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Treatment adherence to treatment in substance users referred from Psychiatric Emergency service to outpatient treatment

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Objectives. The main objective was to evaluate the treatment adherence of patients attended at the Psychiatric Emergency Room and referred to an Outpatient Drug Clinic. Our aim was to describe the degree of adherence and the factors related to it.

Methods. A naturalistic study was conducted through examination of the clinical records of the patients attended in the Psychiatric Emergency Room of our hospital during one year (n=5052). Inclusion criteria consisted of substance dependence meeting DSM-IV criteria, belonging to our district, referral when discharged to an Outpatient Drug Clinic, and absence of previous treatment for Drug Addiction follow-ups (n=72). We evaluated further to the center link, adherence to the device during the next year.

Results. 33.4% of the patients referred to an Outpatient Drug Clinic didn't request for a visit. From those who requested a first appointment, 20.83% didn't attend. From those who attended the first appointment, 47.37% abandoned treatment in the first 12 months. No differences between substance of use or time of the year of referral were observed.

Discussion. Independently to the accessibility to the Outpatient Clinic, difficulties in the adherence to drug addiction treatment exist. Initial adherence to drug addiction treatment is medium. Patient's attendance to the clinics are important due to it's relation with retention doubling. Efforts should be made to improve the compliance with pharmacologic and nonpharmacologic treatment.

Keywords:

Adherence, Compliance, Substance dependence, Drug-dependent, Psychiatric Emergency Room

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Adherencia al tratamiento en drogodependientes remitidos desde urgencias de psiquiatría a tratamiento ambulatorio

Objetivo. Evaluar la adherencia de los pacientes derivados a un ambulatorio de drogodependencias accesible tras ser visitados en el servicio de urgencias de psiquiatría. Describir las variables asociadas a la adherencia y la duración de la vinculación.

Metodología. Estudio naturalístico. La muestra del estudio se obtuvo a partir de la revisión de las historias clínicas de los pacientes que acudieron al Servicio de Urgencias de Psiquiatría del Hospital Universitario Vall d'Hebron (HUVH) durante un año (n=5052). Se seleccionaron aquellos que cumplieran con los criterios diagnósticos de dependencia de sustancias según el DSM-IV-TR, pertenecían al sector de referencia y eran derivados al alta al dispositivo de tratamiento ambulatorio de drogodependencias y no estaban vinculados a otros dispositivos de drogas (n=72). Se valoró su posterior vinculación al centro y la adherencia el siguiente año.

Resultados. Un 33,4% no solicitaron visita. De los que la solicitaron un 20,83% no acudieron. Un 47,37% de los que acudieron a la primera visita abandonaron antes de los 12 meses. No se observaron diferencias entre el tipo de droga o época de derivación.

Discusión. Existen dificultades de adherencia al tratamiento de los pacientes con trastorno por uso de sustancias (TUS), con independencia a la accesibilidad. La vinculación inicial es media. Es importante que los pacientes acudan. Si esto sucede la retención es del doble. Se deben realizar esfuerzos para mejorar el cumplimiento del tratamiento farmacológico y no farmacológico.

Palabras clave:

Adherencia, Cumplimiento, Dependencia de sustancias, Drogodependientes, Urgencias psiquiátricas

INTRODUCTION

Drug abuse consumption has been a first order problem in the Spanish,¹ European² and Latin American³ populations in recent years. Prevalence of substance abuse disorders in Spain is estimated at 2.4% to 6.1% in the general population.¹ The increase in consumption has generated new problems associated to the consumption form and the pharmacotoxic characteristics of the different substances, with complications on the neurological, psychiatric and multiorganic levels.^{4, 5} This situation has generated many hospital emergencies, and has converted the emergency service into an important point of entry in the drug-abuse treatment network.⁶⁻⁸ However, the consumption is not always detected in the hospital emergency services.⁹

Treatment engagement, understood as the subsequent contact of these patients with the health care facilities and treatment compliance, should be an objective¹⁰ since low treatment adherence is an especially important medical component and one of the principal problems of patients with substance abuse disorders,¹¹⁻¹³ and other psychiatric disorders^{14, 15} as well as the adult addict patients who have comorbidity with other mental disorders (Dual Pathology or Dual Diagnosis).¹⁶⁻¹⁹

Improving treatment accessibility and getting these patients engaged in treatment should be a priority because alcohol and other drugs are frequently associated to adverse consequences, such as higher rates of therapeutic non-compliance, recurrences, suicide, violence, hepatitis C virus infection or acquired immunodeficiency, scarcity of basic and social resources, legal problems, etc.²⁰ Furthermore, the burden on the families and need for social resources are greater, because these patients have poor adherence and compliance and therefore a higher number of recurrences, this generating higher overall cost.²¹

Longer treatment is associated to better results in abstinence.²² However, there are few adherence studies in drug addicts. These studies are difficult to conduct because of the problems these patients have to maintain regular contact with the health care services²³ and the frequent abandonment and later reinitiation of outpatient treatments.²⁴

Knowing the engagement of the patients after they come to a facility and the factors related to their retention in the program may help to adapt care offers and to obtain adequate planning of the treatment services.^{14, 25}

The approach to the population of patients with substance abuse disorder is complex. That is why specific

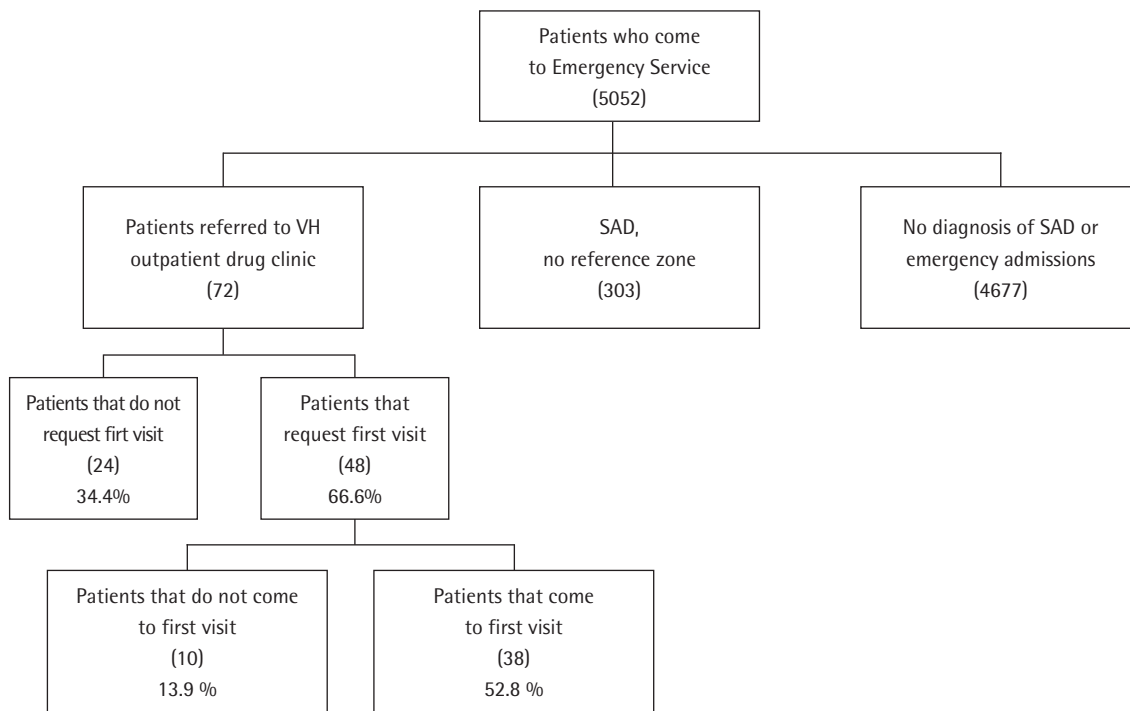


Figure 1 | Diagram of referrals from The Psychiatric Emergency Service to the Outpatient Drug Treatment Center (CAS) of Vall d'Hebron

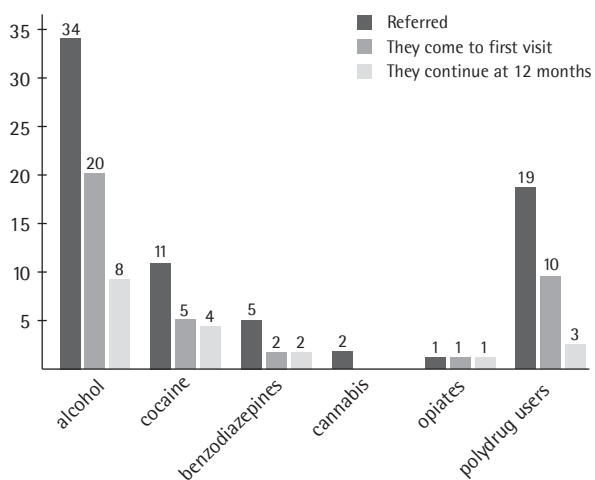


Figure 2

Treatment adherence according to substance consumption

outpatient facilities have been developed for the monitoring and treatment of addict patients. In the center of assistance and monitoring of substance abuse network of Catalonia in the year 2009, 14825 persons initiated new treatments: 2102 due to opiates, 3779 to cocaine and 1069 due to cannabis,¹ this being a first order health care problem. On the other hand, substance-abuse related emergency visits have significantly increased in recent years, both in Europe^{7,8} and in Latin America.³ However, very few works have studied the degree of engagement of the substance abusers referred from the emergency service to the outpatient drug clinic. Therefore, it is essential to study the engagement and adherence to such facilities. The work has aimed to study the engagement and adherence to treatment in a specific outpatient facility for substance abuse in patients referred from psychiatric emergencies.

METHODOLOGY

A retrospective descriptive study was performed. This study included data collected computationally on all the diagnoses and referrals on discharge of the patients (N=5052) who came to or were referred to the psychiatric emergency service of the Hospital Universitari Vall d'Hebron (HUVH) during one year (November 2006 to October 2007). After the evaluation, the patients received a report and were referred to the Outpatient Drug Treatment Center (CAS) to request a first visit. CAS Vall d'Hebron is a facility having public coverage without any additional cost for the users, linked to the Psychiatry Department of the hospital.²⁶ It is located within the hospital premises, has good physical accessibility because of its communication links in the city,

its absence of architectonic barriers and because it is located at only about 20 meters from the psychiatric emergency service.

The following concepts are used in the present study: first request (the process, carried out by the patient, of requesting a first outpatient visit), engagement to treatment plan (request for and attendance to first visit) and adherence (attendance to scheduled appointments, after the first visit).

Of the 5052 patients who came to the HUVH psychiatry emergency service, the patients were chosen who fulfilled the substance abuse criteria according to the DSM IV-TR criteria, who were referred for outpatient treatment (excluding those requiring immediate admission for another cause from this study), who lived in the areas of influence of the hospital and who were not receiving any treatment in another Outpatient Drug Treatment Center (CAS) (6% of all the visits).

A total of 72 patients were enrolled. These patients fulfilled the inclusion criteria and were referred to the CAS from the emergency service to request the first visit. Information was collected from the emergency discharge on the abuse drug and the registry of other comorbid psychiatric diagnoses. Of those referred, 76.4% were men, mean age was 37.5 years. Comorbidity with another mental disorder (Dual Condition or Dual Disorder) of those referred was 39.2%.

Treatment engagement was recorded by verify in the clinical records that the patient had come to the first visit. A total of 66.6% of the patients referred (48) requested a visit, 79.16% of said group (38 patients, 54% of the total) becoming engaged in the treatment. Adherence was studied at one month, three months, six months and twelve months by recording of the attendance or not to the visits during these periods (Figure 1).

RESULTS

A total of 47.2% of the patients referred from emergencies had alcohol dependence, 26.4% dependence on 2 or more substance (polydrug users), 15.3% cocaine dependence, 6.9% benzodiazepines, 2.8% cannabis and 1.4% opiate dependence. Of the patients attended in the emergency service, 34% (24 of 72) did not request the first visit. Another 14% (10 of the 72) of the patients requested a visit, but did not come to it. None of those who were cannabis dependent (2.8%) requested a first visit (Figure 2).

The flow of referrals was regular except for a mild decrease in summer (July and August) and April (part of April is vacation period). Adherence was independent of the month of referrals and initiation of treatment (Figure 3).

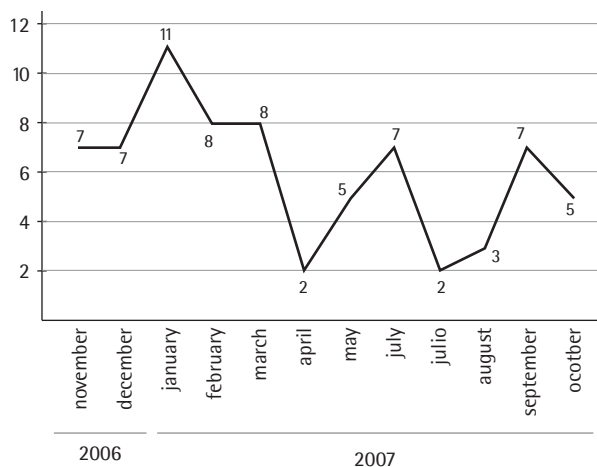


Figure 3 Distribution of referrals from emergency service to drug addict outpatient clinic according to month

The type of dependence in the patients requesting a first visit was similar to the patients who were referred, except that none of the cannabis dependent requested a first visit.

Of the 38 patients who came to the first visit, 33 remained in treatment at one month of follow-up (86.84%).

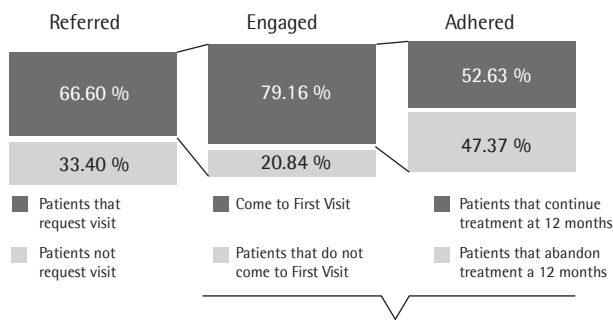
Of these, 56.25% had alcohol dependence, 15.15% cocaine, 6.06% benzodiazepines, 3.03% opiates and the rest (21.21%) were polydrug users. Of the 5 patients who abandoned in the first month of treatment, 2 were alcohol dependent and 3 were polydrug users.

Of the patients who initiated treatment (38), 52.63% (18) remained in the follow-up at one year of the first visit. Treatment was abandoned by 13.16% (5) in the first month; 13.16% (5) dropped out between the first and third months 13.16% (5) dropped out between the third and sixth month, 7.89% (3) abandoned between the sixth and twelfth months and 5.26% (2) dropped out after twelve months.

The drop-outs mainly occurred during the first six months (15 of 20), with a similar distribution between periods. Only 5 of the 20 (25%) drop-outs from treatment occurred after the sixth month of follow-up (Figure 4).

Treatment adherence varied according to the substance. Visit to the Outpatient Drug Treatment Center (CAS) was requested by 64.6% of the patients with alcohol or cocaine dependence and all of those with opiate dependence.

Treatment was maintained at 12 months by 100% of the benzodiazepine and opiate dependent, 80% of the cocaine dependent, 40% of the alcohol dependent and 30% of those with polydrug consumption. It was observed that



	Alcohol	Cocaine	Opiates	Benzodiazepine	Poly-drug consumption	Total
Drop-out in 1st month	2	0	0	0	3	5
Drop-out between 1st and 3rd month	5	0	0	0	0	5
Drop-out between 3rd and 6th month	4	0	0	0	1	5
Drop out between 6th and 12th month	1	0	0	0	2	3
Abandonment at 12th month	0	1	0	0	1	2
Continue in treatment at 12 months	8	4	1	2	3	18
Total	20	5	1	2	10	38

Figure 4 Description of treatment adherence of patients referred from emergency services

most of the patients (91.66%) with alcohol dependence had abandoned follow-up in the first six months. The drop-out of the polydrug user patients occurred around the first month (30%) or close to one year of treatment (30%). There were few drop-outs between the first and sixth month (10%).

DISCUSSION

Alcohol dependence patients are those referred most from the Psychiatry Hospital Emergency Services to outpatient treatment, this being, as expected, together with tobacco, the most consumed substance.¹ The cannabis dependence patients, on the other hand, do not request treatment, which may be related with the low awareness of danger about cannabis consumption in the Spanish population.¹

In regards to gender, the patients referred are mostly men (76.4% men), which agrees with the results of other epidemiological studies conducted in drug-addict outpatient population in which the man-woman ratio is 4/1.¹⁻³ There is overrepresentation of the female gender in patients with benzodiazepine abuse (60% women), also observed in other studies.¹

In a population with another Psychiatric disorder, the presence of a substance abuse disorder is approximately 50%.^{27,28,19} In Spain, when the presence of dual patients in psychiatry admission units is evaluated, this presence is detected in 64.5% of the cases,²⁹ and when the presence of another mental disorder is evaluated in desintoxication units is evaluated, it is detected in 60% of the patients.³⁰ On the other hand, when the presence of patients with dual diagnosis is evaluated on an outpatient basis, the prevalence ranges from 53% to 67%.^{18, 24, 31, 32} In the sample studied, approximately 40% had said comorbidity. This suggests an infradiagnosis of this condition in the emergency services.

Engagement (requesting and coming to the first visit) to an out-patient clinic for drug addiction treatment of the patients referred from a psychiatric emergency service was average (52.77%). This agrees with the previous works that described that addicts are patients who have problems to form an engagement with the health care facilities.^{14, 33, 34}

The patients who became most engaged were alcohol dependent and polydrug users. This could be explained because they have more medical, economical problems and social needs associated to the consumption.^{1, 35}

At one year of follow-up, 100% of the patients who formed an engagement due to benzodiazepine and opiate dependence remained in the treatment. This could be related with the need to receive specific drugs to control the abstinence symptoms.^{36, 37} When patient compliance is

evaluated at one month, six months and twelve months, a little more than half (55%) of the alcohol dependent patients had abandoned treatment while the cocaine dependent abandoned treatment more in months 6-12 of the follow-up (25%). No pattern of abandonment was observed in the polydrug users patients in our sample, although it is clearly the group with the least retention at one year. Given that there are no studies having these characteristics, these results cannot be compared with other populations. The disparity in the results suggests that the study of the prevalences in the adherence of the patients with substance abuse can allow the development of more adequate programs according to the type of substance in order to improve adherence.

In the sample, approximately half of the drug addict patients referred from Emergencies form a engagement with the treatment center. However, in those who come, the one-month follow-up is good (86.84%) and more than half continue at one year (52.63%). Of the patients referred, 25% continue in treatment at one year. However, of the patients who have become engaged in the service 47.4% continue treatment at one year. Therefore, the importance for the patients to come to the health care facility is observed, since if the patients come to the first visit, adherence increases.

It has been described that there is no one single isolated factor can predict treatment adherence.^{38, 39} There are multiple factors in drug abusers that affect treatment adherence and abandonment. Among them are the lack of disease awareness and balance made by the patients between the positive effects of coming to treatment (improvement in general health) and the immediate positive rewards from drug consumptions. In addition, low adherence could be related with the perceived quality of life⁴⁰ or with the associated psychopathology.^{41, 42, 19} As has been described, there is infradiagnosis on the presence of dual condition, so that prospective studies are needed on the influence of the presence of psychopathology in addicts in relation to treatment adherence.

On the other part, with the results provided by this work on the presence of a large group of patients (34.4%) who were referred to outpatient treatment but who did not request a first visit, it could be suggested that the hospital emergency service may not be the best site to provide the referral for the motivation of the patient to come to treatment.^{43, 44}

In this study, it must be stressed that the economic factor did not affect adherence, since the service is provided at no cost. There are also no limitations in access, because the facility is in a well-communicated site and in the health care area of the patients, that would eliminate the distance from facility factor.¹² The present study is naturalistic and includes all the population studied. It should be extended due to the low number of patients who come to the facility and are maintained in treatment at 12 months.

It is important to coordinate the care resources to know the difficulty for engagement and adherence of the drug addiction patients. Given that many of the patients do not finally come to the outpatient treatment, the need to organize a system of an accompanying person who assures that the patient really comes to the first visit could be suggested, since if the subject does come to outpatient treatment, the possibility of retaining the patients increases. Just how important it is for the patients to come to the health care facilities is seen since when this does occur, retention is almost double. A total of 86.84% of those who come to the first visit are maintained at least for one month and 52.63% at twelve months.

Attention to the patients with substance abuse is complex and one of the greatest difficulties verified is the low adherence.

DECLARATION OF AUTHORSHIP

C. Roncero and M. Casas designed the study. C. Roncero, L. Rodríguez-Cintas, C. Barral, G. Fuste, C. Daigre, J.A. Ramos-Quiroga performed the bibliographic search and wrote the draft. All of the authors reviewed the text prior to it being sent to the journal.

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DECLARATION OF CONFLICTS OF INTERESTS

The authors declare they have no conflict of interests.

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