#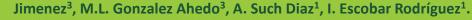 PERSISTENCE IN THE METHADONE MAINTENANCE PROGRAMME AND ITS RELATIONSHIP WITH THE MEDICATION REGIMEN COMPLEXITY INDEX IN OPIOID DEPENDENT PATIENTS

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BACKGROUND AND IMPORTANCE

It has been shown that the Medication Regimen-Complexity Index (MRCI) is an useful and reliable tool for calculating the complexity of the pharmacotherapeutic regimen. Furthermore, high MRCI is associated with lower adherence. However, MRCI in opioid-dependent patients has not been studied.

AIM AND OBJECTIVES

Calculate the methadone maintenance program (MMP) persistence and the MRCI score in a opioid-dependent patients cohort. Second, to analyze its relationship and association with other variables.

MATERIAL AND METHODS

An observational study

Population

Adults with a confirmed diagnosis of opiate-dependence according to the DSM-5 in a MMP center was carried out from november-2021 to april-2022.

The study was approved by the Ethics Committee.

To define MMP persistence, a group was created with the researchers who defined five weighted items according to the importance agreed.

Variables collected

✓ Sex
✓ Age
✓ Social and work situation
✓ Comorbidities
✓ Substances consumption
✓ Methadone treatment (doses, frequency, duration, number of dropouts/interruptions since the MMP onset).
✓ MRCI score and MMP persistence were calculated.

They were collected and managed using REDCap®. Statistical analysis was carried out using SPSS® Statistics (v.27).

RESULTS

VARIABLES	
Sex and age	79,8% male; Median age 51 (46-56)
Social and work situation	25,4% with job; 28,3% without own home and 14,9% homeless
Comorbidities	57%
Infectious disease	62,5% (96% HCV, 36% HIV, 20% HVB)
Mental health disorder	40%
Intravenous drug users (IVDU)	2,9%
Active substances consumption	Tobacco (81,4%), BZD (74%), Cocaine (65%), Alcohol (42,4%), Heroine (33,9%) and Cannabis (28,3%)
Methadone treatment	60 mg daily (40-80) → 100% per 24h
Methadone situation	63,1% Maintenance; 10,7% Dose down; 7,1% Relapse; 2,4% Induction and 16,7% Unknown
Duration	38,1% > 10 years, 26,2% 5-10 years, 23,8% 1-5 years and 11,9% < 1 year
Dropouts since the MMP onset	0%
Interruptions since the MMP onset	51,2% → median 1 (0-2)
MRCI total score	13,5 (8,5-21,8) → Maximum 40,5
NO ASSOCIATION BETWEEN MRCI/MMP-PERSISTENCE (p=0.74)	

A patient was considered persistent with a score ≥ 90% according our definition. We found 77,4% persistent patients.

	MMP persistent (N=65)	Non MMP persistent (N=19)	p value
Age	52 (48-58) (N=65)	48 (43-52) (N=19)	0,04
Comorbidities	40/60 (66,7%)	5/19 (26,3%)	0,002
Methadone situation			
Maintenance	42/55 (76,4%)	11/15 (73,3%)	
Induction	2/55 (3,6%)	0/15 (0,0%)	0,024
Relapse	2/55 (3,6%)	4/15 (26,7%)	
Dose down	9/55 (16,4%)	0/15 (0,0%)	

RELATIONSHIP BETWEEN MRCI SCORE AND OTHER VARIABLES

	p value
Age	0,04
Homeless	0,002
Comorbidities	0,0
HBV	0,003
Mental health disorder	0,006
IVDU in the last year	0,03
Heroin active consumption	0,03

CONCLUSION AND RELEVANCE

✓ A new MMP persistence definition has been created. We identified age, comorbidities, and receiving methadone maintenance doses as successful predictors for MMP persistence.
✓ MRCI does not seem to be a useful tool to determine the MMP persistence, probably because there are multiple factors that influence in addition to the complexity of the pharmacotherapeutic regimen. It is necessary to continue searching for more precise selection and stratification tools for opioid-dependent patients to improve their persistence. However, it should not be an obstacle to implementing measures to optimize their pharmacotherapy.