Retention in a Methadone Maintenance Treatment: Impact of comorbidity

Fonseca F[1,2], Castillo C[1,2], Martínez-SanvisensD[1,2], Rossi P[1,2], Roquer A[1], Farré M[2,3], Torrens M[1,2,3]

1. Institut de Neuropsiquiatria i Addicions (INAD) – Parc de Salut Mar. Barcelona, Spain
2. IMIM (Institut Hospital del Mar d'Investigacions Mèdiques), Barcelona, Spain
3. Psychiatry Department, Universitat Autònoma de Barcelona, Barcelona, Spain

For reprints: Dra. Francina Fonseca. Institut de Neuropsiquiatria i Addicions (INAD) – Parc de Salut Mar and IMIM (Institut Hospital del Mar d'Investigacions Mèdiques), Barcelona, Spain. Tel. +34932483175; fax: +34932483445. E-mail: mffonseca@parcdesalutmar.cat

Introduction

Opioid substitution treatments (OST) have shown efficacy in the treatment of heroin dependence. Although their proven efficacy, there are still a significant number of patients dropping from OST and relapsing in illicit opioid use. A previous study showed that methadone dose and non-current use of alcohol were significant predictors of retention in a methadone maintenance treatment program (Torrens et al., 1996). After 10 years, with a great spread of methadone maintenance treatments (MMT) and the introduction of OST other than methadone (buprenorphine/naloxone) and the stronger implementation of already available ones (sustained-release morphine) we aimed to examine again factors associated with retention in MMT.

Aim

To study factors associated with retention, with special interest in medical and psychiatric comorbidity in patients admitted to a OST program.

Methods

Demographics, clinical data: cocaine and alcohol addiction, other psychiatric comorbidity (dual diagnosis), medical comorbidity (HIV, HBV and HCV infections), age of first heroin use, route of use, time until first OST and reasons for drop out in patients consecutively admitted in an out-patient community MMT program over 15 years (from January 2000 until December 2014) were assessed.

Patients who voluntary dropped from treatment, were analyzed considering the last contact with the center: ≤ 3 months (early drop out) and > 3 months (delayed drop out).

Results

In the period analyzed, a total of 545 patients have been admitted (or readmitted) to OST (76% men, 38±9 years at admission). The main characteristics of these patients are described in Table 1. After 15 years, 393 (70%) patients were not longer in the program. Reasons for discharge were: 154 (28%) moved to other centers/areas, 154 (28%) dropped out, 48 (9%) were imprisoned, 34 (7%) died and 7 were forced discharge from center (Table 1). Mean retention time in the same OST program was 97 months (95% CI: 87-107).

We analyzed the medical and psychiatric severity of the 154 drop outs and compared 51 (33%) early vs. 103 (67%) delayed drop outs. There were no differences in terms of gender or age at admission between groups. There were no differences in the prevalence of other psychiatric comorbidity between them neither in the prevalence of infectious diseases. Last methadone dose administered to patients was significantly higher in the delayed drop out group (40 mg vs. 60 mg). Table 2.

When analyzing survival curves, the main factor related with OST program retention was methadone dose (p=0.032) (Figure 1). The presence of other psychiatric diagnosis (dual diagnosis) did not influence in the retention rate (Figure 2).

Table 2. Main characteristics of early (less than 3 months) vs. delayed (equal or more than 3 months) dropouts. (n=154)

	Early drop outs N (%)	Delayed drop outs N (%)	p
	51 (33)	103 (67)	
Males	39 (77)	81 (89)	0.837
Age at admission (years, x ± SD)	36 ± 10	35 ± 9	0.563
Age of 1st heroin use (years, x ± SD)	21 ± 6	23 ± 7	0.366
Intravenous heroin use	14 (58)	36 (61)	0.823
Cocaine Addiction	16 (59)	39 (61)	1.000
Alcohol Addiction	4 (15)	12 (19)	0.768
HIV Ab positive	6 (12)	22 (21)	0.279
HCV Ab positive	29 (57)	48 (47)	0.293
Dual Diagnosis (Any other psychiatric disorder DSM-IV criteria)	13 (42)	46 (56)	0.257
Time to first MMT (years, x ± SD)	8 ± 5	7 ± 6	0.658
Time in present OST (months, x ± SD)	1 ± 1	27 ± 26	<0.001
Methadone dose at discharge (mg/d)	40 ± 22	60 ± 37	0.003

SD: standard Deviation

Table 1. Main characteristics of 545 patients included in MMT, during analyzed period.

Variable	N	%
Sex (males)	413	76
Age at admission (years, x ± SD, range ?)	38 ± 9	
Age of 1st heroin use (years, x ± SD)	21 ± 7	
Route of use		
Snorted	60	11
Smoked	98	18
Intravenous	382	70
Other	5	1
Time to first OST (years, x ± SD)	10 ± 8	
Cocaine Use Disorder	240	65
Alcohol Use Disorder	147	27
Comorbidity		
HIV-Ab positive	159	29
HCV-Ab positive	336	62
HBV-S-Ag positive	58	11
Dual Diagnosis (Any other psychiatric disorder DSM-IV criteria)	286	53
Length of methadone treatment (months, x ± SD, range)	28 ± 31 (0-172)	
Methadone dose (mg, x ± SD) (range)	64 ± 48 (1-375)	
Outcome		
Still in treatment	154	28
Voluntary dropout	154	28
Transferred to other center	148	27
Imprisonment	48	9
Death	34	7
Forced Discharge	7	1

SD: Standard Deviation

Figure 1. Retention in methadone maintenance treatment program according to methadone doses.

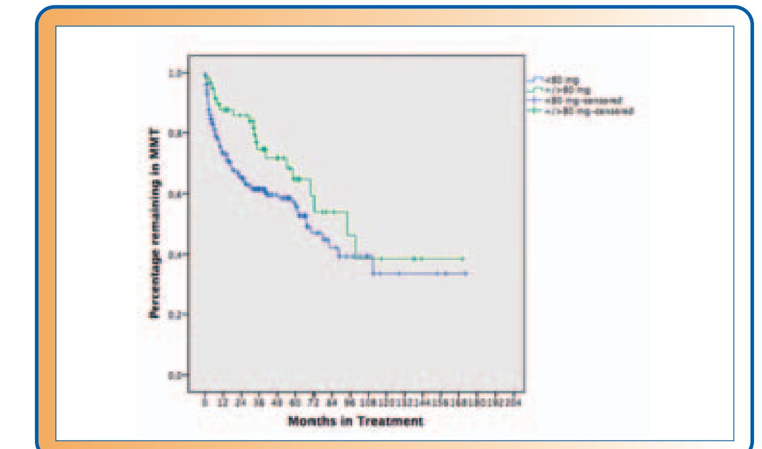
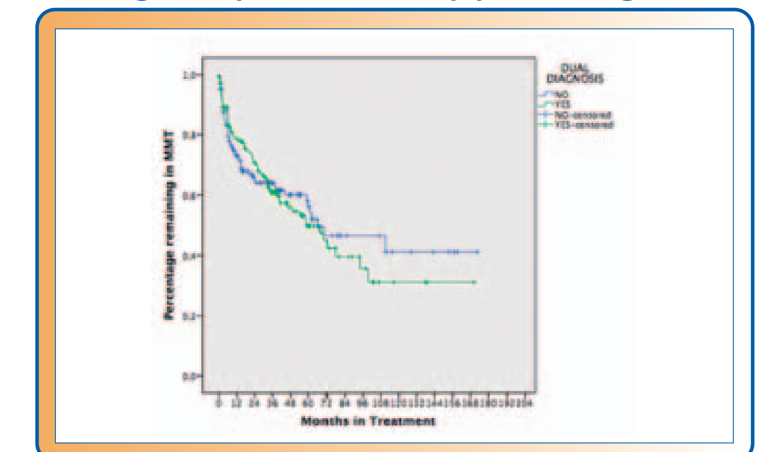


Figure 2. Retention in methadone maintenance treatment program according to the presence of other psychiatric diagnosis.



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Conclusions

Methadone maintenance treatments are useful to maintain patients in treatment, even in patients with medical (HIV, HCV) and psychiatric comorbidity. Low doses of methadone have been observed in patients with early drop outs; in those patients, other therapeutic strategies, with faster titration should be considered, although low doses of methadone are not only related with the characteristics of the program, but also with the reluctance of some patients to increase the dose of medication.

References

• Torrens M, Castillo C, Pérez-Solá V. Retention in a low-threshold methadone maintenance program. Drug Alcohol Depend 1996; 41: 55-9.

INAD Institut de Neuropsiquiatria i Addicions

Parc de Salut MAR Barcelona