READINESS FOR TREATMENT:
PREDICTORS OF DRUG ABUSE HELP-SEEKING IN MEXICAN AMERICAN, AFRICAN AMERICAN AND WHITE SAN ANTONIO ARRESTEES

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ABSTRACT

This research explores the relationship between sociodemographic characteristics, drug use, drug related activities, high risk behavior and feelings of substance dependency with readiness for treatment among Mexican American, African American and white arrestees. The sample (N=688) was drawn from the Drug Use Forecasting (DUF) arrestees in San Antonio, Texas who tested positive for heroin or cocaine and admitted using these drugs sometime in their life.

Analysis based on a series of step-wise forward regressions identified the most significant predictors and odds ratios for wanting treatment for each ethnic group. The results indicate that each ethnic group presented a distinct pattern predicting help-seeking behavior ranging from a highly complicated one for Mexican Americans to a less complicated model for African Americans. The strongest predictors for Mexican Americans are feelings dependent on heroin and on marijuana (more than doubling the odds). Being divorced, injecting cocaine and feeling dependent on alcohol and having illegal income and spending $200 or more on drugs a week also increased the odds of seeking treatment. For African Americans using heroin everyday tripled the odds, while money spent on drugs and not having full-time employment were also strong predictors of readiness for treatment. For whites feeling dependent on alcohol tripled the odds of help seeking, while using heroin every day, injecting cocaine and money spent on drugs doubled the odds of readiness for treatment. The implications are that a more creative attention to the specific complexes of sociological and social psychological variables associated with ethnic groups would lead to progress both in scientific theory construction and the planning of prevention interventions in these groups.

INTRODUCTION

In the field of drug abuse treatment, the determinants for seeking help are far less clear than in other areas of medical sociology. The defining of symptoms related to drug abuse is also less clear (Padgett, Struening, Andrews 1990). Illness behavior occurs when a person defines a problem needing medical attention and seeks care for that problem (Mechanic 1978). It is generally recognized in medical sociology theory that there are multiple determinants for illness behavior ranging from perception and recognition of symptoms (Mechanic 1980; Zola 1973), the extent of disruption in family and work life (Kessler, Price, Wortman 1985; Pearlin 1983), to the availability of treatment resources (McKinlay 1974). While a few studies exist about drug use and help-seeking, these studies explore youth who use drugs and who they would talk to and seek help from (Mata, Castillo 1986). These studies generally address student's communication channels and sources for help-seeking (Mata, Andrew, Rouse 1993; Mata, Magana 1995; Windle, Miller-Tutzauer, Barnes, Welte 1991). While they explore patterns of drug-use among youth, they do not focus on youths' acutal drug abuse help-seeking efforts.

Hartnoll (1992) in his review of help-seeking behavior in the field of drug abuse maintains that help-seeking is both cognitive and behavioral. Some of the behavioral factors distinguishing non-help seekers from help-seekers indicates that non-help seekers spent a lower proportion of their income on drugs, tended to work, either legally or through drug dealing (compared to Social Security Insurance or petty theft) and experienced less dissonance with peers or partners (Hartnoll, Power 1989). This study, conducted in London, concludes that it was not the extent of drug use itself that determined who sought treatment, but rather the consequences of the drug use. In other words, those reporting similar drug use, but not seeking treatment were able to better "control" the negative consequences.

In the London study, drug users seeking treatment also report difficulties in other areas of their lives including financial and legal problems (Hartnoll, Power 1989). These findings have been supported and extended by research in the United States. Rounsaville and Kleber's (1985) psychiatric study of the differences between treated and untreated opiate addicts concludes that addicts not seeking treatment are no less severely drug dependent then their matched treatment seekers. They do, however, have a more adequate level of social functioning and fewer drug-related social problems. Studies of injecting drug users

have shown across a variety of sites that IDUs not in treatment, compared to those in treatment, are younger, have less education and are more likely to be unemployed (Alcabes, Vlahov, Anthony 1992; Chitwood, McCoy 1990; McCusker, Koblin, Lewis, Sullivan 1990). To the contrary, O'Donnell, Voss, Clayton, Slatin and Room (1976) found that those not being treated for heroin showed less impairment.

Most studies comparing drug abusers who seek treatment with those who do not tend to be restricted to largely objective factors (Timms, Timms 1977). They involve research designs that retrospectively look at persons already in treatment and compare them to a matched sample of out-of-treatment persons (McLellan, Luborsky, Woody, O'Brian, Druley 1983). Previous research tends to ignore the prospective, dynamic process that constitutes treatment-seeking behavior.

Prochaska, DiClementi and Norcross (1992) have developed a theory of stages of behavioral change for health problems. If follows a person who moves from a phase of denial of a problem, to taking a decision to change, to actually taking action to change, that is, to seek treatment. Their research emphasizes that help-seeking is not simply a response to an objective situation, but rather involves mediating, cognitive, decision-making and denial factors.

In terms of treatment seeking and tenure (length in treatment), DeLeon and Jainchill (1986) argue that the essential differences to be studied are not *who* the clients in treatment are, but *"how* they perceive themselves, their circumstances and their life options at the time of treatment involvement." They distinguish four factors that define how the person will perceive treatment options: 1) circumstances (extrinsic pressures), 2) motivation (intrinsic pressures), 3) readiness and 4) suitability. Much attention has been given to the role of pressure in treatment seeking with research, for example, on compulsory treatment. There is also a growing literature on suitability; the issue of matching a client to the appropriate service available. Far less attention has been placed on the factor of readiness for treatment. DeLeon and Jainchill (1986) define "treatment readiness" as "the individual's perceived need for any treatment to assist in personal change, compared with alternative options."

In this paper, the readiness for treatment problem is addressed by attempting to identify the predictors that are related to the perceived need for treatment in a sample of arrestees. The guiding hypothesis for this study is that the subjective factor will be influenced by differences in the social position and culture represented by ethnic group membership. This hypothesis has received support from studies of the Drug Use Forecasting (DUF) program in Los Angeles where controlling for gender, age and heroin use, Hispanics were significantly less likely than whites to perceive a need for treatment (Longshore, Hsieh, Anglin 1993). The study concludes that the success of treatment strategies probably depend on how issues of denial versus competence are handled. This hypothesis is also congruent with Hartnoll's (1992) reference that in future research new priorities focus on ethnic minority drug abusers' help-seeking behaviors. He specifically saw a need to explore differences among these ethnic minority groups "in terms of their different needs...and the prevalence of drug use and risk behaviors among those groups" (Hartnoll 1992). The study reported in this paper directly contributes to this research priority.

METHODOLOGY
Data for the analysis were obtained from the Drug Use Forecasting (DUF) program, a national monitoring system developed by the Department of Justice. The DUF program administers urine tests and interviews of adult arrestees in local jails on a quarterly basis in twenty-three large and small U.S. cities. The purpose of the DUF program is to provide each city with estimates of drug use among arrestees and information for detecting changes in drug use trends. The DUF interview focuses on drug use and criminal history, demographic background, and other variables (U.S. Department of Justice 1990; Wish, Gropper 1990). The validity of drug test data of arrestees has been demonstrated in numerous studies (Balenko, Fagan, Chin 1991; Goldkamp, Gottfredson, Weiland 1990; Smith, Ploesnber 1992). The limitations of the DUF methodology have also been recognized and include problems of nonrepresentative of the criminal population and data adequacy and completeness (Goldstein, Henry, Brownstein, Patrick 1992).

Procedures
Enrollment in the DUF sample occurs during booking when arrestees are approached about participating in the study. Data are collected in central booking stations in the 23

Table 1: Characteristics of Drug Related Variables for Mexican Americans, African Americans and Whites

Drug Related Variable	Category	African Americans (n=94)	Mexican Americans (n=432)	Whites (n=162)	P
Drug Related Activities					
illegal income	yes	23	23	27	.520
	no	77	77	73	
charged with felony	yes	36	35	35	.960
	no	64	65	65	
charged theft/larceny	yes	52	35	40	.010
	no	48	65	60	
money spent on drugs	more than $200	27	33	39	.120
	$200 or less	73	67	61	
High Risk Behavior					
method of cocaine use	prefer inject	20	48	54	.000
	prefer other methods	80	52	46	
share needles	yes	7	22	19	.004
	no/do not use	93	78	81	
number drugs tested positive	one drug	51	65	72	.003
	two or more	49	35	28	
sex partners last year	3 or less	80	80	76	.600
	4 or more	20	20	24	
Drug Use Last Month					
use of tobacoo	every day	75	63	83	.000
	less than every day	25	37	37	
use of alcohol	10 times or more	43	34	39	.200
	9 times or less	57	66	61	
use of marijuana	10 or more times	22	20	20	.840
	9 times or less	78	80	80	
use of cocaine	10 or more times	14	26	28	.030
	9 or less times	86	74	72	
use of heroin	every day	15	32	23	.000
	less than every day	85	68	77	

cities for approximately 7 days each quarter. Local staff obtain voluntary and anonymous urine specimens and interviews from the arrestees. In each site approximately 225 males and 100 females are sampled. DUF samples are also controlled so as to limit the number of persons charged with petty offenses or other drug offenses. Persons charged with traffic offenses or vagrancy are excluded. Where there is a choice of arrestees, persons are selected by arrest charge in the following order: nondrug felony, nondrug misdemeanor, drug felony, and drug misdemeanor. Because of their small numbers in most jurisdictions, all female arrestees are approached, regardless of charge. In practice, most persons in the DUF samples are charged with nondrug felony offenses.

The response rate in DUF samples is high with over 90 percent of those arrestees approached agreeing to be interviewed and over 80 percent of these providing urine samples. Urine specimens are analyzed for 10 drugs: cocaine, opiates, marijuana, PCP, methadone, benzodiazepines (Valium), methaqualone, propoxyphene (Darvon), barbiturates and amphetamines. The urine test can detect use of most drugs up to 3 days before testing, and marijuana and PCP use can be detected up to several weeks before testing.

Sample

This study sample consists of those DUF arrestees in San Antonio, Texas during 1992, 1993 and 1994 who tested positive for cocaine or heroin and admitted to having used

these drugs sometime in their life.' Of these 715 arrestees, 688 had complete data. Sixty-four percent of them are Mexican American, 20 percent white, and 14 percent African American. The sample is relatively young and uneducated with the average age of 30 years old and median educational level of 10 years. Only 40 percent were employed full-time, with a median income of $400 a month, while 45 percent were single. A little over half of the sample (53%) stated that they wanted treatment.

The demographic profiles of the population varied by ethnic group. The white population has the highest income (60% above the median), the highest percentage of full-time employment (40%), the highest percentage divorced (47%) with about an average education level (58% above 10 years) and a slightly higher percentage of persons over 30 years of age (59%). The African American sample had the highest educational attainment (83% percent over 10 years of education), compounded by the lowest full-time employment (25%), the lowest legal income (45% below the median), the highest percent single (43%) and the highest percent above age 30 (68%). The Mexican American sample was more similar to the African Americans in the percent employed full-time (29%), but had the highest percent married (31%), were the youngest (58% percent below age 30), and the lowest education (61% below the group median of 10 years).

A higher percentage of African Americans (52%) were charged with theft or larceny than whites (40%) or Mexican Americans (35%) (Table 1). There were significant differences in the high risk behavior by ethnic group. African Americans reported a much lower percentage preferring injecting cocaine (20%) than Mexican Americans (48%) or whites (54%). A lower percentage of African Americans also reported sharing needles (7%) than the other two ethnic groups (around 20%). However African American had a higher percentage testing positive for two or more drugs (49%) compared to Mexican Americans (35%) and whites (28%).

The patterns of drug use in the past 30 days for Mexican Americans, African Americans and whites varied significantly for tobacco, cocaine and heroin. Mexican Americans had the lowest percentage using tobacco every day (63%) compared to African Americans (75%) and whites (83%), but had the highest percentage using heroin everyday (32%) compared to whites (23%) and African Americans (15%). Cocaine use also varied by

ethnic group with the higher percentages reported by whites (28%) and Mexican Americans (26%) compared to African Americans (14%). The ethnic variations on drug dependence followed drug use patterns. A lower percentage of Mexican Americans felt dependent on tobacco (42%) compared to African Americans (55%) or whites (67%). However, a higher percentage of Mexican Americans felt dependent on heroin (36%) compared to whites (28%) or African Americans (18%). A very low percentage of African Americans (3%) reported feeling dependent on cocaine, while between 17-20 percent of Mexican Americans and whites reported feeling dependent on this drug.

Measures

The predictor variables in this study are grouped into five broad classes: demographic variables, drug related activities, high risk behavior, use of drug in last month and dependence on drugs. The continuous demographic variables were collapsed into two categories based on the sample median. The median age was 30 years of age, the education median was at 10 years of schooling, while the median income was $400 a month. "Employment" was collapsed into 'employed full-time' and 'not employed full-time,' while marital status was grouped into 'single,' 'married' and 'divorced or separated.'

The drug related behaviors include "illegal income," "charged with a felony," "charged with theft or larceny" and "amount of money spent of drugs." The illegal income variable was recoded into either 'reported illegal income' or 'no reported illegal income,' while the money spent on drugs was split along the median (of those reporting spending money on drugs) of $200 per week.

"Use of drugs in last 30 days" was based on arrestees' responses to "how many days they had used a particular substance in the last 30 days." The responses for each of the five substances (tobacco, alcohol, marijuana, cocaine and heroin) were separated based on the median of those having used the substance within the last 30 days. For cocaine the median was using six times in the last month, while for alcohol and cocaine the median was using ten days out of the last 30 days. The use of tobacco and heroin was much higher and therefore these variables were grouped by daily use and less that daily use.

The items considered related to high risk

Table 2: Logistic Regresion Adjusted Odds Ratios (AOR) for Readiness for Treatment by Selected Demographic, Drug-Related Activities, High Risk Behavior, Drug Use, Drug Dependency Categories by Ethnic Group

Predictor	Predictor Category	Adjusted Odds Ratio		
		African American (n=87)	Mexican American (n=403)	White (n=162)
Demographic				
employment	not full-time	1.86*	ns	--
marital status	divorced	--	1.84**	--
Drug Related Activities				
illegal income	yes	ns	1.59*	2.01*
money spent on drugs	$200 or more a week	2.02*	1.42*	--
High Risk Behavior				
injecting cocaine	yes	--	1.71***	2.23***
Drug Use				
use of heroin	everyday	3.04*	--	2.23*
Drug Dependency				
on alcohol	yes	--	1.66*	3.13**
on marijuana	yes	--	2.16**	--
on heroin	yes	--	2.29***	ns

*p<.05; **p<.01; ***p<.001; ns - non-significant; -- - not included in final analyses

behavior include "preferred method of cocaine use" either 'injecting' or 'other preferred methods,' "number of sexual partners in last 12 months" dichotomized into either '3 or less partners' and '4 or more partners,' "the number of drugs tested positive" 'one' or 'two or more,' and "sharing of needles," 'shared needles' or 'did not share needles.'

If the arrestees admitted to using a particular substance, they were asked if they felt dependent on the substance. For tobacco, alcohol, marijuana, cocaine, or heroin the variables were coded as either 'felt dependent' or 'did not feel dependent or did not use the substance.'

The "readiness of treatment" variable was based on arrestees' response to the question: "*Do you feel that you could use treatment for drug or alcohol use?*" The responses on the questionnaire were coded as "1=no," "2=yes, drug only," "3=yes, alcohol only," "4=yes, drug and alcohol." Categories 2 and 4 were combined to indicate readiness for treatment. Those that responded "yes, alcohol only" were not included in the analysis (n=29). The resulting variable represents a dichotomous response of either: "1=want treatment" or "0=does not want treatment."

Statistical Analysis

The dependent variable in the analysis was the readiness for treatment. A forward step-wise logistic regression analysis was first conducted to screen the relationships between the readiness for treatment and each set of the five classes of treatment seeking variables separately across three ethnic groups (SPSS 1986). Those variables that were significantly related to readiness for treatment from the screening analysis were then entered into a final forward step-wise logistic regression to determine the adjusted odds ratios (AOR) for wanting treatment for each ethnic group. Listwise deletion of cases was applied to the missing data.

RESULTS

Table 2 presents the results of the logistic regressions on readiness for treatment for Mexican Americans, African Americans and whites. The predictors for readiness for Mexican Americans showed the most complex pattern. The strongest predictors for this group are "feeling dependent on heroin" (AOR=2.29, p<.001) and "feeling dependent on marijuana" (AOR=2.16, p<.01), increasing the odds by more than two times. "Being divorced" (AOR= 1.83, p<.01), "injecting cocaine" (AOR=1.71, p<.001), "feeling dependent on alcohol" (AOR= 1.66, p<.05), "reporting illegal income" (AOR= 1.59, p<.05) and "spending $200 or more a week on drugs" (AOR=1.42, p<.05) also increased the odds of readiness of treatment for this ethnic group.

For whites the strongest predictor for readiness was "feeling dependent on alcohol" (AOR=3.13, p<.01). Interestingly, the AOR of 3.13 was the highest found in this study and was not related to drug abuse per se, but to alcohol dependency. Feeling dependent on alcohol by whites increases the odds by more then three times of treatment readiness. "Injecting cocaine" (AOR=2.23, p<.001), "daily use of heroin" (AOR=2.23, p<.05) and "reporting illegal income" (AOR=2.01, p<.05) were also significant predictors that more than doubled the odds for treatment readiness.

The strongest predictor for wanting treatment for African Americans was using heroin every day (AOR=3.04, p<.05). The AOR of 3.04 was the second highest for all groups. Spending more than $200 a week on drugs (AOR=2.02, p<.05) and not having full-time employment (AOR=1.86, p<.05) also increased the odds for being ready for treatment for this group.

Discussion

The results of the logistic regression analysis indicate that there is a great heterogeneity in the patterns of predictor variables for readiness for treatment defined by ethnic group. There was no single predictor variable in our model that was robust across all ethnic groups. Each ethnic group presented a distinct pattern predicting help-seeking behavior ranging from a relatively simple model for African Americans to a highly complex one for Mexican Americans. While this sort of finding is generally known in the medical sociology literature on illness behavior, it is largely absent from studies on help-seeking in the drug abuse field (National Center for Health Statistics 1984). While most of the published studies have collected these data, they have not adopted a specific analytic strategy that would reveal these sorts of difference. The tendency is to search for primarily psychological or medical predictors and therefore not sufficiently control for ethnic variations. Often, the samples did not allow for cross ethnic comparison as was possible in this analysis. Furthermore, many studies compare treatment samples with community samples collected with different strategies. These methodological differences in comparability of samples may especially bias the statistical results concerning ethnicity. Ethnic groups in general and the Mexican American group in particular have been recognized of being "hidden

populations" from treatment services. The use of the DUF data (notwithstanding its own methodological limitations) provides a fresh and new source of data that avoids some of the sampling problems associated with clinical and community survey samples.

The specific complexity of the pattern of predictors for readiness for treatment for the Mexican American arrestees may help reinforce other research noting Mexican American low rates of help-seeking (Anderson, Lewis, Giachello, Aday, Chiu 1981; Roberts, Lee 1980). Yet it is not clear whether this research represents a special case related to drug abuse or a variant of mental health or physical help-seeking behavior (Barrera, Reese 1993).

For a Mexican American drug abuser to be ready for treatment a number of factors must all come together. Logically, the more factors that it takes, the greater the likelihood that the population will not seek help. The specific impact of divorce on treatment readiness for Mexican Americans and not the other ethnic groups may be reflective of the high importance that the family plays for Mexican Americans. Overall, the results of this study indicate that the Mexican American who seeks treatment will more likely be divorced, would be involved with illegal income, be spending more than $200 a week on drugs, inject cocaine and be dependent on heroin, marijuana and alcohol.

In contrast, the African Americans present a less complicated pattern; they are more likely to be using heroin everyday, spending $200 or more per week on drugs and not be employed full-time. This pattern fits the classic study results of Rounsaville and Kleber (1985) who found that a substantial barrier for seeking treatment was good current social functioning. This finding held for both whites and nonwhites (almost entirely African American).

For the African Americans in San Antonio, using heroin everyday and spending a lot of money on drugs for a week and not being employed full-time are evidence of disruptions of their social functioning. The social context of African Americans also helps in explaining this pattern. Demographically, the African Americans in the sample have relatively higher education, while at the same time having higher rates of unemployment and being older. This specific complex of variables, rare in comparison to other U.S. cities, helps to explain why being unemployed can have such a strong influence on wanting treatment for African

Americans, in comparison to the Mexican Americans and whites.

The white arrestees showed an intermediary pattern compared to the African and Mexican Americans. Compared to the other two groups, employment and social adjustment did not seem to play a role in treatment seeking behavior. By far the strongest predictor for treatment seeking was feelings of dependence on alcohol. This together with using heroin everyday, injecting cocaine and highly involved in illegal income (two times greater odds) predicted readiness for treatment in this group. Treatment-seeking for this group seems strongly associated to a high risk criminal lifestyle that is built upon heroin and upon alcohol. In an earlier published study using the DUF data in San Antonio, Valdez, Kaplan, Curtis, and Yin (1995) identified a strong asso-ciation of alcohol use with aggressive crime. The authors partially explained this finding in terms of a specific alcohol subculture they referred to as "belligerent drinking." This subculture supports drinking as a normative response to stress in life. It includes a fondness for country and western music and a proclivity for aggressive (both suicidal and homicidal) behavior (Chalfant, Beckley 1977; Stack, Gundlach 1992). San Antonio provides a context where this subculture is widely present for whites while at the same time presenting a large privately financed treatment system that is utilized primarily by white population which represents less then half of the city's population. This specific context would also help to explain why alcohol associated with high risk drug behavior and daily drug use can come together to form a pattern of "social suicide" that would prepare a member of this group for seeking services that are rather easily available to those individuals that can afford a fee-for-service arrangement.

The ethnic groups included in this study reflect different social positions in the society with whites being the most privileged (income, employment), African American being the most excluded (blocked opportunity, higher education, lower income and employment) and Mexican Americans having the most hindered social capital (lowered education, lower income, but average employment). Future research on treatment-seeking should not only focus upon psychological variables, but upon the interactions between the social demographics that indicate the social position of drug abusers as citizens within society. This research should also include how cultural variations in illness behavior and treatment seeking vary by different ethnic groups.

In this study the social demographics played a significant role for the Mexican Americans and African Americans. Unemployment for African Americans and the situation of divorce for the Mexican American drug abusers in the city seem to have a strong effect on loosening the balance of social adjustment for those heroin users. This is not the case for whites. These findings suggest that planning and programming efforts need to attend to these influences as they design and implement substance abuse treatment and social services. As one moves to outreach, education and related intervention efforts, these targeted efforts must take into account factors that reinforce a client's readiness for treatment. Specific interventions targeting Mexican Americans need to consider the importance and significance of marital status and/or sexual partner. For whites, intervention planning and programming must take into account their self-awareness of alcohol dependency, high risk and autoaggressive behaviors. Certainly there is a need for more investigation to test the saliency of these influences across these ethnic groups and within ethnic groups. Furthermore, there needs to be more research concerning regional and national differences. In all cases, a more creative attention to complexes of sociological and social psychological variables would lead to progress both in scientific theory construction and the planning of prevention and interventions with this population.

END NOTES
[1] Of those testing positive for cocaine or heroin, 36 percent of 398 out of the 1,113 did not admit to using these drugs. As a result, they were not asked questions concerning their drug use patterns and thus could not be included in this analyses. Most of the these (348) stated they did not feel that they need treatment. Future research needs to focus on this subpopulation of drug users that deny use of drugs and do not feel the need for drug treatment.

REFERENCES
Alcabes P, D Vlahov, JC Anthony 1992 Correlates of human immunodeficiency virus infection in intravenous drug users: are treatment-program samples misleading? *British J Addiction* 87 1 47-54
Anderson R, SZ Lewis, AL Giachello, L Aday, G Chiu 1981 Access to medical care among the Hispanic population of the southwestern United States *J Health Social Behavior* 22 78-79

Balenko S, J Fagan, K Chin 1991 Criminal justice responses to crack *J Res Crime Delinquency* 28 55-74

Barrera M, F Reese 1993 Natural support systems and Hispanic substance abuse. In RS Mayers, BL Kail, TD Watts eds *Hispanic Substance Abuse* Springfield, IL: Charles C Thomas

Chalfant P, R Beckley 1977 Beguiling and betraying: the image of alcohol use in country music *J Studies Alcohol* 38 1428-33

Chitwood DD, CB McCoy 1990 Comparison of street and treatment IVDUs *NADR Network* 2 1A 1 3-4

De Leon G, N Jainchill 1986 Circumstance, motivation, readiness and suitability as correlates of treatment tenure *J Psychoactive Drugs* 18 3 203-8

Goldkamp JS, MR Gottfredson, D Weiland 1990 Pretrial drug testing and defendant risk *J Criminal Law Criminology* 81 3 585-652

Goldstein PJ, J Henry, HB Brownstein, J Patrick 1992 Drug-related homicide in New York: 1984 and 1988 *Crime and Delinquency* 38 4 459-76

Hartnoll RL 1992 Research and the help-seeking process *British J Addiction* 87 429-437

Hartnoll RL, R Power 1989 Why most of Britain's drug users are not looking for help *Druglink* 4 8-9

Kessler RC, RH Price, CB Wortman 1985 Social factors in psychology: stress, social support, and coping processes *Ann Rev Psychology* 36 531-572

Longshore D, S Hsieh, MD Anglin 1993 Ethnic and gender differences in drug users' perceived need for treatment *Internat J Addictions* 28 6 539-558

Mata AG, SR Andrew, B Rouse 1993 Inhalant abuse among Mexican Americans. In RS Mayers, BL Kail, TD Watts eds *Hispanic Substance Abuse* Springfield, IL: Charles C Thomas

Mata AG, V Castillo 1986 Rural female adolescent dissatisfaction, support and helpseeking *Free Inq in Creat Sociol* 14 2 135-138

Mata AG, R Magana 1995 Inhalant use, social support and help-seeking behaviors among rural South Texas community youth *Free Inq Creat Soc* 23 2 67-76

McCusker J, B Koblin, BF Lewis, J Sullivan 1990 Demographic characteristics, risk behaviors, and HIV seroprevalence among intravenous drug users by site of contact: results from a community-wide HIV surveillance project *Amer J Public Health* 80 9 1062-7

McKinlay JB 1974 A case for refocusing upstream: the political economy of illness. In P Conrad, R Kern eds *Sociology of Health and Illness: Critical Perspectives* NY: St. Martin's Press

McLellan AT, L Luborsky, GE Woody, CP O'Brian, KA Druley 1983 Predicting response to alcohol and drug abuse treatments *Archives General Psychiatry* 40 620-625

Mechanic D 1978 *Medical Sociology* 2nd ed NY: Free Press

_____ 1980 The experience and reporting of common physical complaints *J Health Social Behavior* 21 146-155

National Center for Health Statistics 1984 *Health Indicators for Hispanic, black and white Americans.* (Series 10. No. 148.) US Department of Health and Human Services

O'Donnell JA, HL Voss, GT Clayton, R Slatin, GW Room 1976 *Young Men and Drugs-A Nationwide Survey.* Research Monograph no. 5. Rockville, MD: National Institute on Drug Abuse

Padgett D, EL Struenning, H Andrews 1990 Factors affecting the use of medical, mental health, alcohol, and drug treatment services by homeless adults *Medical Care* 28 805-821

Pearlin LI 1983 Role strains and personal stress: trends in theory and research. In HB Kaplan ed *Psychosocial Stress: Trends in Theory and Research* NY: Academic Press

Prochaska JO, CC DiClementi, JC Norcross 1992 In search of how people change: applications to addictive behaviors *Amer Psychol* 47 9 1102-1114

Roberts RE, ES Lee 1980 Medical care by Mexican-Americans: evidence from the human population laboratory studies *Medical Care* 43 266-281

Rounsaville BJ, HA Kleber 1985 Untreated opiate addicts: how do they differ from those seeking treatment? *Archives General Psychiatry* 42 1072-1077

SPSS Inc 1986 *SPSS User's Guide* Edition 2 NY: McGraw-Hill

Smith DA, C Ploesnber 1992 Specifying the relationship between arrestee drug test results and recidivism *J Criminal Law Criminology* 83 3 293-303

Stack S, J Gundlach 1992 The effect of country music on suicide *Social Forces* 71 211-18

Timms N, R Timms 1977 *Perspectives in Social Work* London: Kegan Paul Routledge

US Department of Justice 1990 *Uniform Crime Reports 1989* Washington, DC: USGPO

Valdez A, CD Kaplan, RL Curtis, Z Yin 1995 Illegal drug use, alcohol and aggressive crime among Mexican-American and white male arrestees in San Antonio *J Psychoactive Drugs* 27 2 135-143

Windle M, C Miller-Tutzauer, GM Barnes, J Welte 1991 Adolescent perceptions of help-seeking resources for substance abuse *Child Development* 62 179-189

Wish ED, BA Gropper 1990 Drug testing be the criminal justice system: methods, research, and application. In: M Trory, JQ Wilson eds *Drugs and Crime* Chicago: U Chicago Press

Zola IK 1973 Pathways to the doctor: from person to patient *Social Sciences Medicine* 7 677-689