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From Sweden

Results of the Drug Abuser Treatment Program at the Osteraker Prison

Improved recidivism rates can be the function of a less recidivism-prone population.

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Introduction

Drug treatment programs are offered to drug-abusing inmates at several Swedish prisons. In 1978, a program was started at the Osteraker national prison, located north of Stockholm. This treatment program is the most comprehensive of those provided. At the time of its inception it was decided that an evaluation of the project should be made. This report is a followup study by the Research and Development Group of the National Prison and Probation Administration of the inmates who participated in the program between January 1, 1979, and December 31, 1981.

Shortly after the completion of the present report, a followup study was made by the prison's program staff. They examined inmates who had been released during the two budgetary years 1982-83 and 1983-84 for their first year after release. The Research and Development Group has analyzed the data presented by the Osteraker prison program staff. The results of these analyses, and the conclusions drawn, are presented in a postscript to this report.

The treatment program*

The treatment project is conducted in five wings of the prison and has a total number of 50 places. In addition, the project has access to 15 places for release preparation at the nearby Bogesund prison. These are intended for use in a "reentry" phase of the program.

Prisoners apply to enter the program. They are expected to stay at least 8 months in the treatment program. If accepted, they contract to follow an individual treatment plan developed with program staff, and they agree to daily monitoring of possible drug use by urine tests. Role-play, social life skills, work training, and study are some of the main treatment components. The program is similar in many ways to those provided in therapeutic communities for drug abusers but modified to meet the special circumstances of imprisonment. All activities are shared with the staff.

Design

For a variety of reasons, both theoretical as well as practical, it was deemed impossible to use a true experimental design for the followup study.

The use of a matching procedure to secure a comparison group was considered but rejected for two reasons. First, there was considerable uncertainty as to what factors might be important for good matching and setting-up of a truly comparable group. Second, the inmate participants in the Osteraker prison project apply to enter the project—they are not ordered to take part. The fact that participants have to volunteer to enter the project might be an important indicator of motivation which could influence the outcome. If they were ordered into the program rather than volunteering, they might not have been as successful in completing it. No way was seen for matching this factor. About 50 other volunteers who either withdrew their applications or were rejected by project staff as unsuitable were excluded from this study due to the same consideration.

This is a summary of *Uppfoljning Av Intagna I Narkomanvardsprojektet Vid Kriminalvardsanstalten Osteraker*, National Prison and Probation Administration, Research and Development Group, S-601 80 Norrkoping, Sweden, 1986. NCJ 103684. The original contains a list of further readings, and several tables of statistics. Summary published March 1987.

* Here, and throughout the report, the word "treatment" means the total set of influences brought to bear with the aim of improving the inmate's personal and social situation.

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This left one further possibility, namely to compare those who completed their stay in the Osteraker project as planned with those inmates who were accepted and commenced a stay but who subsequently were removed from the project for misbehavior.

Purpose of the study

The main purpose of the present study is to answer the following questions about the project:

- How many inmates start treatment? How many become "dropouts," and how many complete treatment?
- To what extent are inmates drug-free during their residence in the project?
- How well does leave from the project work?
- What are the ways in which inmates leave the project prior to final release or parole?

These questions relate to the project in a short-term perspective. In a longer perspective, further questions are:

- How many relapse into serious crime?
- What sort of occupation do inmates have after release?

Of special interest in the research study are the questions:

- Are the results—in both the short- and long-term perspectives—different for different groups of prisoners?
- Is completed or interrupted treatment associated with different long-term results?

Method

The population under study consists of all persons who, after a preliminary stay at the project for assessment, were accepted for treatment. They number 133 (of these, 3 inmates have gone through the project twice, on separate sentences). Each inmate has a followup time of 2 years. (Over and above this period, further time was allowed for possible recidivist offenses to be processed and recorded in the criminal justice system.)

The chief sources of data are inmate case records and information obtained from the computerized registers of the National Police Administration.

Brief description of the population

Two-thirds of the inmates were under 30 years of age. Eighty percent had been in prison at least once before. The most common main offense was violation of the Drug Act (55 persons). The next main offense group was made up of 45 persons sentenced for theft (Penal Code, Chapter 8). Only 10 inmates had been sentenced for violent crime.

About three-quarters of the inmates had completed basic school education. But only six had completed some form of more advanced theoretical studies. About one-quarter had vocational training, while about the same proportion had a steady work record for longer than a year.

Information on age for first-time drug use was available for 80 percent of the population studied. Within this group, 40 percent had used drugs before 15 years of age. The substance used initially was recorded for 92 cases—68 began with cannabis and 24 with amphetamines. At least three-quarters of the population under study had injected drugs at some point in their lives.

In 69 percent of the cases, information was obtained on the drug of choice during the year before the current imprisonment. Central nervous stimulants were favored by nearly half of this group and opiates by one-quarter. For 29 percent, cannabis was the dominant substance. The use of alcohol by nearly 40 percent of the population was so extensive that it was considered to be alcohol abuse.

Findings in a short-term perspective

Completed and interrupted treatment

Of the 133 persons who were accepted into the project during the period studied, 70 completed, while 63 dropped out from Osteraker; i.e., 53 and 47 percent respectively.

Of the 70 prisoners who completed their stay at Osteraker according to plan, just over half went to Bogesund (a nearby open prison for preparation for release), one-third were conditionally released direct from Osteraker, while 10 inmates (14 percent) were transferred to a local institution pending entry into either an external therapeutic community under Section 34 of the Act on Correctional Treatment in Institutions or to a prison offering special study facilities. Of those inmates transferred to Bogesund, however, just under one-third subsequently failed to satisfactorily complete the stay.

Of the 63 prisoners classified as dropouts from Osteraker prison project, one-third left early at their own request. The other two-thirds were dismissed from the project because of continued misuse of drugs, misuse of leave from the prison, or some other form of breach of treatment contract.

Time in program

Prisoners should take part in the program for a minimum of 8 months. The average time in the program for completed cases, including time at Bogesund, was 1 year, but for dropouts it was just short of 5 months.

Results of urine tests

All inmates in the program are required to undergo daily urine testing. A large random sample of these urine specimens is tested for the presence of opiates, amphetamines, and cannabis. Only 19 tests were found positive—nine inmates' specimens were positive on one occasion, while five inmates' specimens were positive on two occasions. These findings mean that the analyses carried out were negative during the entire period for 89 percent of the research population.

Findings in a long-term perspective

Recidivism

Recidivism is defined as occurring when an individual is sentenced to imprisonment or probation within 2 years following conditional release from the Osteraker prison project. Table 1 summarizes the findings related to recidivism.

Of the whole population, nearly one-third have not recidivated. The overwhelming majority of those who recidivated were sentenced to imprisonment. There are, however, clear differences between the group which comprises completed cases and that which comprises the dropouts. The proportion not recidivating in the former group is 46 percent but only 16 percent in the latter group. The differences in the table above are statistically significant (Chi-squared test, $p = <.001$). There is therefore a clear statistical association between the short-term result of staying in, or being removed from, the program, and the longer term result in terms of recidivism.

Drug abuse

Drug abuse can occur *after* the inmate left the program at Osteraker but *before* he

Table 1

Recidivism	Completed cases n	%	Dropouts n	%	All cases n	%
None	32	46	10*	16	42	32
Probation sentence	3	4	4	7	7	5
Imprisonment sentence	35	50	47	77	82	63
Totals	70	100	61	100	131	100

*2 cases missing, one by death and one by emigration.

had been conditionally released (for example, among inmates granted residence in a therapeutic community or transferred to another prison). For this reason inmate case records were scrutinized for references to drug abuse from the time they left Osteraker prison up to the end of the followup period. The findings are summarized in Table 2.

As the table shows, 53 percent of the entire population was recorded as having misused drugs after discharge from the program at Osteraker. No indications of drug abuse were found among 31 percent of the population. Differences exist between the completed cases and the dropouts. In the former group, 46 percent were noted as having misused drugs, and if alcohol is included the proportion rises to 53 percent. The corresponding figures for the dropouts are 62 percent and 77 percent respectively. However, the differences noted in Table 2 do not reach statistical significance (Chi-squared test, $p = >.05$). The quality of the notes in the inmate case records does not permit a more detailed analysis of misuse.

Occupation

Occupation was assessed for the period after conditional release up to the end of the parole supervision period (usually 1 year from release). Case records were scrutinized and a broad assessment made on the basis of whether the content of the case notes was *mainly positive* or *mainly negative*.

The nature of the occupation chosen by the former inmates is, of course, extremely varied. Studying, work in the open market, work on job preparation schemes, participation in treatment, all these forms occur in various combinations and for various periods of time. For this reason the assessment method described above was used. It proved impossible, due to the quality of the data available, to present findings in other than a simplified form. The findings must therefore be interpreted cautiously. Table 3 summarizes the assessments made.

Background and treatment variables in relation to short- and long-term outcomes

A number of tests were performed to determine which variables, if any, were correlated with outcomes in short or long term. These outcomes in effect are the proportion completing their program stay satisfactorily and the proportion not recidivating, respectively. The results of these analyses are summarized in Table 4.

In regard to the question of satisfactory completion of the program, the differences in the background variable showed no statistically significant association. There were, however, a number of significant associations between these variables and recidivism.

Financial aspects

The Osteraker treatment project uses more staff than would ordinarily be the case in this type of prison. Since the inmates participating in the treatment project would otherwise, in all cases, be in a closed national prison and since that kind of prison costs more to run than a small local institution, it is necessary—for a fair comparison—to compare the project's costs with the cost of closed national prisons. A study of this question was undertaken by the Institute of Management and Accountancy at the University of Linkoping.

The study took account of estimated project costs in relation to the factual number of inmates dealt with over different periods of time. The project is, of course, more economical when used to full capacity. This was not achieved initially. However, during the course of time, the use-rate improved. Thus, during

Table 2

Type of misuse noted	Completed cases n	%	Dropouts n	%	All cases n	%
None	28	40	12	20	40	31
Drug misuse	32	46	38	62	70	53
Alcohol only	5	7	9	15	14	11
Case notes not susceptible of interpretation	5	7	2	3	7	5
Totals	70	100	61	100	131	100

Table 3

Assessment	Completed cases n	%	Dropouts n	%**	All cases n	%
Positive	32	47	13	22	45	35
Negative	14	21	10	17	24	19
No assessment possible	22	32	37	62	59	46
Totals	68	100	60	100	128*	100

*Missing data on five persons.

**May not equal 100% due to rounding.

Table 4	Prob-values for correlation with:	
Background variables	Satisfactory completion of program	Recidivism
Age	NS	NS
Previous prison experience	NS	.001
Drug offense as main offense in current sentence	NS	.001
Schooling	NS	NS
Vocational training	NS	.05
Previous work experience	NS	NS
Age for start of drug abuse	NS	NS
First substance	NS	NS
Experience of drug injection	NS	.01
Current drug of choice	NS	.001
Classification of misuse status	NS	NS
Alcohol abuse	NS	.01
Treatment variables		
Time in program	NS	NS
Treatment wing placement	.05	NS
Conditionally released direct from Osteraker or from Bogesund or from other prison	NS	NS
Geographical location of recruitment prison	NS	NS

(NS–not significant, i.e. p = ›.05)

the period from January 1, 1979, to June 30, 1979, the daily cost per inmate in the program was estimated as being 1,698 Swedish crowns. For the budgetary year July 1, 1979, to June 30, 1980, the daily cost per inmate was 1,362 Swedish crowns. In the following budgetary year, 1980-81, the daily cost per inmate was further reduced to 1,239 Swedish crowns. Finally, for the last period studied, July 1, 1981, to December 31, 1981, the daily cost per inmate was 1,124 Swedish crowns.

Clearly, the Osteraker project's costs are comparable to the most expensive national prisons. To relate the results of the project to its costs, however, lies outside the scope of the present study.

Postscript

As mentioned in the introduction, the present report had just been completed when a preliminary followup report on inmates who had been released during the budgetary years 1982-83 and 1983-84 was received. This report had been prepared by the project staff on the basis of periodic personal contacts with probation officers and private supervisors responsible for the aftercare of released inmates. The inquiries pursued by project staff were, however, limited to the first year after release from prison.

In the preliminary report presented by project staff, the attempt had been made to compare the findings there with those of the Research and Development Group's study covering an earlier period. In certain respects, the findings of the project staff were markedly more positive than those of the Research and Development Group's study. The better results were attributed to improved treatment methods.

The most striking difference between the findings of the two studies concerned recidivism. The 1-year recidivism rate in the Research and Development Group's study was 53 percent while that in the project staff's study was only 29 percent (using a wider definition of recidivism than that employed by the Research and Development Group). At the same time the project staff reported that drug abuse, including alcohol abuse, among the former inmates encompassed 65 percent of these inmates.

The first step in the comparison was to check the recidivism data gathered by project staff. When the check was completed, it was found that the difference between the 1-year recidivism rates in the two studies became even greater—53 percent in the Research and Development Group study but now only 26 percent in the project staff study. How could such a large difference be explained?

The project staff report stated that the inmates who had been released during 1982-83 and 1983-84 were not more treatment motivated or in some other way not more recidivism-prone than those who made up the population of the Research and Development Group study. A second step in the comparison of the two studies was therefore to test the truth of this assertion.

In the Research and Development Group study four groups had been identified, one of which appeared to have a markedly better prognosis while another appeared to have a markedly worse prognosis than the other classified groups. The former group was composed of those who had no previous prison experience and had been sentenced for a drug offense as the main offense in the current sentence. The latter group had previous prison experience but had been sentenced for a main offense which was not a drug offense (usually a property offense).

In examining the statistics, it is clear that the group with the most favorable outcome in the 1979-81 study had become a much larger proportion of the population studied by the prison project staff. Conversely, the group with the worst outcome had become a diminished proportion of the later population studied.

The question now is whether these differences are sufficient to explain the observed differences in recidivism in the two studies. An answer can be provided by treating the population studied by the Research and Development Group as a *construction population* for a prediction instrument. The project staff's population can be treated as a *validation population* for predictions made on the basis of observed recidivism in the *construction population*.

The conclusion is drawn that the improvements in recidivism found in the project staff's population are broadly those that can be expected in view of the changed composition of that population. The improved recidivism rates are to a large extent a function of the recruitment of a less recidivism-prone population.