

## Supplemental data

## Predictors of relapse and functioning in first-episode psychosis: a 2-year follow-up study

**Section 1: Detailed setting description:**

The Institute of Neuropsychiatry and Addictions of Parc de Salut Mar (INAD-PSMar) in Barcelona is an historical mental health institution that has grown and transformed in the recent years. Nowadays our institution has two main inpatient locations and several outpatient units in Barcelona serving a population of 381.000 inhabitants from the south and east part of Barcelona at the time of the study. According to demographical data supplied by the authorities, the 49% of this population are males and age intervals are distributed as follows: the 12% are aged under 15, the 9% are between 15 and 24 years old, the 60% are between 25 and 64 years old and the 19% are 65 or older. Also, the population of this catchment are mostly born in Barcelona (47%), whereas the 26% are born in other parts of Spain and the 28% are born in other countries. Regarding educational level, the 9% have no basic studies, the 24% have elementary studies, the 44% have completed any kind of high school and the 22% have university studies. Compared to other first-episode psychosis programmes in Spain our catchment area has a higher proportion of immigrants (28% in our area vs 1.28% in the PAFIP programme in Cantabria (Pelayo-Terán et al. 2008). Although both programmes present similar rates of relapse, a higher rate of drop-outs subjects in our sample may be due to population migration movements. Programmes with deprived catchment areas with high rates of immigrants and unemployment like the Lambeth Early Onset Team show similar rates of relapse (Craig 2004).

The INAD-PSMar inpatient services provide acute hospitalization, mid-term and long-term hospitalization, partial hospitalization, drug abuse detoxification units and hospitalization for dual psychiatric disorders. The outpatient services provide general psychiatry services for the community in different areas of the city, drug abuse services and specific programs for anxiety, short and immediate assessment for mental crisis and first-episode of psychosis.

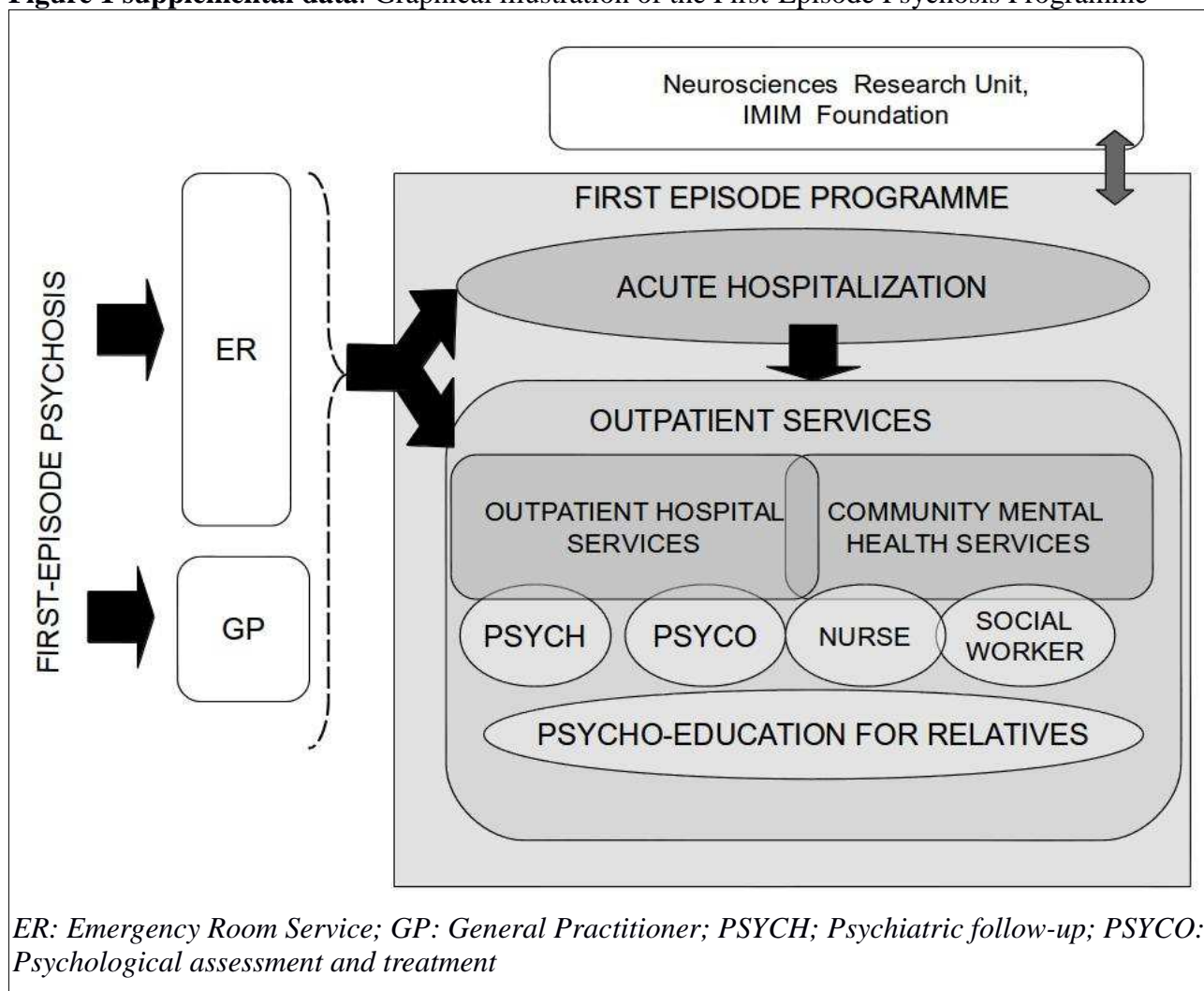
The first-episode of psychosis programme started in 2008 offering specific follow-up assessment and immediate engagement after hospitalization, after a visit in the Emergency Room Service or after being referred from general practitioner for a first episode of psychosis not longer than 2 years without previous significant antipsychotic treatment. Other inclusion criteria were age between 18 and 35 years and presumable IQ higher than 80. Exclusion criteria were medical history of neurological damage or head trauma, dependence to cocaine, stimulants, sedatives or opioids (cocaine abuse and cannabis abuse or dependence were not excluding).

Our first-episode programme is a conjunction of coordinated inpatient and outpatient services belonging to the same institution (see illustration in Figure 1 supplemental data below). It is constituted by staff from the general hospital including three psychiatrists, one social worker, one general psychologist, one psychologist specialized in drug-abuse related problems and one nurse, and staff from three community mental health services belonging to the hospital catchment area including three psychiatrists and two psychologists. Patients entering the programme, both starting with hospitalization or outpatient follow-up, are firstly assessed and treated by a psychiatrist in the general hospital during a minimum period of six months. During this period patients were assessed for individual needs. Thus, patients reporting cannabis use were offered a specific psychological treatment for substance use, whereas non-cannabis user patients were offered psychological assessment based on inter-personal therapy to help them cope with their illness. A structured program consisting of eight psycho-educative and informative sessions was offered to patient relatives in order to deliver feasible information about first-episode psychosis. To reinforce social reintegration, patients presenting difficulties in resuming their academic or job activities were

suggested to attend 1-hour weekly group sessions led by a social worker and a psychologist. During these sessions the social worker and the psychologist tried to identify each patient's handicaps to help patients find the appropriate social, academic or work support.

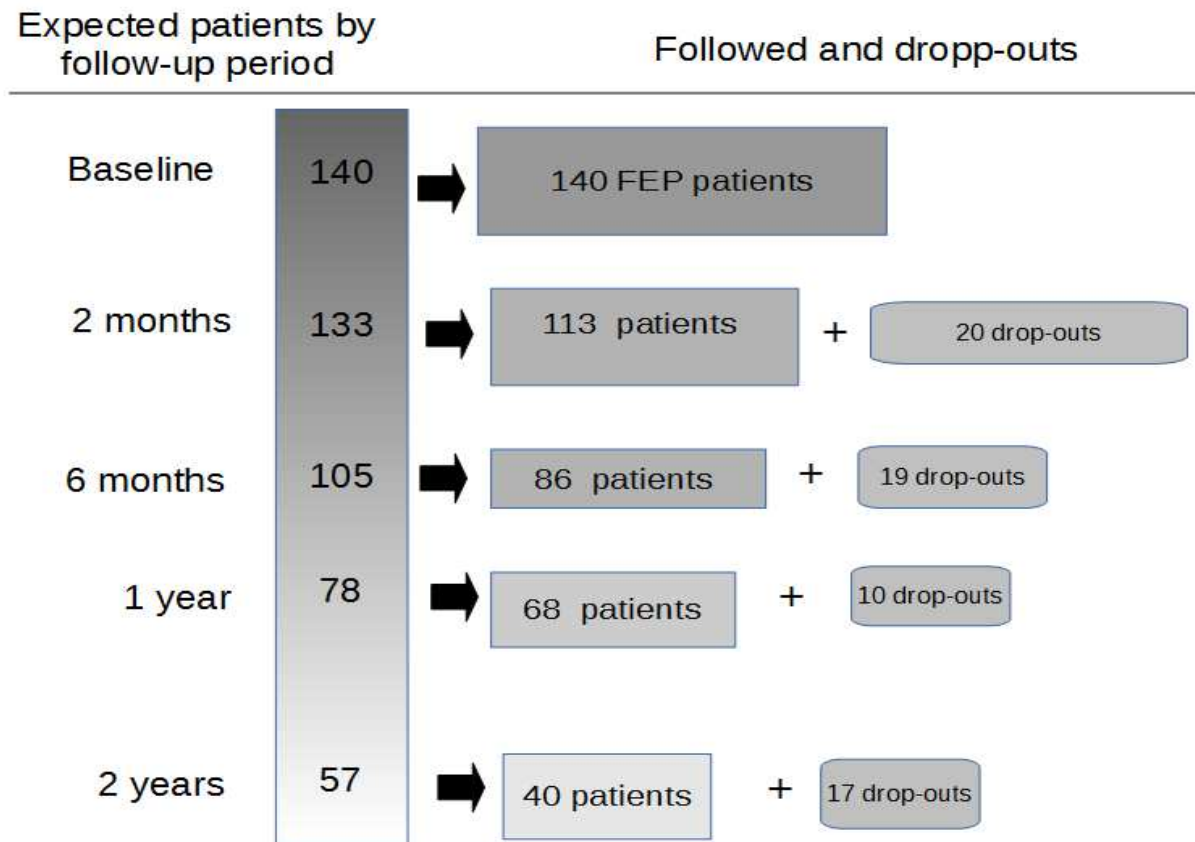
During this initial period, regular visits were scheduled once a week during the first months, once every two weeks in the second month and once a month during further follow-up. More frequent visits were offered if needed. After a minimum period of six months, when stabilisation was reassured, psychiatric follow-up was transferred to the local out-patient service with a psychiatrist belonging to the FEP programme. All other services started (social-worker support, psychological and drug-abuse assessment and groups) were continued in the same setting besides psychiatric follow-up transfer. Meetings with all members of the FEP programme were carried out once a month. This coordination allowed an efficient use of specific resources to all subjects in the programme.

**Figure 1 supplemental data:** Graphical illustration of the First-Episode Psychosis Programme



**Section 2: Illustration of the followed and drop-out patients.**

**Figure 2 supplemental data:** Graphical illustration of the followed subjects by period of time



*FEP: First-episode psychosis. Expected subjects at each time period is equal to those subjects whose time since follow-up onset is equal or longer than the referred at the corresponding interval*

**Section 3: Prescribed antipsychotics:**

**Table 1 supplemental data:** Principal prescribed antipsychotic drug by time point of assessment during the follow-up in first-episode psychosis.

ANTPSYCHOTICS	BASELINE	2 MONTHS	6 MONTHS	1 YEAR	2 YEARS
RISPERIDONE	23.4%	27.1%	15.0%	7.7%	6.8%
OLANZAPINE	44.5%	45.8%	20.0%	21.5%	18.2%
ARIPIRAZOL	21.1%	13.1%	30.0%	30.8%	22.7%
AMISULPIRIDE	3.1%	3.7%	2.5%	3.1%	2.3%
ZIPRASIDONE	3.1%		1.3%	1.5%	
QUETIAPINE	1.6%	4.7%	2.5%	4.6%	2.3%
PALIPERIDONE	2.3%	1.9%	3.8%	1.5%	4.5%
ASENAPINE	.8%				
RISPERIDONE LAI		.9%	2.5%	4.6%	2.3%
PALIPERIDONE LAI			1.3%	1.5%	
HALOPERIDOL					2.3%
ZUCLOPENTIXOL LAI		1.9%	2.5%	1.5%	
CLOZAPINE		.9%	7.5%	6.2%	6.8%
NONE*			11.3%	15.4%	31.8%
N total	128	107	80	65	44

\* Includes withdrawn medication and prescribed withdrawal of antipsychotics.

## Section 4: Secondary analysis

### 3.1: Association between treatment adherence, cannabis use and insight:

**Table 2 supplemental data:** Statistical association between treatment adherence and insight and cannabis use.

Univariate correlation of treatment adherence* with:	Pearson correlation coef	P
SUMD at 2 months**	-.287	.014
Cannabis use***	-.348	<.001

\*: Treatment adherence coded as 1: Treatment withdrawal, 2: partial adherence, 3: good adherence; \*\*: Mean of the three initial items of the Scale to assess unawareness of mental disorder at two months follow-up. The score of the sum of the three initial items range from 1 to 15 with higher scores indicating more severe lack of insight; \*\*\*: Average cannabis use during the follow-up period.

### 3.2: Analysis of the relevance of diagnostic categories (non-affective vs. affective psychosis) in the results:

**Table 3 supplemental data. Linear regression after backward elimination method to find the best predicting model of functioning measured by GAF score at two years follow-up (only last step is shown) adding diagnostic categories to the model.**

Step	R	R square	Adjusted R square	Std. Error of the Estimate	df1	df2**
7	.624	.389	.32	16.104	1	26
	Sum of squares	df	Mean Square	F	p	
<b>Regression</b>	4453.9	3	1484.6	5.725	.004	
<b>Residual</b>	7002.0	27	259.3			
<b>Total</b>	11455.9	30				
Step 5	B	Std. Error	Beta	t	p	
<b>Constant term</b>	90.0	7.62		11.81	<.001	
<b>Sex (male)</b>	-12.5	6.20	-.32	-2.02	.053	
<b>PANSS-N BL*</b>	-.85	.40	-.33	-2.12	.044	
<b>Diagnostic Categories**</b>	14.67	7.4	.30	1.99	.057	

\* PANSS-N BL: Negative subscale of the positive and negative syndrome scale at baseline assessment, possible scores range from 7 to 49 with higher scores indicating more severe negative symptoms. \*\* Diagnostic Categories: 1 representing affective psychosis (schizoaffective disorder or bipolar disorder), 0 representing non-affective psychosis (schizophreniform disorder, brief psychotic disorder, schizophrenia, drug induced psychosis and delusional disorder).

\*\* Not all subjects followed for two years were included in the analyses, due to missing data.