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**PERCEIVING NEED FOR DRUG TREATMENT: A LOOK AT EIGHT
HYPOTHESES ***

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RUNNING HEAD: Perceiving Need for Drug Treatment

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PERCEIVING THE NEED FOR DRUG TREATMENT: A LOOK AT EIGHT HYPOTHESES

Abstract

Data from the Drug Use Forecasting Program, sponsored by the National Institute of Justice, were used to examine eight hypotheses predicting the perceived need for drug treatment among drug using arrestees. The findings support five of the eight hypotheses, including those related to drug severity, drug type, prior treatment experience, ethnicity, and the fear of AIDS. There was no support for the gender-related help-seeking or the social isolation hypotheses, and the findings contradict the maturing out hypothesis. The policy implications of the findings are discussed.

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PERCEIVING NEED FOR DRUG TREATMENT: A LOOK AT EIGHT HYPOTHESES

While professional help seeking and the utilization of medical and mental health care services have been the focus of considerable research attention (cf. Goldsmith, Jackson, and Hough, 1988; Gourash, 1978; Berkanovic, Telesky, and Reeder, 1981; Greenley, Mechanic, and Cleary, 1987), significantly less effort has been devoted to help-seeking behavior and treatment utilization of drug users. This lack of attention is perplexing. Treatment of drug misuse continues to be one cornerstone of U.S. drug policy (White House, 1989). Moreover, virtually all treatment modalities have been shown to be at least moderately effective in reducing drug use and its attendant social costs, including the spread of AIDS (Anglin and Hser, 1990; Anglin and Hser, 1992; Des Jarlais, 1992); and it is well established that only a fraction of those with severe drug problems ever find their way into drug treatment programs (Gerstein and Harwood, 1990; Hser and Anglin, unpublished).

Methodological difficulty may be one reason for the paucity of research in this area (cf. Apsler and Harding, 1991). First, the processes leading to the utilization of drug treatment services may be complex. They could include, for example, severity of drug use, personal appraisal strategies, socio-cultural influences, and organizational or institutional factors that could be reciprocally and interactively related (cf. Greenley et al., 1987). A complete understanding of help-seeking behavior and drug

treatment utilization would likely require an extensive research agenda rather than a few studies. Second, understanding why drug users may or may not utilize treatment involves sampling representative individuals of the "hidden population" of drug users who have not entered treatment. Identifying and interviewing these individuals, who may be difficult to locate and may not want to be interviewed about their drug use, could be difficult, time-consuming, and costly (Hser et al., 1992).

The Drug Use Forecasting Program (DUF) offers a way to examine the "hidden population." DUF is an interview and drug testing program sponsored by the National Institute of Justice that surveys drug and non-drug-related arrestees in 25 cities shortly after they arrive at local detention facilities. While arrestees are not necessarily representative of all drug users, they exhibit considerable heterogeneity in the types, amounts, and duration of drugs they use, along with variation in their perceived need for treatment. The Los Angeles DUF site surveys nearly 2,000 arrestees each year and this large sample size offers some degree of confidence in the findings. DUF data could yield insights into a question that is central to treatment utilization: Why do some individuals believe they currently need treatment for their drug use while others do not? This paper examines eight hypotheses that may predict the drug user's perceived need for drug treatment.

BACKGROUND

Two widely cited theoretical models have emerged to explain treatment utilization of medical and mental health services. One model focuses on the *elements* of treatment utilization, while the other examines the *process* of help-seeking. The elements of treatment utilization include *need*, *predisposing*, and *enabling* variables (Andersen, 1968; Andersen and Newman, 1973; Aday and Andersen, 1974; Aday, Fleming, and Andersen, 1984). Need can be defined as the degree to which an individual exhibits a problem that is consistent with the problems the service purports to solve. Need could be conceptualized as actual or perceived. *Actual* need involves the relative presence of a problem in terms of symptoms, behaviors, or situations, while *perceived* need includes the individual's own judgment or perception of the problem.

Predisposing variables involve the propensity that an individual will seek professional help for a specific problem. Attitudes, values, and knowledge concerning the problem and the necessity or desirability of treatment are often viewed as predisposing influences. Enabling factors refer to conditions or situations that facilitate or inhibit the use of services such as the cost of the service, accessibility, and family or work obligations.

In terms of the actual process of help-seeking, there seems to be some consensus among researchers that help-seeking occurs in three general stages (cf.

Veroff, Kulka, and Douvan, 1981; Mechanic, 1982; Gross and McMullen, 1983; Prochaska and DiClemente, 1984). Stage 1 involves the *perception of a problem* that is amendable to change; stage 2 entails the *decision to seek help* for the problem, and stage 3 involves *selection of available and accessible services* to solve the problem (see Gross and McMullen, 1983, for a discussion of possible variations in this process).

Both the elements and process models of treatment utilization appear useful in understanding treatment seeking by drug users. A drug user's perceived need for treatment would fall in the "need" and "predisposing" aspects of the elements model, and in the "perceived problem" stage of the process model. While perceived need for treatment is central to both the elements and the process models of treatment utilization, only a few studies have examined this or other motivational factors which could influence drug treatment utilization (Hartnoll, 1992; Hartnoll and Power, 1989a, 1989b; Longshore, Hsieh, and Anglin, 1993; Longshore et al., 1992; Power, Hartnoll, and Chalmers, 1992). The main findings of these studies, along with pertinent findings of medical and mental health research, will be included in the following discussion of the eight hypotheses.

Use Severity Hypothesis

A plausible, if simple-minded, hypothesis is that those with severe drug problems are more likely to perceive the need for drug treatment than are those with less severe drug problems. In mental health research, it is well established that the single best predictor of use of services is reported psychological distress (Greenley and Mechanic, 1976; Leaf and Bruce, 1985). Moreover, there is some evidence that drug users who seek help exhibit more severe problems associated with drug use compared to those not seeking help. These problems include loss of control of drug use, health problems such as depression and anxiety about health, legal and financial problems, and conflicts in relationships (Hartnoll, 1992; Graeyen and Graeven, 1983). Other research, however, has found that the level of drug use alone does *not* necessarily distinguish help seekers from non-help seekers (Rounsaville and Kleber, 1985; Hartnoll and Power, 1989a).

Drug Type Hypothesis

Equally severe use of *different* drugs could lead to quite different perceived need for drug treatment. It may be that frequent users of "hard drugs" such as the opiates, cocaine, and crack encounter many more life problems than frequent users of the "softer" drugs such as marijuana, LSD, and Valium. Experiencing many more

life problems, users of hard drugs would be more likely to perceive the need for drug treatment compared to their counterparts using other drugs (cf. Hartnoll and Power, 1989b; Power, Hartnoll, and Chalmers, 1992).

While the drug type hypothesis is plausible, it should be noted that research indicates that some narcotics users develop "control strategies" which may limit the life problems associated with narcotics use. In comparing narcotics users who seek treatment with those who do not, Hartnoll and Power (1989b) found that non-users of treatment spend a lower proportion of their income on drugs, seem to be more enterprising in their financial support, are more likely to avoid arrest, and experience less conflict with their friends. These findings suggest that control strategies may limit the life problems associated with the use of hard drugs which, in turn, could mitigate the perceived need for drug treatment.

Treatment Experience Hypothesis

Previous treatment experience could influence the perceived need for treatment. Research on the utilization of mental health services indicates that positive attitudes toward psychiatry is associated with the reported need for treatment and the willingness to utilize medical psychiatric services (Lehtinen and Väisänen, 1978). Moreover, users of psychiatric services may have a general "propensity" to seek psychiatric care (Greenly and Mechanic, 1976; Greenley et al., 1987).

It is not clear whether previous treatment experience influences the perceived need for drug treatment, but two contradictory hypotheses seem to be plausible. It could be that previous drug treatment generally leads to favorable treatment-related experiences, and these experiences increase the likelihood that these individuals will perceive the need for treatment for their current drug use. On the other hand, it could be that previous treatment generally leads to negative treatment-related experiences, and these experiences decrease the likelihood that these individuals will perceive the need for treatment for their current drug use.

Gendered Help-Seeking Hypothesis

With the same drug problems, women may be more likely than men to perceive a need for drug treatment. Research consistently indicates that women are more likely to use virtually all health care services (Andersen and Anderson, 1967; Cleary, Mechanic, and Greenley, 1982; Waldron, 1983; Corney, 1990), although there is some evidence that men are becoming less resistant to using mental health services (Fox, 1986; Leaf and Bruce, 1987).

These gender differences in utilization rates cannot be attributed to sex specific biological factors such as pregnancy and childbirth (Corney, 1990; also see Verbrugge, 1982). Rather, it is speculated that the differences in help-seeking stem from differences in gender norms concerning personal independence, strength, and

control (Nathanson, 1975; Phillips and Segal, 1969). Women are also more likely to recognize psychiatric and emotional problems in themselves (Horwitz, 1977a), they show a greater readiness to define their problems in psychiatric terms (Veroff et al., 1981), and they are more likely to consult professionals for psychosocial problems of distress (Gove and Hughes, 1979; Corney, 1990).

It not clear whether these findings can be generalized to the perceived need for drug treatment. Female drug users may be an atypical group in this regard.

Research on heavy users of illicit drugs suggests that women have higher levels of psychiatric impairment and appear more deviant than men (Anglin and Hser, 1990).

More importantly, Longshore, Hsieh, and Anglin (1993) found that female drug users were *not* significantly more likely than male drug users to perceive the need for drug treatment.

Ethnic Diversity Hypothesis

There could be ethnic differences in the types or level of drug use, the perception of what constitutes misuse, and the perceived appropriateness or efficacy of existing treatment services -- all of which could lead to dramatic differences in the perceived need for treatment among ethnic subgroups of drug users.

Mental health research indicates that professional help seeking in response to different levels of psychological distress varies across ethnic and cultural groups

(Mechanic, 1982; Greenley and Mechanic, 1976; Kessler, Brown, and Broman, 1981; Veroff et al., 1981). Further, some ethnic groups are less likely to utilize mental health services or to stay in treatment when contact is initiated (Hough et al., 1987; Liu and Yu, 1985; Sue, 1977).

Compared to mental health research, the findings concerning the utilization of drug treatment services seem to be less consistent. Some studies find that certain ethnic groups, such as African Americans and Hispanics, underutilize drug treatment services (Rounsaville and Kleber, 1985; Longshore et al., 1992), while others find that ethnic groups do not underutilize drug treatment services, and that Hispanics may consistently "overutilize" services compared to other ethnic groups (De La Rosa, Khalsa, and Rouse, 1990; Desmond and Maddux, 1984; Fiorentine and Attar, 1992). Concerning the perceived need for treatment, however, Longshore, Hsieh, and Anglin (1993) found that Hispanics were less likely than Anglos and African Americans to report needing drug treatment.

Maturing Out Hypothesis

It could be that older drug users tire of their lifestyle and look favorably to treatment to help them solve their drug problems. This hypothesis is consistent with the view expressed by Winick (1962) that chronic addicts tend to cease their addiction and associated antisocial behaviors over time.

While there is a curvilinear relationship between age and seeking mental health care in that the middle aged seek more care than either younger or older adults (Leaf et al., 1985; Wells et al., 1986; Diehr et al., 1984), existing research does not consistently support the maturing out process for heroin addicts (Anglin et al., 1986). Rather, maturing out may be a conditional phenomenon that is accelerated by personal resources and delayed by involvement with drug dealing or crime (Anglin et al., 1986; Brecht et al., 1987; Hser, Anglin, and Powers, unpublished).

Social Isolation Hypothesis

It may be that socially isolated drug users are more likely to perceive the need for treatment compared to their more socially integrated counterparts. Socially isolated individuals may more readily express a need for formal treatment because informal help from family, friends, and co-workers is unavailable. Yet a "social integration" hypothesis seems equally plausible. It could be that family and friends consistently encourage the individual to seek treatment for his or her drug problems which could facilitate the help-seeking process.

Consistent with the social isolation hypothesis, however, there is evidence that socially isolated individuals have more contact with health care services (Goldberg and Huxley, 1980; Fox, 1986), and users of psychiatric services are more often separated or divorced (Jacobson, Regier, and Burns, 1978). Grosser (1980) found

that low social support is associated with higher rates of mental health service utilization even when level of psychological distress is controlled.

Conversely, individuals in large, stable family networks are less likely to seek professional help for their problems (Horwitz, 1977b). Horwitz (1987) speculated that this may be one reason why ethnic groups with extended familial networks, such as Chinese-Americans or Mexican-Americans, are low utilizers of mental health services. Similarly, Graeven and Graeven (1983) concluded that untreated heroin users typically have more cohesive families than treated heroin addicts.

Aids Fear Hypothesis

It could be that drug users engaging in AIDS risk behaviors such as needle sharing are more likely to perceive the need for treatment as a way to avoid these risks compared to those not sharing needles. This hypothesis assumes, of course, that intravenous drug users know and fear the risks associated with needle sharing, and believe that treatment is a necessary or appropriate means of reducing the risk of AIDS. x

The evidence indicates that most drug injectors know that the AIDS virus can be transmitted by sharing needles with an AIDS-infected person or someone who has previously shared with an AIDS-infected person, but the majority continue to share needles (McCoy and Khoury, 1990; Selwyn et al., 1987). Further, drug injectors

significantly reduce their risk of contracting HIV by entering drug treatment programs (Des Jarlais, 1992).¹

METHODS

The analysis conducted in this study is based on 1990 data from the Los Angeles site of the Drug Use Forecasting Program (DUF). DUF is an interview and drug testing program that surveys arrestees shortly after they arrive at local detention facilities. The primary goal of DUF is to provide estimates of illicit drug use and misuse among criminal offenders to determine incidence, prevalence, and trends in drug misuse.

Quarterly interviews were conducted with adults entering four Los Angeles city and county jails. The jails were selected to represent the geographic and ethnic diversity of Los Angeles County. The interviewing in Los Angeles County followed the guidelines established by the National Institute of Justice. All interviews were voluntary and confidential, yet over 90 percent of those approached agreed to be interviewed, and of those interviewed, over 90 percent provided a urine specimen. No more than 20 percent of the overall sample could be charged with a drug-related offense, and those arrested for non-drug felonies and misdemeanors (with the exception of traffic-related charges) were given higher interviewing priority than those charged with drug-related felonies and misdemeanors. The effect of this selection

process is that the sample may not reflect the general arrestee population in both the magnitude and variability of drug misuse. But because the magnitude (amount of drugs used) and variability (types of drugs used) are two of the hypotheses assessed by a multivariate statistical analysis, the selection process does not appear to impede the goals of the study.

A listwise deletion of missing values was conducted so that every case included all values used in the analysis. Complete data was generated for 1,255 of the total 1,773 arrestees interviewed in 1990. The subsample of arrestees used in the analysis do not differ from the total sample in important demographic characteristics such as age, gender, ethnicity, employment, and marital status. The average age of the sample was 29.6, and 65 percent were male, 24 percent were Anglo, 40 percent were African-American, and 34 percent were Hispanic. Forty-six percent of the sample were employed, 11 percent were unemployed, 14 percent were receiving General Assistance or SSI, 5 percent received their primary income from dealing drugs, and 23 percent received money from unspecified sources. Nearly 35 percent of the sample were married.

Measures

The perceived need for treatment was assessed by the following question: "Do you feel you could use treatment for drug or alcohol use?" An affirmative response

was indicated if the respondent reported needing treatment for drug and alcohol use. A negative response was indicated if the respondent believed either he did not need treatment, or he needed treatment for alcohol use only.

Slightly more than 30 percent of the sample believed they needed treatment for their drug problems. Table 1 lists the hypotheses, shows how the independent variables are operationalized, describes the units of measurement, and presents descriptive statistics.

[Table 1 about here]

Analysis

Five methodological concerns guide the analysis. First, the eight hypotheses are not necessarily mutually exclusive. Support for one or more hypotheses does not necessarily refute any of the others. But while some or all of the hypotheses could be supported, the magnitude of effect of these hypothesis on the perceived need for treatment may vary considerably. For example, it could be that the variables underlying two hypotheses are both statistically significant at the .05 level, but the substantive effect of one variable is four times greater than the effect of the other. A more complete understanding of the perceived need for drug treatment would consider both statistical significance and effect size.

Second, multicollinearity may exist between two or more of the hypotheses (or variables). For instance, it could be that needle sharing and severe drug use are associated with the need for treatment, but further analyses reveal that needle sharing is not associated with the perceived need for treatment once use severity is controlled. Such a possibility indicates the need for a multivariate analysis. With a dichotomous dependent variable and both categorical and continuous independent variables, a logistic regression analysis would be appropriate.

Third, secondary analyses of data collected in studies conducted for other purposes may encounter many more limitations than primary analyses of data collected studies conducted for a specific purpose. One drawback encountered here is that data availability allow examination of only a limited number of hypotheses. The eight hypotheses included in this paper may not exhaust the phenomenon of the perception of treatment need by drug users. A plausible hypothesis not included is the "psychological distress" hypothesis. This hypothesis holds that drug users with higher levels of distress are more likely to perceive the need for drug treatment than their less distressed counterparts.²

Fourth, the variables used in the analysis seem to have high construct validity with the possible exception of the "social isolation" hypothesis. The measures of social isolation involve marital and employment status. Although these statuses have some relationship to social isolation, a more valid measurement of social isolation should probably include a battery of attitudinal and social network indicators. Hence,

the findings associated with the social isolation hypothesis need to be interpreted with caution.

Finally, the information necessary to verify the causal relationship between the predictor variables and help seeking is not always available. This seems to be a particular concern regarding the AIDS fear hypothesis. While we have information about needle sharing, we do not have the necessary data to assess the cognitive linkages between needle sharing, the fear of contracting AIDS, and the perceived need for treatment. Nor do we have complete data concerning other AIDS risk behaviors, such as sexual activity. Information about other AIDS risk behaviors could be used to increase the confidence in findings supporting or contradicting a causal association between the fear of contracting AIDS and the perceived need for drug treatment. Any conclusion regarding the AIDS fear hypothesis, therefore, must be considered tentative.

FINDINGS

Table 2 presents the coefficients, standard errors, and significance tests of a logistic regression analysis in which all of the variables are entered into the equation simultaneously. Simultaneously entry of the variables into the equation will determine the unique contribution of the independent variables in predicting the need for treatment. The subsequent analyses concerning the eight hypotheses refer to this table.

[Table 2 about here]

Use Severity Hypothesis: The use severity hypothesis is supported. There is a positive association between the amount of money spent on drugs for personal consumption and a perceived need for drug treatment. We can get some idea of the relative effect on the perceived need for treatment by computing the regression equation with differing amounts of money spent for drugs. The probability of an individual aged 30 (the average age of the sample is 29.6) with a \$50 a week drug habit indicating a need for drug treatment is .09. If this same individual had a \$500 a week drug habit, the probability of indicating a need for treatment is .36; if this individual had a \$1000 a week drug habit, the probability is .81.

Drug Type Hypothesis: Overall, the drug type hypothesis is supported. Those testing positive for cocaine, or crack, the opiates and amphetamines were more likely to say they needed treatment than those not testing positive for these drugs. By contrast, those testing positive for marijuana, barbiturates and Valium were no more likely than those not testing positive for these drugs to indicate they needed treatment for their drug problems.

While the evidence supports the "drug-type hypothesis," there are substantial differences in the perceived need for treatment between these users. Computing adjusted odds ratios from the regression coefficients, an analysis appropriate for dichotomous measures in a multivariate analysis, it was found that those testing

positive for opiates were almost twice as likely than those testing negative to indicate a need for treatment (odds ratio = 1.78). Similarly, those testing positive for amphetamines were nearly three times more likely to indicate a need for treatment (odds ratio = 2.85), and those testing positive for cocaine were five times more likely than those not testing positive for these drugs to indicate a need for treatment (odds ratio = 5.00).

The probability of a 30-year old with a \$300 a week drug habit testing positive for opiates perceiving a need for treatment is .31; the probability of an individual with the same drug habit but testing positive for amphetamines indicating a need for treatment is .42, while the probability for this individual with the same drug habit but testing positive for cocaine is .56.

Those testing positive for methadone are thirteen times more likely than those testing negative for this drug to indicate a need for treatment (odds ratio = 13.40). Such a high odds ratio is not surprising. Methadone is viewed as a treatment for heroin use whether it is acquired through formal methadone maintenance programs or from the streets. The individual is likely to be taking methadone precisely because of the perceived need for treatment.

While methadone is a strong predictor of the perceived need for treatment, it will not have an important effect on the number of individuals in the sample who perceive the need for treatment. Only 21 people, or less than 2 percent of the sample, tested positive for methadone.³

Treatment Experience Hypothesis: It was hypothesized that past treatment would have either a positive or negative association with the perceived need for treatment. The data indicate that past treatment experience has a significant *positive* association with the perceived need for treatment for current drug problems. Those with previous treatment experience are more than twice as likely as those without treatment to say they need treatment for their current drug problems (odds ratio = 2.65). The probability of a 30-year old with a \$300 a week drug habit with previous treatment experience indicating a need for treatment is .40, compared to .20 for those with the same drug habit who have not had previous treatment.

Gendered Help Seeking Hypothesis: The data do not support the assumption that women are more likely than men to say they need treatment for their drug problems. The regression coefficient is small, in the opposite direction, and not statistically significant (coef. = -.21, $p > .10$).

Ethnic Diversity Hypothesis: There is partial support for the ethnic diversity hypothesis. Those identified as "Hispanics" are significantly less likely than those identified as Anglo to perceive the need for treatment (coef. = -.69, $p < .01$), while those identified either as "African-Americans" or "Other," are not significantly less likely than Anglos to perceive the need for drug treatment. The probability of a 30-year old Anglo with a \$300 a week drug habit perceiving a need for treatment is .20, while the probability of a 30 year old Hispanic with the same drug habit is .11.

Maturing Out Hypothesis: The maturing out hypothesis predicts that an older drug user is more likely to indicate a need for treatment than a youthful drug user. The data, however, contradict this hypothesis. It is the youthful rather than the older drug user who is more likely to indicate a need for drug treatment (coef. = $-.03$, $p < .01$).

Although statistically significant, age does not have a major effect on the perceived need for treatment. Computing the regression equation for different ages indicates that the probability of a 17 year-old with a \$300 a week drug habit indicating a need for treatment is $.27$. The probability of a 30 year-old with the same drug habit indicating a need for treatment is $.20$, while the probability for a 45 year-old is $.14$.

Social Isolation Hypothesis: The data do not support the social isolation hypothesis. It was predicted that single, unemployed drug users would be more likely to perceive the need for treatment, but the data indicate that these variables are not associated with the perceived need for treatment. The coefficients are small, the standard errors are relatively large, and the p values are above the $.05$ level.

Again it should be stressed that marital and employment statuses are crude measures of social isolation. As more valid measures of social isolation could lend support to the social isolation hypothesis, the conclusions offered here must be considered tentative.

Still, the analysis presented in table 2 reveals unanticipated findings that are not necessarily consistent with the social isolation hypothesis. Specifically, those receiving Social Security Insurance or welfare benefits, and those currently dealing drugs, are substantially more likely than those who are employed to perceive the need for drug treatment. The precise interpretation of these findings is not immediately apparent, but at least two possibilities are suggested.

First, the findings are consistent with the "use severity" hypothesis discussed above. It may be that those with the most severe drug problems are more likely to perceive the need for drug treatment *and* are more likely to be receiving welfare benefits and dealing drugs. One problem with this interpretation, however, is that the money spent per week for the personal consumption of drugs, the proxy used for the severity of drug use, is not associated with receiving welfare ($r = -.01$) and only moderately associated with drug dealing ($r = .23, p < .001$). This suggests that use severity may not be the best interpretation of these findings.

Another interpretation points to a "social deviance" explanation. Drug users who are receiving welfare or dealing drugs are pursuing a less normatively appropriate lifestyle than are employed drug users. It could be that this "extra" level of social deviance prompts drug users (particularly those recently arrested) to admit that a drug problem exists and, consequently, to be more favorably disposed to treatment. By contrast, drug users who are able to maintain employment may be

more likely to deny that a drug problems exists and, therefore, less likely to perceive the need for drug treatment.

One problem with the social deviance explanation, however, is that unemployed drug users are not significantly more likely to perceive the need for drug treatment than are employed drug users (coef. = .14, $p > .10$). The lack of employment is, in many instances, a less normatively appropriate status than employment, and thus the social deviance explanation would predict that unemployed drug users would be more likely to perceive the need for treatment compared to employed drug users.

One possible reason why unemployed drug users are no more likely to perceive the need for drug treatment compared to employed drug users is that only 11 percent of the sample fall into the "unemployed" category, and half of these are under the age of 25. Being unemployed may not offer the same stigma for those under 25 as it does for those over 25. Indeed, when the perceived need for drug treatment of young and older unemployed drug users is examined, it is found that males over the age of 25 are more than twice as likely as those under the age of 25 to perceive the need for drug treatment (25 percent compared to 11 percent; $\chi^2 = 4.29$, $df = 1$, $p < .05$). Similarly, unemployed females over the age of 25 (including prostitutes) are substantially more likely to perceive the need for drug treatment compared to their counterparts under the age of 25 (46 percent compared to 9 percent; $\chi^2 = 12.14$, $df = 1$, $p < .001$).

Use severity and social deviance are two interpretations of the relationship between employment status and the perceived need for treatment and are, of course, only suggested possibilities. Additional research may suggest other (or better) interpretations.

AIDS Fear Hypothesis: The AIDS fear hypothesis is supported. Those who have shared needles during the last six months are more than three times more likely than those not sharing needles to indicate a need for treatment (odds ratio = 3.61). The probability of a 30 year old drug user with a \$300 a week habit who is sharing needles indicating a need for treatment is .48, compared to .20 for a 30-year old with the same drug habit who is not sharing needles.

While the perceived need for treatment of those who are sharing needles is consistent with the AIDS fear hypothesis, as previously mentioned, the necessary measures are unavailable to determine that this perceived need for treatment stems from the fear of AIDS, and not some other reason. Support for this hypothesis is, therefore, tentative. It should be pointed out, however, that the fear of AIDS is indicated by 38 percent of the drug injectors in our sample as the specific reason *why* they have never shared needles, suggesting that needle-sharing is associated with an increased fear of contracting AIDS.

CONCLUSIONS AND IMPLICATIONS

Analysis of Los Angeles County arrestees participating in the Drug Use Forecasting program in 1990 offers support for five of the eight hypotheses examined, including the drug severity, drug type, treatment experience, ethnic diversity, and AIDS fear hypotheses. There is no support for the gendered help-seeking or the social isolation hypotheses, and the findings contradict the maturing out hypothesis. Contrary to what was predicted by the maturing out hypothesis, younger rather than older respondents were more likely to indicate a need for treatment.

Severity of the drug problem is the strongest predictor of the need for drug treatment. The strength of the other predictors in descending order are: current use of methadone, current use of cocaine or crack, needle sharing, current drug dealing, current use of amphetamines, past treatment experience, current use of opiates, receiving welfare benefits, and youth.

Policy Implications: Restoration and Consummation Strategies

The results of our analysis, in conjunction with the assumptions underlying the theoretical models of help seeking and treatment utilization, suggest several policies or strategies that may increase the utilization of drug treatment programs by drug users. Both the elements and process models of help seeking and treatment utilization

view the perceived need for treatment as a necessary (but possibly insufficient) step in the utilization of health services. For the actual utilization of treatment to occur, it is imperative that those individuals with a perceived need for treatment decide to enter treatment and actually take the necessary steps to make it happen. There may be any number of predisposing or enabling (disabling) factors that impede this process.

As the perceived need for treatment for some individuals may be a necessary although insufficient step in seeking treatment, two intervention strategies are suggested -- one emphasizing the necessity, and the other emphasizing the insufficiency of the perceived need for treatment. A *restoration strategy* addresses the necessity of the perceived need for treatment by focusing on individuals with drug problems who do not believe they need treatment. This strategy attempts to remove or circumvent this "deficiency" so that these individuals would be more likely to enter and benefit from drug treatment programs. A *consummation strategy*, on the other hand, focuses on the insufficiency of perceived need in the overall process of help seeking and treatment utilization. While people who believe they need treatment are probably more likely to enter and benefit from treatment than those without this view, predisposing and enabling (or disabling) factors may interrupt the treatment seeking process. A consummation strategy would attempt to ensure that those with a perceived need for treatment actually enter drug treatment services.

Restoration Strategy

Inasmuch as the findings indicate that Hispanics are less likely to perceive a need for treatment, it may be possible to reduce or eliminate the consequences of this difference in perceived need for treatment by changing some aspects of the service system. There seems to be growing support for the view that equity in the utilization of social and health-care services requires services that are culturally congruent with the backgrounds of various ethnic groups in the community (Fiorentine, forthcoming). Steps could be taken to make the various aspects of the treatment entry process -- outreach, referral and intake -- congruent with the cultural backgrounds of Hispanics (Longshore, Hsieh, and Anglin, 1993).

While such a strategy is both reasonable and popular, two issues should be kept in mind. First, the "cultural congruence" approach assumes that: (1) the absence of culturally congruent services is an important reason why some ethnic groups with drug problems are less likely to perceive a need for drug treatment, and (2) the existence of culturally congruent services can repudiate or circumvent the propensity of specific ethnic groups to deny that a drug problem exists.

Both assumptions may be unwarranted. The causes of ethnic differences in the perceived need for treatment may stem from a multitude of sources other than the absence of culturally sensitive programs, and even well designed, culturally congruent services may encounter barriers in repudiating or circumventing complex problems

such as personal denial of a drug problem. But even though culturally congruent services may fall well short of a panacea, there is at least the possibility that these services could be effective in reducing the causes and consequences of denial. Such strategies should be implemented and empirically examined.

Second, while the perceived need for treatment is likely to be a necessary element in help-seeking, it cannot be assumed that lower levels of perceived need always translate into lower levels of treatment utilization. Lower levels of perceived need could be counteracted by differences in predisposing or enabling factors. As stated earlier, some research suggests that various non-Anglo ethnic groups are less likely to utilize drug treatment services, but other research concludes that ethnic groups utilize drug treatment services at about the same rate as Anglos (see research cited in the discussion of the ethnic diversity hypothesis). While the methodological difficulty in accurately estimating the actual need for service makes any generalization tentative (Fiorentine, unpublished; Portes, Kyle, and Eaton, 1992), existing research points to the possibility that the restorative strategy of introducing more culturally congruent services may attempt to solve a problem that does not exist.⁴

Consummation Strategy

Consummation strategies can vary in their degree of persuasion from voluntary referrals to involuntary commitments. The findings bearing on the eight hypotheses suggest at least two possibilities.

Increased Drug Treatment in Criminal Justice Settings: It was found that the severity of drug use and current use of cocaine or crack are the two strongest predictors of the perceived need for treatment. Moreover, half of those arrested in Los Angeles County during 1990 tested positive for cocaine or crack. Another 14 percent tested positive for opiates, and 7 percent tested positive for amphetamines. In the other cities of the DUF program between 30 and 80 percent of arrestees tested positive for some illicit substance, mostly cocaine or crack (U.S. Department of Justice, 1989).

While a large portion of arrestees have drug problems, only about 10 percent of U.S. inmates in need of treatment actually receive treatment (Chaiken, 1989). The seriousness of the drug problems of so many arrestees along with their readiness to say they need treatment, suggests the need to make drug treatment a central element of the criminal justice system. Existing attempts to treat drug use among offenders have been demonstrated to be effective, and making drug treatment a more central part of incarceration could make a significant impact on drug misuse and its associated costs of crime and law enforcement (Anglin and Maugh, 1992).

Outreach to Intravenous Drug Users: It was found that intravenous drug users were more than twice as likely as those not injecting drugs to perceive a need for treatment. Outreach activities may assist drug injectors to move from predisposition to treatment utilization. "Shooting galleries" and needle exchange programs may be places where drug injectors can be informed about and possibly coaxed into treatment. Vouchers that can be redeemed for free and immediate treatment have been shown to be effective in inducing drug users to seek treatment (Levine, 1991) and could be distributed at shooting galleries and needle exchange programs. Finally, police crackdowns on shooting galleries may be a way to force drug injectors into treatment.

There may be other restoration and consummation strategies that could increase the utilization of drug treatment programs, but those mentioned here need to be considered. At the very least, they are consistent with the findings of the eight hypotheses and congruent with the elements and process models of treatment utilization. Moreover (and perhaps most importantly), the implementation of these restoration and consummation strategies are relatively inexpensive. In view of stable or declining budgets for drug treatment, these strategies could be cost-effective means of increasing the utilization of drug treatment programs by those who could benefit from them.

NOTES

1. Interestingly, the use of different drugs offers an unequal risk of contracting AIDS. Because of the short life of the cocaine high, users injecting cocaine, compared to other intravenous drug users, inject more frequently, are more likely to share needles, and are more likely to use shooting galleries (Centers for Disease Control, 1989; Chaisson et al., 1989). Moreover, crack smoking is associated with high risk sexual activity, possibly a result of decreased sexual inhibition as well as exchange of sex for drugs or money (Ratner, 1993; Turner, Miller, and Moses, 1989). Finally, there is some evidence that drug users have not reduced their yearly number of sex partners, but non-monogamous drug users are more likely to use condoms (Longshore and Anglin, 1991).

2. There is some evidence that is consistent with the "psychological distress" hypothesis. Several researchers speculated that higher levels of neuroticism and depression among drug users may precipitate help-seeking (Sheehan, Oppenheimer, and Taylor, 1988; Rounsaville and Kleber, 1985). While untreated opiate users do not differ from treated users in terms of employment (Rounsaville and Kleber, 1985), Graeven and Graeven (1983) found untreated heroin addicts have higher levels of self-esteem.

3. Only 3 of the 21 individuals testing positive for methadone acquired the drug from the "streets" rather than from a formal treatment program. All three of these individuals indicated they needed further treatment for a drug problem.

4. It should be noted that drug treatment services seem to be less effective for ethnic minorities (Savage and Simpson, 1980; Anglin et al., 1988; Anglin and Hser, 1990). Even if the presence or absence of culturally congruent services have little effect on the perceived need for treatment, help-seeking, and treatment utilization, it still could have some effect on treatment efficacy.

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TABLE 1: DESCRIPTION OF VARIABLES

(n=1255)

HYPOTHESES	OPERATIONALIZATION	MEASUREMENT	DESCRIPTIVE STATISTICS
Use severity	Money spent for drugs	"How much money do you spend in an average week for your drug use, excluding alcohol or tobacco?" Amount measured in dollars.	Range=0 - \$9000 Mean=\$146, S.D.=\$446
Drug type	Cocaine Opiates Amphetamines Valium Methadone Barbiturates Marijuana Other	Positive Urinalysis Positive Urinalysis Positive Urinalysis Positive Urinalysis Positive Urinalysis Positive Urinalysis Positive Urinalysis Positive Urinalysis Computed as dichotomies	49.4% 14.0% 7.5% 6.2% 1.7% 2.4% 18.8% .6%
Treatment Experience	Previously received treatment	Have you ever received treatment for drug use (No = 0, Yes = 1)	No = 76.2 Yes = 23.8
Gendered help seeking	Gender of respondent	Female=1 Male=0	Female=35.9 Male=64.1
Ethnic Diversity	Ethnic status of respondent	Anglo, African-American, Hispanic, Other Computed as a polytomous design variable	Anglo 24.1% African-American 40.4% Hispanic 34.1% Other 1.4%
Maturing out	Age	Measured directly in years	Range=17-74 Mean=29.6, S.D. = 8.7
Social isolation	Employment status	"In the past month were you mainly: working full or part time, unemployed, on welfare, SSI, dealing drugs, other." Computed as a polytomous design variable	Employed 46.4% Unemployed 10.6% Welfare 14.3% Dealing 5.3% Other 23.9%
	Marital status	"What is your current marital status: not married, married, separated or divorced, living with boyfriend/girlfriend, widowed." Married, not married, computed as a dichotomy	Married 34.7% Not Married 65.3%
AIDS fear	Needle sharing	"Have you shared your works/needles in the last six months?" Shared (yes=1, no=0)	yes=12.7

TABLE 2: LOGISTIC REGRESSION ANALYSIS OF PERCEIVED NEED FOR DRUG TREATMENT (n=1255)

Variable	Coefficient	S.E.	t (Asymp.)	Prob.
(Constant)	-1.67	.41		
Dollars Per Month Spent on Drugs	.004	.0006	7.40	***
Positive Urine for Drugs				
Cocaine	1.61	.20	7.93	***
Opiates	.58	.27	2.13	*
Amphetamines	1.05	.31	3.34	***
Valium	.28	.34	.82	
Methadone	2.59	.76	3.40	***
Barbiturates	.43	.57	.76	
Marijuana	-.35	.2	-1.51	
Other	-1.08	1.19	-.91	
Previous Treatment	.97	.20	5.00	***
Gender	-.21	.19	-1.09	
Ethnicity				
African-American	-.31	.24	-1.30	
Hispanic	-.69	.26	-2.66	**
Other	.53	.76	-.70	
Age	-.03	.01	-2.81	**
Marital Status				
Married	-.27	.19	-1.46	

Variable	Coefficient	S.E.	t (Asymp.)	Prob.
Employment Status				
Unemployed	.14	.30	.47	
Welfare	.56	.26	2.14	*
Dealing	1.08	.38	2.87	**
Other	.28	.23	1.22	
Needle Sharing	1.28	.27	4.71	***

* < .05
 ** < .01
 *** < .001