

# PSYCHOSOCIAL INTERVENTION WITH DRUG ADDICTS IN PRISON. DESCRIPTION AND RESULTS OF A PROGRAMME

M<sup>a</sup> del Pilar Moreno Jiménez  
University of Malaga

*Drug addiction and delinquency can be separated, but they often appear together, especially in addicts with scarce economic resources. Moreover, there is an additional risk for this type of person: entering prison. This article, the main part of a research project for a doctoral thesis, focuses on these three issues, in a study parallel to an intervention with drug addicts in a prison environment. Three objectives are set, referring to the design, execution and evaluation of the changes produced by the intervention. The programme for drug dishabituaton approaches the problem from the point of view of the addict's health, with health being considered as a global concept. The perspective of the drug-addiction programme is a biopsychosocial one, and its objectives are progressive. Their fulfilment requires the co-operation of external and community resources. A total of 64 addicts participated in the programme, in five consecutive groups each with 5 months of dedication, making up a total of 3 years of intervention in the prison. The data show that after the programme only 4.7% of participants continued to consume drugs. In the follow-up 3 months after completion of the programme, 26% remained abstinent.*

*Las drogodependencias y la delincuencia común pueden aparecer de forma separada. Sin embargo, frecuentemente aparecen juntas, especialmente para adictos con escasos recursos económicos. Para esta población existe otro riesgo: la entrada en prisión. Este artículo, parte principal de la investigación realizada como tesis doctoral, se centra en esos tres temas: se trata de una investigación paralela a una intervención con personas drogodependientes en el contexto penitenciario. Se plantean tres objetivos que hacen referencia al diseño, ejecución y evaluación de los cambios producidos por la intervención llevada a cabo. El programa realizado para la deshabituación de drogas considera el problema desde el punto de vista de la salud del adicto, considerando la salud como un concepto global. Con un enfoque biopsicosocial de las drogodependencias, los objetivos planteados son progresivos y para el logro de los últimos es necesaria la colaboración de recursos comunitarios y exteriores. En el programa han participado un total de 64 presos adictos, separados en cinco grupos consecutivos, durante cinco meses de intervención con cada grupo, lo que ha supuesto un total de tres años de intervención en el centro penitenciario. Los datos reflejan que tras la realización del programa sólo el 4,7% de los participantes siguen consumiendo drogas. En el seguimiento realizado a los tres meses de la finalización, el 26% sigue abstinente.*

## INTRODUCTION

One of the burning issues within social science in general and psychology in particular is how to achieve the rehabilitation and social reintegration of criminals that serve a prison sentence. The task is a difficult one, and even more so when dealing with people who move within marginal environments and who suffer from problems of drug-dependence. It was in this context that an intervention was carried out with young prison inmates. The principal aim of the intervention was to design and implement a drug dishabituaton programme, with sub-

sequent assessment of the changes produced in the population over the course of the programme.

The theoretical framework of the intervention is centred on a consideration of drug-addiction and criminality as multi-determined behaviours (caused by a variety of factors). The drug-addiction model of reference throughout the intervention is a biopsychosocial model, working with biological, psychological and social factors

Penitentiary treatment must be wide-ranging and comprehensive, covering normative aspects, advice, cultural education, work, therapy, etc., with immediate objectives; ultimate objectives should be for inmates to adjust to prison life and to increase their ability to live without committing crimes. Drug-addiction programmes add to prison treatment the objective of equipping inmates to live without drugs. Many factors lead to the consumption of drugs in prison: the situation of a closed, controlled and prohibitive institution mean that options of escape

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Correspondence concerning this article should be addressed to M<sup>a</sup> del Pilar Moreno Jiménez. Universidad de Malaga. Facultad de Psicología. Dpto. de Psicología social y de la Personalidad. Campus de los Teatinos. 29004 Malaga. España

through the alteration of behaviour and perception become attractive –drug-taking is a way of transgressing the norms and reality of confinement; people with diverse drug-related (consumption and trafficking) backgrounds coincide in an environment of confinement and with no motivation to change; there are structural problems and overcrowding; drugs acquire a high value, both in terms of consumption and as a means of exchange resulting in internal trafficking. The programme acts, in an implicit way, on the consequences of internment. Its objectives refer mainly to the problem of drug-addiction; however, in the participant population this problem is in interaction with the confinement situation, so that the intervention covers these two intimately related aspects.

The objectives related to imprisonment are based on breaking the routine and monotony of prison life for those participating in the programme, as well as reducing the negative effects of internment: inactivity, ego-centric thinking, anxiety, aggression, prison subculture (language, implicit norms, one's own values), lack of responsibility, isolation, loneliness, etc. The programme respects the general conditions or ideal characteristics of intervention recommended by other authors (González, 1988; Megías, 1990, 1991; Redondo and Garrido, 1991). The following considerations are made:

- a) Differentiated therapeutic spaces should not be created within the institution for prisoners with drug-addiction problems. This would lead to over-margination and an artificial environment;
- b) Flexibility of objectives: diversified, categorised, geared to accessible goals for each prisoner. This means seeking an equilibrium between the ideology of community resources and the institutional reality;
- c) The resource for rehabilitation of drug-dependent prisoners should not be excessively specialised, nor its structure too rigid, as this would lead to a limitation of the number of inmates attending;
- d) Intervention in penal institutions is impossible unless they consider it as part of their own activity, since they do not permit work to be carried out outside their jurisdiction. The limitations and difficulties must be accepted, and work carried out within the institution's space and using its means.

Currently, wide-ranging intervention formulas are adopted, not based strictly on the problem of drugs or criminality, since, as stressed above, we are not dealing with an isolated problem; rather, drug-addiction and criminal behaviour together represent a lifestyle that affects all areas of an individual. Thus, our work is largely carried out according to the principle of "Education for Health", treating the subject as a whole, with the

objective of global health. The aim is to achieve a person who is more effective in his/her attitude to him/herself and to others, capable of modifying his/her environment through legitimate means. The medical and clinical model is replaced by an educational one; the quest is for psychosocial competence rather than cure.

Some points in common between our intervention and others recently carried out are as follows: 1) Some of the intervention areas coincide with those of other programmes. For example, in Peru, with a cognitive-behavioural treatment, seven areas are considered: drug consumption, use of free time, work behaviour, social behaviour, self-organisation behaviour, problem-solving, and modification of irrational ideas (Navarro, Arevalo, Yupanqui, 1987; Navarro, Yupanqui, Geng, 1992); 2) In the health and preventive health areas, one of our objectives has been the learning of habits for the prevention of contagious diseases, based on the acquisition of information on AIDS, hepatitis, tuberculosis and sexually-transmitted diseases. Likewise, prisoners are informed about risk behaviours and ways of preventing contagion. For example, information on HIV risk is provided without instilling excessive fear that might lead to behaviour contrary to that which is desired. It is been shown that self-perception of HIV risk in internees results in a reduction in intravenous drug use, interchange of syringes and risk behaviour in general (Power, Marcova and McKee, 1992). HIV-contagion predictor variables found include: history of STD (sexually-transmitted diseases, sexual activity, intravenous drug use (Goodman and Berecochea, 1994; Millstein, Mosicki and Broering, 1994). This reflects the relationship between different variables and the need for interventions to be global and act on several fronts, as in the present research; 3) The programme includes the acquisition of self-care and personal hygiene habits. Interventions aimed at improving personal hygiene have been carried out in other prisons, in Spain (Redondo, Pérez, Agudo, Roca and Azpiazu, 1990) and in Scotland (Power and Beveridge, 1990), observing the influence of this variable in relation to others, such as stress, self-esteem or general behaviour; 4) Various studies recommend the use of relaxation techniques as a strategy for coping with the stress resulting from confinement (Fogel, 1993; Harris, 1993); 5) There is recognition of the importance of the language used during the intervention, with attempts to reduce the use of prison or "underworld" slang. In a recent intervention with prisoners in the US, language, as a reflection of the value and belief system, becomes a formal element of the treatment process. The results show a change in prisoners' ways of thinking and acting, consistent with the

objectives of the programme and the norms of conventional society (Nielsen and Scarpitti, 1995).

### Objectives of the programme

In interventions with drug addicts, either within the framework of psychology or that of other social sciences, the aim is for professionals to teach forms of behaviour and thinking that improve addicts' quality of life. The treatment proposed here involves an intervention style that aims to assimilate as many activities as possible within an institution, functioning not as an activity superimposed on the prison's everyday life, but rather as a programme integrated in the dynamic of the institution. Basing our work on the objectives exposed by other authors (Milán, 1987; Berrocal, 1990; González de Audicana, 1988; Contreras and Izquierdo, 1989; CRUZ ROJA in Madrid II; Redondo, 1989; Redondo and Garrido, 1991), the general objective of our intervention is to increase the personal resources of prisoners, on a behavioural, cognitive and affective level, at the same time as reducing negative behaviours, both criminal and addictive.

Specifically, our objectives are as follows:

1. To eliminate physical dependence and achieve partial improvements with regard to consumption. This would include the achievement of partial abstinence, changes in the form of administering the drug (replacement of intravenous injection with smoking or sniffing) and reduction of dose.
2. To educate the individual so that, whether s/he is drug-dependent or not, s/he acquires and maintains healthy habits –habits that preclude contagion of diseases and promote improvements in diet and hygiene.
3. To favour the continuity of programmes carried out in prison and their generalisation to the community. To facilitate exit from prison and the extension of community institutions to prison. To establish a relationship with outside for when the prisoner is released.
4. To develop personal characteristics that favour the non-consumption of drugs and the search for alternatives: self-control, self-esteem, decision-making, no self-margination, sense of responsibility.
5. To achieve a situation in which individuals have greater psychosocial competence, with more effectiveness in their relations with others. To increase their resources and reduce negative behaviours, providing them with social skills that permit their normalised inclusion in their environment, with socially acceptable behaviours.

6. To achieve a situation whereby the addict has the lowest possible level of dependence, and ideally acquires a new lifestyle in which there is no place for drug use.

As far as the programme's objectives exposed are concerned, the possibility of achieving partial and specific goals is accepted. The objectives can be considered in terms of three levels, as follows:

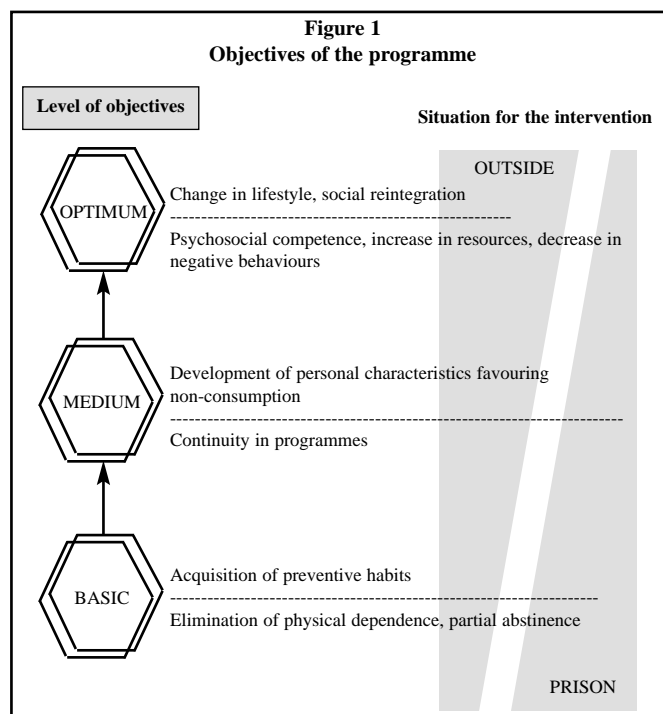
### Human resources

The team of professionals participating in the programme consists of a psychologist, an educator and the prison medical team.

### Intervention areas

For purposes of the design of the present programme and its exposition, this level has been divided into three areas that, in practice, overlap and become mixed. These areas are as follows:

- a) Health and preventive health, covering both detoxification and physical dishabituation and all aspects related to the acquisition of preventive health and self-care habits. (figure 1).
- b) Drugs. Issues directly related to drugs, such as information on different substances, information on the learning mechanisms involved in addiction, information on/knowledge of community resources for dishabituation, etc.
- c) Psychosocial, relating to intervention in different personal and interpersonal aspects of prisoners.



The intervention uses pharmacological treatment in some cases, information groups, and group cognitive-behavioural and dynamic techniques. All aspects of the intervention take place in groups, in Day Centres and with a community orientation.

### *Framework of the intervention*

The main distinguishing characteristics of the penal institution involved in the present study are its lawns, swimming pools and modular structure, together with the educational and cultural activities available, none of which are often found in large-scale prisons.

The prison population is made up of men and women aged 16 to 25, confined in separate areas.

The most noteworthy data concerns the progressive increase in the number of inmates, which led to a considerable worsening of conditions and hampered the educational initiatives of the programme. Numbers rose from 408 (187 women and 221 men) in June 1992 to 684 (282 women and 402 men) in August 1994. (figure 2).

The result of the increase in prisoner numbers –the institution was designed for half the number it held by the end of our intervention– was a general deterioration of conditions: poor hygiene, problems of overcrowding, stress. We should remember that one of the main problems currently facing prisons is overcrowding, a factor that directly affects basic conditions such as food, hygiene or space. Thus, the quality of prisoners' diet suffers, poor hygiene leads to increased risk of contagion and infection, inmates lack personal space and privacy (psy-

chological overcrowding), and there are generally fewer resources per prisoner. Overcrowding is a serious and endemic problem in nearly all prisons, constituting one of the most harmful factors for the personality of the prisoner and for prison life in general. A study by Cox, Paulus and McCain (1984) showed that overcrowded prisons presented higher proportions of violent deaths, suicides, disciplinary infractions and psychopathological behaviour. Double and triple cells and communal dormitories produce negative effects with regard to disciplinary infractions and reactions of anxiety, fear and aggression.

Another important fact to be taken into account in our study is the existence of many preventive prisoners, yet to be sentenced, which account for 23.7% of the men and 10% of the women. This is a general problem of the judicial system that manifests itself in all prisons. The result is that there are a considerable number of prisoners to whom the programme cannot be applied, since, given that they are awaiting sentence, they do not know how long they will remain in prison or whether they will serve their sentence elsewhere. Thus, interventions carried out in prisons usually involve only those prisoners serving a sentence, thus avoiding situations in which inmates have to abandon the programme due to transfer or release.

Finally, the data show that the most frequent crimes for which prisoners have been sentenced are theft and "crimes against public health" (drug-trafficking). Likewise, our data confirm the small number of non-traditional crimes: against public services, breaches of civil service regulations, etc.

## **METHOD**

### *Sample*

Drug-dependent prisoners that wished to participate in the dishabituating programme made their application in the prison's medical centre. Participants in the intervention groups were selected at random from these applications. From November 1992 to November 1994, five groups of 11 to 14 persons took part in the programme. Thus, the study population consists of 64 subjects, 13 women (20.3%) and 51 men (79.7%).

As far as the characteristics of the population participating in the programme are concerned, mean age is 21.8 years, and the typical profile is male, unmarried and with few academic and employment qualifications. As regards their family characteristics, mean number of siblings is 5.2, reflecting the fact that they come from large families. Participants are generally from low social class (26.5%) or salaried low class (56%).

**Figure 2**  
**Areas of the Intervention**

Health and preventive health area	Detoxification Dishabituating (naltrexone) Analyses Prevention of contagious diseases Prevention of unwanted pregnancies Hygiene and self-care
Drugs area	Drug-addiction as a behaviour Consequences of drug-dependence Characteristics of each drug Psychosocial consequences
Psychosocial area	Information about and co-ordination of community resources Self-knowledge and group dynamics Group discussion therapy Relaxation Social skills and psychosocial competence Development of self-criticism Solution of problems Increase of self-esteem Social assistance – mutual help

## Assessment techniques and instruments

1. *Questionnaire 1: Level of information on drugs.* This questionnaire records participants' level of information. The authors used it in view of the importance they attribute to addicts' beliefs, stereotypes or erroneous ideas with respect to different substances. It includes variables on alcohol, tobacco, heroin, cocaine and drugs in general, and was drawn up on the basis of a questionnaire used in the anti-drugs campaign of the Madrid Regional Government. Possible scores range from 0 to 27 points, 0 indicating minimum knowledge of aspects related to drugs and maximum level of erroneous ideas; 27 indicates good knowledge of drugs and related matters.
2. *Questionnaire 2:* Designed by the researcher, this is a standardised interview, self-administered in individual written format by each participant. It collects information on descriptive aspects related to participants' addiction and the most important issues affected by the intervention, with particular attention to pre/post-programme differences. It consists of three parts: the first serves to obtain descriptive data; the second –and most relevant to this study– refers to possible changes produced by the programme; the aim of the third part was to detect differences in some variables in situations of freedom and confinement (Moreno Jiménez, 1999). Only the second part will be described here, leaving the rest to be dealt with in other studies. This second part of the questionnaire contains 35 questions referring to the different variables that it is aimed to change through the programme. Participants responded to it on the second day of the programme and after five months, thus allowing a comparison that indicated the changes produced by the intervention.
3. *Urine analyses:* These were carried out in order to detect traces of opiates and cocaine. The analyses, carried out by the prison medical team, were made at irregular intervals, in order to prevent possible fraud by participants.

## Design of the research

The duration of the programme was approximately 5 months for each group, with three sessions per week. Sessions lasted between 1\_ and 2\_ hours, depending on number of participants and the need for more time.

When researchers wish to transfer their study from the laboratory to the natural situation, they can use something similar to the experimental situation for the collection of data, even though they do not have total control

over the programming of experimental stimuli. This is the case with the recurrent institutional cycle design, a research strategy recommended by Campbell and Stanley (1973) for situations in which a specific aspect of an institutional process is presented to each group of participants in a cyclical manner. In situations where the intervention is global or complex the recurrent institutional cycle design is probably the best solution among the alternatives available. Comparisons were made of results obtained in the different variables before and after the programme for each of the five groups. Training of and intervention with each group was consecutive, so that it was possible to use each group as a control for the previous one.

The basic scheme of the design in the case of this study is as follows: (figure 3).

This design combines the longitudinal and transverse approaches. On the one hand is a one-group pretest-posttest design (e.g., the measurements 02-03); on the other is a comparison with a static group: a group that has experienced X is compared with another that has not, thus giving a design of two equivalent groups without pretest (this is the case of the comparison 03-04). The headings M1 to M6 indicate the different points (in time) at which measurements were made during the intervention with all groups. For the comparison, non-parametric tests were used, since the sample was a small one that did not fulfil for all variables the criteria of normality and equality of variance required for parametric tests. In the case of the study presented here we are dealing with data measured or analysed at an ordinal or nominal level.

## RESULTS

Given the scale of the study and the large quantity of variables, only the results involving statistically significant changes are presented.

### Level of information on drugs

The results obtained by means of Questionnaire 1 show that, on commencement of the programme, mean score of all groups is 18.3, rising to 22.6 after five months of intervention. Change in this variable is found in all groups.

Figure 3  
Design of the research

	M1		M2		M3		M4		M5		M6
Group 1	00	X	01								
Group 2			02	X	03						
Group 3					04	X	05				
Group 4							06	X	07		
Group 5									08	X	09

Examination of the results of Questionnaire 2 also shows that there was an increase in knowledge of aspects related to drugs and dishabitation: adulteration, receptors, naltrexone, methadone and overdose. The statistically-significant change shows that participants have assimilated concepts frequently used in medical treatment, such as those related to naltrexone, receptors and methadone. In the case of methadone mistaken beliefs have been corrected and unfounded fears dispelled. Likewise, stereotypes and errors have been changed with regard to concepts used by the participants, such as adulteration and overdose, frequently confused with one another or identified as fatal without knowing why. (table 1).

### ***Prevention of contagion of disease in prison***

In the intervention carried out in the prison a comparison is made between the risk of contagion of diseases such as AIDS and hepatitis at the beginning of the programme and after five months. In order to assess the risk of contagion, the study considered four behaviours (use of toothbrush, use of razors, use of syringes and use of condoms in sexual relations) and participants' level of information about how AIDS is caught. There is no risk with use of toothbrush. It would appear that in our culture personal/non-shared use of toothbrushes is generalised. Neither is the risk of sharing razors frequent, since only one participant presented risk behaviour of this type, and this disappeared as an effect of the programme. There are higher levels of risk in relation to the use of syringes and non-use of condoms. Several participants reported not using syringes in consuming drugs, which means they take them by other, non-intravenous means, such as

sniffing or smoking: this is the case for 13 subjects before the treatment and 14 afterwards. With regard to those that do use syringes in the prison, risk levels are slightly lower after the intervention. The non-statistical significance of this change seems to be due to the fact that the intervention to reduce the risk of contagion was based on information and change of attitudes, without being accompanied by facilitation of acquiring new syringes or exchanging old for new. The last behaviour considered as risk for the contagion of diseases is the non-use of condoms in sexual relations. Throughout the programme it has been found that non-use of condoms has been and continues to be habitual in relations maintained within prison or outside it. There is generalised prejudice against their use, and most participants reject them.

As far as this intervention is concerned, the most notable results are, on the one hand, that participants begin sexual relations with condoms and, on the other, the maintenance of risk (one prisoner) or not (two prisoners) in relations already established before the programme. Finally, a high-level of knowledge of forms of contagion of AIDS was found. This was to be expected, bearing in mind the widespread availability of information on AIDS, both from campaigns in prisons and from the media, especially television. (table 2).

### ***Prevention of unwanted pregnancies***

In order to evaluate the prevention of *unwanted pregnancies*, account has been taken of both knowledge and use of the different contraceptive methods available. During the intervention all contraceptive methods were presented: irreversible methods, condoms, the pill, coitus interruptus, rhythm and temperature met-

**Table 1**  
**Questionnaire 1: Level of information on drugs**

Point of measurement	1	2	3	4	5	6	Wilcoxon
Group 1 n = 5	m = 17.2	m = 21					z = -1.82 p = 0.06
Group 2 n = 6		m = 17.3	m = 23.5				z = -2.20 p = 0.02
Group 3 n = 9			m = 20	m = 22.8			z = -2.20 p = 0.02
Group 4 n = 8				m = 18	m = 22.8		z = -2.52 p = 0.01
Group 5 n = 8					m = 18.2	m = 22.5	z = -2.19 p = 0.02
Intergroup diff.: U Mann-Whitney	z = -2.77 p = 0.00	z = -2.89 p = 0.00	z = -2.52 p = 0.01	z = -2.75 p = 0.00			all: z = -4.82 p = 0.00

hods, spermicides, diaphragm, and intra-uterine device (IUD). According to Health and Social Affairs Ministry guidelines, some of these are not really contraceptive methods, as they lack sufficient guarantees. The variables of knowledge and use of contraceptive methods were assessed by means of an open question on the contraceptive methods known to participants and another on the methods they would use if they had sexual relations. The hypothetical nature of this latter question is due to the fact that the majority of the participants had no sexual relations whilst in prison. Knowledge of contraceptive methods was scored from 1 (minimum) to 6 (maximum); after five months of the programme these scores increased considerably in all groups.

With regard to the use of methods, various facts emerge: no-one would use the IUD or basal temperature methods; in all groups there is an increase in the number of people that would use coitus interruptus; likewise, there is an increase in all groups with regard to other contraceptive methods: spermicides, diaphragms, etc.; there are scarcely any changes with regard to the use of pills, whose frequency is low, and the use of condoms, whose frequency is high. (table 3).

### **Hygiene and self-care habits**

As hygiene habits the following were considered: daily shower, use of various products for personal cleanliness and frequency of washing hands and cleaning teeth. Maximum score is 4 and minimum 0. Table 4 shows the mean scores obtained in the different groups and the significant differences produced after five months of the programme. (table 4).

### **Knowledge of community programmes and resources (Question 32)**

The aim of the intervention carried out is to initiate a process of dishabituation, a process that in the majority of cases should continue when the prisoner is released. It is therefore considered fundamental to promote prisoners' access to rehabilitation programmes in the community, for which they first need to know about the resources available. During the intervention they were informed of the existing social resources in the city, and differences in knowledge compared to the situation at the beginning of the programme were assessed. Mean number of rehabilitation centres known increases in all five groups, but only in the fourth group are the differences statistically significant.

### **Assessment of the programme**

In order to assess the programme carried out, two questions with four alternatives were formulated. Participants chose one of the two positive responses: *I'm very pleased with the programme – I think it's been useful for me* (47.2% of participants), and *Some things have been useful for me* (52%). No participant had a negative opinion of the programme. The results of the previous question were ratified by the fact that most participants (88.9%) expressed the wish to continue with the programme several times a week. (table 5).

### **Persons in treatment with naltrexone**

Within the programme, naltrexone treatment was explained and offered as an option to participants. Table 6 presents, for each group, number of participants receiving naltrexone treatment in each month of the programme

**Table 2**  
**Questionnaire 2: Level of knowledge in 5 concepts related to drug-dependence**

Point of measurement	1	2	3	4	5	6	Wilcoxon
Group 1 n = 5	m = 2.4 mdn = 2	m = 4.4 m = 4					z = -1.82 p = 0.06
Group 2 n = 6		m = 1.5 mdn = 1.5	m = 4.3 mdn = 5				z = -2.20 p = 0.02
Group 3 n = 9			m = 1.8 mdn = 2	m = 4.5 mdn = 5			z = -2.66 p = 0.00
Group 4 n = 8				m = 1.5 mdn = 1	m = 4.2 mdn = 4.5		z = -2.20 p = 0.02
Group 5 n = 8					m = 1.7 mdn = 1.5	m = 4 mdn = 4	z = -2.36 p = 0.01
Intergroup diff.: U Mann-Whitney	z = -2.82 p = 0.00	z = -3.04 p = 0.00	z = -3.36 p = 0.00	z = -3.11 p = 0.00			

and during the follow-up, three months after the end of the programme.

The following is observed: first, people receiving naltrexone treatment consume neither heroin or cocaine, and nor do they drop out of the programme; second, where naltrexone treatment has been abandoned, it is due to the side effects produced. This was the case of three participants from Groups 2, 4 and 5 who suffered from hepatitis; and third, three months after completion of the programme the number of persons still receiving naltrexone treatment decreased considerably, from 14 people at the end of the programme to just 3 three months later. This last result points to an interesting finding: medication with naltrexone does not make sense unless accompanied by psychosocial intervention.

### Urine analysis results

The most objective result obtained for assessing the changes produced throughout the intervention is provided by the urine analyses. Table 7 shows the positive results of these analyses, that is, where the urine indicated that there had been consumption at the different points throughout the programme. A decrease can be observed in the number of participants showing positive for heroin or cocaine.

In the final test carried out, 42 samples were taken, of which only 2 were positive, showing that 4.7% of participants continued consuming. Finally, data collected three months after completion of the programme show the relapse of many participants: of 27 analyses, 20 indicated drug consumption: 74% of participants for whom

**Table 3**  
Knowledge of contraceptive methods. Differences found at different points during the intervention

Point of measurement	1	2	3	4	5	6	Wilcoxon
Group 1 n = 5	m = 2 mdn = 1	m = 4.8 m = 4					z = -1.82 p = 0.06
Group 2 n = 6		m = 2.8 mdn = 3	m = 5.2 mdn = 6				z = -1.82 p = 0.06
Group 3 n = 9			m = 2 mdn = 2	m = 4.7 mdn = 5			z = -2.36 p = 0.01
Group 4 n = 8				m = 2.1 mdn = 2	m = 4.7 mdn = 4		z = -2.52 p = 0.01
Group 5 n = 8					m = 3 mdn = 3	m = 5.3 mdn = 6	z = -1.82 p = 0.06
Intergroup diff.: U Mann-Whitney	z = -2.12 p = 0.03	z = -2.84 p = 0.00	z = -3.24 p = 0.00	z = -2.29 p = 0.02			

**Table 4**  
Acquisition of hygiene habits

Point of measurement	1	2	3	4	5	6	Wilcoxon
Group 1 n = 5	m = 1.6 mdn = 2	m = 2.8 m = 3					z = -2.02 p = 0.04
Group 2 n = 6		m = 1.33 mdn = 1	m = 2.6 mdn = 3				z = -2.02 p = 0.04
Group 3 n = 9			m = 1.66 mdn = 2	m = 2.5 mdn = 3			z = -1.82 p = 0.06
Group 4 n = 8				m = 1.3 mdn = 1	m = 2.7 mdn = 3		z = -2.52 p = 0.01
Group 5 n = 8					m = 1.7 mdn = 3	m = 3.3 mdn = 3	z = -2.52 p = 0.01
Intergroup diff.: U Mann-Whitney		z = -2.70 p = 0.00	z = -2.07 p = 0.03	z = -2.39 p = 0.01	z = -2.68 p = 0.00		



data was available had returned to drug-taking within three months of finishing the programme. (table 6), (table 7).

## DISCUSSION

Perhaps the most general conclusion to be drawn from these three years of intervention is that, in view of the reality of the prison and drug-dependent population, with all its complexities and difficulties, intervention to improve the psychosocial situation of prisoners is both a possibility and a necessity. Through the programme presented here, the following changes have been achieved in specific variables:

1. Knowledge and information has been acquired with regard to concepts related to drug-addiction and dis-habituation, and mistaken beliefs reduced. Participants have been made aware of more contraceptive methods and community resources for dis-habituation.
2. Perhaps the most difficult variables to change have been those related to behavioural habits. Even so, interesting results have been found. One of the clearest was the improvement in hygiene and self-care habits, which were probably affected by a variety of factors, some specific, such as the sessions devoted to providing information on hygiene behaviours, self-care and image care, and others more general, such as the way the programme as a whole encouraged the improvement of physical appearance for attending the sessions and meeting prisoners from other modules and persons from outside the prison.
3. The group format of the intervention produced benefits additional to those that constituted the objectives

of each session: the above-mentioned improvement in self-care, increase in communication, breaking of isolation and decrease in "incarceration". The inclusion in the intervention team of professionals from outside the institution helps to break the monotony of prison life and facilitates modelling, since prisoners are less likely to reject outright their behaviour, as is the case with the behaviour of prison staff.

**Table 6**  
Persons in naltrexone treatment each month

Group:	Month 1	Month 2	Month 3	Month 4	Month 5	Follow-up
1	1	1	2	2	3	0
2	2	3	3	2	2	1
3	4	4	4	4	4	1
4	4	4	3	3	3	1
5	3	3	2	2	2	0

**Table 7**  
Positive results in heroin/cocaine consumption at different points of the programme

Point of measurement Group														End	Follow-up
1	6	2	3	0	0	1	0	0	0	0	2	2	1	2	5 of 5
2	5	3	3	2	1	0	0	1	0	1	0	0	0	0	4 of 6
3	3	4	3	3	2	1	2	0	0	0	0	1	0	0	3 of 4
4	2	4	4	2	1	2	2	1	0	1	0	0	0	0	4 of 6
5	1	2	3	3	2	0	0	1	0	0	1	1	0	0	4 of 6
Positive analyses (showing traces of heroin or cocaine)															

**Table 5**  
Intention to consume drugs on release (m = mean). 1 = will not consume, 2 = unsure, 3 = will consume

Point of measurement	1	2	3	4	5	6	Wilcoxon
Group 1 n = 5	m = 22.2	m = 1					z = -1.82 p = 0.06
Group 2 n = 6		m = 2	m = 1				z = -1.82 p = 0.06
Group 3 n = 9			m = 2.1	m = 1.2			z = -1.94 p = 0.05
Group 4 n = 8				m = 2.1	m = 1		z = -2.20 p = 0.02
Group 5 n = 8					m = 2.1	m = 1.2	z = -1.78 p = 0.07
Intergroup diff.: U Mann-Whitney		z = -2.12 p = 0.03	z = -2.72 p = 0.00	z = -2.33 p = 0.01	z = -2.91 p = 0.00		all: z = -4.18 P = 0.00

4. As regards more complex habits, there was a reduction, for example, in the number of people using syringes for the consumption of drugs; those that continued to use syringes, however, were more at risk of contagion, and this risk did not decrease with the intervention, since it was not accompanied by the provision of new syringes for those who continued to take drugs in this way. These results confirm those found in other recent studies. As far as other risk behaviours are concerned, a relevant result is the high degree of condom use in hypothetical relationships. This result is in contrast to participants' actual use of condoms in previous, real relationships. This situation could be interpreted in two ways: either they consider the use of condoms as a method of contraception, that is, to avoid unwanted pregnancies, but not as a way of avoiding contagion, or, in a rational way, they think it advisable to use condoms –thus stating that they would use them in hypothetical sexual relations– but in reality do not make use of them.

Finally, two further results of note are the decrease in the number of participants consuming drugs during the intervention and the positive evaluation of the programme.

With respect to the changes produced, it can be stated in conclusion, and considering the three levels proposed as objectives of the programme, that the basic level has been achieved, since physical dependence is eliminated, abstinence from consumption attained and healthy habits acquired. The medium level has been partly achieved, with the development of personal characteristics that favour dishabituation, such as increased self-esteem or the acquisition of skills related to dialogue and personal relations. The optimum level, opening the way for social reintegration, cannot be achieved in a custodial environment; hence the proposal for continuity of the intervention outside prison, taking advantage of the dishabituation begun in confinement. This type of intervention would appear to be useful, then, for modifying health-related attitudes and beliefs and promoting healthy behaviours and habits. Moreover, the programme described here has had an important impact in other areas in which there was no direct intervention, with notable effects in reducing "incarceration" and increasing abilities for dialogue, turn-taking or expression of the emotions. As also found in interventions with non-prisoners, the most difficult challenge is that of avoiding relapses and maintaining abstinence in the long term. The results with respect to abstinence are not maintained in the medium term. Nevertheless, we should not forget that the work here was carried out in a prison environ-

ment, where sustaining results is more difficult due to various factors:

1. The situation of a closed, controlled and prohibitive institution makes attractive options of *flight* that alter behaviour and perception, and gives rise to the desire to transgress norms.
2. There are structural problems and overcrowding. In the prison in which this intervention was carried out, the progressive increase in prisoner numbers considerably worsened living conditions and hampered attempts to carry out educational intervention. There was a general deterioration of conditions: poor hygiene, overcrowding, stress, increased contagion of diseases, lack of privacy and personal space (psychological overcrowding), fewer resources per prisoner, and so on. Moreover, overcrowding itself produces further stress, which prisoners attempt to combat with the use of drugs.
3. Due to the organisational characteristics of prisons, there is serious danger of considering treatment in a restricted way. Thus, everyday prison life is the responsibility of the prison regime, the administration and the warders; the *real* treatment is seen as the job of the specialists –psychologists, criminologists, educators, sociologists– in specific programmes, so that there is lack of organisational innovation, of the contributions to more general change that could be made by such specialists.
4. Finally, prisoners' main complaint concerns the monotony and boredom of prison life. The need to occupy their time clearly indicates the direction in which interventions in prisons should be moving.

The proposals emerging from this research are as follows:

- a) To intervene with specific programmes but which are incorporated into the normal functioning and organisation of the institution. Interventions by professionals are necessary, at least to cushion the harmful effects of confinement, to avoid "incarceration". General intervention in penal institutions should be based on scientifically-designed programmes to encourage the acquisition by prisoners of pro-social patterns and to create better conditions for rehabilitation. This would involve a restructuring of prisons so that custodial sentences serve as rehabilitation time.
- b) The above proposal involves the occupation of free time. However, other fundamental objectives should be set while occupying time: dishabituation from drugs, professional training, development of personal

characteristics, communication between prisoners, acquisition of preventive health habits, and so on.

- c) Finally, completion of sentences outside prison should be facilitated. For common criminals with drug-addiction problems, professional programmes favour the abandonment of drug use and behavioural and cognitive change in addicts. In prison this change is difficult, with follow-up being necessary if relapses are to be avoided. Such follow-up should take place outside prison if the objective is the social reintegration and normalisation of the person. This might be seen as the principal limitation of this intervention –the lack of continuity of the programme outside prison, a continuity that would probably have considerably increased the programme's long-term success.

Working therapeutically in prisons is the responsibility of both the institution itself and the community service resources, since it is in prison that many addicts make their first contact with community assistance structures.

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