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Evaluation of a therapeutic community treatment program: A long-term follow-up study in Spain

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EVALUATION OF A THERAPEUTIC COMMUNITY TREATMENT PROGRAM: A LONG-TERM FOLLOW-UP STUDY IN SPAIN

ABSTRACT

The aims of this paper were to carry out a long-term follow-up evaluation of a well-established therapeutic community treatment for addictions in Navarre (Spain) and to make a comparison between the program completers and dropouts, as well as between relapsing and non-relapsing patients, on a wide set of variables. A long-term follow-up design (mean of 6 years after leaving treatment) was used to analyze the outcomes of the therapeutic program. The sample consisted of 155 subjects (113 completers and 42 dropouts). A personal interview was carried out with each one of the located subjects. The interviews took place between September 2000 and September 2004. Treatment "dropouts" manifested a higher and earlier rate both of relapses, and of new treatments for their drug addiction than the completion group. The program was also effective in reducing criminal behavior and improving the state of health. Significant differences were found across outcome variables when comparison was made between treatment completers and "dropouts". All subjects improved on outcome variables after receiving the treatment. When patients with and without relapse were compared, significant outcome differences were also found between groups. The study's limitations are noted and future needed research is suggested.

KEY WORDS: Therapeutic community. Addiction. Treatment outcomes. Evaluation of treatment. Program completers. Program dropouts.

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1. INTRODUCTION

In the last years, there has been growing interest in the evaluation of therapeutic community treatment for addiction (Bale, 1979; Broekaert, Raes, Kaplan & Colletti, 1999; De Leon, Wexler & Jainchill, 1982 De Leon, 2000; Fernandez-Hermida, Secades, Fernández & Marina, 2002; Keen, Oliver, Rowse & Mathers, 2001; Ravndal, 2003). Likely, that interest is related to the increasing demand to clarify the effectiveness of treatment programs supported by public resources. Nonetheless, there are relatively few evaluations of therapeutic communities in many parts of the world.

Extant data support the utility of therapeutic communities for the treatment of addictions (Ravndal, 2003; Rawlings & Yates, 2001). Therapeutic community programs have been found effective in promoting positive changes in behavior related to drug consumption, such as reduction of crime rate and unemployment, together with improvement in health status and family situations (Kaplan & Broekaert, 2003; McLellan, Grissom, Brill, Dureel, Metzger & O'Brian, 1993; Messina, Wish & Nemes, 2000; Simpson & Sells, 1982).

Moreover, in some studies therapeutic community treatments have been shown to be superior to other kinds of therapeutic modalities. In the study by Hser, Douglas & Bennett (1998), an evaluation was conducted of the community functioning of a total of 2,966 patients, one year after concluding different treatment modalities. All treatment modalities showed important reductions in drug consumption. However, residential treatment achieved greater rates of reduction in drug consumption. Similar results have been found when different treatment modalities for heroin addiction have been compared (Vidjak, 2003).

In Spain, the most well known and longest established therapeutic community is the program known as *Proyecto Hombre*. It is a drug-free program, present in most of the regions of the country. This program began in Navarre (Spain) in 1991. It is a secular program and it is supported by public resources. There is a professional staff, and the treatment is based in mutual-help therapeutic community.

To date, only a few studies of this program have been carried out in different regions of the country, and only one is an effectiveness study (Fernández-Hermida *et al.*, 2002). In this latter study, carried out in Asturias (a region in the north of Spain) with a sample of 294 subjects, the results supported the effectiveness of the treatment program on a wide set of variables. Relapse rate in treatment completers, with a follow-up period of 3 years, was 10.3%, while in the non-completers group it reached 63.6%. The program was also effective in reducing criminal behavior and unemployment, improving the family and educational situation, and obtaining a better health status.

These results are similar to those obtained in other studies published about *Proyecto*

Hombre in Spain (Arrizabalaga, Urrestarazu & De la Huerga, 2000; Caurín, Seva, Galindo & Ausejo, 2004; Luengo, Romero & Gómez-Fraguela, 2000). However these last studies did not use a control group with which to compare results. Therefore, they are follow-up studies with patients that completed the treatment.

The aim of this study is to evaluate the long-term outcomes of the *Proyecto Hombre* Therapeutic Community in Navarre (Spain). It is important because of the scarce number of studies about this topic. Briefly, the specific objectives are the following: a) to know the retention rate of the treatment program; b) to assess the long-term outcomes of the program in a 6-year follow-up; c) to check whether patients that complete the treatment have a better behavioral profile in the follow-up than patients who "dropout"; and d) to study the improvement of patients on a wide set of variables related to addiction: relapse, return to addiction treatment, alcohol abuse, criminal behavior, employment, family situation, educational situation, health, satisfaction with treatment and an assessment of global functioning. These objectives are related to the need of having a free-goal evaluation (improvements in a wide set of variables), beyond of a goal-based evaluation (maintenance of abstinence).

2. METHOD

2.1. Participants

The sample for this study was drawn from 414 cases that began treatment for drug dependence in the *Proyecto Hombre de Navarra* program from the origin of the Therapeutic Community in 1991 to the start of this study in 2000.

Of the 414 potential subjects, 141 could not be located, 61 had died, 41, although they were located, could not be interviewed for different reasons (mainly, living at a distance or imprisoned), and 16 declined to participate in this study. Therefore, the final sample was reduced to 155 subjects: 113 treatment completers (72.9%) and 42 dropouts (27.1%). All of them gave their informed consent to participate in the study.

Sociodemographic characteristics and drug consumption variables for the sample are presented in *Table 1*. The groups were equivalent at the pretreatment baseline.

PLACE TABLE 1 HERE

In order to determine whether there were significant differences between the subjects interviewed and those not interviewed a comparison of the two groups was made. Both groups were found to be similar on all relevant variables.

2.2. Assessment

To gather information about patients, a personal interview was carried out with each one of the located subjects using the following assessment tools:

The *Drug Dependence Follow-up Questionnaire* (Fernández-Hermida & Secades, 1999) is composed of 170 items grouped into 10 sections which assess the situation of patients at follow-up: a) drug consumption, b) alcohol abuse, c) family situation, d) educational situation, e) labor problems, f) leisure time, g) health problems, h) criminal involvement, i) return to treatment programs, and j) program ratings. This questionnaire has been used in previous study and has shown its utility (cfr. Fernández-Hermida *et al.*, 2002).

The *Alcohol Use Disorders Identification Test (AUDIT)*, (Babor, De la Fuente, Saunders & Grant, 1992; Spanish version by Rubio, Bermejo, Caballero & Santo Domingo, 1998) is a questionnaire developed by the World Health Organization for the early identification of problems related to alcohol. It consists of 10 questions relating to the quantity and frequency of alcohol consumption, other alcohol use behavior, and to the consequences or problems related to alcohol use (range: 0-36).

The *General Health Questionnaire (GHQ)* (Goldberg & Hillier, 1979; Spanish version by Lobo & Muñoz, 1996) is a widely used instrument for the identification of psychiatric problems. It is composed of 4 subscales: a) psychosomatic symptoms, b) anxiety, c) social dysfunction, and d) depression. In this study the 28-item version has been used. The cut-off point used was 7/6 (sensibility: 72%; specificity: 86%).

The *Relapse Interview* (Miller & Marlatt, 1996) is an instrument that allows the identification of those personal, environmental and social factors that are the most immediate precipitants of relapse. Therefore, this interview helps to identify high-risk situations for relapse and is useful for relapse prevention programs. Briefly, it is composed of two major categories: intrapersonal and interpersonal determinants of relapse.

Finally, in order to validate the patient's information, additional data were obtained from the family. For this, the *Family Follow-up Questionnaire* (Fernández-Hermida & Secades, 1999) was used. This instrument is composed of 11 items, which assess the opinion of a close relative on relevant variables: frequency of drug use and alcohol consumption after treatment, labor problems, leisure time, contact with drug consumers, and family atmosphere.

In addition, partial verification of the participant’s responses was obtained by means of a registration sheet, on which was recorded the number of times any of the interviewed subjects requested treatment for drug addiction after the date of treatment completion in the therapeutic community. These data were collected from the public regional drug-treatment service.

2.3. Evaluated treatment program

The evaluated treatment program comprises 3 therapeutic phases: reception, residential therapeutic community and reinsertion. The first phase (reception), with an estimated duration of 9 months, is outpatient-based and has two major aims: a) to enhance the motivation to change, and b) to achieve initial abstinence from both illegal drugs and the abuse of alcohol.

During the reception phase, patients receive group therapy. The second phase (residential therapeutic community), with an estimated duration of 9 months, is inpatient-based and has two major aims: a) acquisition of behaviors for increasing personal independence, and b) resolving specific problems to achieve relapse prevention. During this second phase, patients receive group therapy and occupational therapy. Finally, the third phase (reinsertion), with an estimated duration of 12 months, involves a progressive reduction in the intensity of treatment. In this phase the main aim is to achieve social, family and employment reintegration through individual and group therapies.

2.4. Procedure

A retrospective follow-up design was used to analyze the long-term outcomes of the therapeutic program. In order to carry out comparisons between groups on a set of variables, the sample was divided into two groups: treatment completers and "dropouts". In addition, a comparison between patients with and without relapse was made. Data for this study were obtained through personal interviews with the patients. This information was validated by two procedures: data collected from family information and from public services for drug addiction treatment as described above. The average time that elapsed from the point of leaving the program until the follow-up interview was 6 years (range: 6 months-13 years).

The interviews were carried out by a trained clinical psychologist, who was independent of the therapeutic community and ignorant about the situation of participants (completers or dropouts). The interviews took place in locations chosen by the patients (therapeutic community, patients' home or social service offices), between September 2000 and September 2004. No monetary incentive was offered for participation in the study and all patients gave their informed consent to participate in the study.

The statistical analyses were carried out with the SPSS (version 12.0 for Windows). At first, a descriptive analysis for all variables was made. Next, a comparison was made between completers and non-completers, and between subjects with and without relapse. Bivariate analyses were employed, using X^2 or *t-test* statistic, depending on the nature of the variables studied (discontinuous or continuous). A difference of $p<.05$ was considered significant.

3. RESULTS

First, with the purpose of checking the validity of the information provided by self-reports, this information was verified by family reports. Results of this comparison showed a high degree of concordance. In fact, no patient hid a relapse informed by the family.

3.1. Global rate of retention

The rate of retention for the total sample (N=414) was 51.2% (212 subjects). These patients completed all phases of the treatment program (30 months approximately).

3.2. Comparison between groups

A follow-up comparison was conducted between located completers and "dropouts" (N=155) to clarify long-term outcomes of therapeutic community treatment. Results for all selected predictor variables are shown in *Table 2*.

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3.2.1. Relapse

For study purposes, relapse was defined as use of an illegal drug on three occasions during a period of two months. The rationale for defining relapse according to this criterion is related to the possibility of make comparisons with previous studies, because this same criterion has been used in the only previous study carried out in Spain (Fernández-Hermida *et al.*, 2002). According to this criterion, the rate of relapse for the overall sample was 46.5% (72 subjects) during the follow-up period. Comparison between completers and dropouts showed significant statistical differences: 83.3% of the dropouts relapsed versus 32.7% of the completers.

The relapses lasted an average of 23.5 months (SD: 22.4; range: 1-96 months). Most relapses involved cannabis abuse (37.4%), followed by cocaine (31.6%), heroin (18.7%) and benzodiazepines (15.5%). The most frequently cited factors for relapse were: negative emotional states (49.5%), inability to resist the temptations or impulses to consume (17.5%), to make a consumption in order to put on approval the self-control (10.3%), and interpersonal conflicts (9.3%).

3.2.2. Return to addiction treatment programs

23% of individuals in the completion group returned to an addiction treatment program during the period of follow-up. This figure is significantly lower than the rate for the "dropout" group (*Table 2*) such that 66.7% of the dropouts returned to new treatment.

3.2.3. Alcohol abuse

In this study alcohol abuse was defined as consumption over the WHO-accepted levels of safety (Saunders, Aasland, Babor, De la Fuente & Grant, 1993): more than 60 grams/day in males and more than 20 grams/day in female. Applying this criterion, completers and dropouts showed significant differences during the follow-up period (*Table 2*) such that 28.6% of the dropouts abused alcohol compared to 13.3% of the treatment completers.

Nonetheless, no significant differences were found for abuse of alcohol between those relapsing to illicit drugs and those not relapsing to illicit drugs (*Table 3*).

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3.2.4. Criminal behavior

Significant differences were found between groups for criminal behavior variables (*Table 2*). The number of subjects who were arrested or convicted for criminal behavior is significantly higher in the "dropout" group (73.8%) than in the completion group (5.3%).

Moreover, when relapsed and non-relapsed subjects were compared on criminal behavior variables, a significant difference was obtained (*Table 3*) such that subjects who relapsed were more likely to report criminal behavior (47.3% of cases) than subjects who maintained abstinence (3.6% of cases).

3.2.5. Employment

Employment of completers was significantly greater than that of dropouts (*Table 2*) such that 70.8% of completers had obtained stable work versus only 26.2% of "dropouts".

Comparison between relapsed and non-relapsed subjects also showed significant differences (*Table 3*). The rate of stable work for subjects without relapses was 74.7% and for relapsed subjects was of 40.3%.

3.2.6. Family situation

There were no significant differences between groups regarding reported change in the quality of family relationships (*Table 2*). Nevertheless, it is noteworthy that 68.3% of dropouts thought that their family situations had improved after their participation in the treatment program.

No differences were obtained between relapsed and non-relapsed subjects regarding change in the quality of family relationships (*Table 3*).

3.2.7. Education

60% of the entire sample reporting completing some coursework during the follow-up period. However, there were no significant differences between completers and dropouts (*Table 2*), nor between patients with and without relapse (*Table 3*).

3.2.8. Health

The General Health Questionnaire (GHQ) mean score of subjects completing the treatment was 3.4. This figure was significantly lower than the mean score for "dropouts" (mean=5.6) (t=2.3; p<.05), indicating more positive ratings of health by retained subjects. Comparison between groups in the different scales of GHQ showed statistical differences for anxiety (t=2.1; p<.05) and depression (t=2; p<.05) scales. In both cases, the mean scores of the completers (anxiety=1.3; depression=0.3) were lower than that of the dropouts (anxiety=2.1; depression=0.9).

Regarding comparisons between subjects who did and did not relapse, the only significant difference observed was in the anxiety scale (t=2.1; p<.05), with a higher score for relapsed subjects (*mean*=1.9) than for abstinent subjects (*mean*=1.2).

On the other hand, subjective perceptions about state of health were significantly different for completers and "dropouts" (*Table 2*). 19.1% of dropouts considered their state of health to have worsened during the follow-up period compared to 7% of completers. Put differently, 60.2% of the completers considered their state of health to have improved compared to 40.5% of the dropouts.

However, comparison between subjects with and without relapse did not show significant differences for this variable (*Table 3*).

Finally, comparison was made regarding hospital emergency admissions for completers and "dropouts" during the follow-up period. Hospital emergency admissions were due mainly to overdoses or to abstinence symptoms (*Table 2*). Results showed significant differences between groups, with a higher rate of admissions to hospital urgencies in the "dropout" group (42.9% of cases) than in the completion group (6.2% of cases).

Moreover, there were also significant differences between groups with and without relapse (*Table 3*). 31.9% of relapsed patients, versus 2.4 of no-relapsed patients, needed attention in hospital urgencies.

3.2.9. Satisfaction with treatment

The degree of satisfaction with treatment was significantly higher in the completion group than in the dropout group (*Table 2*). 77% of the completers versus 35.7% of the dropouts were satisfied or very satisfied with the received treatment.

Comparison between patients with and without relapse also showed significant differences (*Table 3*). 83.1% of the abstinent patients versus 45.8% of the relapsed patients were satisfied or very satisfied with the treatment.

3.2.10. Global functioning

In accord with the Fernández-Hermida *et al.* (2002) criterion, a meta-variable was constructed from the data of four variables: relapse to drug use, alcohol use, employment and legal problems. The criteria for obtaining a rating of positive functioning were: no relapse to the use of an illegal drug, alcohol use at WHO-accepted levels of safety (Saunders *et al.*, 1993) or total abstinence, working more than 50% of the time, and not having any kind of legal problems. When one or more of these conditions were not satisfied, functioning was classed as negative.

According to this criterion, 69 cases (44.5%) of the entire sample showed positive functioning. Comparison between completers and dropouts showed significant differences (*Table 2*): 58.4% of the completers showed positive functioning, versus only 7.1% of the dropouts.

3.3. Comparison between long-term and short-term follow-up groups

In this study, a wide range of follow-up period has been devoted (ranging from 6

months to 13 years). In order to take account this variability, a statistical analysis comparing participants (N=80) followed up after an extended period of time (six or more years) with those (N=75) followed up for a shorter period of time (less than six years) in all the baseline characteristics has been made. Results of this comparison showed no significant differences between groups.

On the other hand, this wide range of follow-up could affect to the post-treatment functioning, varying in accord with the length of time out of treatment. In order to take account this concern, a comparison between groups has been made. Results of this analysis showed significant differences in *criminal behavior* and *subjective perception of health*. Regarding criminal behavior, 35% of patients with a long-term follow-up and 12% of patients with a short-term follow-up had been arrested or convicted (X^2=11.3; p<.01). Regarding subjective perception of health, 66.6% of patients with a short-term follow-up and 43.7% of patients with a long-term follow-up considered that had been improved (X^2=8.4; p<.05). In the rest of the studied variables there were no-significant differences.

4. CONCLUSIONS

This study involved evaluation of the long-term outcomes of the *Proyecto Hombre* Therapeutic Community. The long-term effects of addiction treatment are of importance. This is especially the case for abstinence based treatment such as therapeutic communities. The strong points of this study reside in several important features. First, *Proyecto Hombre* is the most well established therapeutic community in Spain, and it receives substantial funding from public organizations. However, there are only a few studies analyzing the results of this specific long-term (30 month) phased treatment program (*cfr.* Arrizabalaga *et al.*, 2000; Caurín *et al.*, 2004; Fernández-Hermida *et al.*, 2002; Luengo *et al.*, 2000) or of comparably organized long-term therapeutic communities. Second, an important feature of this research is the long-term follow-up period studied. The personal interview was carried out an average time of 6 years after finishing treatment. This is the longest follow-up period employed to date in assessing this kind of therapeutic community (for example, three years was employed by Fernández-Hermida *et al.* (2002). Third, this study assesses the long-term outcomes of a therapeutic community making use of a wide range of outcome variables. Lastly, the authors employed assessment tools utilized in previous studies with the aim of facilitating comparison to results obtained in those studies. This is not always possible when therapeutic results are compared.

The rate of patients unable to be located during the follow-up period was 34%. This figure is similar to the results of other studies in this field: 39% in the DARP study (Simpson & Sells, 1982), 29%-42% in the TOPS evaluation (Hubbard, Marsden, Rachal, Harwood, Cavenaugh & Ginzburg, 1989), and 30.6% in the study of Fernández-Hermida *et al.* (2002). Moreover, when located and not-located subjects were compared on pretreatment variables, no

differences were found between groups.

Regarding therapeutic community outcomes, the global rate of retention was 51.5%. This figure reflects a significant number of "dropouts" in the first stages of the program. This is a common problem for all treatments for drug abuse and, especially, for drug-free programs (Ravndal, Vaglum & Lauritzen, 2005). Of importance for understanding the dropout rate is that this is lengthy and demanding program with a significant period of inpatient programming (a total of 30 months, including 9 months of residential therapeutic community). This requirement can be excessively demanding for those patients that do not present with a high level of motivation to change.

In any case, the rate of therapeutic success (abstinence from drugs) for patients who completed the entire program was high. All were abstinent at the end of the intervention. Moreover, nearly half (46.5%) of all subjects were abstinent at time of follow-up. As in other studies (Gossop, Marsden, Stewart & Treacy, 2002; Keen *et al.*, 2001; Ravndal *et al.*, 2005), patients who completed the program obtained better results than those that dropped out on an important set of outcome variables. This positive change in the functioning of patients that completed the therapy was confirmed through two validation procedures used in this study: data collected from family information and data collected from public services for drug addiction treatment.

The treatment program studied was associated with positive change in the functioning of its patients in terms of several outcome variables. Patients who completed the program presented lower rates of both relapse and of reentry to drug treatment compared to dropouts. Also, the program was effective in reducing criminal behavior and improving the state of health. Differences were obtained on all of these variables when comparison was made between completers and dropouts.

This wide-ranging evidence of improvement is similar to that obtained in previous studies of therapeutic communities in Europe (Broekaert *et al.*, 1999; Fernández-Hermida *et al.*, 2002; Gossop, Marsden, Stewart & Rolfe, 1999) and in the USA (Hubbard *et al.*, 1989; Simpson & Sells, 1982), and supports the little research extant on the impact of the therapeutic community on social institutions, such as the family, school, correctional institutions, the mental health system, etc. (Kaplan & Broekaert, 2003).

An important finding to highlight in this study is that all patients (both completers and dropouts) demonstrated improvement in their family situations, as well as their motivation to complete educational coursework. This is a relevant achievement of the therapeutic program, because all these aspects may contribute to prevent relapse.

At the same time, these positive results were found to have been maintained over a long follow-up period (mean of 6 years). So this psycho-educational program oriented to abstinence

represents an effective therapeutic alternative for many drug addicts.

Nevertheless, there are some limitations in this study. The number of subjects that could not be located is relatively high. This problem is common to all follow-up evaluations carried out to date (Nemes, Wish, Wraight & Messina, 2002; Scott, 2004). Probably, the long follow-up period employed in this treatment evaluation (a strong point of this study) influenced the rate of subjects lost to follow-up. Although the statistical analyses did not show significant differences between the located and not located subjects, it would clearly be desirable to have a higher percentage of located subjects in future studies. Moreover, this is a study in which the sample of dropouts is not large enough to permit the range of statistical analyses that would be desirable. This reflects the difficulty of interviewing patients who dropped out of the treatment program 6 years ago. On the other hand, in this study a strict relapse criterion has been used. This is related to the aim of the program (drug-free program). A less demanding criterion for relapse could modify the results (Kokkevi, 1998). Lastly, this is an empirical study that could suggest a false idea that what is being studied is linear (cause and effect outcomes). However, human behavior is complex, dynamic and multi-dimensional; and it probably requires taking account a wider point of view, as for instance, the use of artificial neural network data analysis techniques (Buscema, 2002).

Future research should focus on replicating these data with larger samples. In addition, future study should take account of the fact that therapeutic community treatments contain multiple components. The specific contribution of each component to outcome is unknown. Studies of the contributions of the several components are relevant because of the long-time duration of the entire therapeutic community treatment program. A shorter program, containing the most relevant components, might facilitate retention without sacrificing program effectiveness. Nevertheless, from an alternative point of view, it is important to take account that many Therapeutic Communities represent an integrated whole, and the interaction of the several elements could be the essential to program effectiveness. Future research in this field is needed.

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TABLE 1: COMPARISON BETWEEN COMPLETERS AND DROPOUTS IN ON BASELINE VARIABLES

	Completers N= 113 Mean (SD)	**Dropouts N= 42 Mean (SD)**	**t**
Mean age (SD)	27.2 (5.0)	28.8 (4.4)	1.9
	Completers N= 113 N (%)	**Dropouts N= 42 N (%)**	**X^2**
Sex			
Men	73 (64.6%)	34 (81.0%)	3.8
Women	40 (35.4%)	8 (19.0%)	
Marital Status			
Single	82 (72.6%)	31 (73.8%)	
Married	23 (20.4%)	9 (21.4%)	.28
Divorced	5 (4.4%)	2 (4.8%)	
Widower	3 (2.7%)	0	
Education			
None	28 (24.8%)	16 (38.1%)	
Primary studies	64 (56.6%)	24 (57.1%)	5.9
Secondary studies	19 (16.8%)	2 (4.8%)	
University	2 (1.8%)	0	
Employment situation			
Employed	53 (46.9%)	16 (38.1%)	1.3
Unemployed	47 (41.6%)	19 (45.2%)	
Others	13 (11.5%)	7 (16.7%)	
Criminal behavior	59 (52.2%)	20 (47.6%)	
Arrested or convicted	48 (42.5%)	16 (38.1%)	4.8
No problems	6 (5.3%)	6 (14.3%)	
Unknown			
Drug consumption	78 (69.0%)	34 (81.0%)	
Heroin	14 (12.4%)	4 (9.5%)	2.4
Cocaine	11 (9.7%)	2 (4.8%)	
Heroine + cocaine	10 (8.8%)	2 (4.8%)	
Others			
Drug route			
Injection	75 (66.0%)	31 (74.0%)	
Inhalation	26 (23.0%)	7 (16.0%)	1.6
Smoking	10 (9.0%)	4 (10.0%)	
Oral	2 (2.0%)	0	
Alcohol consumption			
Yes	39 (34.5%)	18 (42.9%)	.9
No	74 (65.5%)	24 (57.1%)	

TABLE 2
COMPARISON BETWEEN GROUPS AT FOLLOW-UP ASSESSMENT

	Completers N= 113 N (%)	**Dropouts N= 42 N (%)**	**X^2**
Relapse			
Yes	37 (32.7%)	35 (83.3%)	29.5***
No	76 (67.3%)	7 (16.6%)	
New drug abuse treatment			
Yes	26 (23%)	28 (66.7%)	23.8***
No	87 (77%)	14 (33.3%)	
Alcohol abuse			
Yes	15 (13.3%)	12 (28.6%)	3.97*
No	98 (86.7%)	30 (71.4%)	
Criminal behavior			
Arrested	5 (4.4%)	18 (42.9%)	80***
Convicted	1 (0.9%)	13 (30.9%)	
No problems	107 (94.6%)	11 (26.2%)	
Employment situation			
Unemployed	7 (6.2%)	20 (47.6%)	40.7***
Unstable work	26 (23%)	11 (26.2%)	
Stable work	80 (70.8%)	11 (26.2%)	
Family situation			
Worsened	6 (5.4%)	6 (14.6%)	3.7
No change	19 (16.8%)	7 (17.1%)	
Improved	88 (77.8%)	28 (68.3%)	
Educational situation			
Completed courses	63 (55.8%)	30 (71.4%)	2.5
Not completed courses	50 (44.2%)	12 (28.6%)	
Subjective perception of health			
Worsened	8 (7.1%)	8 (19.1%)	
No change	37 (32.7%)	17 (40.5%)	11.5**
Improved	68 (60.2%)	17 (40.5%)	
Admitted to hospital urgencies			
Yes	7 (6.2%)	18 (42.9%)	27.8***
No	106 (93.8%)	24 (57.1%)	
Treatment satisfaction			
Very satisfied	60 (53.1%)	6 (14.3%)	26.2***
Satisfied	27 (23.9%)	9 (21.4%)	
Not satisfied	26 (23%)	27 (64.3%)	
Global functioning			
Positive	66 (58.4%)	3 (7.1%)	30.5***
Negative	47 (41.6%)	39 (92.9%)	

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

TABLE 3
COMPARISON BETWEEN RELAPSED AND NON-RELAPSED SUBJECTS

	Relapse N= 72 N (%)	**No relapse N= 83 N (%)**	**X^2**
Alcohol abuse			
Yes	16 (22.2%)	11 (13.3%)	.51
No	56 (77.8%)	72 (86.7%)	
Criminal behavior			
Arrested	20 (27.8%)	3 (3.6%)	42.5 *
Convicted	14 (19.5%)	0	
No problems	36 (50%)	80 (96.4%)	
Employment situation			
Unemployed	22 (30.6%)	5 (6%)	22.7 *
Unstable work	21 (29.2%)	16 (19.3%)	
Stable work	29 (40.3%)	62 (74.7%)	
Family situation			
Worsened	8 (11.1%)	4 (4.8%)	2.3
No change	11 (15.3%)	16 (19.3%)	
Improved	53 (73.6%)	63 (75.9%)	
Educational situation			
Completed courses	48 (66.7%)	45 (54.2%)	2.01
Not completed courses	24 (33.3%)	38 (45.8%)	
Subjective perception of health			
Worsened	12 (16.7%)	4 (4.8%)	8.3
No change	22 (30.6%)	32 (38.6%)	
Improved	38 (52.7%)	47 (56.6%)	
Attention in hospital urgencies			
Yes	23 (31.9%)	2 (2.4%)	22.7 *
No	49 (68.1%)	81 (97.6%)	
Treatment satisfaction			
Very satisfied	15 (20.8%)	51 (61.4%)	30.8 *
Satisfied	18 (25%)	18 (21.7%)	
Not satisfied	39 (54.1%)	14 (16.9%)	

*p<.001