

ARTICLE

Predicting Drug Treatment Entry Among Treatment-Seeking Individuals

YIH-ING HSER, PhD,* MARGARET MAGLIONE, MPP,* MARGARET L. POLINSKY, PhD,†
AND M. DOUGLAS ANGLIN, PhD*

*Drug Abuse Research Center, Neuropsychiatric Institute, University of California, Los Angeles, CA

†School of Public Policy and Social Research, University of California, Los Angeles, CA

Abstract—*This study examined factors related to drug treatment program entry among 276 drug abusers seeking treatment referral. Six-month follow-up interviews determined that 171 (62.0%) followed through with the treatment referral. The analyses indicated that treatment-entry and non-entry subjects did not differ in predisposing factors (age, gender, race/ethnicity, education), type of drug use, or years of use. A logistic regression analysis indicated that characteristics at baseline predicting subsequent treatment entry include legal pressure, lower levels of psychological distress and family or social problems, and prior successful treatment experience. Legal coercion was an effective factor promoting treatment entry. Drug abusers having prior successful treatment experience were also more likely to reenter treatment. However, those with more severe problems (drug related and others) seemed less likely to enter treatment, indicating that psychological distress and family problems may undermine motivation to follow through on treatment referral.* © 1998 Elsevier Science Inc.

Keywords—treatment-seeking; treatment entry; legal pressure; psychological distress; prior successful treatment.

INTRODUCTION

THE MAJORITY OF drug and alcohol users do not seek formal treatment (Abelson & Miller, 1985; Carroll & Rounsaville, 1992; Sobell, Sobell, & Toneatto, 1992).

This research was supported, in part, by research grants P50DA07699 and DA07382 from the National Institute on Drug Abuse (NIDA). Drs. Hser and Anglin are also supported by Research Scientist Development Awards (K02DA00139, K02DA00146, respectively) from NIDA. The authors appreciate the supportive work of the staff and collaborating researchers at the UCLA Drug Abuse Research Center and the cooperation and support of the staff members at the Target Cities Coastal Community Resource Center which made this work possible.

Requests for reprints should be addressed to Yih-Ing Hser, PhD, UCLA Drug Abuse Research Center, 1100 Glendon Avenue, Suite 763, Los Angeles, CA 90024-3511.

Even among treatment-seeking drug abusers, compliance with treatment referral is not assured. Most studies on help-seeking behaviors are based on medical care utilization and results generally suggest that individual characteristics, social enabling factors, and treatment service structure characteristics all serve as forces toward or away from help-seeking (Andersen, 1995; Andersen & Newman, 1973; Beckman & Amaro, 1986). Most studies of drug abusers have focused on individuals in treatment and only recently has research attention been directed toward help-seeking among drug abusers (see review by Sobell, Sobell, & Toneatto, 1992). The present study contrasts characteristics of drug abusers who entered treatment with those who did not enter treatment after they had sought and been provided with referral to a drug treatment program. In addition, the paper examines factors that may contribute to prediction of treatment entry.

Previous Findings

Generalization of findings from studies of help-seeking across the range of health problems (e.g., medical, mental, alcohol, and drug) is not advisable. In particular, because drug use is illegal and drug treatment utilization is highly stigmatized, factors that influence treatment entry among drug users may differ from factors that influence treatment utilization for other types of health needs. Based on the findings of the few studies of help-seeking behaviors among drug users, three broad inferences may be discerned (Hartnoll, 1992). The first is that seeking help is a function of the severity of an individual's problematic drug use. The second is that help-seeking is influenced by individual characteristics, environmental circumstances, and sociocultural context. The third is that the availability and characteristics of services and policies are in part responsible for determining patterns of help-seeking. However, empirical evidence supporting these assumptions is sparse. For example, while some studies found that the level of drug use was associated with treatment utilization (Chitwood & Morningstar, 1985; Graeven & Graeven, 1983; Price, Cottler, & Pearl, 1990), others did not. Notably, Carroll and Rounsaville (1992) compared treated and untreated cocaine users and found that those in treatment had reported lower levels of polysubstance abuse and more negative consequences of cocaine use, but no differences were found for severity of cocaine use and psychiatric comorbidity. Furthermore, the treated cocaine users were more likely to have been married or in a stable interpersonal relationship.

The few studies on the influence of individual, social, and cultural factors on help-seeking behaviors indicate that higher neuroticism and depression seem to mediate help-seeking for drug problems (Rounsaville & Kleber, 1985; Sheehan, Oppenheimer, & Taylor, 1988) and that the criminal justice system plays an important role as an external pressure for treatment participation (Hubbard et al., 1989; Pringle, 1982). Although limited in number, some studies showed that a history of prior treatment was associated with subsequent treatment entry (Schutz, Rapiti, Vlahov, & Anthony, 1994; Tesselaar, Smith, Stark, & Gould, 1993). Even fewer studies have examined systems factors, such as service structures and accessibility, which may influence help-seeking by drug users.

Hypotheses

The present study examined factors contributing to actual treatment entry among a sample of drug abusers who sought referral for drug treatment. From October 1994 to May 1995, 276 clients were assessed and received referrals to local treatment programs. Six-month follow-up interviews with these subjects determined that 105 (38%) of the 276 did not enter treatment. Variables in four domains were examined to evaluate four hypotheses regarding actual treatment entry behaviors.

1. *Severity of problem drug use.* We hypothesized that drug abusers who entered treatment would demonstrate more severe and/or chronic drug abuse than those who did not enter treatment.
2. *Severity of other problems.* We hypothesized that drug abusers who entered treatment would have recently experienced more problems in areas besides drug use (e.g., alcohol problems, legal problems, family problems, psychological problems, medical problems, housing problems) than those who did not enter treatment.
3. *Social enabling factors.* We hypothesized that drug abusers who entered treatment would be under more external pressure to enter treatment (e.g., legal coercion), and have more resources or support (e.g., health insurance, employment, stable marital relationships) than those who did not enter treatment.
4. *Prior treatment experiences.* We hypothesized that drug abusers who entered treatment would be more likely to have had a previous positive drug treatment experience than those who did not enter treatment. A positive drug treatment experience was defined as one the subject considered effective for at least 3 months postdischarge.

METHODS

Subjects

The analysis included 276 subjects recruited from two sources. Two-hundred and three subjects were recruited from a community resource center (CRC) that provided referrals to drug treatment programs. This CRC was supported by Center for Substance Abuse Treatment (CSAT) Target Cities funds to provide referrals to local, publicly funded treatment programs in Los Angeles County.

The second source recruited 73 drug abusers who participated in research projects conducted by the Drug Abuse Research Center at the University of California, Los Angeles. These projects were descriptive studies (not involving any intervention) designed to improve our understanding of the natural history of drug use patterns. Subjects who were interested in receiving referral to a drug treatment program were included in the present study.

Statistical tests comparing the demographic and background characteristics of the two sources of subjects indicated no significant differences, except that the CRC source provided proportionately fewer African Americans and more Whites than the non-CRC source. Subsequent general analyses were conducted on the combined sample of the CRC and non-CRC subjects. However, in the logistic regression analysis, source of subject recruitment (CRC and non-CRC) was included as a control variable. Overall, the sample was about 46% female, 35% African American, 26% Hispanic or Latino, and 36% White. The mean age of the sample was about 35

years (range: 18 to 59) and the average years of education was 11.7. Marital status was 19% currently married; 28% widowed, divorced, or separated; and 53% never married. In terms of employment status, 25% were currently employed, 41% were unemployed, and 34% were not in the labor force (neither employed nor seeking employment).

Fieldwork and Interview Procedures

Subjects who gave their informed consent participated in two interviews 6 months apart. The initial assessment of the subjects took 45 minutes to complete. Clients were contacted 6 months later for a follow-up telephone interview that took 10 to 20 minutes, depending on how many treatment programs the subject attended in the period between the initial assessment and follow-up.

Measures

The initial assessment instrument collected information on sociodemographic background (age, sex, ethnicity, education, and marital status); problem severity in multiple domains (medical, employment, alcohol use, drug use, legal, family/social relationships, psychological, housing); current practical circumstances (legal status, financial resources, transportation, living arrangement, child care needs); knowledge and preferences about drug use, previous treatment experiences and treatment services; and reasons for seeking drug treatment at the time. Most items for the measures of problem severity were taken

from the Addiction Severity Index (ASI) (McLellan et al., 1980, 1992).

The follow-up interview assessed compliance with the referral, reasons for noncompliance, and changes in the problem areas assessed at the initial interview. If subjects had entered treatment, questions were asked about which program(s) they attended, which services were received, and how satisfied they were with the services. Reasons for not entering treatment were solicited from those who had not participated in any treatment program during the follow-up period.

RESULTS

Background Characteristics

The background characteristics of subjects by their treatment entry status are provided in Table 1. The two groups (treatment-entry and treatment non-entry) did not differ significantly in terms of gender, ethnicity, age, years of education, marital status, and employment status. About 41% of subjects in both groups had health insurance (see Table 2). However, compared to subjects who did not enter treatment, subjects who entered treatment were more likely to be covered by a public health plan (e.g., Medi-Cal—California’s Medicaid) and their plans were more likely to include benefits for drug treatment.

Self-Reported Reasons for Seeking Drug Treatment

At the initial assessment, subjects were asked to respond “yes” or “no” to a list of potential reasons for seeking

TABLE 1
Background Characteristics

| Variables | Treatment Entry | | | Treatment Non-Entry | | | Entry vs. Non-Entry |
|----------------------------|-----------------|------------------|-----------------|---------------------|------------------|-----------------|-------------------------|
| | CRC (N = 145) | Non-CRC (N = 26) | Total (N = 171) | CRC (N = 58) | Non-CRC (N = 47) | Total (N = 105) | p (χ ² or t) |
| Gender (%) | | | | | | | |
| Female | 47.6 | 50.0 | 48.0 | 46.6 | 40.4 | 43.8 | NS |
| Ethnicity (%) | | | | | | | |
| African American | 29.0 | 57.7 | 33.3 | 29.3 | 51.1 | 39.0 | NS |
| Hispanic/Latino | 22.8 | 23.1 | 22.8 | 24.1 | 25.5 | 24.8 | |
| White | 44.8 | 11.5 | 39.8 | 43.1 | 17.0 | 31.4 | |
| Others | 3.4 | 7.7 | 4.1 | 3.4 | 6.4 | 4.8 | |
| Age (years) | 34.3 | 38.2 | 34.9 | 33.7 | 36.2 | 34.8 | NS |
| Years of education | 12.0 | 10.8 | 11.8 | 11.8 | 11.3 | 11.6 | NS |
| Marital status (%) | | | | | | | |
| Married | 17.2 | 26.9 | 18.7 | 22.4 | 14.9 | 19.0 | NS |
| Widowed/divorced/separated | 25.5 | 26.9 | 25.7 | 29.3 | 34.0 | 31.4 | |
| Never married | 57.2 | 46.2 | 55.6 | 48.3 | 51.1 | 49.5 | |
| Employment status (%) | | | | | | | |
| Employed | 25.5 | 15.4 | 24.0 | 34.5 | 17.0 | 26.7 | NS |
| Unemployed | 39.3 | 46.2 | 40.4 | 36.2 | 51.1 | 42.9 | |
| Not in labor force | 35.2 | 38.5 | 35.7 | 29.3 | 31.9 | 30.5 | |

NS = not significant.

TABLE 2
Insurance Coverage

| Variables | Treatment Entry (N = 171) | Treatment Non-Entry (N = 105) | p (χ^2) |
|---|------------------------------|----------------------------------|-------------------|
| Had health insurance ^a (%) | 43.3 | 39.0 | NS |
| MediCal (California's Medicaid) | 28.7 | 17.1 | .030 |
| Medicare | 1.8 | 1.9 | NS |
| Veteran | 0.6 | 1.9 | NS |
| Health Maintenance Organization (HMO) | 1.2 | 4.8 | .065 |
| Private health insurance | 4.7 | 4.8 | NS |
| Coverage through general relief | 9.9 | 10.5 | NS |
| Of those with insurance, health plan covered drug treatment | 48.6 | 31.6 | .083 |

NS = not significant.

^aPercentages do not add up to 100% because categories are not mutually exclusive.

treatment at that time. Multiple reasons could be given by each subject and the results are listed in Table 3. The most frequently reported reason for seeking treatment (by 79% of the subjects) was that they were tired of the drug-using lifestyle. In general, subjects who did not enter treatment were more likely than treatment-entry subjects to report concerns about need to change lifestyle, family problems, mental health, and other problems as reasons for seeking treatment, although only the mental health-related reason demonstrated a significant difference between the two groups. A significantly higher portion of treatment-entry subjects reported seeking treatment because of legal problems.

Assessment of Clients' Problem Areas

Severity of Drug Use. As indicated in Table 4, the type of drug use did not differ significantly between the two groups; cocaine/crack was the predominant drug problem reported by both groups. A number of indicators of substance use severity were compared to evaluate the hypothesis that drug abuse would be more severe in the treatment-entry sample. Both groups (entry and non-entry) had a similar length of drug use history. The treat-

ment-entry sample appeared to have a less severe level of substance use, as indicated by less days of drug problems in the past month and less amount of money spent on drugs in the last month.

Severity of Other Problems. Indices of negative consequences and subjective distress consistently indicated more impairment among the non-entry group (Table 4). These indicators included severity of psychological and emotional problems, and severity of problems with family and social relationships. In the month prior to the initial assessment, the treatment-entry group had significantly fewer days with drug and alcohol problems and significantly fewer days engaging in illegal acts for profit than the non-entry group. A significantly higher percentage of the treatment-entry group was involved in some kind of legal problem (68% vs. 42% of the non-entry group). Legal problems included being on probation, parole, or presently awaiting charges, trial, or sentencing.

Prior Drug Treatment History and Experiences

Prior treatment participation and having attended a program that was effective for at least 3 months postdis-

TABLE 3
Self-Reported Reasons for Seeking Drug Treatment

| Reasons ^a | Treatment Entry (N = 171) | Treatment Non-Entry (N = 105) | p (χ^2) |
|--------------------------|------------------------------|----------------------------------|-------------------|
| Need to change lifestyle | 77.2 | 81.0 | NS |
| Legal coercion | 45.6 | 14.3 | .000 |
| Family-related | 31.6 | 41.0 | NS |
| Health-related | 21.6 | 23.8 | NS |
| Financial | 20.5 | 21.9 | NS |
| Mental health-related | 15.2 | 25.7 | .031 |
| Drug-related | 8.8 | 9.5 | NS |
| Employment-related | 8.2 | 9.5 | NS |
| Alcohol-related | 6.4 | 5.7 | NS |

NS = not significant.

^aCategories are not mutually exclusive.

TABLE 4
Assessment of Clients' Problems

| Problem Domains | Treatment Entry (<i>N</i> = 171) | Treatment Non-Entry (<i>N</i> = 105) | <i>p</i> (χ^2 or <i>t</i>) |
|---|--------------------------------------|---|--------------------------------------|
| Major substance problem (%) | | | |
| None | 1.8 | 1.0 | NS |
| Alcohol only | 1.8 | 1.0 | |
| Alcohol and other drugs | 19.3 | 15.2 | |
| Heroin/other opiates | 17.5 | 10.5 | |
| Cocaine/crack | 31.6 | 42.9 | |
| Other drugs | 19.9 | 18.1 | |
| Polydrug (without alcohol) | 8.2 | 11.4 | |
| Years of use | 19.3 | 19.3 | NS |
| Problems in the past 30 days (<i>M</i> ± <i>SD</i>) | | | |
| Days with drug problems | 9.3 ± 11.0 | 15.1 ± 12.2 | .000 |
| Money spent on drugs (\$) | 231.2 ± 553.7 | 360.2 ± 593.6 | .074 |
| Days with alcohol problems | 2.8 ± 7.0 | 5.6 ± 10.5 | .009 |
| Money spent on alcohol (\$) | 28.9 ± 84.3 | 36.5 ± 95.4 | NS |
| Days with medical problems | 6.7 ± 10.9 | 6.5 ± 10.9 | NS |
| Days with psychological/emotional problems | 6.7 ± 10.9 | 10.7 ± 11.9 | .005 |
| Number of psychological distresses | 0.8 ± 1.4 | 1.5 ± 1.7 | .000 |
| Days with employment problems | 9.0 ± 12.1 | 8.9 ± 12.3 | NS |
| Days with family/social relationship problems | 3.5 ± 7.6 | 5.5 ± 9.4 | .050 |
| Days with housing problems | 5.7 ± 10.7 | 7.8 ± 12.4 | NS |
| Days engaging in illegal acts for profit | 0.8 ± 3.5 | 2.4 ± 7.1 | .012 |
| Money received from illegal sources (\$) | 52.7 ± 335.4 | 129.7 ± 687.9 | NS |
| Currently involved with legal system (%) | 67.8 | 41.9 | .000 |

NS = not significant; *M* = mean; *SD* = standard deviation.

charge (positive treatment experience) were reported by higher percentages of the treatment-entry group. Also, more subjects in the treatment non-entry group reported a need for detoxification at the time of initial study interview and referral. The treatment entry group was significantly more likely to have had a positive treatment experience (Table 5).

Reasons for Not Entering Treatment

At follow-up, subjects were asked whether they had contacted the program or programs they had been referred to and whether they had participated in treatment in the last 6 months. Reasons for not going to treatment are pre-

sented in Table 6 in three sections: reasons attributable to the client, service structure barriers, and other types of reasons. Subjects were allowed to give multiple reasons for not contacting programs or participating in treatment. Of the 105 who did not participate in treatment, 29% (*N* = 30) had not contacted the program or programs to which they had been referred and 71% (*N* = 75) had contacted a program or programs but still not gone to treatment. The Total column in Table 6 gives the reasons reported by all subjects for not contacting or participating in any treatment program. Among the reasons attributable to the client, the majority said that they had changed their mind and decided they did not need treatment after all (48%). Others said they had had difficulty in making the neces-

TABLE 5
Prior Treatment History and Experiences

| Problem Domains | Treatment Entry (<i>N</i> = 171) | Treatment Non-Entry (<i>N</i> = 105) | <i>p</i> (χ^2 or <i>t</i>) |
|---|---|---|--------------------------------------|
| Prior treatment experience (%) | 68.4 | 60.0 | NS |
| Number of treatments for drugs | 3.6 | 2.5 | NS |
| Attended a program that was effective for at least 3 months (%) (had a positive treatment experience) | 49.7 | 27.6 | .000 |
| Needs detoxification now (%) | 14.0 | 26.7 | .009 |

sary arrangements to go to treatment (18%), they had become ill and needed medical care not provided in the treatment program (8%), and/or they had been arrested or gone to jail before they could get to treatment (6%). In terms of service structure barriers, subjects reported program admission eligibility problems (16%), financial difficulty (16%), not wanting to be on a waiting list or being on a waiting list too long (14%), problems with transportation (12%), and/or scheduling conflicts (1%) as reasons for not going to treatment. Eleven percent of the subjects reported other reasons, such as "decided to stop using on my own," or "turned my sobriety over to God."

Logistical Regression on Factors Predicting Treatment Entry

Predictors of treatment entry were examined simultaneously in a logistic regression. Table 7 summarizes characteristics associated with treatment entry, giving the estimated odds ratio and the 95% confidence interval. Legal status was dichotomized, with a value of 1 if subjects reported currently being on probation, parole, or awaiting charges, trial, or sentencing. Measures of current problems/needs included in the logistic regression were amount of money spent in the past 30 days on drugs and alcohol and number of days (in past 30) of problems in the areas of family/social relationships, medical status, employment, and housing. Indicators of psychological distress were based on number of distresses (e.g., depression, anxiety, suicidal ideation) in the past 30 days. Prior experience of treatment success was based on subject self-report of having been in a program that helped them quit or cut back on drugs for 3 months or longer. Subject

recruitment source (CRC vs. not CRC) and demographic characteristics were included as control variables.

The results of the logistic regression showed that legal status, psychological distress, problems in family/social relationships, prior experience of treatment success, and subject source were significant in predicting subsequent treatment entry after assessment and referral. Controlling for other factors, drug abusers who were involved in the legal system, had prior positive treatment experience, and were recruited at the CRC were more likely to enter treatment after referral. Drug abusers who reported more psychological symptoms and problems in family/social relationships in the past 30 days were less likely to enter treatment.

DISCUSSION

This study investigated subject characteristics associated with actual treatment entry among a sample of drug abusers who were actively seeking referral to drug treatment. All subjects were referred to local, geographically accessible drug treatment programs. However, a considerable percentage (38%) did not enter treatment at any time during the 6-month follow-up period. The longitudinal design of the study provided an excellent opportunity for investigating distinguishing factors of compliance and noncompliance among drug abusers referred to drug treatment.

Contrary to our hypothesis that treatment entry would be a function of the severity of drug and nondrug use problems, the group of drug abusers who did *not* comply with referral to treatment were more dysfunctional in many areas, including a higher level of drug use and al-

TABLE 6
Reasons for Not Entering Treatment After Referral

| Reasons ^a | Did Not Contact Program (N = 30) | | Did Not Enter After Contact (N = 75) | | Total (N = 105) | |
|---------------------------------|-------------------------------------|-----|---|-----|--------------------|-----|
| | N | (%) | N | (%) | N | (%) |
| Attributable to client | | | | | | |
| Changed mind/did not really try | 21 | 70 | 29 | 39 | 50 | 48 |
| Difficulty making arrangements | NA | | 19 | 25 | 19 | 18 |
| Became too ill | 3 | 10 | 5 | 7 | 8 | 8 |
| Arrested/legal involvement | 4 | 13 | 2 | 3 | 6 | 6 |
| Service structure barriers | | | | | | |
| Transportation | 2 | 7 | 11 | 15 | 13 | 12 |
| Eligibility problem | NA | | 17 | 23 | 17 | 16 |
| Waiting list | NA | | 15 | 20 | 15 | 14 |
| Financial | NA | | 16 | 21 | 15 | 16 |
| Schedule conflicts | 1 | 3 | 6 | 8 | 7 | 1 |
| Others | 9 | 30 | 3 | 4 | 12 | 11 |

NA = not asked.

^aCategories are not mutually exclusive.

cohol use and more severe levels of psychological and family problems. Among the social enabling factors considered in this study, only legal involvement was significantly related to subsequent treatment entry. Confirming our hypothesis related to treatment experiences, the treatment-entry group was more likely to have reported prior successful treatment. These differences were confirmed by a logistic regression analysis.

The study results emphasize that, although legal coercion is apparently an effective enabling influence promoting treatment entry, drug abusers who are experiencing more severe problems with drug use and other types of problems and more severe psychological distress are not necessarily likely to enter treatment. It is possible that excessive psychological distress may undermine a drug user's motivation or ability to follow through on referral to treatment. Thus, referral and outreach efforts need to be sensitive to the distress of drug abusers who are suffering from significant psychological problems.

Examination of the self-reported reasons for not entering treatment also suggest that barriers to treatment can be both internal and external. A high percentage of subjects reported not entering treatment because they "changed their minds" about drug treatment or "had difficulties making necessary arrangements for going to treatment" (e.g., accommodations for family needs or housing security). This finding seems to suggest that

drug abusers' motivation for entering treatment is quite unstable without the presence of a strong external force, such as legal coercion. Some of our subjects reported scheduling difficulties as a reason for not entering treatment. Kleyn and Lake (1990) found that injection drug users who received income from employment were significantly less willing to enter treatment because, among other difficulties, treatment is time-consuming and can limit job-related travel. Also, there is a risk of employment termination if employers learn of treatment entry and, thereby, of drug use. Prior studies have also shown that there is a strong stigma associated with seeking treatment (Cunningham, Sobell, Sobell, Agrawal, & Tonneatto, 1993; Cunningham, Sobell, Sobell, & Gaskin, 1994). Future studies are needed to examine the psychological processes of motivation and denial among help-seeking drug abusers who did not enter treatment after referral.

Given the extensive social cost and individual impairment associated with drug use, structural barriers to treatment access (whether real or perceived) also need to be examined. The findings of the present study suggest that attention is needed to address issues such as eligibility criteria, waiting list alternatives, and transportation. Even a brief period of successful treatment seems to positively affect treatment reentry for this chronic condition and methods to improve treatment access may prove to

TABLE 7
Logistic Regression Predicting Treatment Entry (N = 276)

| | Odds Ratio | 95% C.I. |
|--------------------------------------|------------|------------|
| Predisposing variables | | |
| Gender | | |
| Female | 1.00 | |
| Male | 0.89 | .50–1.61 |
| Ethnicity | | |
| White | 1.00 | |
| African American | 1.04 | .50–2.16 |
| Hispanic/Latino | 1.05 | .47–2.36 |
| Others | 1.32 | .29–6.14 |
| Age (years) | 1.02 | .98–1.06 |
| Years of education | 1.00 | 1.14–1.15 |
| Enabling factors | | |
| Legal status | 2.83*** | 1.58–5.09 |
| Marital status (married vs. others) | 1.22 | .58–2.54 |
| Employment status | 1.06 | .83–1.34 |
| Current problems/needs | | |
| Money spent on drugs in past month | 1.00 | .99–1.00 |
| Money spend on alcohol in past month | 1.00 | .99–1.00 |
| Family/social problems | 0.97* | .93–1.00 |
| Medical problems | 1.01 | .98–1.04 |
| Housing problems | 0.99 | .97–1.02 |
| Number of psychological distresses | 0.81** | .66–.99 |
| Prior successful treatment | 3.48*** | 1.84–6.57 |
| CRC | 5.97*** | 2.77–12.88 |

**p* < .10.
 ***p* < .05.
 ****p* < .001.

be useful at relatively low cost for increased accessibility and utilization among drug abusers, leading to longer-term return at both individual and societal levels.

REFERENCES

- Abelson, H.I., & Miller, J.D. (1985). A decade of trends in cocaine use in the household population. *NIDA Research Monograph*, **61**, 35–49.
- Andersen, R.M. (1995). Revisiting the behavioral model and access to medical care: Does it matter? *Journal of Health and Social Behavior*, **36**, 1–10.
- Andersen, R.M., & Newman, J.F. (1973). Societal and individual determinants of medical care utilization in the United States. *Milbank Memorial Fund Quarterly Journal*, **51**, 95–124.
- Beckman, L.J., & Amaro, H. (1986). Personal and social difficulties faced by women and men entering alcoholism treatment. *Journal of Studies on Alcohol*, **47**, 135–145.
- Carroll, K.M., & Rounsaville, B.J. (1992). Contrast of treatment-seeking and untreated cocaine abusers. *Archives of General Psychiatry*, **49**, 464–471.
- Chitwood, D.D., & Morningstar, P.C. (1985). Factors which differentiate cocaine users in treatment from nontreatment users. *International Journal of the Addictions*, **20**, 449–459.
- Cunningham, J.A., Sobell, L.C., Sobell, M.B., Agrawal, S., & Toneatto, T. (1993). Barriers to treatment: Why alcohol and drug abusers delay or never seek treatment. *Addictive Behaviors*, **18**, 347–353.
- Cunningham, J.A., Sobell, L.C., Sobell, M.B., & Gaskin, J. (1994). Alcohol and drug abusers' reasons for seeking treatment. *Addictive Behaviors*, **19**, 691–696.
- Graeven, D.B., & Graeven, K.A. (1983). Treated and untreated addicts: Factors associated with participation in treatment and cessation of heroin use. *Journal of Drug Issues*, **13**, 207–218.
- Hartnoll, R. (1992). Research and the help-seeking process. Special issue: AIDS, drug misuse and the research agenda. *British Journal of Addiction*, **87**, 429–437.
- Hubbard, R.L., Marsden, M.E., Rachal, J.V., Harwood, H.J., Cavanaugh, E.R., & Ginsburg, H.M. (1989). *Drug abuse treatment: A national study of effectiveness*. Chapel Hill, NC: University of North Carolina Press.
- Kleyn, J., & Lake, E.S. (1990). Factors associated with willingness to enter drug treatment: Some implications for policy. *AIDS & Public Policy Journal*, **5**(3), 112–116.
- McLellan, A.T., Kushner, H., Metzger, D., Peters, R., Smith, I., Grissom, G., Pettinati, H., & Argeriou, M. (1992). The fifth edition of the Addiction Severity Index. *Journal of Substance Abuse Treatment*, **9**, 199–213.
- McLellan, A.T., Luborsky, L., Woody, G.E., & O'Brien, C.P. (1980). An improved diagnostic evaluation instrument for substance abuse patients. The Addiction Severity Index. *Journal of Nervous and Mental Disease*, **168**, 26–33.
- Price, R.K., Cottler, L.B., & Pearl, R.W. (1990). *Drug abuse treatment utilization in a general population: The prevalence, needs assessment and predictors*. Committee on Problems of Drug Dependence 52nd Annual Meeting, Richmond, VA.
- Pringle, G.H. (1982). Impact of the criminal justice system on substance abusers seeking professional help. *Journal of Drug Issues*, **12**, 275–283.
- Rounsaville, B.J., & Kleber, H.D. (1985). Untreated opiate addicts. How do they differ from those seeking treatment? *Archives of General Psychiatry*, **42**, 1072–1077.
- Schutz, C.G., Rapiti, E., Vlahov, D., & Anthony, J.C. (1994). Suspected determinants of enrollment into detoxification and methadone maintenance treatment among injecting drug users. *Drug and Alcohol Dependence*, **36**, 129–138.
- Sheehan, M., Oppenheimer, E., & Taylor, C. (1988). Who comes for treatment: Drug misusers at three London agencies. *British Journal of Addiction*, **83**, 311–320.
- Sobell, L.C., Sobell, M.B., & Toneatto, T. (1992). Recovery from alcohol problems without treatment. In N. Heather, W.R. Miller, & J. Greeley (Eds.), *Self-control and the addictive behaviors* (pp. 198–242). New York: Maxwell MacMillan.
- Tesselaar, H., Smith, R., Stark, M.S., & Gould, J. (1993). Drug abuse and treatment history in active injecting drug users. 121st Annual Meeting of the American Public Health Association, San Francisco, CA.