The study investigated the life career of a sample of native Puerto Rican narcotic addicts who were treated at the Lexington, Kentucky Public Health Service Hospital. Specifically, it deals with the relationship between the addicts' involvement in a drug subculture and their subsequent drug use and abstinence. The hypothesis presented states that the higher the degree of involvement in the drug subculture, the less likely abstinence will follow a period of treatment. The sample consisted of 239 Puerto Rican residents whose post-release information was studied. An interview was conducted to obtain information of each subject's criminality, occupation, hospitalization and drug history. The report contains an index which measures the degree of involvement in a drug subculture. The study also indicated whether or not the patients were cured following a period of treatment. Included are five tables which reflect the findings: (1) the number of years spent taking drugs since onset; (2) the number of years of drug use for the cured group; (3) number of cures categorized by involvement; (4) the social position of the cured categorized by involvement; and (5) the number of cures categorized by involvement using the age of onset of opiate use as a control. (Author/MC)
INVOLVEMENT IN A DRUG SUBCULTURE AND ABSTINENCE FOLLOWING TREATMENT AMONG PUERTO RICAN NARCOTIC ADDICTS

Richard W. Snarr *
and
John C. Ball **

* Law Enforcement Department
Eastern Kentucky University
Richmond, Kentucky

** Department of Psychiatry
Temple University
Philadelphia, Pennsylvania
INVOLVEMENT IN A DRUG SUBCULTURE AND ABSTINENCE
FOLLOWING TREATMENT AMONG PUERTO RICAN
NARCOTIC ADDICTS

The treatment of narcotic addiction has been approached in a number of different ways. These approaches have ranged from attempts to eliminate the supply of drugs to institutionalization of the addict. One basic question that is prompted by the individual treatment of addicts is -- does the treated patient relapse to drug use or does he remain abstinent?

A study was undertaken to investigate the life career of a sample of native Puerto Rican narcotic addicts who had undergone treatment at the U.S. Public Health Service Hospital at Lexington, Kentucky. The specific aim of this study was to investigate the relationship between their involvement in a drug subculture and their subsequent drug use and abstinence.

DRUG SUBCULTURE

The relationship between addiction and a drug subculture has been recognized for some time. In the words of Clinard,

"Much of drug addiction involves an elaborate subculture. The drugs must be imported illegally into the country and then distributed through suppliers or peddlers. There are 'pushers' who help indoctrinate new persons into addiction. Those who use the drugs are, to a large extent, also part of this subculture, since drug addicts must generally associate with peddlers and other addicts in order to secure their supply."
While in most cases it may not be entirely accurate to say that pushers indoctrinate new persons into addiction, nevertheless, addicts usually begin drug use in some type of association with other addicts. As Clausen says,

"Studies of drug addiction conducted over the past three decades, including recent studies of younger addicts, suggest that addiction is not primarily to be attributed to the drug peddler or to a seeking after drugs on the part of persons intent upon trying narcotics. The most usual pattern of induction is through intimate association with one or more addicts." 2

The drug subculture has its own symbols of status, its mythology, and, to a considerable extent, its own language. By these means, the social solidarity among addicts counters their being outcasts from the larger society. The addict learns skills and techniques necessary for transactions to secure drug supplies; these often include the skills of some type of regular criminal activity to provide a source of funds for purchasing supplies. The argot of the drug addict is often cited as evidence of the existence of a drug subculture.

"Possibly nothing more clearly demonstrates the fact that addiction has cultural components than the argot which is used. It includes special names for the drugs, for those who supply the drugs, and for addiction. It also includes special descriptive terms for those who use drugs."

The attitudes and values of the participants in the drug subculture are most likely to be oriented toward non-
conventional goals. According to Finestone, and Cloward and Ohlin, the drug subculture is composed of "cats", young males who get "kicks" by using drugs, and who have an accompanying disdain for work. In rejecting the routine occupational role of the conventional society they get along by "hustling" -- that is, begging, stealing, and running petty con-games. Within this subculture new goals and criteria of achievement are created, primarily because the work ethic of the conventional world has been rejected. The subcultural member strives for status within the society of "cats" by cultivating the "kick" and the "hustle." Thus, the drug subculture provides avenues to success, to social admiration and a sense of well-being with the world, which the members feel are otherwise beyond their reach.

From Becker's and Chein's studies we have descriptions of how one becomes a member of a drug subculture. Eventual involvement occurs as one learns techniques and comes to share similar attitudes with other members.

Considering what happens following treatment, Clausen suggests, "It appears that the addict returns almost at once to his old associations and thus is again subject to the full impact of the drug culture."

Implicit in Cohen's discussion regarding subcultures is the fact that there can be varying degrees of involvement in a subculture. Logically, then, if one were deeply involved in a subculture he would be more committed to the values,
attitudes, and way of life dictated by it. Even if one were temporarily removed from this environment, one could be expected to remain committed to the way of life of the subculture. Drug addicts who have been temporarily withdrawn from drugs at a treatment hospital could be expected to remain committed to the use of drugs and return to drug use upon release from the hospital. Therefore, the following hypothesis is presented:

There will be a significant relationship between the degree of involvement in the drug subculture and abstinence following a period of treatment. Specifically, the higher the degree of involvement in the drug subculture, the less likely abstinence will follow a period of treatment.

THE SAMPLE

This study was focused on a specific category of addict -- the Puerto Rican addict. As suggested by Terry and Pellens, one useful approach to the study of addiction is to concentrate in detail on a specified population. In addition, the follow-up studies conducted to date strongly indicate that there are significant differences in the relapse rates among different categories of addicts.

From the time the U.S. Public Health Service Hospital at Lexington, Kentucky, opened in 1935 until December 31, 1962, a total of 242 subjects were discharged from the hospital, who, at the time of at least one admission, were residents of Puerto Rico. In the follow-up project post-release information was secured for 235 of these subjects. One hundred twenty-three of
these subjects, 111 males and 12 females, were located and interviewed in Puerto Rico. Since there is more information for the subjects interviewed, the sample chosen for this study consists of 108 male opiate addicts who were interviewed in Puerto Rico.

Field interviewing was conducted from December 1962 to July 1964. An extremely competent and experienced Puerto Rican interviewer, who had entree into the Puerto Rican community, was hired on a full-time basis to conduct the interviews. Numerous trips were made throughout Puerto Rico to locate the subjects and to secure information. Nearly two-thirds of the subjects interviewed were located and interviewed at home. The remainder were located and interviewed in prisons or in narcotics hospitals.

The interview schedule consisted of six pages of questions designed to obtain information regarding the life career of each subject (his criminality, occupation, hospitalization, and drug history). At the conclusion of each interview a urine specimen was obtained from the subject.

An analysis of the reliability and validity of the interview data by Ball indicated that the data were quite reliable and valid.

**METHOD**

It was necessary to develop an index which reflected the degree of involvement in a drug subculture. While the degree of involvement could be measured with various types of instruments, the researcher used an instrument based on behavioral items, similar to the measure developed by O'Donnell. For the purposes
of this study the following five items were incorporated into
the index:

1. the average daily amount of money the subject had
   spent to obtain drugs
2. whether or not the subject had acquired a history of
   selling narcotics to addicts; that is, was a "pusher"
3. whether or not the subject had undergone more than
   one period of treatment
4. whether or not the subject began opiate use in a
   group setting
5. whether or not the subject had used marihuana

All of these items indicate contact with an illicit drug
subculture prior to the time of the subject's last discharge
from a period of treatment. Items two and four are explicit in
this respect. Item one, the average amount of money spent daily
to obtain drugs, indicates the intensity of drug use and by impli-
cation contact with the illicit drug market. Regarding item three,
repeated treatment experiences mean repeated contacts with other
members of the drug subculture and an opportunity to learn about
the subculture. Regarding the use of marihuana, item five, it
is a characteristic of addicts to learn of different types of drugs
from other addicts and to have used more than one type of drug.

Each of these items was dichotomized and given equal weight.
On the basis of answers to items two, three, four, and five, the
data were coded positive if the item was true for the subject, or
negative if it were not. Item one was dichotomized as follows.
The median figure for the daily amount of money spent was calculated by decade of onset; that is, for the 1920's and before, the 30's, 40's, 50's and after. The data were coded as positive if the subject spent the median amount or above, as negative if he spent less than the median amount.

These five items were then combined into an index of involvement in the drug subculture as follows:

- **Little or no involvement** -- positive on two or less items
- **Some involvement** -- positive on three items
- **Extensive involvement** -- positive on four or five items.

**CURED OR NOT CURED OF ADDICTION**

This research effort was concerned with investigating drug use over time. The time period under consideration begins with the year the subject began opiate use and ends with October 31, 1964, the cutoff point for field interviews.

Consistent with the aim of this study, each year beginning with the year of onset through 1964, was coded (1) as a year off drugs; (2) as a year on drugs with no voluntary treatment; (3) as a year on drugs with a voluntary treatment; (4) as a year of involuntary treatment at Lexington; or (5) as a year of involuntary treatment other than at Lexington, indicating that the subject was in a federal or state prison, or was confined to a local jail or psychiatric hospital for six months or more during any given year. It should be emphasized that in a study dealing with drug use over time it is important to make these
differentiations, for otherwise, time in institutions would be regarded as periods of abstinence; this would introduce a strong bias because the subject would not have been at risk in the sense of having ready access to drugs. Not to be overlooked is the fact that sporadic drug use might occur during a period of institutionalization, although this poses a question beyond the scope of this study.

A year on drugs, with or without voluntary treatment, means that the subject used opiates for six months or more during the year. A year off drugs means that the subject did not use opiates for six months or more during the year.

The question now arises as to what kinds of evidence were used to classify any given year as a treatment year, as a year on drugs, or as a year off drugs. The main source of information came from the personal interviews with the subjects. In regard to drug use, the interview schedule was designed to provide as complete a drug history as possible. Included were such items as length of addiction, length of time off drugs, age at onset, evidence of abstinence or relapse to drugs after last discharge, and length of abstinence after last discharge.

In addition to the data collected by the personal interview, corroborative evidence was secured from various sources. For the subjects that had been federal prisoners FBI records were available which indicated the number of FBI arrests, the year(s) and the amount of time these subjects had been incarcerated in a
federal prison, and whether or not the offense involved drugs. In a number of cases interviews were obtained from a member of the subjects' family or friends. Hospital and clinical records were also checked for any readmissions; special note was made of dates and drug diagnosis. Finally, urine specimens were collected at the conclusion of the interview. The specimens were sent to the Lexington hospital for analysis to determine whether the subject was using opiates at the time of the interview.

Three judges made a final decision, based on the evidence from these various sources as to whether in any given year the subject was in treatment, was off drugs, or was using drugs.

When a population of known addicts has undergone a period of treatment and then, after some lapse of time, is studied in an attempt to determine their subsequent behavior, some criteria of "cured" or "not cured" seems appropriate. The establishment of such criteria has often involved not only subsequent drug use or abstinence as an indicator, but also the use of subsequent arrests, convictions, and employment as indicators. This can bias the results in the sense that the treated addict may be unemployed or arrested but has not returned to drug use.

This study focused on only one indicator of cured or not cured: drug use or abstinence following a period of treatment. The cured category consisted of subjects who, following a period of treatment, had been at risk (that is, were "on the street" and not institutionalized) and had not used drugs for at least three consecutive years.
and were not using drugs at the time of the interview. The not
cured category consisted of subjects, who, following a period of
treatment, had never been off drugs for three consecutive years
while at risk.

FINDINGS

A total of 108 male Puerto Rican narcotic addicts were
located and interviewed. The category designated as cured
consisted of 21, or 19.4 percent, of the subjects. The category
designated as not cured consisted of 87, or 80.6 per cent of the
subjects.

Table 1 presents a summary of the findings. For the total
sample nearly two-thirds of the years since onset were spent
taking drugs. However, when comparing the cured group to the
not-cured group in terms of the years spent taking drugs, an
expected but nevertheless striking difference can be seen.
Nearly three-fourths of the years for the not-cured group were
spent taking drugs, compared to only one-third for the cured
group. This difference is further accentuated when controlling
for years at risk. The number of years of drug use for the
cured group remains approximately one-third, but over 90 per
cent of the years at risk for the not-cured group were spent
using drugs. These findings suggest that after initial use
and treatment these Puerto Rican addicts tended over the years
to follow a rather continuous pattern of either using drugs or remaining abstinent. That is to say, during the years at risk, the general pattern was not one of using drugs for a year or two, followed by a year or two of voluntary abstinence, which was in turn followed by a return to drug use. Further evidence regarding this pattern was that 48 of the 87 subjects in the not-cured category were never off drugs while at risk for as long as one day, and an additional 22 subjects abstained from drug use for only one year while at risk.

The hypothesis presented earlier suggested that the higher the degree of involvement in the drug subculture the less likely will cure follow a period of treatment. An examination of Table 3 indicates support for this hypothesis. Thirty-eight per cent of those with little involvement in the subculture were categorized as cured whereas only 10 per cent of those with extensive involvement were categorized as cured. Gamma was equal to .5, suggesting a moderate relationship in the direction hypothesized.

In an effort to examine this relationship further, the social class position of the subjects was introduced as a control variable. Examination of Table 4 indicates that the relationship remains virtually unchanged among lower-class subjects, and was altered only slightly among middle and upper-class subjects. Although there was a higher percentage of cures following treatment among middle and upper-class subjects.
upper-class subjects, it held that the higher the degree of involvement in the subculture the less likely cure followed treatment. The percentage in the cured category dropped from 42.9 per cent to 18.8 per cent as the degree of involvement in the subculture increased from little to extensive.

Finally, the relationship was analyzed by controlling for the age at onset of opiate use. The results of this analysis (TABLE 5 HERE) are presented in Table 5. The most significant result of this analysis was the finding that the strength of the original relationship (see Table 3 where Gamma = .5) was markedly strengthened in one partial and markedly reduced in the other partial. Among those who began drug use before the age of 20 the relationship between involvement in the drug subculture and cure following treatment was reduced; Gamma was equal to only .1. Among those who began drug use after the age of 21 the original relationship was strengthened, as evidenced by Gamma equal to .9. No subject who began opiate use at age 21 or over who was classified as having had extensive involvement in the drug subculture, was categorized as cured. This finding indicates a condition under which involvement in the drug subculture was differentially associated with cure following a period of treatment. It appears that involvement in the drug subculture among those who began drug use by the age of 20 had little relationship to cure following treatment. However,
involvement among those who began drug use after the age of 20 appears to have a very strong relationship to cure following treatment that is in the direction hypothesized. The higher the degree of involvement in the drug subculture, the less likely cure will follow treatment among those who began drug use at the age of twenty-one or over.

CONCLUSIONS

The most significant finding was that involvement in the drug subculture among those who began drug use by the age of 20 had little relationship to cure, whereas involvement among those who began drug use after the age of 20 was highly related to cure. The reasons for this type of relationship are probably many and complex. Without further research one can only speculate as to what they might be. In an attempt to explain it two logical assumptions are made. First, if one becomes involved in the drug subculture it will be at approximately the same time as when he begins drug use. Secondly, if one were involved in the subculture and then cured following treatment he would leave the subculture, or if he were not cured following treatment he would probably continue his involvement. Perhaps involvement beginning in the adolescent teen-age years is more closely linked to a short-run hedonistic experience—a search for new "kicks"—which may subsequently lose its appeal and may be terminated in favor of more legitimate adult roles such as occupational and parental roles. If an addict becomes involved in the drug subculture in his twenties or thirties, it
is likely that he has failed to establish himself in legitimate adult activities. He then is less likely to do so if he has not already done so, thus he is more likely to remain committed to the drug-taking way of life of the subculture.

In general, the findings indicate that it was difficult to effect a cure among Puerto Rican addicts. Inasmuch as the criteria for success were based on abstinence for three years following treatment, only 19.4 per cent could be classified as cured or successfully treated. The findings offer support for a contention that there are more facets involved in treating addicts than treating drug use per se. Even within this relatively homogeneous group some major differences were found to exist, involving, for example, the degree of involvement in the drug subculture and the age at which opiate use began. These findings point to the crucial importance of some basic social dimensions in the life of the addict; they suggest that consideration of social factors is a mandatory consideration for any type of treatment program, be it voluntary or involuntary, public or private.
FOOTNOTES


10. Albert K. Cohen, Delinquent Boys The Culture of the Gang

11. Charles E. Terry and Mildred Pellens, The Opium Problem

    A Critique of Follow-up Studies," American Journal of

13. Nine subjects were interviewed when they were readmitted to
    Lexington; three during 1965 and six during 1966. Three male
    subjects who were interviewed but who had used only
    marihuana were excluded from this study. The subjects who
    were not interviewed were primarily those who had either
    moved out of Puerto Rico or had died since discharge from
    the hospital.

    Management of the Narcotic Addict," American Journal of

15. John C. Ball, "The Reliability and Validity of Interview Data
    Obtained from 59 Narcotic Drug Addicts."

17. Nine subjects were interviewed when they were readmitted to Lexington; three during 1965 and six during 1966.


19. Three subjects refused to provide a urine specimen.


22. The Hollingshead index of social position was used to determine social class position for all 108 male subjects. In this study an additional category was added: (8) Principally illegal career. The social class position of an individual was determined as follows:

<table>
<thead>
<tr>
<th>Social Class</th>
<th>Computed Range of Index of Social Position Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>I Upper</td>
<td>11 to 24</td>
</tr>
<tr>
<td>II Upper-middle</td>
<td>25 to 39</td>
</tr>
<tr>
<td>III Middle</td>
<td>40 to 54</td>
</tr>
<tr>
<td>IV Lower-middle</td>
<td>55 to 69</td>
</tr>
<tr>
<td>V Lower</td>
<td>70 to 84</td>
</tr>
</tbody>
</table>

### TABLE 1
YEARS SINCE ONSET FOR 108 MALE PUERTO RICAN ADDICTS

<table>
<thead>
<tr>
<th>Years Since Onset Spent:</th>
<th>Cured (N=21)</th>
<th></th>
<th>Not Cured (N=87)</th>
<th></th>
<th>Total (N=108)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number of</td>
<td>Pct.</td>
<td>Number of</td>
<td>Pct.</td>
<td>Number of</td>
</tr>
<tr>
<td>Off drugs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>180</td>
<td>54.2</td>
<td>69</td>
<td>6.3</td>
<td>249</td>
</tr>
<tr>
<td>On drugs with Vol. Adm.</td>
<td>13</td>
<td>3.9</td>
<td>105</td>
<td>9.5</td>
<td>118</td>
</tr>
<tr>
<td>On drugs, no Vol. Adm.</td>
<td>88</td>
<td>26.5</td>
<td>683</td>
<td>62.0</td>
<td>771</td>
</tr>
<tr>
<td>Involuntary Treatment at Lexington</td>
<td>26</td>
<td>7.8</td>
<td>87</td>
<td>7.9</td>
<td>113</td>
</tr>
<tr>
<td>Involuntary Treatment other than Lexington</td>
<td>25</td>
<td>7.5</td>
<td>158</td>
<td>14.3</td>
<td>183</td>
</tr>
<tr>
<td>TOTAL YEARS SINCE ONSET</td>
<td>332</td>
<td>100.0*</td>
<td>1102</td>
<td>100.0</td>
<td>1434</td>
</tr>
</tbody>
</table>

* Indicates Rounding Error

### TABLE 2
YEARS ON DRUGS WHILE AT RISK FOR 108 MALE PUERTO RICAN ADDICTS

<table>
<thead>
<tr>
<th>Years at Risk</th>
<th>Cured (N=21)</th>
<th>Not Cured (N=87)</th>
<th>Total (N=108)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number of</td>
<td>Number of</td>
<td>Number of</td>
</tr>
<tr>
<td></td>
<td>Years</td>
<td>Pct.</td>
<td>Years</td>
</tr>
<tr>
<td>Off drugs</td>
<td>180</td>
<td>64.1</td>
<td>69</td>
</tr>
<tr>
<td>On drugs</td>
<td>101</td>
<td>35.9</td>
<td>788</td>
</tr>
<tr>
<td>TOTAL YEARS AT RISK</td>
<td>281</td>
<td>100.0</td>
<td>857</td>
</tr>
</tbody>
</table>
### TABLE 3

**CURES BY INVOLVEMENT IN THE DRUG SUBCULTURE**

<table>
<thead>
<tr>
<th>Involvement in the Drug Subculture</th>
<th>CURED</th>
<th>NOT CURED</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CURED</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Little</td>
<td>10</td>
<td>38.5</td>
<td>7</td>
</tr>
<tr>
<td>Some</td>
<td>16</td>
<td>61.5</td>
<td>35</td>
</tr>
<tr>
<td>Extensive</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>26</td>
<td>100.0</td>
<td>42</td>
</tr>
</tbody>
</table>

Gamma = .5

### TABLE 4

**CURES BY INVOLVEMENT IN THE DRUG SUBCULTURE BY SOCIAL CLASS**

#### Lower Social Class

<table>
<thead>
<tr>
<th>Involvement in the Drug Subculture</th>
<th>CURED</th>
<th>NOT CURED</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CURED</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Little</td>
<td>3</td>
<td>27.3</td>
<td>1</td>
</tr>
<tr>
<td>Some</td>
<td>8</td>
<td>72.7</td>
<td>20</td>
</tr>
<tr>
<td>Extensive</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>11</td>
<td>100.0</td>
<td>21</td>
</tr>
</tbody>
</table>

Gamma = .5

#### Middle and Upper Social Class

<table>
<thead>
<tr>
<th>Involvement in the Drug Subculture</th>
<th>CURED</th>
<th>NOT CURED</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CURED</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Little</td>
<td>6</td>
<td>42.9</td>
<td>7</td>
</tr>
<tr>
<td>Some</td>
<td>8</td>
<td>57.1</td>
<td>15</td>
</tr>
<tr>
<td>Extensive</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>14</td>
<td>100.0</td>
<td>22</td>
</tr>
</tbody>
</table>

Gamma = .4
TABLE 5
CURES BY INVOLVEMENT IN THE DRUG SUBCULTURE BY
AGE AT ONSET OF OPIATE USE

<table>
<thead>
<tr>
<th>Age at Onset 20 and Under</th>
<th>Involvement in the Drug Subculture</th>
<th>Little</th>
<th>Some</th>
<th>Extensive</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>CURED</td>
<td></td>
<td>3</td>
<td>17.6</td>
<td>3</td>
<td>11.1</td>
</tr>
<tr>
<td>NOT CURED</td>
<td></td>
<td>14</td>
<td>82.4</td>
<td>24</td>
<td>88.9</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td>17</td>
<td>100.0</td>
<td>27</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Gamma = .1

<table>
<thead>
<tr>
<th>Age at Onset 21 and Over</th>
<th>Involvement in the Drug Subculture</th>
<th>Little</th>
<th>Some</th>
<th>Extensive</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>CURED</td>
<td></td>
<td>7</td>
<td>77.8</td>
<td>4</td>
<td>26.7</td>
</tr>
<tr>
<td>NOT CURED</td>
<td></td>
<td>2</td>
<td>22.2</td>
<td>11</td>
<td>73.3</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td>9</td>
<td>100.0</td>
<td>15</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Gamma = .9