European Association for Physician Health

"Healthy Physicians for a Healthy Society"

# READMISSION AMONG INPATIENT PHYSICIANS WITH MENTAL AND/OR ADDICTIVE DISORDERS: A DESCRIPTIVE STUDY OF RISK FACTORS.

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# Learning objectives

- To know how often readmission occurs among inpatient physicians when they suffer from an addictive or a mental health disorder.
- To identify risk factors associated with frequent readmissions
- To know the role of a physician's health program in the development of preventive strategies.

# Introduction

- The literature shows that some physicians need to be admitted into a hospitalization unit for substance detoxification or for treatment of a mental disorder but few evidence has been reported among how often they relapse and need to be readmitted

# How often do doctors need to be readmitted?

- 1 in 4 monitored physicians with DUD relapse at least once. (Gallegos, MMJ, 1992; Domino, JAMA, 2005)
- 8% of Relapses affecting patient safety (DuPont, Journal of Substance Abuse Treatment, 2009).
- Most relapses of substance abuse occurs in the first two years after the initial treatment. (Gallegos, MMJ, 1992)
- No studies have been published focussing on readmitted inpatients

# Reasons for readmission

- Doctors show a tendency to intellectualize their symptoms (McCracken, JAMA. 2010)
- Relapse may be related with re-entry to work or during on call periods (Du Pont et al. Journal of Substance abuse treatment, 2009)
- Patient safety: The success of the physicians health programs is related with an initial intensive residential treatment (Skipper, Journal of Addictive diseases, 1997) a long follow-up and frequent readmissions (Talbott, Principles of Addiction Medicine, 2003)

# Looking for risk factors…

- Pretreatment variables are not different among doctors who relapse compared with those who don't relapse. (Gallegos, MMJ, 1992)
- Outcome of physicians with mild severity of alcohol or drug problems is not different from physicians with multiple treatment admissions. (Morse, JAMA, 1984)
- Relapse among monitored physicians with SUD is related to a major opioid use, family history of SUD and dual diagnosis (Domino, JAMA, 2005)

# What doctors say about their relapse…

- Failure to understand and accept the disease
- Denial or loss of control
- Dysfunctional family
- Stress and inability to cope with it
- Isolation
- Untreated secondary addiction (sex, food, work)
- Overconfidence
- Medical problems
- Poor "continuing care" monitoring

(Gallegos, MMJ, 1992)

# Objectives

- To describe and analyze variables associated to readmission among a sample of physician specialists treated in the Inpatient Unit of the Integrated Care Program for Physicians (PAIMM) of Barcelona (Spain).

# Method (I)

- 335 consecutive inpatient admissions were evaluated from November 1998 to December 2007.
- Readmissions were studied for a period of 11 years: December 1998 to December 2009

# Method (II)

- All patients were diagnosed according to DSM-IV criteria.
- Demographic and clinical variables were evaluated as well as variables to analyze program performance.
- Parametric (t-test, ANOVA) and no-parametric ($X^2$) tests and correlations were used to analyze the data.

# Variables analyzed (I)

- Demographic:
  - Age
  - Gender
  - Marital status
  - Speciality

# Variables analyzed (II)

- Clinical
  - Diagnosis
  - Severity of addictive behaviour (number of drugs abused, age onset addiction, UBEs)
  - Severity of mental disorder (scores in depression and anxiety rating scales, prior suicidal attempts)
  - Personality traits (MCMI-II, Millon)
  - Self prescription
  - Delay in seeking help
  - Prior treatments
  - Family antecedents

# Variables analyzed (III)

- Variables to analyze  program performance
  - Where the patient come from
  - Mode of access to the Program
  - Therapeutic Contract

# Flow Chart

1024
Patients admitted to the Program 1999-2007
801
Outpatients
493
Inpatient Treatment
47 Non Specialist
23 Residents
88 Nurses
335
Specialist

# Readmission: some concepts

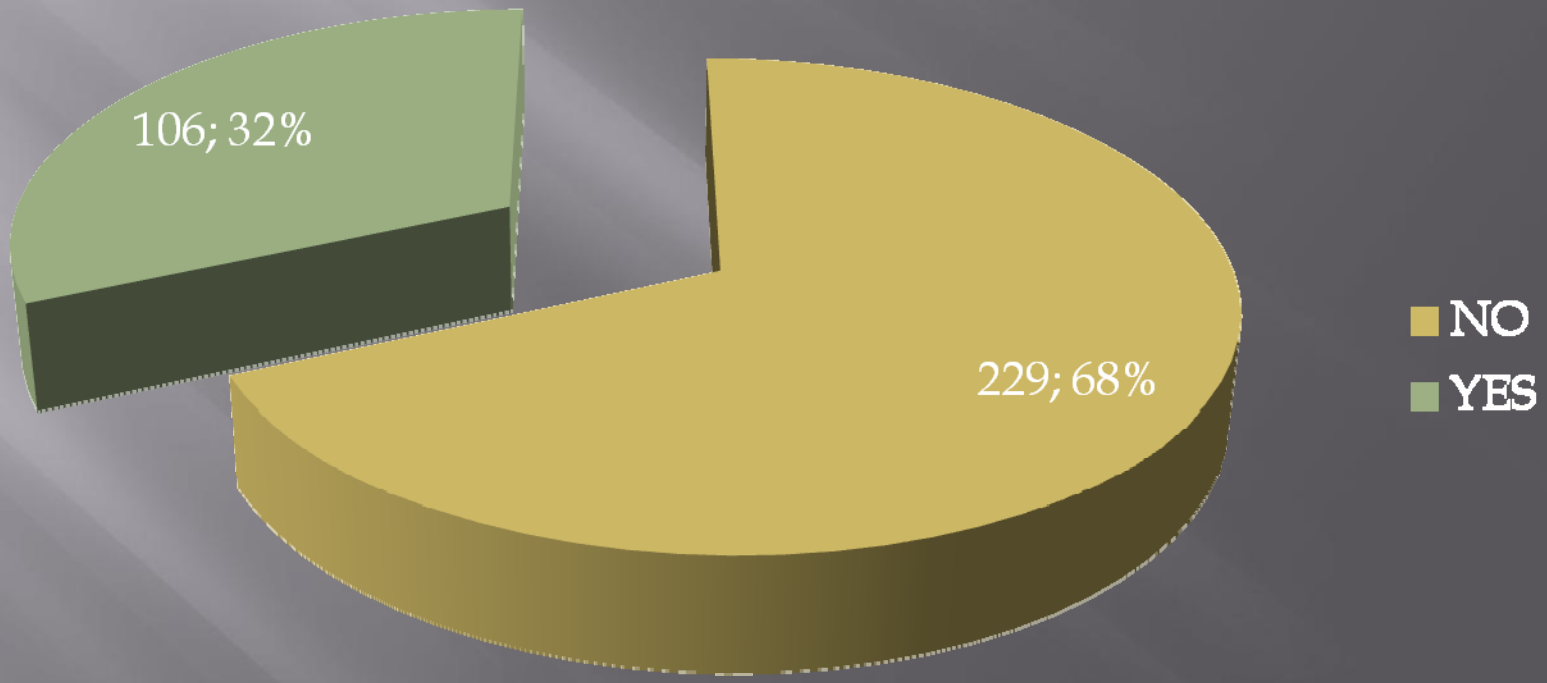
*Readmission:*
"New admission after previous inpatient treatment, due to relapse in substance use or severity of psychiatric symptoms"

*Early readmission:*
"Before six months after discharge"

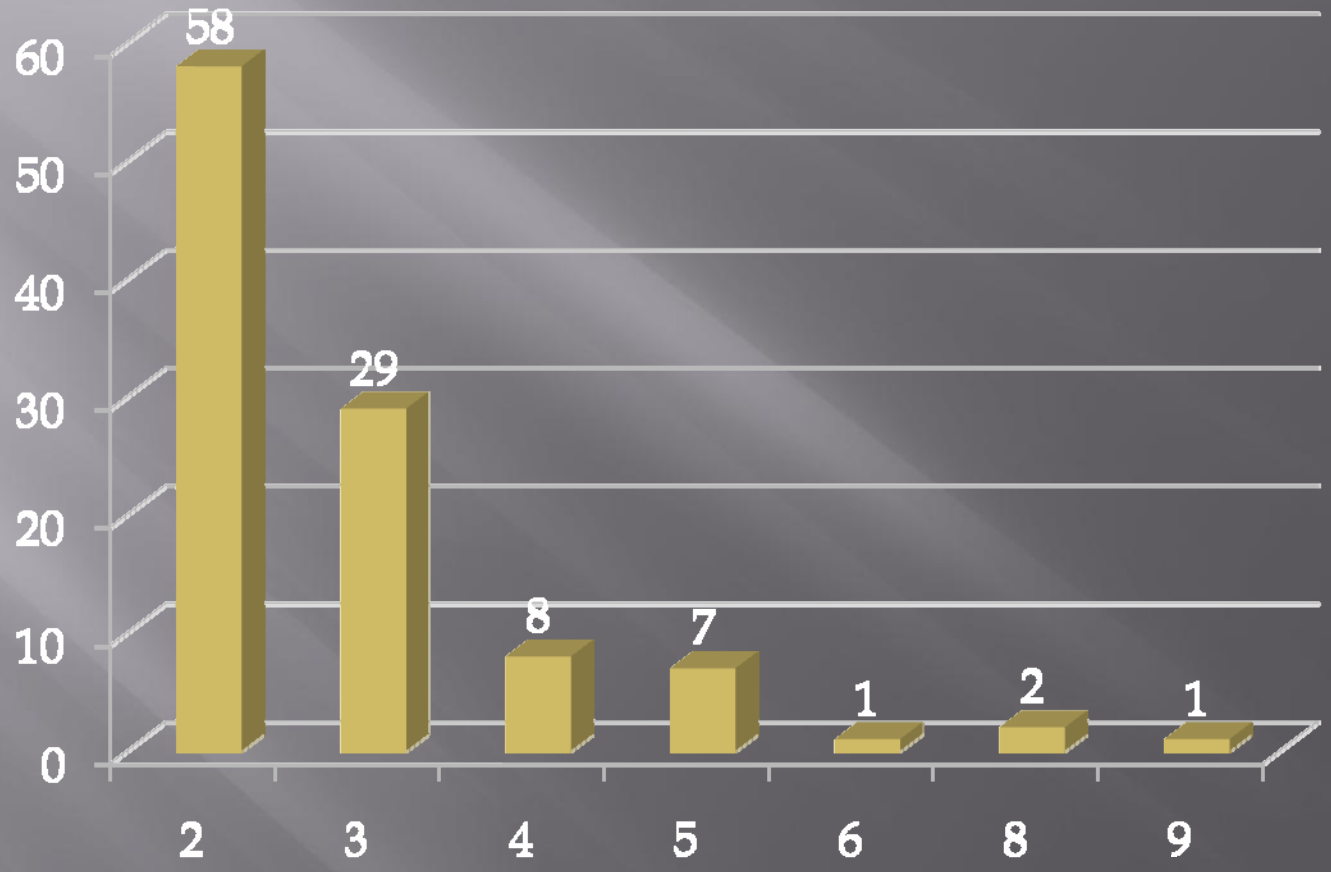
*Frequent admission:*
"Three or more readmission"

# Results

# Readmission

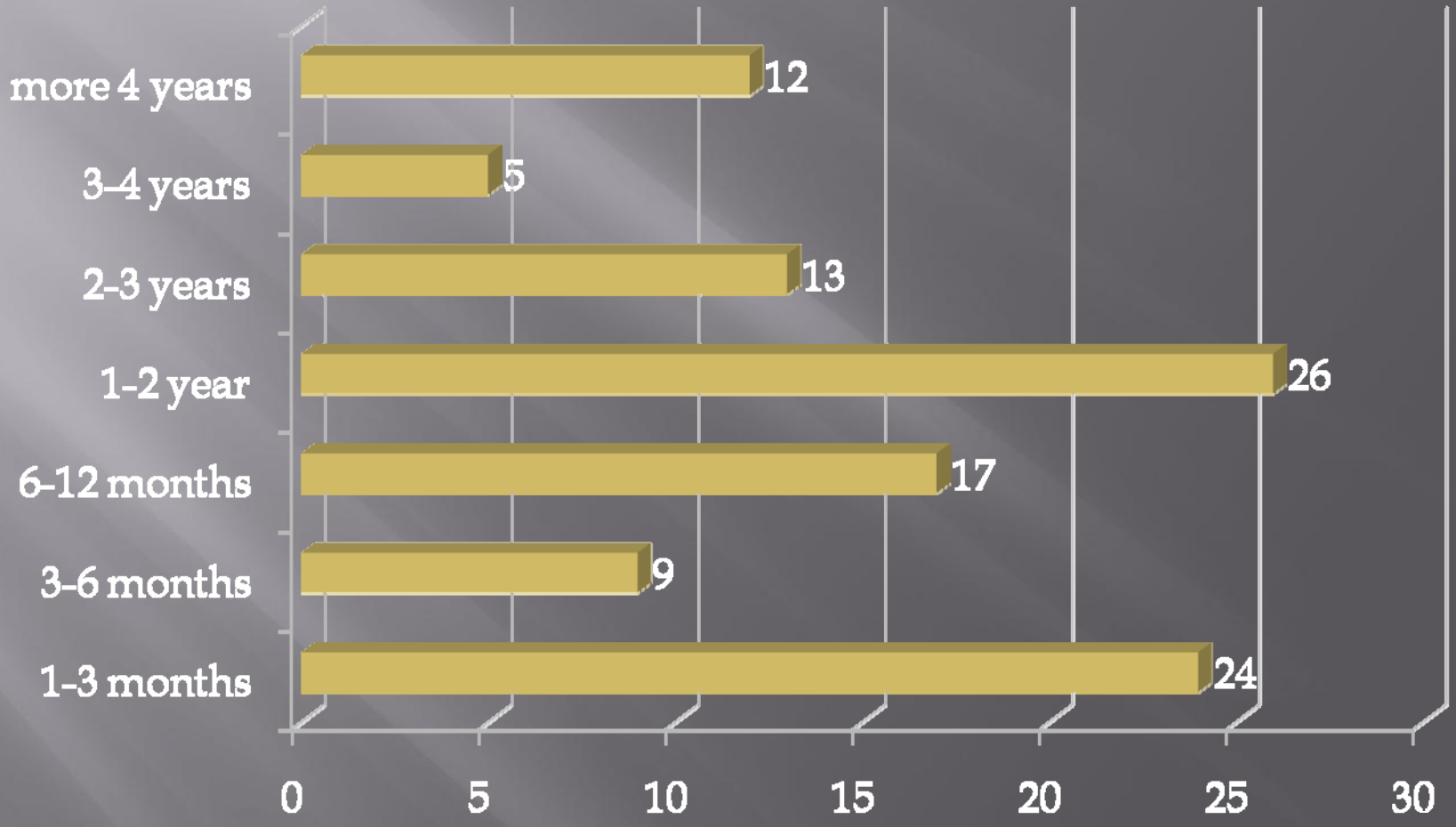


# Number of readmissions




| MEAN Readmission | SD | RANGE |
|---|---|---|
| 2,8 | 1,3 | 2-9 |

# Time to first readmission



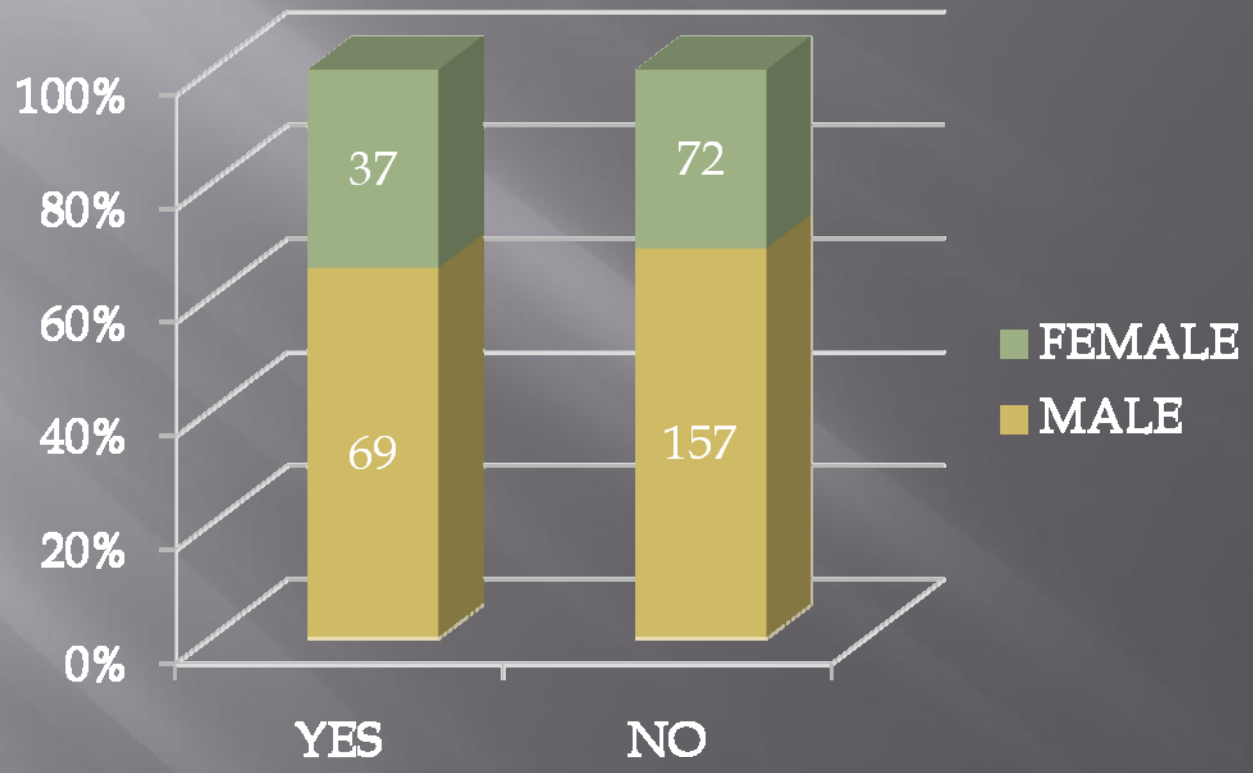
# Mean time between readmissions

| | MEAN MONTHS | SD | RANGE |
|---|---|---|---|
| First- Second Admission | 20 | 21 | 1-102 |
| Second- Third Admission | 15 | 19 | 1-97 |
| Third- Fourth Admission | 12 | 17 | 1-56 |
| Fourth-Fifth Admission | 6 | 3 | 2-11 |

# Age at first admission and readmission

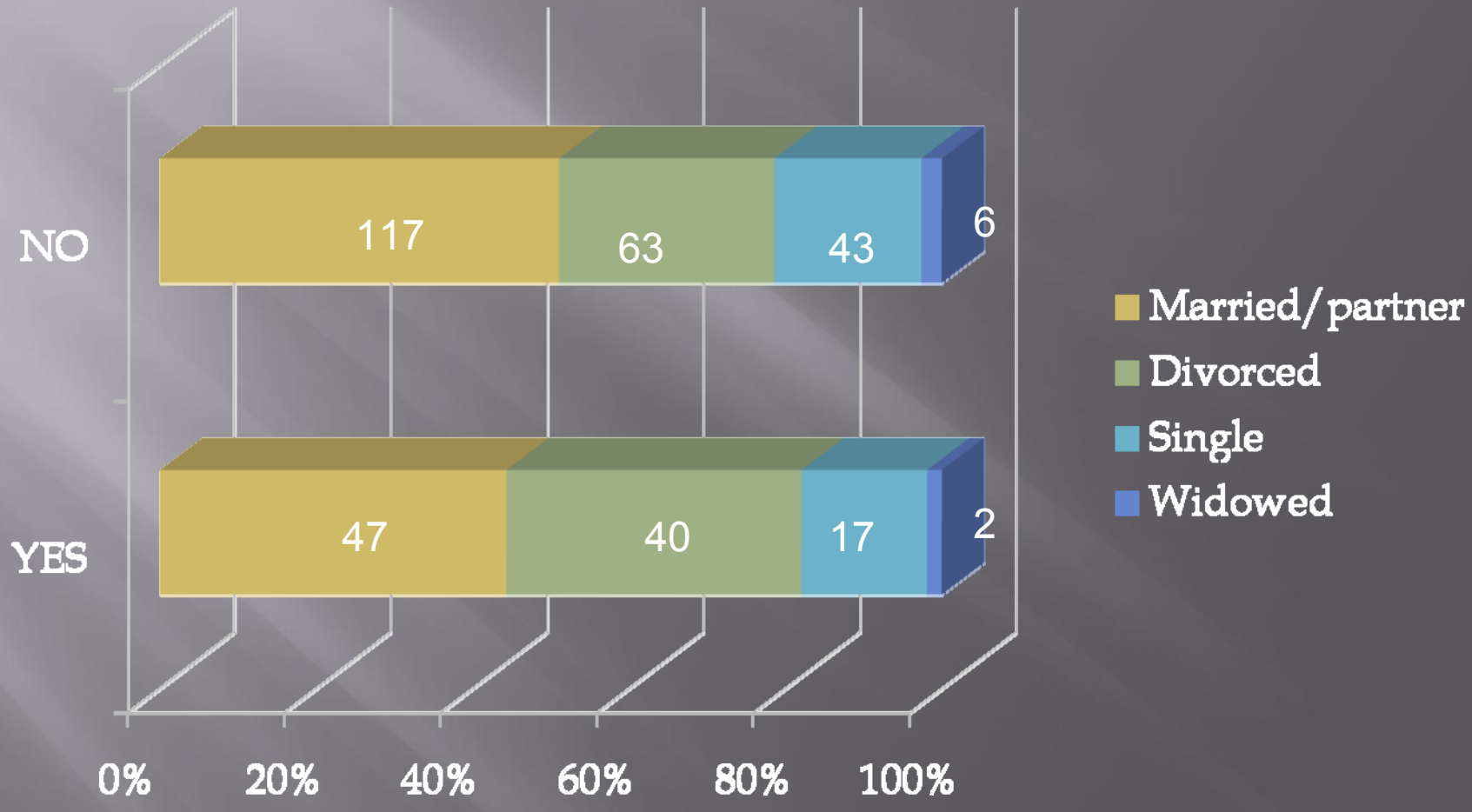
| Readmission | Mean years (SD) | Range | Statistics |
|---|---|---|---|
| NO | 46,6 (7,8) | 29-72 | |
| YES | 46,7 (8) | 31-72 | n.s |

# Gender and readmission



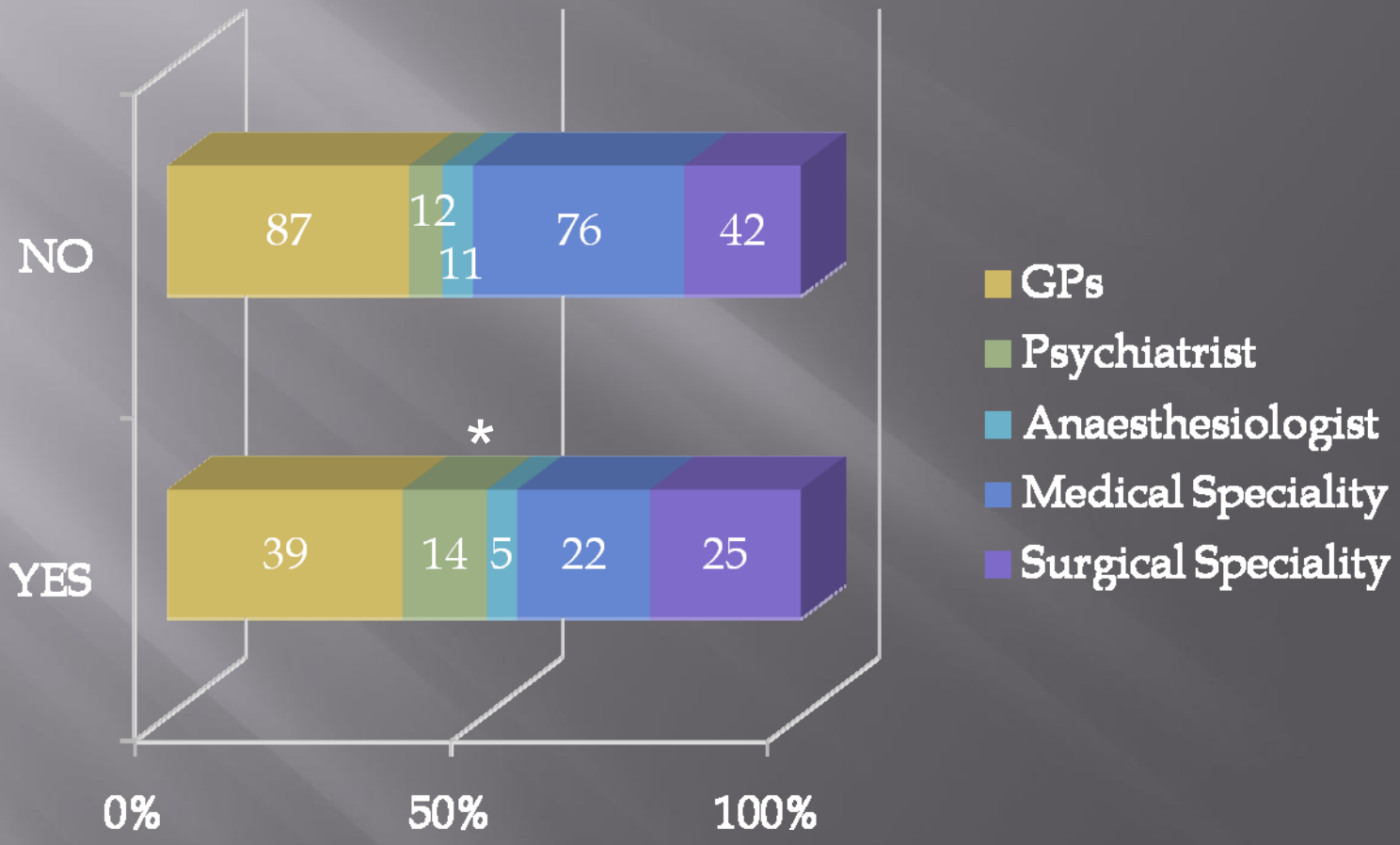

n.s.

# Marital Status and readmission



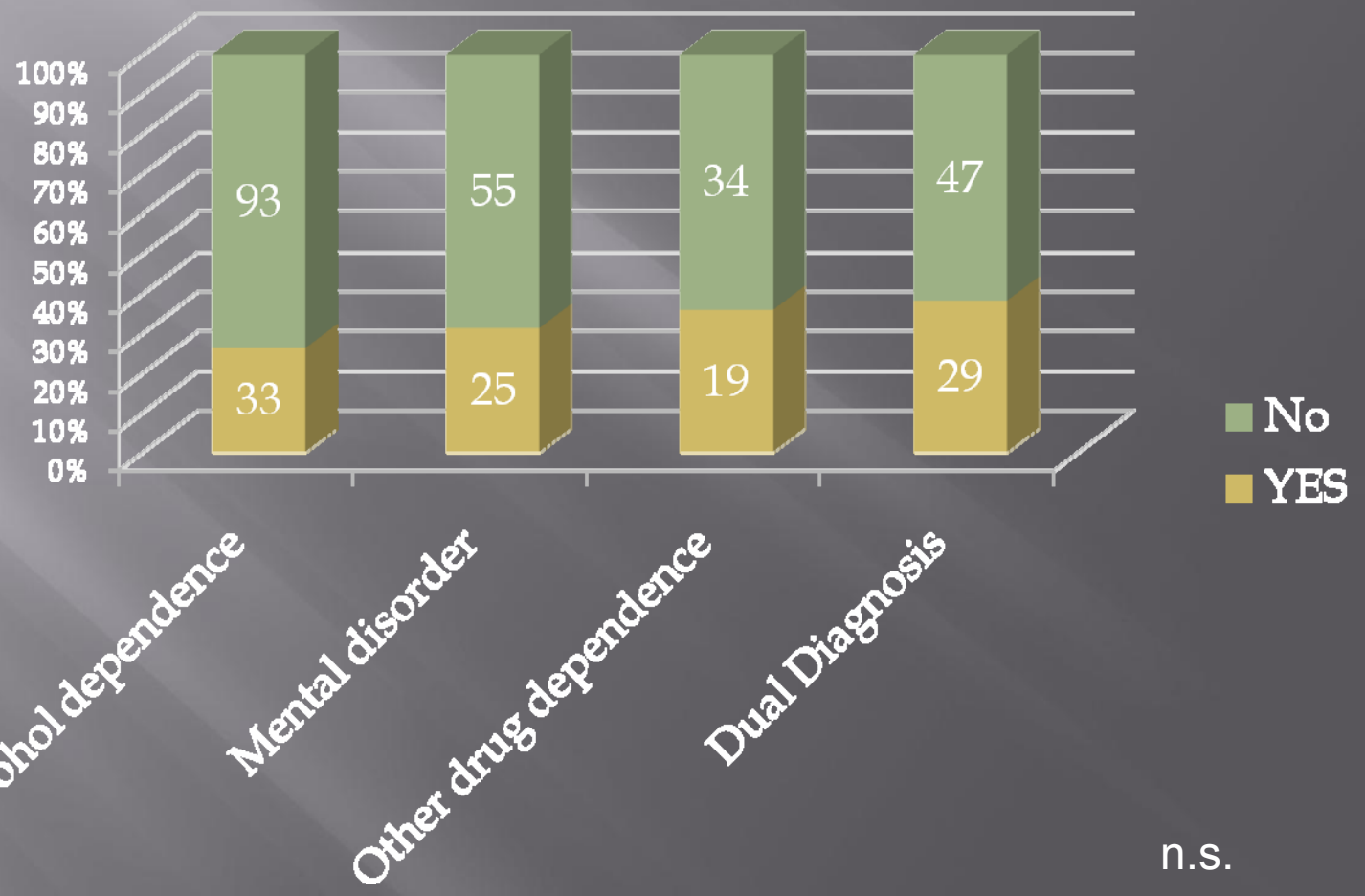

P<0.05

# Speciality and readmission



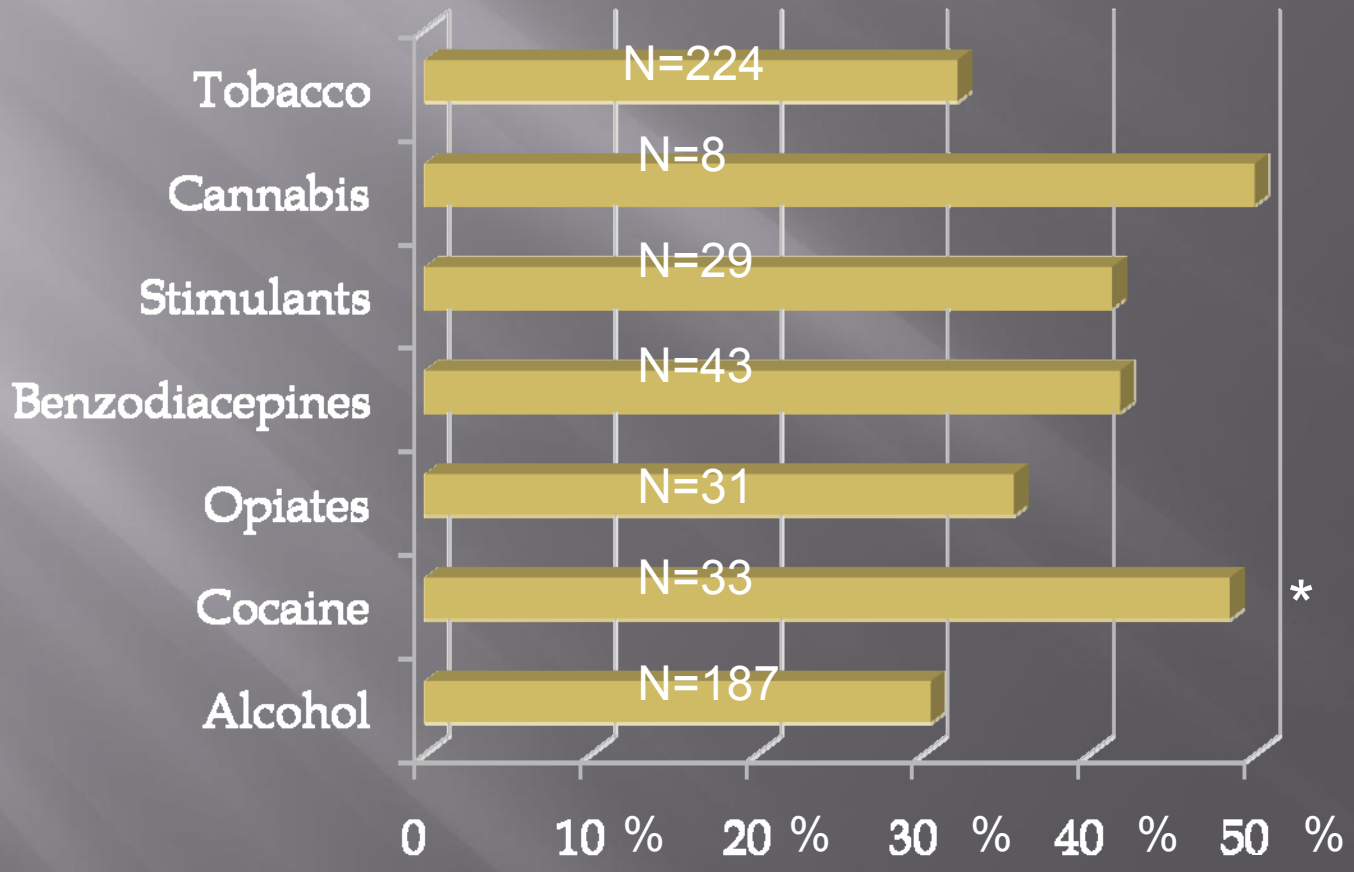

* $\chi^2$ =10.7, df=4, p<0,02

# Readmission by cause of admission



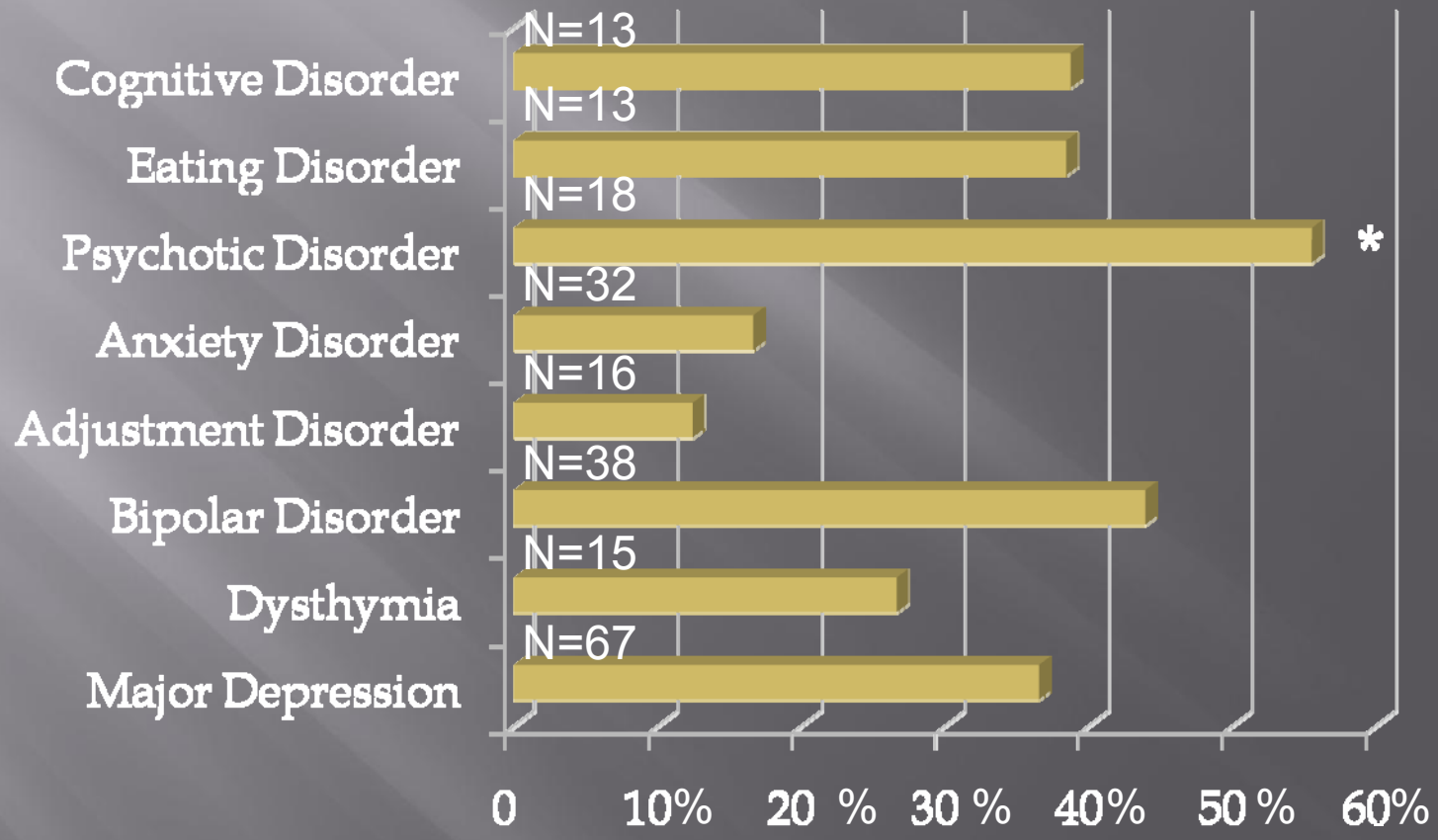

n.s.

# Readmission (%) by DSM-IV-TR Diagnosis of Drug Dependence



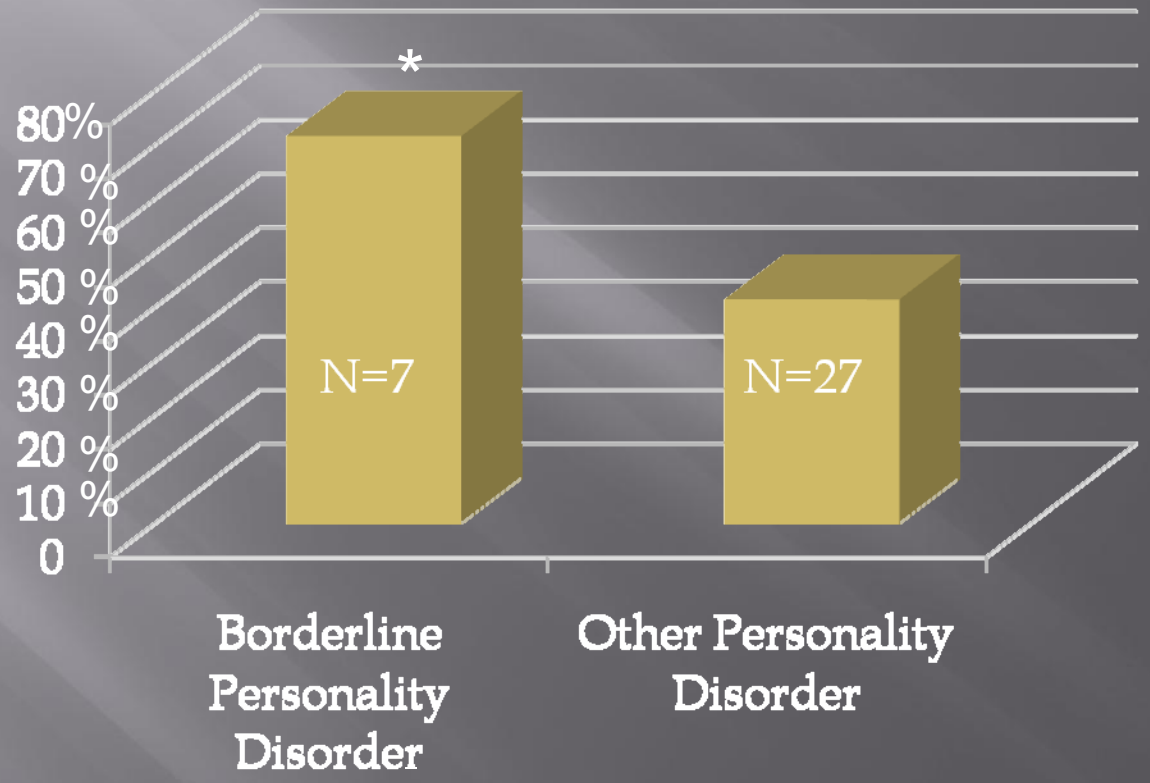

$\chi^2$ =4,8, df=1;p<0.02

# Readmission (%) by DSM-IV-TR Diagnosis Mental Disorders




* $\chi^2 = 5{,}02$; df=1;p<0.02

# Readmission (%) by DSM-IV-TR Diagnosis Axis II Mental Disorders




* $\chi^2$ =5,2; df=1; p<0.03

# Readmission and severity of addictive behaviour

| **SIGNS OF SEVERITY** | *Mean (SD)* | Mean (SD) Readmission | *Statistics* |
|---|---|---|---|
| **Number of drugs misused (nicotine incl.)** | 1,9 (1,1) | 2,2 (1,2) | t= 1,95 df=333 p<0,052 |
| Cigarettes per day | 24,6 (13,3) | 25,3(12,6) | ns |
| Standard drink per day | 15 (8,4) | 14 (8) | ns |
| Smoking onset age | 18,6 (6,5) | 17 (5,5) | ns |
| Drinking onset age | 24 (10) | 25,3 (11,7) | ns |

# Readmission and severity of psychiatric symptoms

| | *Mean (S D) No Readmission* | *Mean (SD) Readmission* | *Statistics* |
|---|---|---|---|
| | | | |
| **BDI at admission** | 14,9 (11,2) | 13,2 (9,4) | n.s |
| **STAI-S at admission** | 54,1 (28,6) | 50,6 (29) | n.s |
| **STAI-T at admission** | 67,9 (28,6) | 62,3 (29,5) | t=-2,7<br>df=240<br>p<0,03 |
| **Length of hospitalization** | 30 (21) days | 31,7 (28) | n.s. |

# Readmission and Suicidal Behaviour

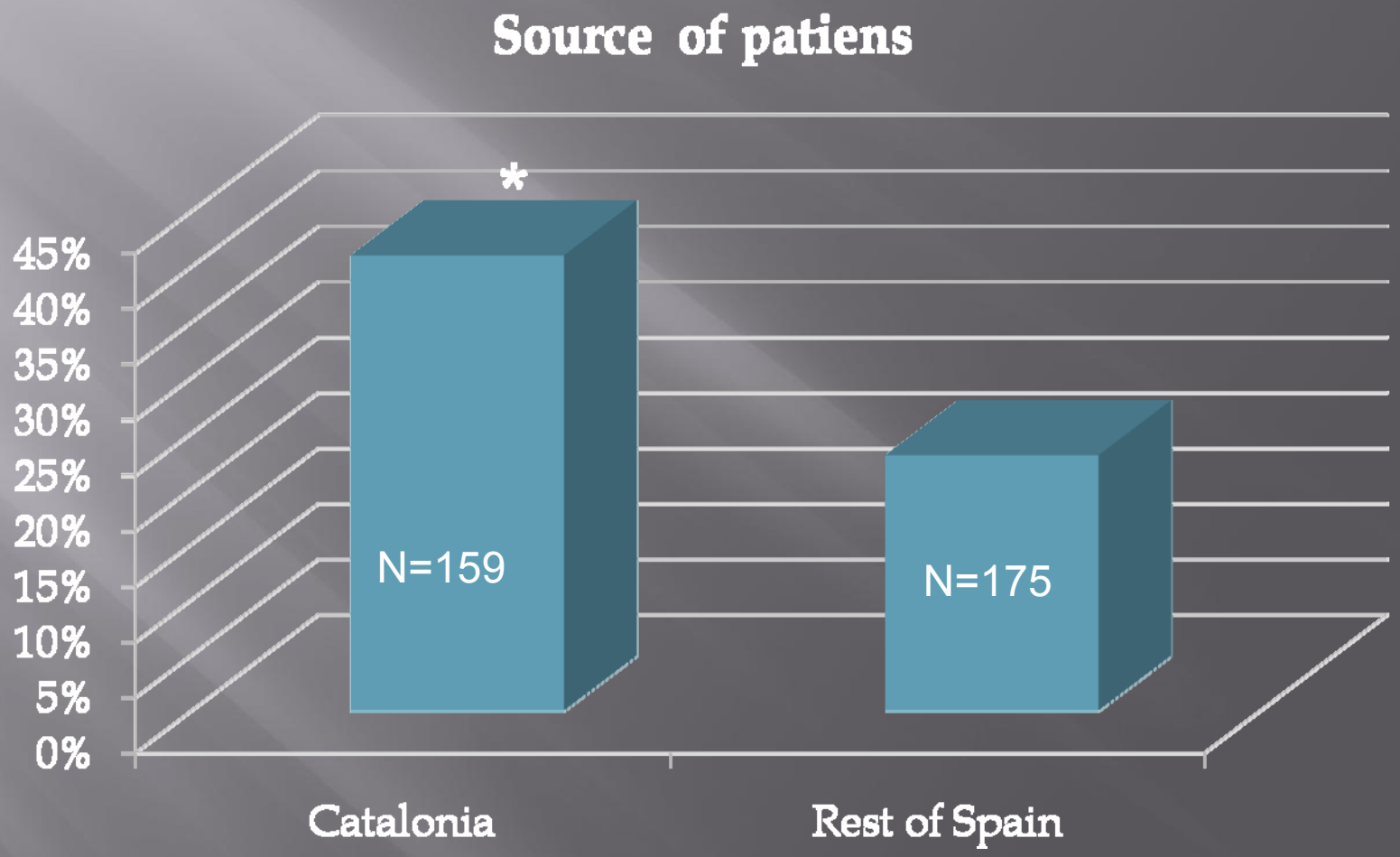
| Current Suicidal Behaviour at admission and Past Suicidal Behaviour | | | |
|---|---|---|---|
| | *n* | *Readmission n (%)* | *Statistics* |
| Current Suicidal thoughts | 21 | 11( 53%) | $\chi^2$ =4.4; df=1; p<0.03 |
| Current Suicidal Attempt | 21 | 12 (57%) | $\chi^2$ =6,6; df=1; p<0.01 |
| Previous Suicidal behaviour | 84 | 35 (42%) | $\chi^2$ =4,9; df=1; p<0.01 |

# Self prescription and Readmission

# Readmission was not associated with:

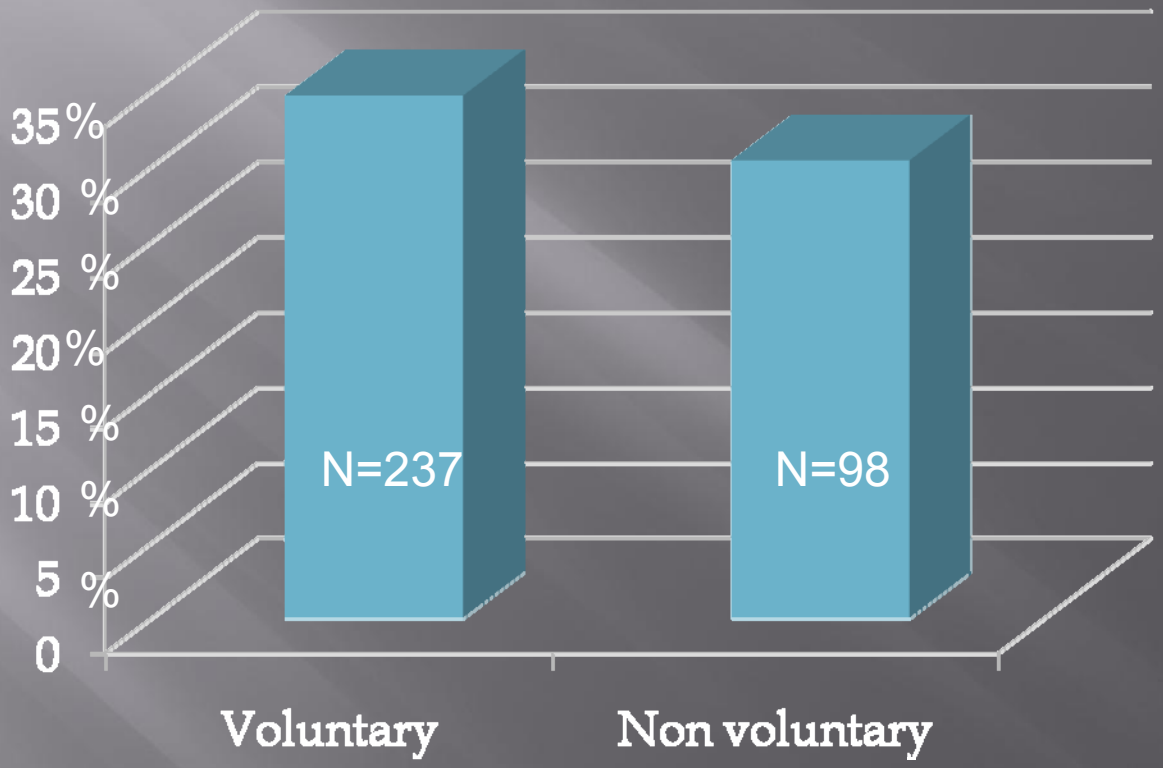
- MCMI-II personality scales
- Age onset mental disorder
- Delay in seeking treatment
- Prior Treatments
- Psychiatric Family Antecedents
- SUD Family Antecedents

# Readmission and source of patients



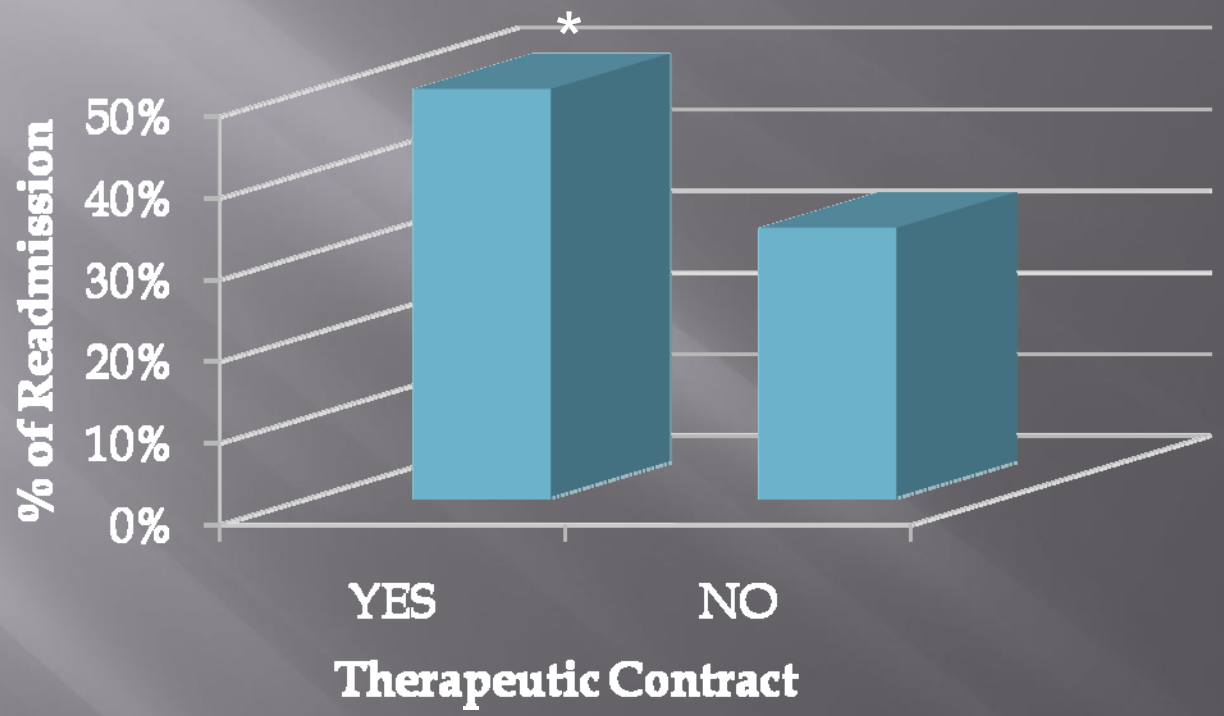

*$\chi^2$ =12,5; df=1;p<0,0001

# Readmission by mode of access to the program



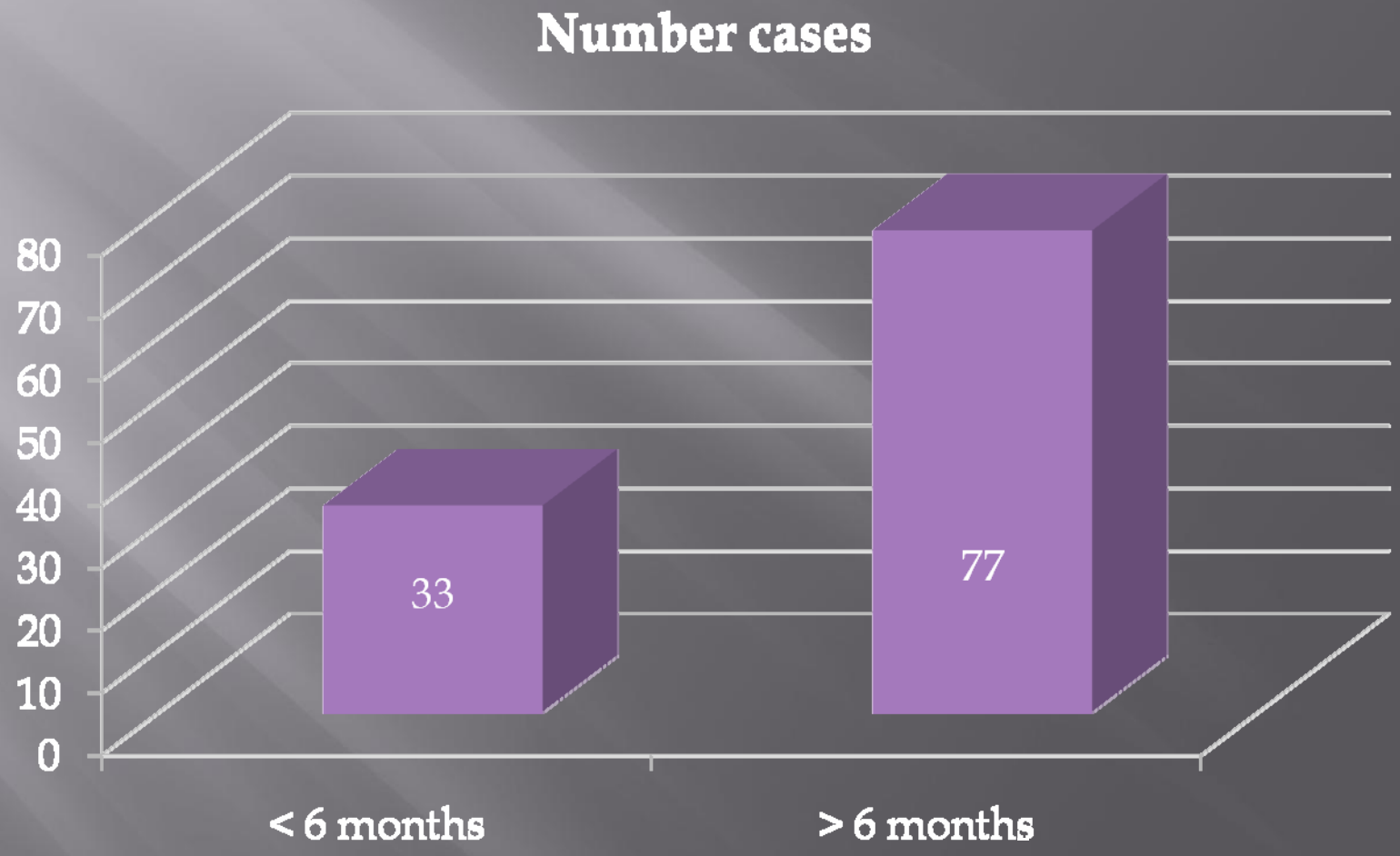

n.s.

# Readmission and Therapeutic Contract

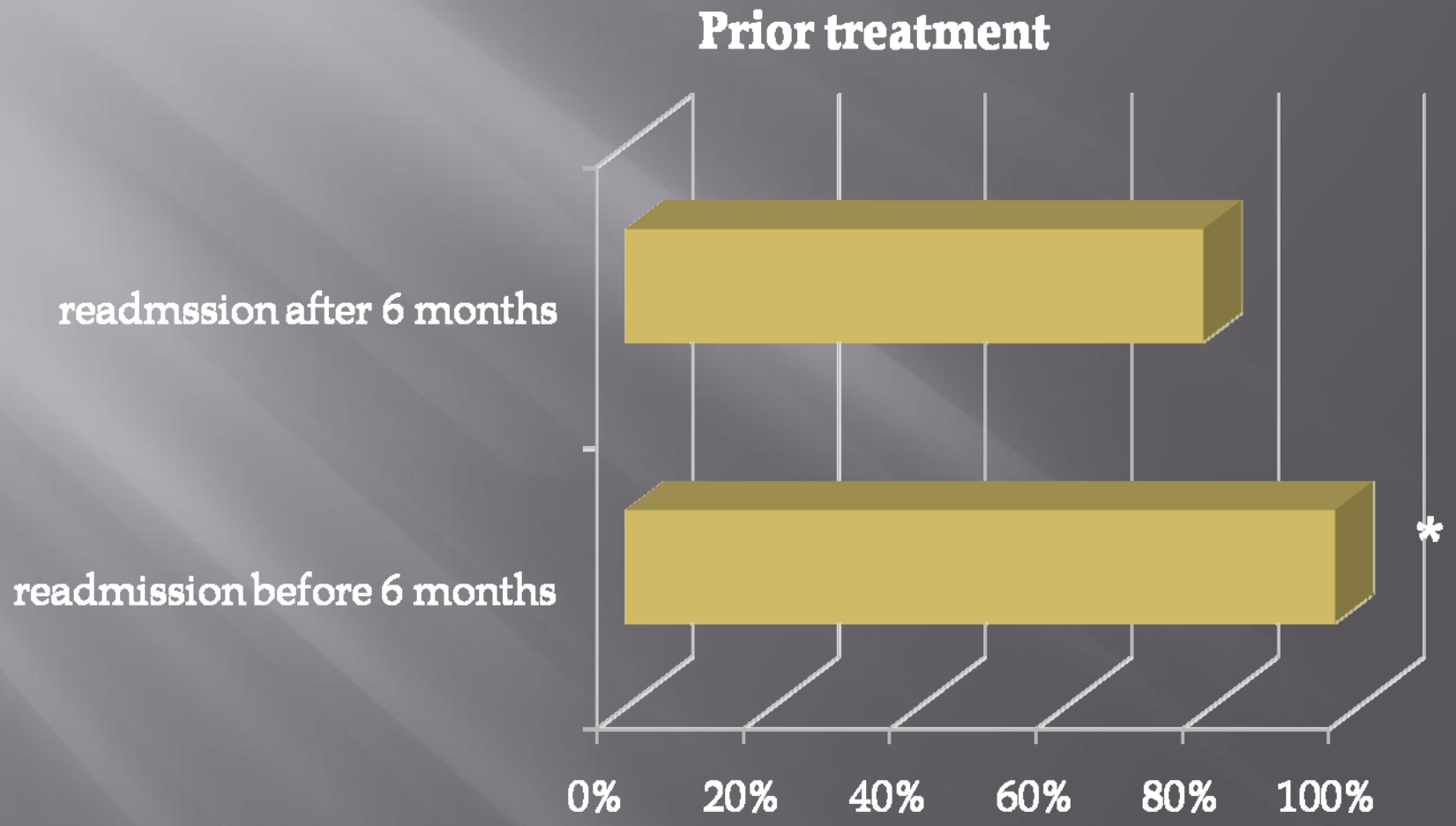



* $\chi^2 = 5{,}1$; df=1;p<0,01

# Early readmission

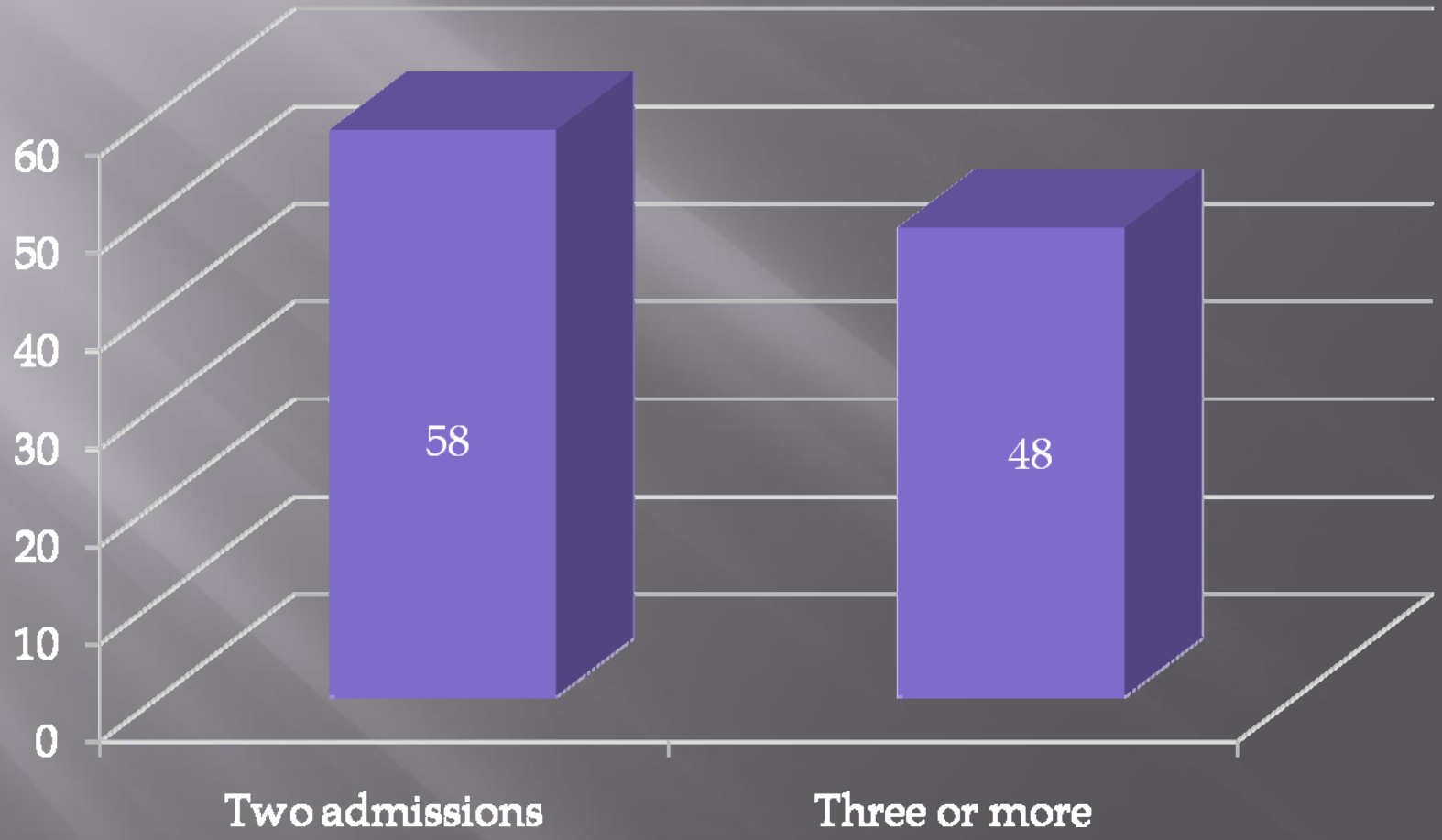


# Early readmission and treatment prior to access to PAIMM

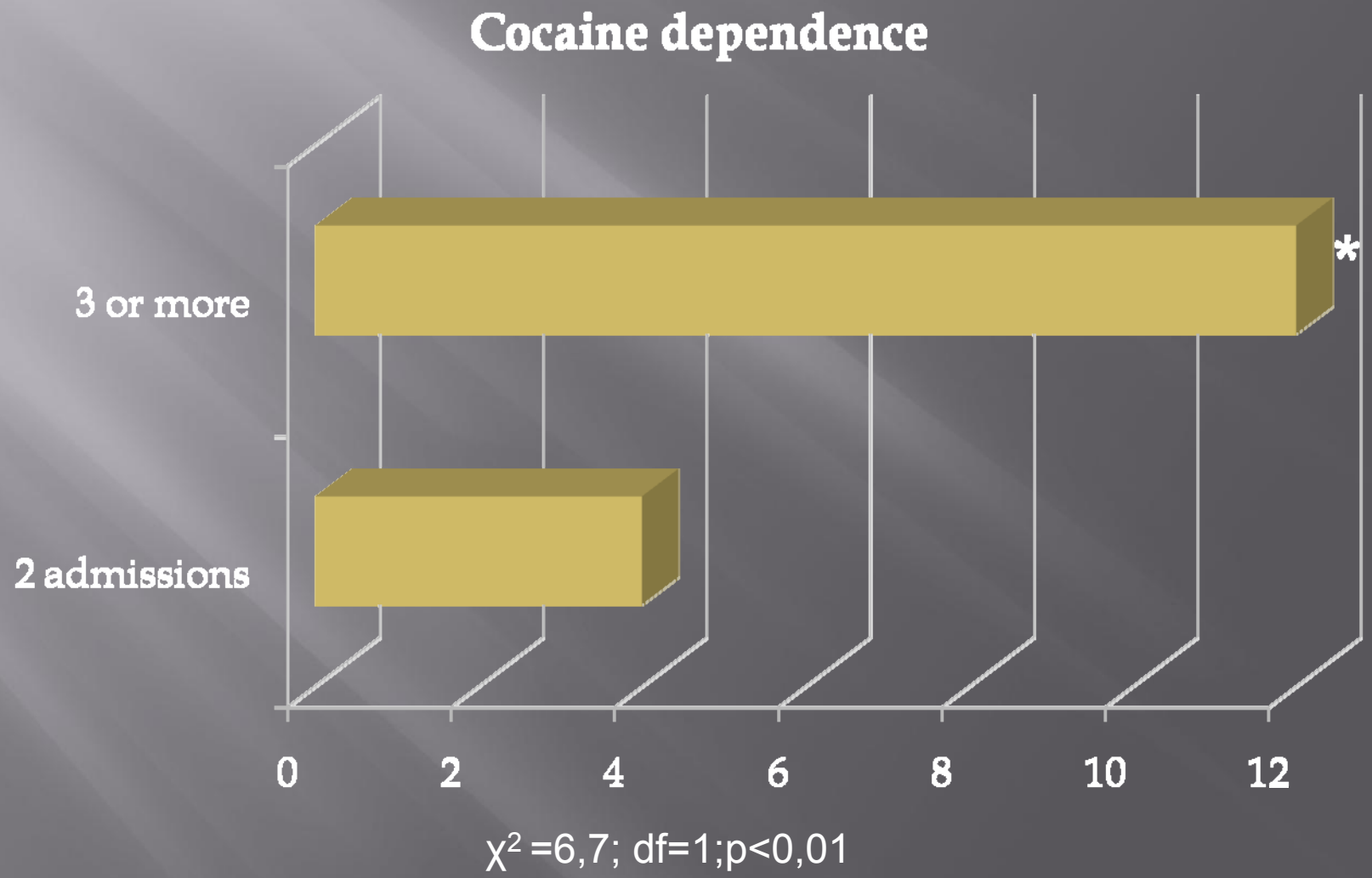



* $\chi^2$ =5,4; df=1;p<0,01

# Frequent Treatment admissions



# Frequent treatment readmissions and cocaine dependence




$\chi^2$ =6,7; df=1;p<0,01

# Summary (1)

- A third of patients need to be readmitted during follow-up.
- Half of patients will be readmitted more than once
- One in four readmissions occurs during the first three months and the rate reaches 70% at second year.
- No differences were found concerning age, gender, severity of illness, length of admission, and mode of access to the Program
- Doctors who self-prescribe showed a non significant tendency ($p<0,059$) to be readmitted

# Summary (2)

- Readmission was associated with:
  - Being separated or divorced
  - Being Psychiatrist
  - Working in Catalonia
  - Cocaine Dependence
  - Psychotic Disorder
  - Borderline Personality Disorder
  - Suicidal Behaviour
  - Therapeutic contract
- Characteristics associated with earlier readmission were:
  - History of  prior treatments

# Take home message

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