data. To identify independent risk factors for abusing or being dependent on drugs and alcohol, we conducted separate multivariate logistic regression analyses for demographic characteristics, self-reported means of obtaining money, and self-reported needs. Independent factors identified in each group analysis were then included in a global logistic regression model. Results from the separate models are reported in the tables; results from the global model are noted in the text. All statistical analyses were conducted with Statistical Package for Social Sciences (SPSS) 10.0 for Windows.

RESULTS

Overall, 531 individuals were interviewed (response rate 93%). Of those interviewed, 115 did not meet *DSM-III-R* criteria for current substance abuse/dependence (21.7%); 78.3% of the sample did meet criteria based on one or more drug or alcohol use patterns. Most individuals meeting criteria for substance abuse/dependence were polysubstance users (54.8%), with the most common combinations (1) alcohol and cocaine or (2) alcohol, cocaine, and marijuana. The substances with the highest rates of abuse/dependence were cocaine (49.0%), alcohol (34.5%), marijuana (23.9%), and heroin (13.6%).

Demographics

As shown in Table 1, there was no difference in age, race, or veteran status between homeless persons meeting criteria for substance abuse/dependence and those who did not. However, the homeless who met the criteria were significantly more likely to be male, have less than a 12th-grade education, be homeless at least 1 year, single, be without health insurance, and have some form of employment along with more money to spend each month. They were also significantly more likely to have been arrested in the previous 12 months.

TABLE 1. Characteristics of homeless persons abusing alcohol and/or drugs versus those who do not abuse or are dependent on drugs or alcohol

	No drug or alcohol abuse/ dependence (n = 115), % (n)	Drugs or alcohol abuse/ dependence (n = 416), % (n)	≥*P*	OR (95% CI)
Age (years), mean (±SD)	40.2 (±10.4)	39.6 (±8.9)	0.58	—
Gender: Male (425)	67.8% (78)	83.4% (347)	<.001	2.44 (1.48–4.03)
Race: African American (432)	74.8% (86)	83.2% (346)	.23	
Education: <12th grade (160)	19.1% (22)	33.2% (138)	.004	2.30 (1.34–3.95)
Marital status: single (509)	92.2% (106)	96.9% (403)	.03	2.70 (1.06–6.84)
Duration homelessness: ≥12 months (206)	29.8% (34)	41.3% (172)	.03	1.52 (0.94–2.44)
Health insurance: none (208)	30.7% (35)	41.8% (173)	.04	1.34 (0.70–1.84)
Employment status: some employment (176)	24.3% (28)	35.6% (148)	.03	1.87 (1.11–3.16)
Veteran (129)	23.5% (27)	24.5% (102)	.90	
Money to spend per month: ≥$250 (347)	56.5% (65)	67.8% (282)	.03	1.49 (0.94–2.36)
Arrested in last 12 months (97)	10.4 (12)	20.4 (85)	.01	2.01 (1.05–4.08)

CI, confidence interval; OR, odds ratio.

Within the group meeting criteria for substance abuse/dependence, those individuals meeting criteria for alcohol-only abuse/dependence were significantly more likely to be male ($P = .001$); those individuals meeting criteria for cocaine-only or cocaine-and-alcohol abuse/dependence were significantly more likely to be African American and younger. Individuals with cocaine-only abuse/dependence were more likely to be Vietnam veterans; alcohol-and-cocaine-abusing/dependent persons were more likely to be employed (Table 2).

Self-Reported Comorbidities

The majority of both substance abusing and non-substance-abusing respondents reported having a chronic medical condition. As shown in Table 2, there was no difference among alcohol-only, cocaine-only, and alcohol-and-cocaine-abusing/dependent respondents for both the overall rate of chronic medical conditions and types of conditions (range 56.4%–64.2%, $P = .62$). Individuals with cocaine-and-alcohol abuse/dependence were also significantly more likely to report a psychiatric condition (69.5% vs. 52.5% for the alcohol-only group and 49.1% for the cocaine-only group, $P = .004$) and, along with individuals meeting criteria for cocaine-only abuse/dependence, were significantly more likely to report two or more psychiatric conditions compared with alcohol-only homeless persons. This difference was primarily noted in higher self-reported rates of depression, anxiety disorders, posttraumatic stress disorder, and schizophrenia (Table 2).

Self-Reported Means of Sustenance and Needs Once Homeless

Substance-abusing/dependent respondents were significantly more likely to report working odd jobs (34.6% vs. 17.4%, $P < .001$), receiving assistance from family or friends (23.6% vs. 14.8%, $P = .04$), begging/panhandling (15.1% vs. 7.0%, $P = .02$),

TABLE 2. Demographic characteristics and self-reported health conditions of homeless adults abusing alcohol only, alcohol and cocaine, and cocaine only

	Alcohol only (n = 101), % (n)	**Cocaine only** (n = 53), % (n)	Alcohol and cocaine (n = 167), % (n)	*P*
Age (years), mean (± SD)	42.4 (±10.2)	38.9 (±7.4)	37.7 (±7.2)	<.001*
Gender: male (266)	92.1 (93)	79.2 (42)	78.4 (131)	.01
Race: African American (279)	80.6 (79)	100 (52)	91.4 (148)	.001
Education: <12th grade (113)	36 (36)	34 (18)	35.3 (59)	.97
Marital status: single (312)	96 (97)	94.3 (50)	98.8 (165)	.16
Duration homelessness: ≥12 months (134)	40.6 (41)	34 (18)	44.9 (75)	.36
Health insurance: none (137)	44 (44)	37.7 (20)	43.7 (73)	.72
Employment status: unemployed (210)	74.3 (75)	73.3 (39)	57.5 (96)	.01
Veteran (80)	32.7 (30)	22.6 (12)	21 (35)	.09
Vietnam (33)	39.8 (13)	75 (9)	31.4 (11)	.03
Money spent monthly: ≥$250 (228)	70.3 (71)	69.8 (37)	71.9 (120)	.94
Arrested in last 12 months (66)	17.8 (18)	13.2 (7)	22.2 (37)	.32
Chronic medical condition (192)	**56.4 (57)**	64.2 (34)	60.8 (101)	.62
Emphysema/asthma (44)	17.8 (18)	11.3 (6)	12 (20)	.35
Hepatitis/cirrhosis (33)	5.9 (6)	11.3 (7)	12 (20)	.22
Hypertension (86)	**25.7 (26)**	34 (18)	25.1 (42)	.43
Diabetes (16)	**7.9 (8)**	1.9 (1)	4.2 (7)	.21
Psychiatric conditions (195)	52.5 (53)	49.1 (26)	69.5 (116)	.004
Two or more psychiatric conditions (99)	14.9 (15)	32.1 (17)	40.1 (67)	<.001
Depression (136)	29.7 (30)	35.8 (19)	52.1 (87)	.001
Bipolar disease (27)	5.9 (6)	9.4 (5)	9.6 (16)	.56
Anxiety disorder (53)	9.9 (10)	11.3 (6)	22.2 (37)	.02
Posttraumatic stress disorder (44)	9.9(10)	3.8 (2)	19.2 (32)	.01
Schizophrenia (23)	2 (2)	9.4 (5)	9.6 (16)	.05

*Analysis of variance test.

and hustling/stealing (19.0% vs. 4.3%, $P < .001$). They were significantly less likely to report receiving social security or other entitlement assistance (15.6% vs. 25.2%, $P = .02$) (Table 3).

As shown in Table 4, from a list of 18 different categorical needs, homeless persons with current substance abuse/dependence were significantly more likely to report higher rates of need in 10 of the categories: obtaining mental health care, family counseling, learning how to manage money, assistance in finding a job, improving job skills, learning to get along better with people, learning how to read and fill out forms, learning how to protect oneself, having a steady income, and learning how to deal with the police. Of note, the majority of respondents in both the substance-abusing and non-substance-abusing groups cited housing assistance (91.3% and 90.4%, respectively), having a steady income (78.1% and 68.7%, respectively), finding a job (69.0% and 54.8%, respectively), and obtaining physical health care (61.8% and 52.2%, respectively) as current needs.

TABLE 3. Self-reported means of sustenance among homeless persons abusing alcohol and/or drugs versus those who do not abuse or are dependent on alcohol or drugs

	No drug or alcohol abuse/dependence (n = 115), % (n)	Drug or alcohol abuse/dependence (n = 416), % (n)	*P*	OR (95% CI)
Steady job (61)	9.6 (11)	12 (50)	.47	
Odd jobs (164)	17.4 (20)	34.6 (144)	<.001	1.93 (1.10–3.39)
Social Security/SSI (94)	25.2 (29)	15.6 (65)	.02	0.71 (0.42–1.18)
General relief/Welfare (199)	33 (38)	38.7 (161)	.27	
VA benefits (17)	3.5 (4)	3.1 (13)	.85	
Friends/family (115)	14.8 (17)	23.6 (98)	.04	1.21 (0.66–2.21)
Begging/panhandling (71)	7.0 (8)	15.1 (63)	.02	1.46 (0.65–3.30)
Hustling/stealing (84)	4.3 (5)	19.0 (79)	<.001	3.64 (1.38–9.61)
Selling plasma (61)	9.6 (11)	12.0 (50)	.47	

CI, confidence interval; OR, odds ratio; SSI, Supplemental Security Income; VA, Veterans Affairs.

TABLE 4. Self-reported needs among homeless persons abusing alcohol and/or drugs versus those who do not abuse or are dependent on alcohol or drugs

	No drug or alcohol abuse/dependence (n = 115), % (n)	Drug or alcohol abuse/dependence (n = 416), % (n)	*P*	OR (95% CI)
Physical health care (317)	52.2% (60)	61.8% (257)	.06	1.07 (0.67–1.70)
Mental health care (222)	33% (38)	44.2% (184)	.03	1.10 (0.66–1.84)
Family counseling (161)	22.6% (26)	32.5% (135)	.04	1.29 (0.73–2.27)
Housing assistance (484)	90.4% (104)	91.3% (380)	.76	
Getting on public assistance (159)	24.3% (28)	31.6% (131)	.14	
Learning how to manage money (289)	32.2% (37)	60.6% (252)	<.001	2.33 (1.41–3.87)
Finding a job (350)	54.8% (63)	69% (287)	.004	1.16 (0.69–1.92)
Getting on SSI/SSDI (177)	32.2% (37)	33.7% (140)	.77	
Getting veterans' benefits (83)	13% (15)	16.3% (68)	.39	
Improving job skills (327)	45.2% (52)	66.1% (275)	<.001	1.58 (0.95–2.65)
Legal assistance (174)	27.8% (32)	34.1% (142)	.20	
Learning to get along with people (188)	19.1% (22)	39.9% (166)	<.001	1.51 (0.83–2.74)
Learning how to read and fill out forms (101)	7% (8)	22.4% (93)	<.001	2.13 (0.89–5.13)
Learning how to protect yourself (145)	17.4% (20)	30% (125)	.007	1.36 (0.71–2.61)
Having steady income (404)	68.7% (79)	78.1% (325)	.04	
Dealing with the police (75)	4.3% (5)	16.8% (70)	.001	2.95 (1.10–7.86)

CI, confidence interval; OR, odds ratio; SSDI, Supplemental Security Disability Insurance; SSI, Supplemental Security Income.

TABLE 5. Self-reported needs among homeless persons abusing alcohol only, alcohol and cocaine, and cocaine only

	Alcohol only (n = 101), % (n)	Cocaine only (n = 53), % (n)	Alcohol and cocaine (n = 167), % (n)	*P*
Physical health care (198)	55.4 (56)	60.4 (32)	65.9 (110)	.23
Mental health care (142)	33.7 (34)	39.6 (21)	52.1 (87)	.01
Family counseling (111)	16.8 (17)	35.8 (19)	44.9 (75)	<.001
Housing assistance (293)	82.2 (83)	94.3 (50)	95.8 (160)	<.001
Getting on public assistance (110)	29.7 (30)	28.3 (15)	32.9 (65)	.40
Learning how to manage money (202)	46.5 (47)	62.3 (33)	73.1 (122)	<.001
Finding a job (221)	54.5 (55)	69.8 (37)	77.2 (129)	<.001
Getting on SSI/SSDI (109)	38.6 (39)	28.3 (15)	32.9 (55)	.40
Getting veterans' benefits (56)	23.8 (24)	13.2 (7)	15 (25)	.12
Improving job skills (216)	51.5 (52)	60.4 (32)	79 (132)	<.001
Legal assistance (112)	34.7 (35)	28.3 (15)	37.1 (62)	.50
Learning to get along with people (126)	25.7 (26)	30.2 (16)	50.3 (84)	<.001
Learning how to read and fill out forms (77)	11.9 (12)	24.5 (13)	31.1 (52)	.002
Learning how to protect yourself (100)	20.8 (21)	24.5 (13)	39.5 (66)	.003
Having steady income (252)	64.4 (65)	83 (44)	85.6 (143)	<.001
Dealing with the police (60)	15.8 (16)	13.2 (7)	22.2 (37)	.23
Relapse treatment (196)	31.7 (32)	73.6 (39)	74.9 (125)	<.001
Alcohol treatment (182)	50.5 (51)	20.8 (11)	71.9 (120)	<.001
Drug treatment (187)	14.9 (15)	75.5 (40)	79 (132)	<.001

SSDI, Supplemental Security Disability Income; SSI, Supplemental Security Income.

As shown in Table 5, a greater proportion of individuals with alcohol-and-cocaine abuse/dependence and cocaine-only abuse/dependence reported needs in 13 of the 18 categories compared with those meeting criteria for alcohol-only abuse/dependence. Within the substance-abusing/dependent group, the most commonly reported needs were also housing assistance (range 82.2%–95.8%), having a steady income (64.4%–85.6%), finding a job (range 54.5%–77.2%), and physical health care (55.4%–65.9%). Of note, 50.5% of those meeting criteria for alcohol-only abuse/dependence and 71.9% of those with cocaine-and-alcohol abuse/dependence reporting needing alcohol treatment. Similarly, 75.5% of those with cocaine-only abuse/dependence and 79.0% of those with cocaine-and-alcohol abuse/dependence reported needing drug treatment.

Factors Independently Associated With Substance Abuse/Dependence

In the multivariate logistic regression model for demographic variables associated with active substance abuse/dependence, being male (odds ratio [OR] 2.44, 95% confidence interval [CI] 1.48–4.03), having less than a 12th grade education (OR 2.30, 95% CI 1.34–3.95), being single (OR 2.70, 95% CI 1.06–6.84), having some form of current employment (OR 1.87, 95% CI 1.11–3.16), and having been arrested in the past 12 months (OR 2.01, 95% CI 1.05–4.08) were all significant. In the model assessing sustenance variables associated with active substance abuse/dependence,

only working in odd jobs/temporary employment (OR 1.93, 95% CI 1.10–3.39) and hustling/stealing (OR 3.64, 95% CI 1.38–9.61) were identified. Finally, in the multiple logistic regression model for self-reported needs, learning how to manage money (OR 2.33, 95% CI 1.41–3.87) and how to deal with police (OR 2.95, 95% CI 1.10–7.86) were the only independent variables. In the global multivariate logistic regression analysis that included all of these separately identified independent factors in one model, only being male (OR 2.94, 95% CI 1.70–5.09), having less than a 12th grade education (OR 1.96, 95% CI 1.11–3.46), hustling or stealing as a means of getting money (OR 3.14, 95% CI 1.15–8.55), and needing to learn how to manage one's money (OR 2.41, 95% CI 1.45–3.98) were independently associated with current substance abuse/dependence.

DISCUSSION

Substance abuse and dependence in this community-based sample of urban homeless adults is substantially higher than previously reported in the literature. In our study, the overall rate of abuse/dependence was 78.3%, which is substantially higher than the 27% to 42% range of substance abuse disorders reported by Lehman[2] in his meta-analysis of data from the 1980s. Similarly, in a national sample of homeless persons in 1996, the overall substance abuse prevalence rate was 59.0%, with 44.1% attributed to alcohol abuse and 40.7% drug abuse.[16] In the 1991 DCMADS survey, 49.0% of the homeless persons in Washington, DC, used cocaine in the previous 12 months.[5] Data from Oakland, California, also in 1991, identified an overall substance abuse/dependence rate of 52.4%, with 38.8% alcohol abuse/dependence and 31.3% drug abuse/dependence.[15]

The higher rates of abuse/dependence among homeless persons in the 1990s appear to be driven by increased drug use either alone or in combination with alcohol. Cocaine abuse/dependence alone was 49.0%, followed alcohol abuse/dependence of 34.5% in this study; historically, the proportion of homeless persons with alcohol disorders far surpassed the proportion with drug disorders. One possible explanation for the higher rates of drug use among homeless persons was the lower cost of drugs. In 1988, the retail price of 1 g of pure cocaine was $213; in 1997, the price had dropped to $149/g.[7] The greater availability of cocaine, typically in the form of crack, was also associated in the 1990s with the increase in homelessness among women and women with children.[8]

Unlike earlier studies, we did not find age or race to be independently associated with substance abuse/dependence among homeless persons, although male gender was a significant factor. In contrast to the DCMADS data, educational attainment was significant in our sample of homeless adults, and in both studies, recent incarceration was associated with active substance use.[5] We also did not find higher rates of self-reported physical illness or chronic medical conditions among those homeless persons with substance abuse/dependence. However, it is important to note that the majority in both groups reported a range of physical health problems similar to that found in other studies.[17–20] The substance abuse/dependent group did have significantly higher rates of self-reported mental health conditions that were more likely to be among cocaine-and-alcohol-abusing/dependent respondents and specific for depression and anxiety disorders. This distinction is important given that cocaine and alcohol abuse, with or without marijuana, was the dominant pattern of polysubstance use among homeless persons in this sample. Proactive screening for co-occurring mental disorders among

polysubstance-abusing homeless persons is needed along with greater availability of dual-diagnosis treatment programs.

Finally, these data run counter to many popular notions concerning homeless persons. First, alcohol and drug treatment were highly rated needs among those persons with an active substance use disorder. Popular assumptions that homeless persons do not want treatment were not supported by these data. Second, the vast majority of homeless persons do not appear to be there "by choice" because an overwhelming majority rated housing assistance as a current need, and most also sought economic stability and employment assistance. In the multiple logistic regression model, only hustling/stealing as a means of daily sustenance was associated with substance-abusing homeless. This underscores the societal costs of substance abuse evidenced by self-reported criminal behavior reported here and elsewhere[21,22] and the need for readily available and accessible addiction treatment targeted toward homeless persons. Finally, the low educational attainment noted among substance-abusing homeless persons compared with those not abusing/dependent on drugs and alcohol raises the question of whether earlier interventions and targeting of at-risk youths who are dropping out of high school could help prevent future homelessness and addiction.

These findings suggest the importance of specific public policies and targeted services. First, the association of active drug use with criminal behavior in this study and others highlights the importance of integrating drug treatment into the criminal justice system. Not only is this humane and appropriate, but also it provides an opportunity for minimizing the personal and societal costs of drug use and recidivism that these data represent. Second, the high rate of self-reported medical and mental health needs along with the self-perceived need for substance abuse treatment highlight the importance of making treatment more available on demand and accessible through multiple venues, including emergency departments, primary care settings, and mental health clinics. Treatment also needs to reflect the emerging drug use and polysubstance use patterns of this population, in contrast to the more alcohol-oriented treatment approaches that would have been more appropriate in the 1980s.

This study had several strengths in design that support these findings. First, this was a multicity study, sampling populations from two urban centers geographically separated by several hundred miles but, by virtue of being in the same state, subject to the same medical assistance eligibility and other public policy considerations. We employed a very rigorous and comprehensive sampling scheme for identifying this community-based study cohort; it included the stratification and random selection of study sites using probabilities proportional to size, the multiple selection strategies for identifying clients, the spectrum of sampling sites employed, and the use of formerly homeless community health workers to conduct the interviews. Finally, we employed standardized, validated measures to ascertain abuse or dependence, allowing for more accurate descriptions of prevalence and need.

However, there are several limitations also to consider when viewing these findings. First, the data were self-reported and not validated by any collaborating sources. Given the sensitive nature of the questions asked, there is a potential underreporting bias for both substance use and mental health comorbidities. Despite the comprehensive approach to community sampling, there are some population groups that may have been missed or underrepresented because of the strategy employed. Finally, the data reported were for an urban homeless population and cannot be generalized to suburban or rural populations.

In summary, the findings from this study suggest that substance-abusing homeless persons have unique needs and issues that distinguish them from their non-substance-abusing counterparts. Furthermore, drug abuse/dependence and polysubstance use among urban homeless persons in the 1990s has become a more prevalent issue that will require specifically targeted and tailored interventions.

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