

Consumo de Cannabis y esquizofrenia:

Síntomas clínicos y cognitivos



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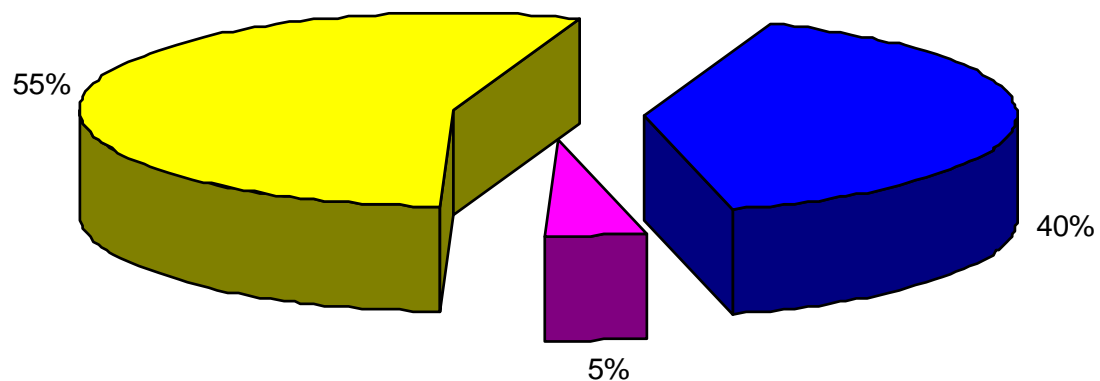
Objetivo

Cuales son las repercusiones clínicas y cognitivas del consumo de cannabis en los pacientes con psicosis?

GENERALIDADES

- Alta prevalencia de uso entre jóvenes (PND, 2007)
- Alto riesgo de esquizofrenia (RR 2.1-2.4) (Andreasson et al, 1987; Henquet et al, 2005).
- 10-13 % de casos de esquizofrenia podrían ser evitados (Zammit et al , 2002).

CONSUMO DE CANNABIS EN PAFIP



- Consumo Semanal
- Consumo Esporádico
- No consumo

N= 325

Estudio CAMEO

Substance use in a population-based clinic sample of people with first-episode psychosis

JENNIFER H. BARNETT, URSULA WERNERS, SANDRA M. SECHER,
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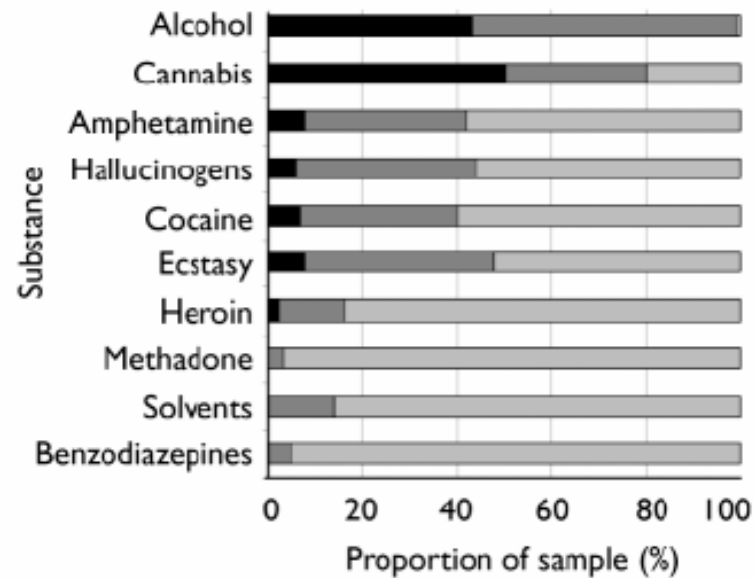
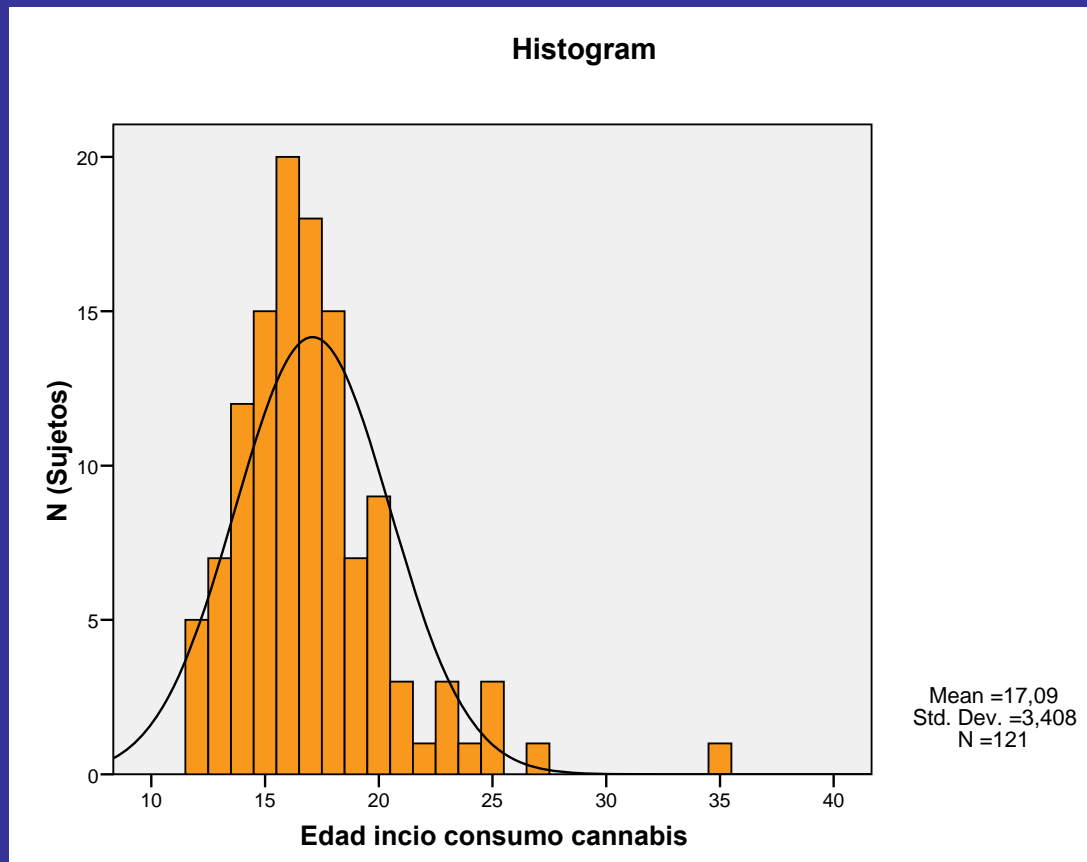


Fig. 1 Lifetime alcohol and substance use in first-episode psychosis ($n=118-123$) according to DSM-IV diagnosis. ■, abuse or dependence; ■, use but not abuse; ■, never used.

Distribución de Edad de Inicio del consumo



Cannabis abuse among first episode patients

Abusers = 76/171 (44.4%)

- Males: 63/103 (61.2%)
- Females: 13/55 (23.6%)

$\chi^2=29.33, p<0.0001$

- Age onset abusers: 23.33
- Age onset nonabusers: 29.11

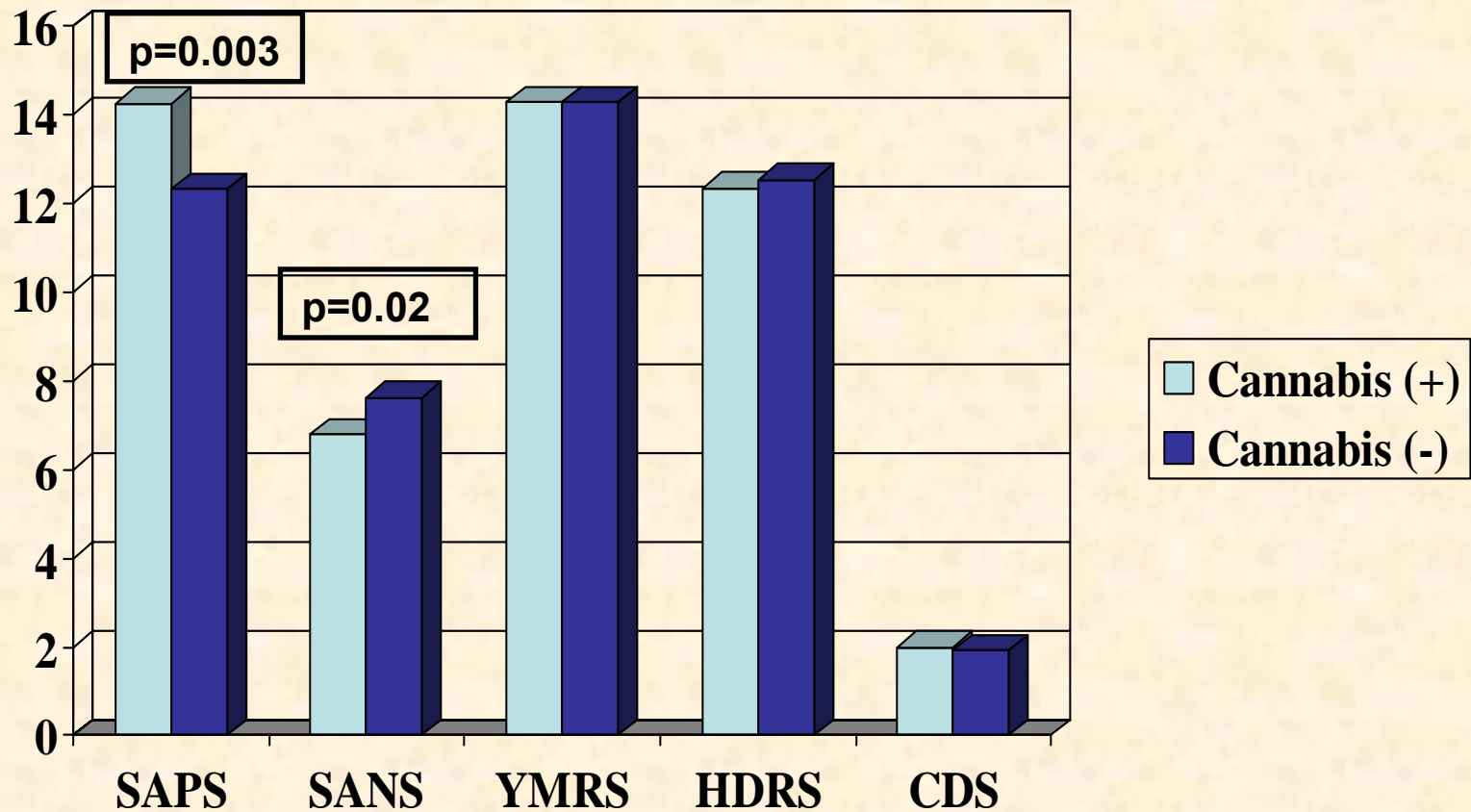
$t=5.74, p<0.0001$
 $F^a=33.15, p<0.0001$

^a:Adjusting for sex

Diferencias en PSICOPATOLOGÍA: Consumidores y no consumidores.

| Eta squared | | Cannabis abuse | | ANCOVA | |
|-------------|-------------------------|------------------|------------------|--------|------|
| | | (+) Mean (SD) | (-) Mean (SD) | F | p |
| | SAPS | | | | |
| 0.003 | Hallucinations | 3.14 (2.13) | 2.08 (2.26) | 3.34 | .07 |
| 0.02 | Delusions | 2.88 (2.22) | 2.32 (2.30) | 7.99 | .005 |
| 0.01 | Bizarre Behaviour | 3.87 (1.63) | 3.68 (1.65) | 4.90 | .03 |
| 0.01 | Formal thought disorder | 1.45 (1.88) | 0.92 (1.62) | 5.15 | .02 |
| | SANS | | | | |
| 0.01 | Blunted affect | 1.36 (1.67) | 1.42 (1.53) | 5.37 | .02 |
| 0.01 | Alogia | 0.90 (1.53) | 0.99 (1.53) | 5.11 | .02 |
| 0.002 | Avolition | 1.44 (1.89) | 1.36 (1.84) | 0.76 | .38 |
| 0.01 | Anhedonia | 1.56 (1.81) | 1.76 (1.86) | 4.09 | .04 |

Baseline symptomatology



ANCOVA controlling for age and sex

Variables relacionadas con el consumo:

Edad de inicio y
frecuencia de consumo

Diferencias variables clínicas: Consumidores y no consumidores

| | Consumidores (N=76) | No consumidores (N=95) | <i>F</i> | <i>t</i> | <i>p</i> |
|--------------------------------------|--------------------------------|-----------------------------------|-----------------|-----------------|------------------|
| Edad de Inicio de la Psicosis | 23,33 | 29.11 | 33,151 | -5,159 | <0,001 |
| DUP meses | 7,72 | 19,07 | 24,243 | -3,001 | 0,003 |
| DUI meses | 23,87 | 33,21 | 6,77 | -1,819 | 0,07 |
| PAS Infancia | 0,22 | 0,25 | 2,053 | .1,434 | 0,154 |
| PAS Adolescencia Temprana | 0,28 | 0,28 | 0,99 | 0,028 | 0,978 |
| PAS Adolescencia Tardia | 0,30 | 0,29 | 0,043 | 0,2284 | 0,777 |
| PAS Adultez | 0,21 | 0,27 | 0,151 | -1,511 | 0,133 |

Correlaciones con edad de inicio de consumo y frecuencia de consumo de cannabis: Variables clínicas

| | Correlaciones de Spearman | | | | | |
|-------------------------------|---------------------------|------------------|----------|-----------------------|--------------|----------|
| | Edad de Inicio de consumo | | | Frecuencia de consumo | | |
| | <i>r</i> | <i>p</i> | <i>n</i> | <i>r</i> | <i>p</i> | <i>n</i> |
| Edad de Inicio de consumo | - | - | - | -0,261 | 0,006 | 110 |
| Frecuencia de consumo | -0,261 | 0,006 | 110 | - | - | - |
| Edad de Inicio de la Psicosis | 0,426 | <0.001 | 124 | -0,209 | 0,023 | 118 |
| DUP | -0,024 | 0,79 | 124 | 0,002 | 0,986 | 118 |
| DUI | 0,06 | 0,506 | 123 | 0,077 | 0,411 | 117 |
| PAS Infancia | 0,09 | 0,44 | 76 | -0,041 | 0,729 | 72 |
| PAS Adolescencia Temprana | 0,024 | 0,835 | 76 | -0,01 | 0,931 | 72 |
| PAS Adolescencia Tardia | 0,009 | 0,935 | 76 | -0,033 | 0,782 | 72 |
| PAS Adultez | 0,021 | 0,866 | 65 | 0,007 | 0,96 | 62 |

Edad de Inicio: Modelo de Regresión

- PREDICTORES: Sexo, Antecedentes Familiares, DUP, Diagnóstico de esquizofrenia, Consumo de otras sustancias, Edad de inicio de consumo de Cannabis, frecuencia de consumo de cánnabis
Síntomas positivos, desorganizados y negativos.
- Método “Hacia Atrás”
- Modelo Final:
 - Únicas Variables Predictoras: Cantidad de SINTOMAS NEGATIVOS y EDAD DE INICIO DE CONSUMO DE CANNABIS
 - R2: 0,281; F: 18,128; p<0,001

| | <u>Beta</u> | <u>t</u> | <u>Sig.</u> |
|----------------------------------|---------------|---------------|------------------|
| Edad de Inicio de Consumo | 0,436 | 4,943 | <0,001 |
| S. Negativos | -0,264 | -2,986 | 0,004 |

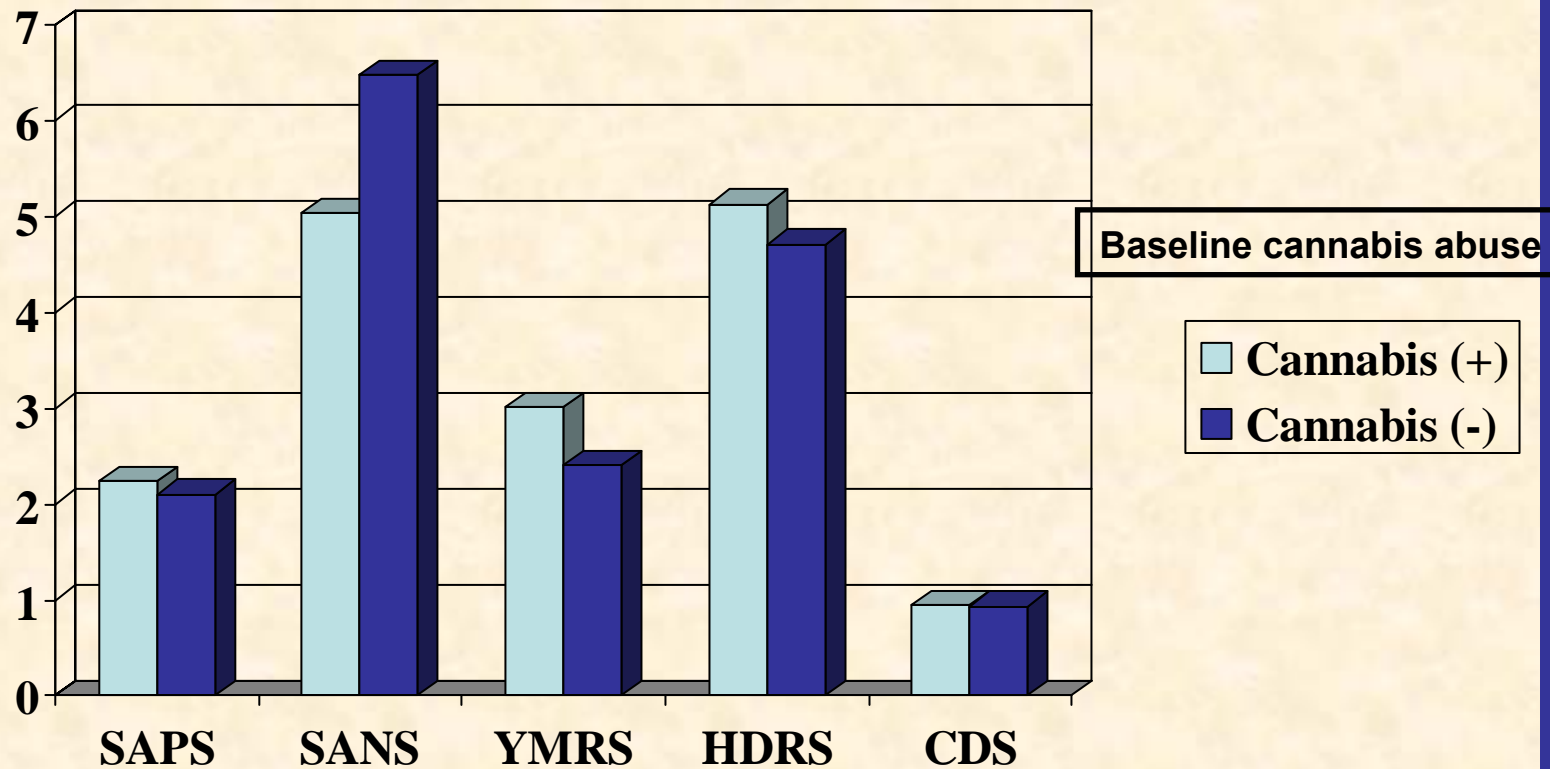
Efectos clínicos a largo plazo

Cannabis abuse 1 year after illness onset

Abusers = 19/103 (18.4%)

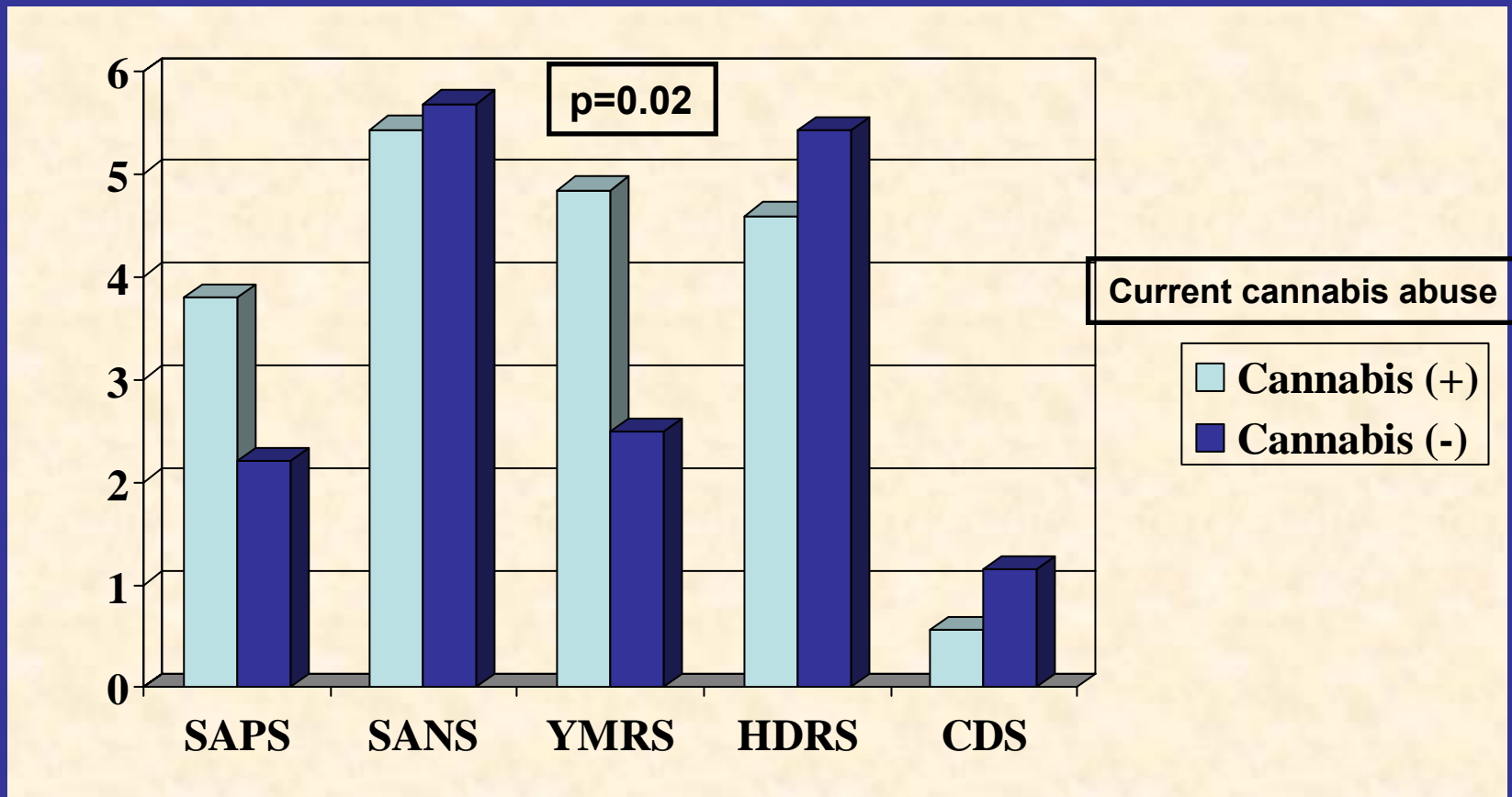
- Among baseline abusers:
 - 17/48 (35.4%) still abuse cannabis
- Among baseline nonabusers:
 - 2/55 (3.6%) abuse cannabis

Symptomatology at 1 year



ANCOVA controlling for age and sex

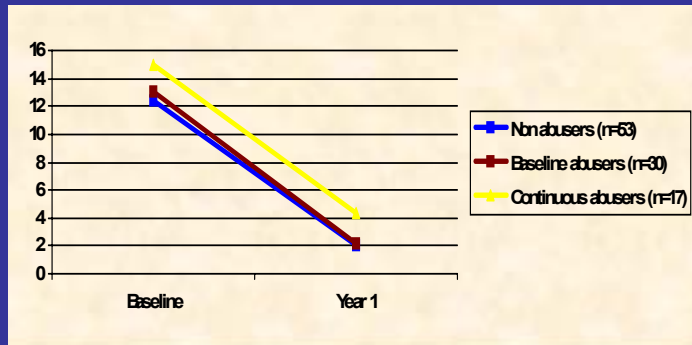
Symptomatology at 1 year



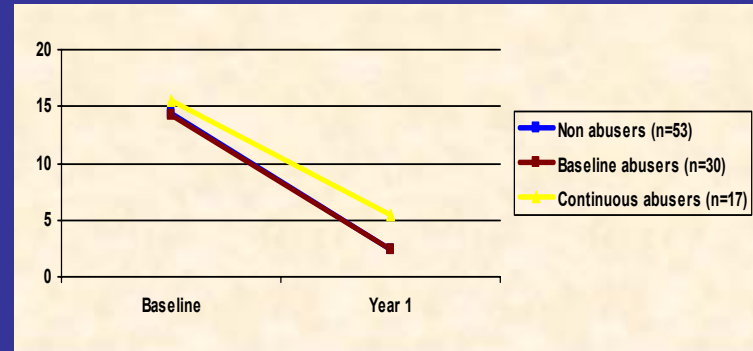
ANCOVA controlling for age and sex

CAMBIOS LONGITUDINALES CLINICOS

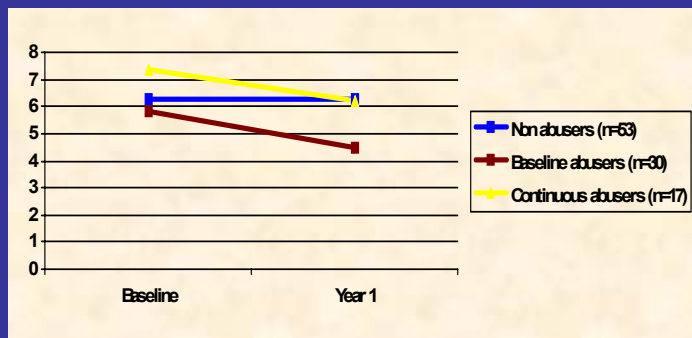
SAPS



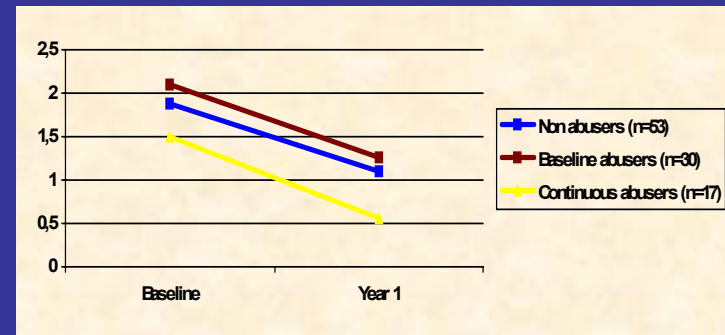
YMRS



SANS



CDS



Respuesta tratamiento

Predictors of acute treatment response in patients with a first episode of non-affective psychosis: Sociodemographics, premorbid and clinical variables

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Crespo-Facorro et al, J Psychiatr Res 2007

Comparison of sociodemographic, premorbid and clinical characteristic at intake between responder (N = 99) and non-responder (N = 73) patients

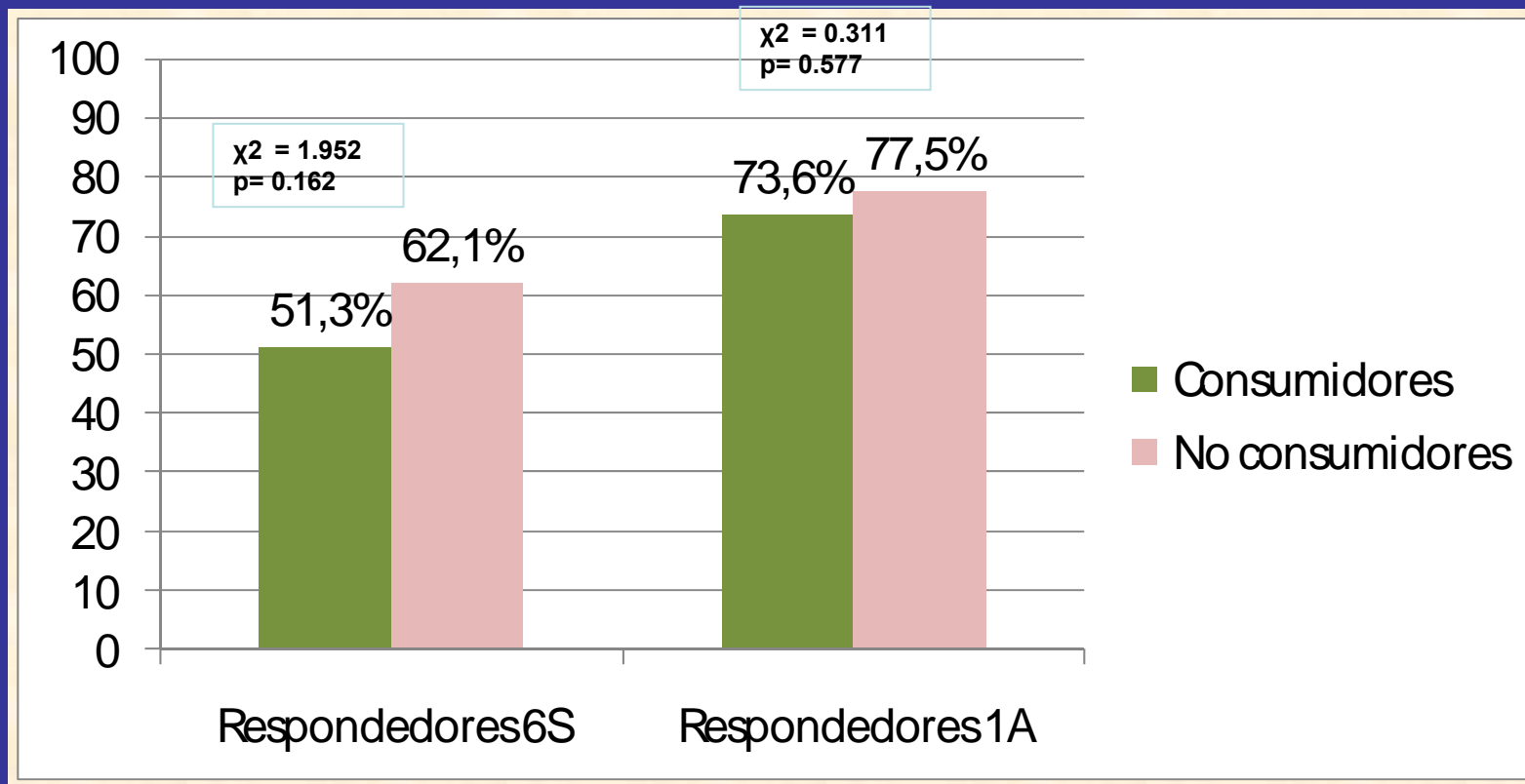
| Dichotomous measures (N = 172) | Responders (N = 99) | | Non-responders (N = 73) | | X ² | OR | p |
|---|---------------------|------|-------------------------|------|----------------|-------|-------|
| | N | % | N | % | | | |
| Gender (males) | 59 | 59.6 | 48 | 65.7 | 0.678 | 0.768 | 0.410 |
| Tobacco abuse (yes) | 62 | 62.6 | 39 | 53.4 | 1.468 | 2.104 | 0.146 |
| Cannabis abuse (yes) | 52 | 52.5 | 30 | 42.1 | 2.200 | 1.586 | 0.092 |
| Alcohol abuse (yes) | 56 | 56.6 | 37 | 50.7 | 0.585 | 1.267 | 0.271 |
| Other substances abuse (yes) | 30 | 30.3 | 17 | 23.3 | 1.041 | 1.432 | 0.199 |
| Family history of psychosis (yes) | 18 | 18.2 | 16 | 21.9 | 0.370 | 0.792 | 0.338 |
| Marital Status (single) | 84 | 84.8 | 61 | 83.6 | 0.053 | 1.102 | 0.490 |
| Living with parents (yes) | 59 | 59.6 | 50 | 68.5 | 1.433 | 0.679 | 0.150 |
| Family support (good) | 75 | 75.8 | 50 | 68.5 | 1.299 | 1.438 | 0.522 |
| Parental Socioeconomic Status (low) (N = 169) | 26 | 26.2 | 28 | 38.4 | 0.096 | 0.525 | 0.067 |
| Education (up to primary school) | 47 | 47.5 | 41 | 55.4 | 1.270 | 0.705 | 0.165 |
| Laboral status (working–studying) | 48 | 48.5 | 41 | 56.2 | 0.992 | 0.735 | 0.200 |
| Urbanicity (yes) | 56 | 56.6 | 40 | 54.8 | 0.053 | 0.931 | 0.877 |
| Hospitalization (yes)* | 70 | 70.7 | 39 | 53.4 | 5.407 | 2.104 | 0.025 |
| Diagnosis (schizophrenia)* | 54 | 54.5 | 52 | 71.2 | 4.948 | 0.485 | 0.026 |
| Treatment (First generation antipsychotics) | 32 | 32.3 | 24 | 32.9 | 0.006 | 0.975 | 0.534 |

Regression analysis model

Results of the multivariate logistic regression analysis of selected variables distinguishing responders from non-responders

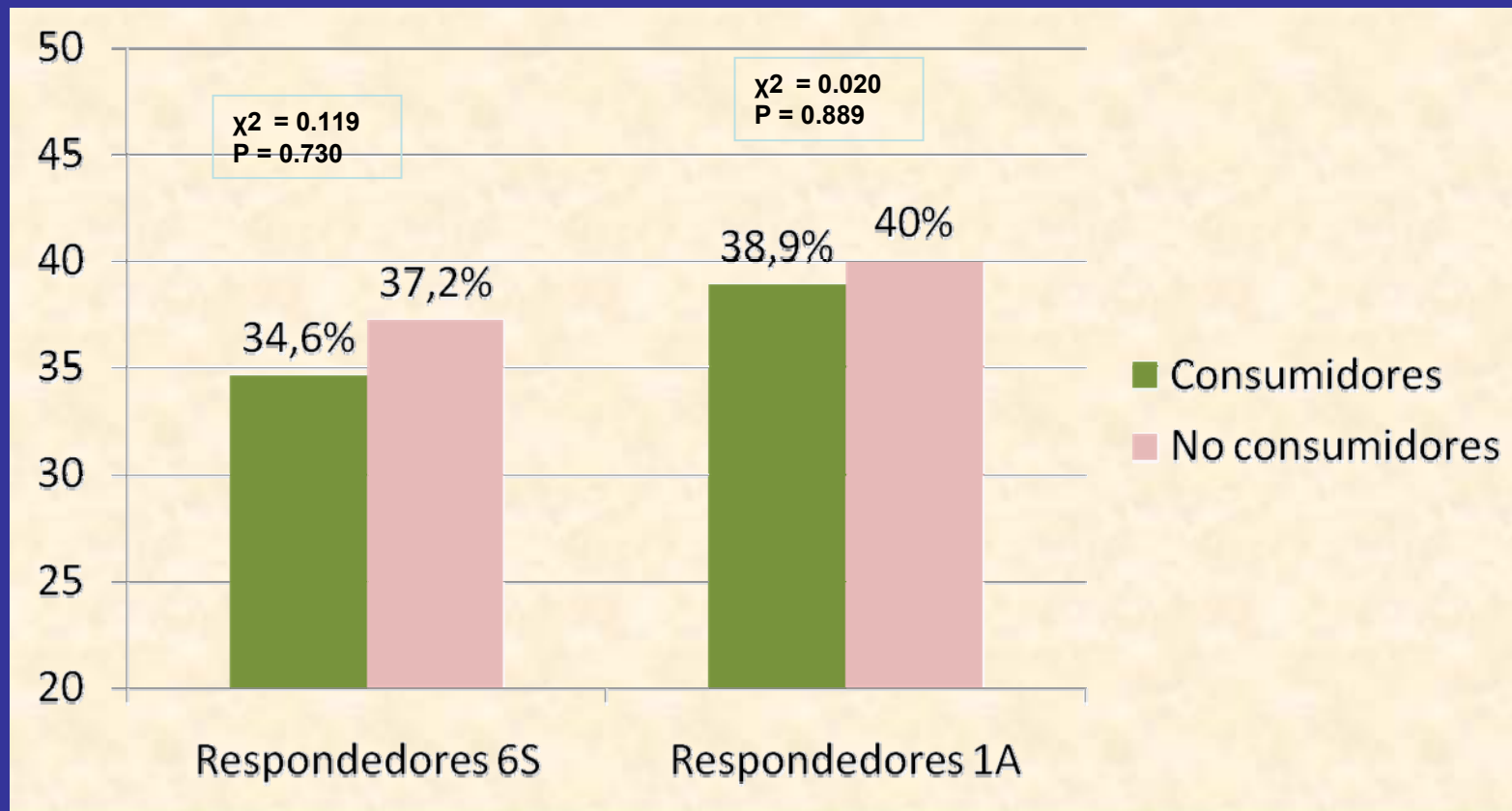
| | <i>B</i> | SE | Wald | Sig. | Exp(<i>B</i>) |
|--------------------------------|----------|-------|--------|------|-----------------|
| Age of onset* | -.086 | .033 | 6.726 | .009 | .918 |
| DUP | .008 | .010 | .679 | .410 | 1.008 |
| Initial hospitalization | -.315 | .457 | .476 | .490 | .729 |
| Schizophrenia diagnosis* | .942 | .468 | 4.050 | .044 | 2.566 |
| Early adolescence PAS* | .498 | .197 | 6.359 | .012 | 1.645 |
| Late adolescence PAS | -.022 | .144 | .023 | .880 | .978 |
| Initial BPRS* | -.111 | .027 | 17.296 | .000 | .895 |
| Initial positive dimension | -.123 | .093 | 1.753 | .185 | .884 |
| Initial disorganized dimension | -.064 | .073 | .771 | .380 | .938 |
| Constant | 7.939 | 1.873 | 17.961 | .000 | 2804.976 |

Respondedores a Síntomas Positivos



Respondedor = Mejoría 40% + SAPS total <8 + ítems <3

Respondedores a Síntomas Negativos



Respondedor = Mejoría 40% + SANS total <8 + ítems <3

Repercusión funcionamiento cognitivo

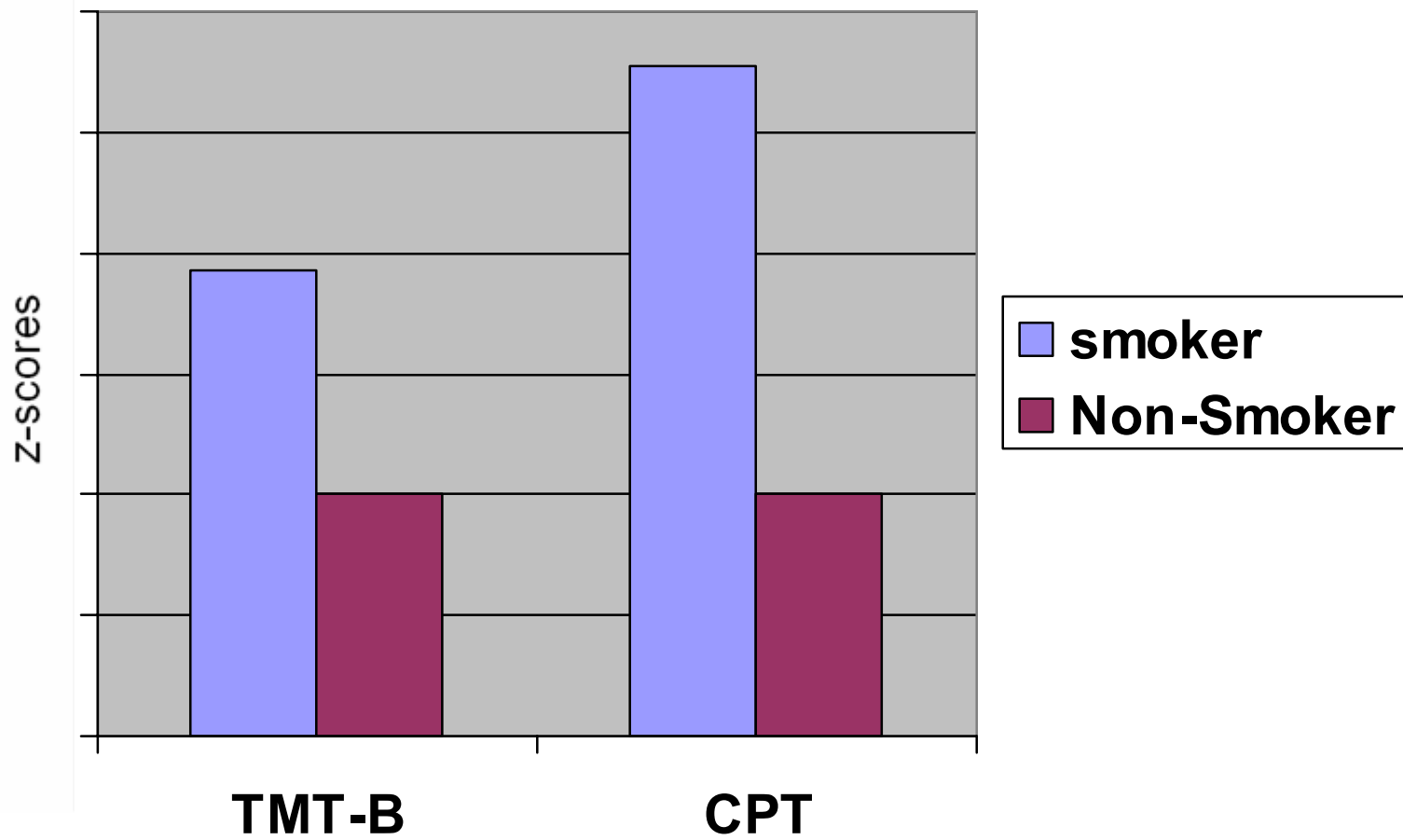
Muestra

| | Smokers | Non-smokers | | |
|-----------------------|--------------------|--------------------|--------------|------------------|
| N | 47 | 57 | t | P |
| Edad | 23.62(4.15) | 30.04(8.47) | -5.03 | <0.001 |
| Años estudios | 9.53(2.77) | 11.47(3.01) | -3.39 | 0.001 |
| CI | 8.97(2.81) | 9.95(2.92) | -2.58 | 0.01 |
| | | | χ^2 | P |
| Sexo (hombres) | 38 | 27 | 12.32 | <0.001 |

Baseline cognitive performance

| | <u>Smokers</u> | <u>Non-smokers</u> | | |
|--------------------|----------------|--------------------|-------|-------|
| - | N= 47 | N= 57 | F | P |
| Aprendizaje | 38.21(11.59) | 43.32(10.33) | 0.65 | 0.42 |
| Memoria LargoPlazo | 6.60(3.35) | 7.54(3.49) | 0.002 | 0.96 |
| Memoria Visual | 18.74(7.10) | 18.46(6.98) | 0.02 | 0.89 |
| Memoria Trabajo | 5.51(1.63) | 5.79(1.92) | 0.18 | 0.67 |
| Velocidad Proceso | 6.40(2.59) | 7.64(2.95) | 0.12 | 0.73 |
| Funciones Ejecuti | 89.21(33.94) | 99.82(56.77) | 4.62 | 0.03* |
| Fluidez Verbal | 28.79(9.41) | 31.12(10.34) | 1.33 | 0.25 |
| Atención | 74.19(8.36) | 70.02(11.71) | 5.36 | 0.02* |
| Velocidad Mot | 48.18(10.63) | 45.90(10.32) | 0.13 | 0.73 |

Diferencias entre grupos en la evaluación basal tras covariar sexo, edad, años de estudio y CI



Cannabis abuse is associated with decision-making impairment among first-episode patients with schizophrenia-spectrum psychosis

I. Mata, J. M. Rodríguez-Sánchez, J. M. Pelayo-Terán, R. Pérez-Iglesias, C. González-Blanch, M. Ramírez-Bonilla, O. Martínez-García, J. L. Vázquez-Barquero and B. Crespo-Facorro*

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Table 1. Sociodemographic and clinical data

| | Cannabis (+) (n = 61) | Cannabis (-) (n = 71) | p value |
|---|--------------------------|--------------------------|---------------------|
| Age (years) | 23.42 ± 4.14 | 29.54 ± 8.44 | <0.001 ^c |
| Age of illness onset (years) ^a | 23.28 ± 4.10 | 29.24 ± 8.28 | <0.001 ^c |
| IQ ^b | 87.57 ± 15.58 | 97.03 ± 15.92 | <0.001 ^c |
| Sex (n, % of males) | 51 (83.6) | 36 (50.7) | <0.001 ^d |
| Antipsychotic | | | |
| Haloperidol | 22 | 23 | n.s. ^d |
| Olanzapine | 17 | 23 | |
| Risperidone | 22 | 25 | |
| SAPS | 3.36 ± 3.75 | 2.73 ± 2.99 | n.s. ^b |
| SANS | 5.38 ± 5.18 | 4.96 ± 4.91 | n.s. ^b |

| | Cannabis (+) (n = 61) | Cannabis (-) (n = 71) | p value (t tests) |
|---|--------------------------|--------------------------|----------------------|
| Gambling task | | | |
| Total task (advantageous minus disadvantageous choices) | -9.02 ± 22.57 | 7.21 ± 29.08 | <0.001 |
| Number of disadvantageous choices | 54.51 ± 11.28 | 46.39 ± 14.54 | <0.001 |
| Number of low-frequency-high-magnitude choices | 57.43 ± 9.05 | 56.39 ± 10.40 | |
| Choices deck A | 21.03 ± 7.06 | 17.99 ± 7.05 | <0.01 |
| Choices deck B | 33.48 ± 10.78 | 28.41 ± 10.18 | <0.01 |
| Choices deck C | 21.54 ± 5.64 | 25.62 ± 10.89 | <0.01 |
| Choices deck D | 23.95 ± 10.30 | 27.99 ± 13.25 | |
| Period 1 | -4.00 ± 4.56 | -2.69 ± 5.82 | |
| Period 2 | -1.41 ± 5.47 | 0.54 ± 7.70 | |
| Period 3 | -1.38 ± 7.44 | 2.51 ± 8.73 | <0.01 |
| Period 4 | -1.41 ± 7.54 | 2.97 ± 9.35 | <0.01 |
| Period 5 | -0.75 ± 6.44 | 3.57 ± 9.42 | <0.01 |
| Fluency test (FAS) | 28.28 ± 9.08 | 31.07 ± 10.77 | |
| Trail Making Test (TMT) | 2.56 ± 0.96 | 2.37 ± 0.92 | |
| Backward Digits | 5.41 ± 1.86 | 5.83 ± 1.86 | |

Resultados cognitivos

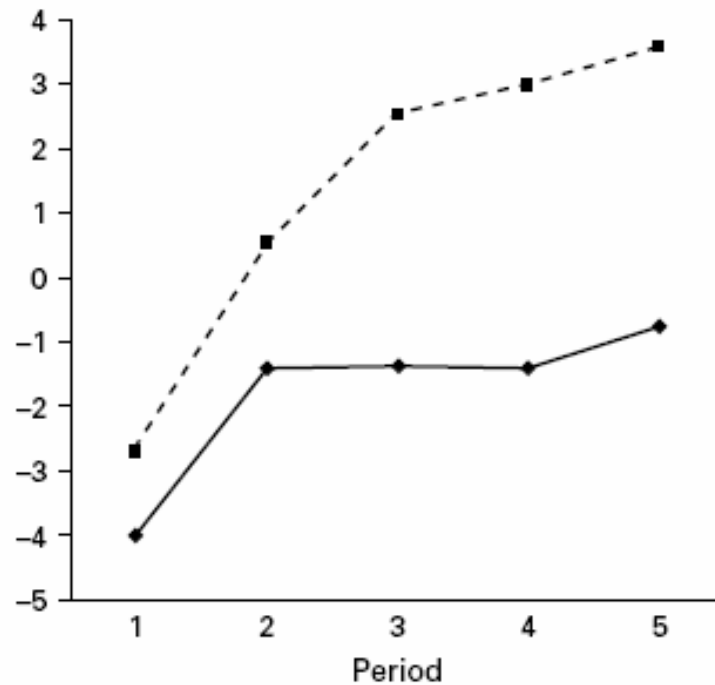


Fig. 1. Evolution of performance along the five periods of the Iowa Gambling Task (GT) for the patients who had (—◆—) or had not (—■—) abused cannabis before their illness began.

EVOLUCIÓN

Deltas (1 año-basal)

| N | Smokers | Non-smokers | F | P |
|---------------------|---------------|---------------|------|------|
| | 47 | 57 | | |
| Aprendizaje | 6.91(9.04) | 4.82(8.95) | 0.88 | 0.35 |
| Memoria Largo Plazo | 1.91(2.95) | 1.71(2.72) | 0.18 | 0.89 |
| Memoria Visual | 5.12(4.77) | 4.63(5.61) | 1.46 | 0.23 |
| Memoria Trabajo | 0.81(1.75) | 0.48(1.76) | 1.93 | 0.17 |
| Velocidad Proceso | 2.02(1.86) | 1.62(2.26) | 0.67 | 0.42 |
| Funciones Ejecuti | -23.85(24.21) | -20.05(37.23) | 2.08 | 0.15 |
| Fluidez Verbal | 4.23(9.02) | 2.41(7.30) | 0.30 | 0.59 |
| Atención | 2.18(6.44) | 1.09(7.45) | 0.81 | 0.37 |
| Destreza | -8.81(9.92) | -6.62(10.83) | 0.25 | 0.62 |
| Velocidad Mot | 2.53(7.99) | 1.71(8.53) | 0.69 | 0.41 |

Sexo, edad, años de estudio, CI y rendimiento cognitivo basal

NO HAY DIFERENCIAS SIGNIFICATIVAS AL AÑO

Conclusiones

- El consumo de cannabis se relaciona con la gravedad de los síntomas positivos (alucinaciones).
- La edad de inicio del consumo de cannabis es un factor determinante de la edad de inicio de la psicosis.
- La edad de inicio es una variable clínica relacionada con factores de respuesta a tratamiento y funcionamiento social.
- El consumo de cannabis parece MEJORAR de manera significativa el funcionamiento cognitivo de los pacientes en funciones ejecutivas y atención.
- Los pacientes consumidores presentan alteraciones en la capacidad de toma de decisiones (OFC).

Muchas gracias por la atención

