

# Does impulsivity influence criminal behavior? A study with subjects in treatment for substance use disorder

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## INTRODUCTION

Impulsivity is a well studied psychological construct that presents difficulties and lack of consensus by the scientific population when it comes to defining it, and there are many different definitions of it (Riaño-Hernández et al., 2015). Throughout history, impulsivity is related with adverse outcomes such as substance use disorder (SUD) (Pérez-Fuentes et al., 2015) and criminal behavior (Soler y López, 2003). However, the factors underlying this relationship are not clearly understood and impulsivity has rarely been examined among incarcerated adults. The fact that the SUD is very frequent in prison inmates makes it difficult to know whether impulsivity is directly related to the probability of entering the prison or instead it is frequent in this population because it is associated with the use of drugs.

## OBJETIVES

Are there differences in the different modalities of impulsivity between both groups of patients with SUD in treatment?

## METHOD

### Participants

57 males with SUD who received a treatment. Of these, 27 entered for the first time in the Therapeutic and Educational Unit (UTE) located in the Penitentiary Center of Huelva. The rest of the sample consisted of 30 participants belonging to the therapeutic communities of the province of Huelva.

### Procedure

The administration was carried out in a room inside the Huelva Penitentiary Center and both tests were administrating during a single session. The data from the group belonging to the therapeutic communities were obtained from a "longitudinal study of the effect of treatment on the recovery of executive functions in cases of cocaine and alcohol dependence: implications for therapeutic outcomes" performed by A group of trained psychologists.

### Data Analysis

The statistical program IBM SPSS 25 has been used to carry out the data analysis of this study.

The mean and standard deviation were used to develop the sample description. For the study of the variables the Student t was used with its effect size (Cohen d) taking into account the values 0.8 large, 0.5 medium and 0.2 low.

## Matherials

In which group will impulsivity be greater? In the inmates or in the users of the therapeutic communities? To carry out a study, each participant completed a self-report measure of impulsivity, the Spanish version of the Impulsive Behavior Scale (UPPS-P) and a task of behavioral impulsivity, the Delayed Discount Task (DDT).

-- UPPS-P: Measures five aspects of personality related to impulsive behavior: lack of premeditation, perseverance, negative urgency, positive urgency and sensations seeking (Verdejo-García, Lozano, Moya, Álcazar and Pérez-García, 2010).

- DDT. This test measures the relative value of immediate rewards over the delayed ones, using a process of monetary value adjustment to measure the discount of economic reinforcers (Reynolds, Ortengren, Richards and de Wit, 2006).

## RESULTS

The results of the present research show significant differences in all levels of impulsivity which are greater in the group of internal subjects than in those belonging to therapeutic communities.

## DISCUSSION

Impulsivity is considered an important variable when defining criminal behavior (Gray, 1972 cited in Sobral, et al., 2000, p.662) and its transcendence is indisputable because of the scientific support that exists on the relationship between impulsivity, antisocial behavior and crime (Sobral et al., 2000).

Our data show a relationship between impulsivity and criminal behavior in drug users. The greater impulsiveness in the group of inmates suggests that impulsive men with SUD are more likely to enter the prison.

Therefore the clinical implications indicate the need to teach impulsivity control and self-control techniques to people with SUD both outside and inside the prison.



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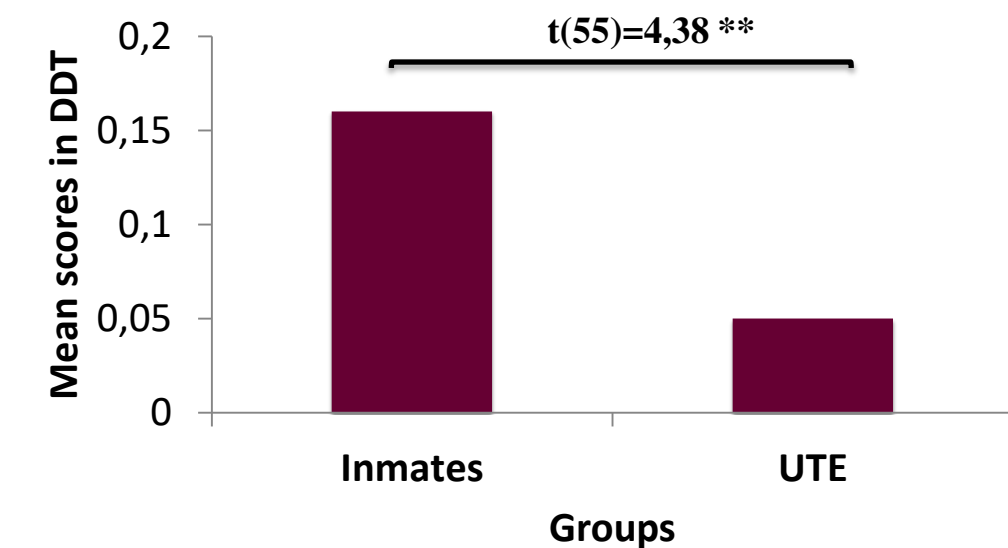


Figure 1. Mean scores in DDT for both groups

Table 1. Student t for the comparison between the two groups

|     | Inmates<br>N=27 | UTE<br>N=30   | t      | P-value | d Cohen |
|-----|-----------------|---------------|--------|---------|---------|
| LPr | 37.04±6.53      | 25.10 ± 7.46  | -6.40  | .000    | 1.70    |
| Lpe | 34.04 ± 5.91    | 39.20 ± 7.59  | 2.84   | .006    | 0.76    |
| PU  | 48.63 ± 8.07    | 37.31 ± 11.10 | -4.34  | .000    | 1.17    |
| UN  | 41.56 ± 7.19    | 20.43 ± 5.72  | -12.33 | .000    | 3.25    |
| SS  | 42.63 ± 5.83    | 36.17 ± 9.11  | -3.15  | .003    | 0.84    |
| DDT | 0.16 ± 0.10     | 0.54 ± 0.08   | -4,38  | ,000    | 1,21    |

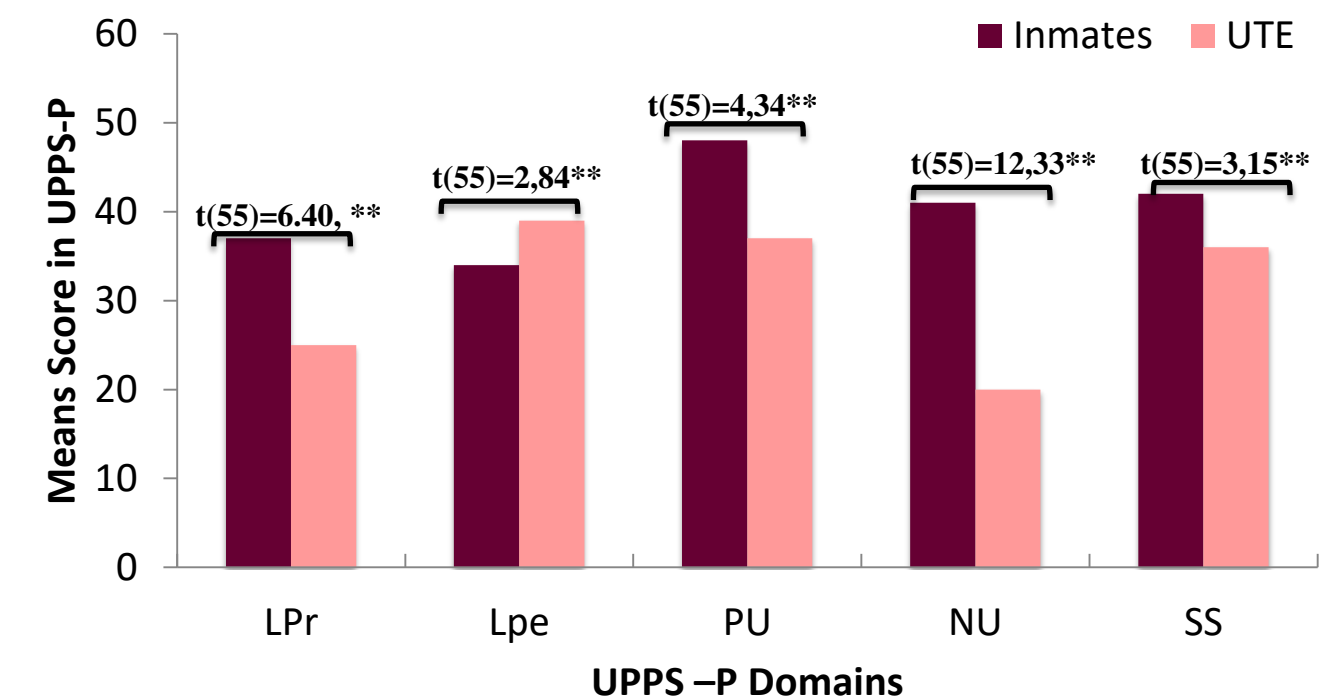


Figure 2. Mean scores in UPPS-P for both groups