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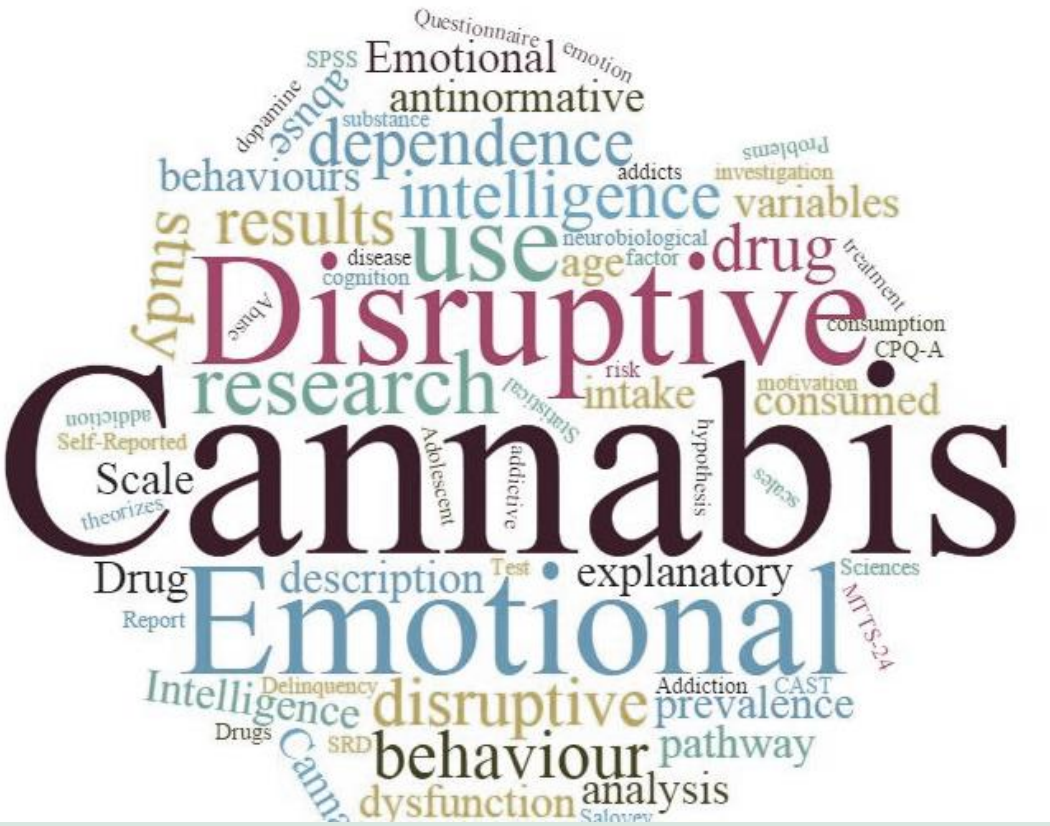

STUDY OF EMOTIONAL INTELLIGENCE AS A RISK FACTOR FOR CANNABIS USE AND DISRUPTIVE BEHAVIOUR

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Summary: Introduction I.- Theoretical framework. a) Object of study. i. Cannabis use. ii. Emotional Intelligence. iii. Antinormative conduct in normative youth. b) State of art and literature revision. II.- Analysis design. a) Objectives. b) Research hypotheses. III.- Methodology. a) Sample and procedure b) Analysed data. i. Sociodemographic variables. ii. Trait Meta-Mood Scale – TMMS-24 (Salovey et al., 1995), Spanish version by Fernández-Berrocal, Extremera and Ramos (2004). iii. Self-reported Delinquency Scale – SRD. iv. Adolescent Cannabis Problems Questionnaire – CPQ-A (Copeland, Gilmour, Gates and Swift, 2005), Spanish version by Fernandez-Artamendi et al. (2012). v. Cannabis Abuse Screening Test – CAST (Legleye, Karila, Beck and Reynaud, 2007), Spanish version by Cuenca-Royo et al. (2012). IV.- Results. Conclusions and discussion. Bibliography.

Abbreviations:

CAST	Cannabis Abuse Screening Test
CPQ	Cannabis Problems Questionnaire
EI	Emotional Intelligence
MDP	Mesolimbic-dopaminergic pathway
SRD	Self-reported delinquency scale
THC	Δ^9-tetrahydrocannabinol
TMMS	Trait Meta-Mood Scale

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Abstract:

According to the 2015 European Drug Report (European Monitoring Centre for Drugs and Drug Addiction, 2015), cannabis is the most consumed drug of abuse among all age groups. According to this, and in order to find new explanatory ways to cannabis abuse and dependence, the aim of the present research is to examine the connection between cannabis use, emotional intelligence and disruptive behaviour in order to assess if emotional intelligence correlates with cannabis use and disruptive behaviour.

In order to answer this question, a survey including the Trait Meta-Mood Scale – MTTS-24 (Salovey et al., 1995), the Adolescent Cannabis Problems Questionnaire – CPQ-A (Copeland, Gilmour, Gates and Swift, 2005), the Cannabis Abuse Screening Test – CAST (Legleye, Karila, Beck and Reynaud, 2007) and the Self-Reported Delinquency Scale – SRD (Luengo et al., 1999) has been done.

The principal results give light to a trend of negative relationship between Emotional Intelligence and drug use for all Emotional Intelligence scales but for the emotional reparation one, where the relationship turns to be positive. Regarding to the relationship between drug use and antinormative behaviour, the present study confirms that there exists a positive correlation between antinormative conduct and cannabis use, but only in those who have a dependence relationship with cannabis, while it has no explanatory weight when we refer to consumption to without dependence. The most explanatory variable in this case turns to be the age of onset of cannabis intake.

Key words: Emotional Intelligence, cannabis intake, dependence, antinormative behavior

Resumen:

Según el Informe de Drogas Europea 2015 (Observatorio Europeo de las Drogas y las Toxicomanías, 2015), el cannabis es la droga ilegal más consumida entre todos los grupos de edad. De acuerdo con esto, y con el fin de encontrar explicaciones para el abuso y la dependencia del cannabis, el objetivo de la presente investigación es examinar la relación entre el consumo de cannabis, la Inteligencia Emocional y el comportamiento antinormativo con el fin de evaluar si la Inteligencia Emocional se correlaciona con éstos.

Con el fin de responder a esta pregunta, se ha llevado a cabo una encuesta que incluye el Trait Meta-Mood Scale – MTTS-24 (Salovey et al., 1995), el Adolescent Cannabis Problems Questionnaire – CPQ-A (Copeland, Gilmour, Gates and Swift, 2005), el Cannabis Abuse Screening Test – CAST (Legleye, Karila, Beck and Reynaud, 2007) y el Self-Reported Delinquency Scale – SRD (Luengo et al., 1999).

Los principales resultados dan luz a una tendencia negativa entre la inteligencia emocional y el uso de drogas para todas las escalas de inteligencia emocional excepto para la reparación emocional, donde la relación resulta positiva. En lo que respecta a la relación entre el consumo de drogas y el comportamiento antinormativo, el presente estudio confirma que existe una correlación positiva entre la esta conducta y el consumo de cannabis, pero sólo en aquellos que tienen una relación de dependencia con el cannabis, si bien no tiene peso explicativo cuando nos referimos a el consumo sin dependencia. La variable más explicativa en este caso resulta ser la edad de inicio en el consumo de cannabis.

Palabras clave: Inteligencia emocional, consumo de cannabis, dependencia, conducta antinormativa.

Introduction

According to the 2015 European Drug Report (European Monitoring Centre for Drugs and Drug Addiction, 2015), cannabis is the most consumed drug of abuse among all age groups. It is estimated that during 2015 around 14,6 million people aged 15 to 34 years old consumed cannabis in Spain, with a prevalence tax of 17%. Consequently, Spain is the fourth European country in cannabis intake. Even with those prevalence taxes, the number of addicts who asks for a treatment continues being low (Copeland, Gilmour, Gates and Swift, 2005).

The work presented ahead works on the basis that addiction, in this case to cannabis, is a disease with neurobiological basis associated with a deficit on the mesolimbic-dopaminergic pathway (form now, MDP), also called the medial forebrain bundle (Casas, 2000), since it is this system that regulates the supply of dopamine and, therefore, all addictive behaviours (Corominas, Roncero, Bruguera, and Casas, 2007). This pathway is set up by areas which are also related to processes of cognition, motivation and emotion.

Thus, this research theorizes that a dysfunction in the MDP may be a risk factor on substance abuse and/or dependence, in this case of cannabis. This dysfunction could also affect the emotional system, which can be measured from the concept of emotional intelligence, correlating both of them with disruptive behaviours. Hence, the main objective of this work is to examine the connection between cannabis use, emotional intelligence and disruptive behaviour. With this idea in mind, this investigation bases its study on the following research question: does emotional intelligence correlates with cannabis use and disruptive behaviour?

In order to answer this question, a survey including the Trait Meta-Mood Scale – MTTS-24 (Salovey et al., 1995), the Adolescent Cannabis Problems Questionnaire – CPQ-A (Copeland, Gilmour, Gates and Swift, 2005), the Cannabis Abuse Screening Test – CAST (Legleye, Karila, Beck and Reynaud, 2007) and the Self-Reported Delinquency Scale – SRD (Luengo et al., 1999) has been done, and the results have been analysed using the Statistical Package for the Social Sciences (SPSS) for Windows provided by the Autonomous University of Barcelona.

Regarding the structure of the research, first of all it has been made a description of the object of study and the accounted variables. After it a literature revision on the state of art about the correlation between the three variables has been assessed. Afterwards, there is a description of the analysis design, the objectives and research hypothesis of the work, and of the methodology and sample used, and the analysed data. Finally, there can be found the results, conclusions and discussion of the analysis.

I.- Theoretical framework

a) Object of study

Cannabis use

First of all, and starting from the idea that cannabis is a drug of abuse, it has to be defined the concept of "drug of abuse", definition that although seeming easy and of general knowledge, has motivated several debates in scientific literature.

According to the World Health Organisation (1994), the term *drug* "*refers to any substance with the potential to prevent or cure disease on enhance physical or mental welfare and (...) to any chemical agent that alters the biochemical or physiological process of tissues or organisms. In common usage, the term often refers specifically to psychoactive drugs, and often, more specifically, to illicit drugs."*

In addition, the WHO (1994) describes *illicit drugs* as *"psychoactive substance[s], the production, sale or use of which is prohibited. Strictly speaking, it is not the drug that is illicit, but its production, sale, or use in particular circumstances in a given jurisdiction."*

Focussing the object of study on cannabis, which is, as seen, the most consumed illegal drug among all age groups (European Monitoring Centre for Drugs and Drug Addiction, 2015), there are several forms of consumption of cannabinoids, such as smoked or eaten. Those various forms of consumption become from the fact that Δ^9-tetrahydrocannabinol (from now, THC), the main active component of marijuana plant, is soluble in fat and alcohol so it can be added to various food and alcoholic drinks, although in this case its absorption gets slower.

Regarding cannabis' mechanism of action, despite being a foreign substance, human body has its own cannabinoid receptors. This is provided that it produces two endocannabinoids, namely anandamide and 2-araquidonilglicerol (Sagredo, 2011). Thus, CB-1 receptor can be mainly found in the basal ganglia, cerebellum, prefrontal cortex, cerebral amygdala, thalamus and hypothalamus, and parts of the hippocampus, which are related to emotions, learning and memory, along with other peripheral systems, while CB-2 receptor is not found in the brain system, but

in the spleen and immune system cells. This explains why it is a drug with a very small lethal index: there a small number of receivers in the basic survival areas (Pertwee, 2006).

Regarding to its short-term effects, the most common are dizziness, visual illusions, altered time sense and impaired visual and auditory perception, along with cognitive effects, such as effects on sociability, psychopathological reactions such as anxiety, panic attacks, hypervigilance and other and paranoid reactions, and, in high doses, delirium and psychosis. There can also be found effects on psychomotor performance and other acute physiological effects such as a decrease on blood pressure and on muscle strength, eye redness, analgesic action, dry mouth or increased hunger. However, when supervising the effects of cannabinoids, there must be taken into account aspects such as the dosage, the route of administration, the environment and environmental context, the initial mental state of the individual, the expectations when taking the drug or the poly-drug (Sagredo, 2011).

Regarding to the effects of long-term exposure, they have not been carefully studied given that since it is a fat-soluble drug, its route of elimination is very slow and it is detectable up to 20 days after its intake (Lorenzo, Ladero, Leza, and Lizasoain, 2008), which makes difficult to measure dependence and abstinence.

Even that, the Diagnostic and Statistical Manual of Mental Disorders (DSM-V) (American Psychiatric Association, 2013) describes substance dependence as *"a maladaptive pattern of substance use, leading to clinically significant impairment or distress, as manifested by (…) tolerance (…), withdrawal (…), a persistent desire or unsuccessful efforts to cut down or control substance use, (…) a great deal of time is spent on activities necessary to obtain the substance (…) [and] important social, occupational, or recreational activities are given up or reduced because of substance use."*

Thus, memory, attentional and motor coordination problems are observed (Verdejo-García, 2011). It has been also seen that regular use of cannabis can also effect on cognitive functioning, with consequences such as deterioration in the abilities to make decisions, solve problems and pay attention, among others (Crean, Crane and Mason, 2011). Another aspect related to long-term cannabis use and abuse is its

association with schizophrenia which, although the casual relationship it is not clear yet, it has been related that cannabis increase the risk of psychotic syndromes in those with high vulnerabilities to suffer functional psychosis individuals (Andreasson et al., 1987; Millman and Beeder, 1997; Nunez-Dominguez and Gurpegi-Fernandez, 1997).

Marijuana is also a drug with known therapeutic effects. For instance, it has proved effectiveness in the treatment of nausea and vomiting in chemotherapy given its antiemetic attributes. It also can be used as an analgesic, appetite stimulant for AIDS, bronchodilator or anticonvulsive, among others.

In terms of prevention, the study of cannabinoids becomes highly important given the so called "gateway theory". According to it, cannabinoids have special characteristics since, despite being illegal, they are socially accepted, reason why it acts as a gateway for more "hard" drugs in young people, being the most common way tobacco → alcohol → marijuana → other drugs (Adler and Kandel, 1981; Ellickson, Hays and Bell, 1992; Kandel, Yamaguchi and Chen, 1992; Fergusson and Horwood, 2000). Thus, marijuana would be a risk factor to the use of other drugs.

According to the explained above, cannabis use, abuse and dependence is quantified in terms of results of the Cannabis Abuse Screening Test (from now, CAST) (Cuenca-Royo et al., 2012) for use, and the Cannabis Problems Questionnaire's (from now, CPQ) (Fernandez-Artamendi et al., 2012) scales of abuse and dependence for abuse and dependence respectively.

Emotional Intelligence

Mayer and Salovey (1997, cited in Garrido and Talavera, 2008) defined Emotional Intelligence (from now, EI) as *"the ability to perceive accurately, appraise, and express emotion; the ability to access and/or generate feelings when they facilitate thought; the ability to understand emotions and emotional knowledge; and the ability to regulate emotions to promote emotional and intellectual growth."*

Occidental culture has classically associated the concept of intelligence to the cognitive competences. However, nowadays this concept is in a change process and there are several disconformities on its meaning. In this line, some authors associates intelligence with creative abilities, founding others who understand intelligence as motivational traits of personality and going through social or affectional skills, academic competences, etcetera (Núñez, Figueroa and Sánchez, 2004). Nowadays, scientific evidence shows that intelligence is not an isolated characteristic, but a multidimensional trait (Sternberg, 1996) in which it can be identified dimensions such as Practical Intelligence (Sternberg and Spear, 2000), or EI (Goleman, 1995, 1998).

The first scientific concept of EI was made in 1990 by Salovey and Mayer, which also established and developed the first scale to measure it. After this definition, the notion of EI has generated a large amount of scientific literature all over the globe, which has proved that EI is a significant predictor for personal and social abilities (Schutte, et al., 2001; Palmer, Donaldson and Stough, 2002; Salovey, Stroud, Woolery, and Epel, 2002, cited in Garrido and Talavera, 2008)

Currently, the debate is in which theoretical approach has to be taken as a basis for the study of this construct. According to Garrido and Talavera (2008), it can distinguish between approaches focused in basic emotional abilities, as the one proposed for Mayer and Salovey, and those focused on personality traits, as the one established by Goleman and Bar-On (Fernández-Berrocal and Extremera, 2005; Mestre and Guil, 2003; Mestre, Palmero and Guil, 2004). In this line, some authors, as Pérez-González, Petrides and Furnham (2007) arise that *"the operationalization of the EI as a cognitive skill leads to a different construct from the one derived after its operationalization as a personality trait."* [2]

That is, actual scientific debate is dealing with two models that propose different and/or complementary constructs (Extremera, 2003, cited in Garrido and Talavera, 2008: 405-406).

[2] All translations of original texts in Spanish or Catalan have been made by the author.

Nowadays, and even all the scientific approaches drown up around the concept, the most empirically and theoretically accepted among the experts (Mayer, Caruso and Salovey, 1999; Mayer, Salovey and Caruso, 2000, cited in Martín, Berrocal, and Brackett, 2008), and the theoretical perspective which will be taken as a basis of the present paper, is still the perspective of Mayer and Salovey (1997, cited in Garrido and Talavera, 2008).

Therefore, this Four-Branch Model of EI (Mayer and Salovey, 1997) understands Emotional Intelligence as a personality trait which, even and operating across both the cognitive and the emotional systems, is not merely a cognitive skill (Taksic and Mohoric, 2006). This means that emotionally intelligent individuals will not only perceive, understand and employ their emotions in a suitable way, but will also be able to recognize and understand other's emotions (Mayer and Salovey, 1997, cited in Garrido and Talavera, 2008: 405-406).

There have been found notable gender differences in EI. In that line, according to Bastian, Burns, and Nettlebeck (2005), Harrod and Scheer (2005), Brackett, et al. (2006) and Tomczak (2010) among others, women use to score higher than men in all Emotional Intelligence scales.

Anatomically, emotional stimuli are processed in the limbic system, namely the hippocampus, in where they connect to memory (Mogenson, Jones, and Yim 1980) and in the the cerebral amygdala, which is also related to violence, fear and sexual responses (Goleman, Boyatzis and McKee, 2002), among others.

Antinormative conduct in normative youth

According to Brigas, Herrero, Cuesta and Rodríguez (2006) antisocial, antinormative or disruptive behaviour can be described as those conducts that do not totally fix to the moral social standards. That is, conducts that disrupts social rules and/or harmful action against others, understanding others not only as individuals but also animals or properties.

Even when referring to normative adolescents, that is to say, adolescents who have not being in contact with the penal system, this kind of deviated behaviour might serve as a predictor of crime (Garrido, Stangeland and Redondo, 1999, Rutter and Giller, 1985; Rodriguez and Paino, 1994; Garrido, 2006). Thus, frequently these conflictive behaviours in adolescence indicates only the existence of transitory states, but in some cases it can result in a criminal career adulthood (Loeber and Farrinton, 2000, cited on Torrubia, Molinuevo and Pardo, 2008). The difference between both profiles matches with what Moffitt (1993) noted as "life-course persistent offenders" and "adolescent limited offenders".

In terms of risk factors, as Torrubia, Molinuevo and Pardo (2008) point, all research in this area agree that there is not a single factor that explains all disruptive behaviour. In this line, biological and genetic seems to have a very strong importance since they modulate the impact of environment on the development of human behaviour, but both those and social factors influence and interact with each other, resulting in one or another kind of deviant behaviour.

b) State of art and literature revision

Research such as the one carried out by Wilmoth (2012) seems to indicate that IQ levels are positively related to smoking and alcohol abuse. The causal mechanism of this relationship would be mediated by the seeking of new sensations, which would be more valued by those with higher intelligence. Nevertheless, its results present a very similar form to the Gaussian function or normal distribution, which would show that those with less and higher IQ levels present a more moderate cannabis use whereas those with an average IQ levels present a higher consumption. Hence, those results are not necessarily conclusive since the representation of cannabis consumers in relation to their IQ levels is very similar to the general IQ levels in the population.

In this line, large literature has proven a negative relationship between classical intelligence and the likelihoods of becoming smoker or alcoholic (Sander, 1999; Taylor et al., 2003; Batty, Deary and Macintyre, 2006; Heckman, Stixrud and Urzua, 2006; Kenkel, Lillard and Mathios, 2006; Wilmoth, 2010).

Concerning to EI, scientific literature on the relationship between it and drug intake has been made mostly in recent years. One of the most cited research is Trinidad and Johnson's (2002), who studied the association between Emotional Intelligence and tobacco and alcohol use. According to their results, EI is negatively correlated with tobacco and alcohol intake. Another element that illustrates the relationship between IE and drug use would be the evidence that the most effective prevention programs on drug abuse focuses on social influences, which could be interpreted as an item of EI (Hansen and graham, 1991; MacKinnon et al., 1991).

Concerning strictly to the relationship between cannabis use and EI, the only published research is the one carried out by Limonero, Tomás-Sábado and Castro in 2006. This study, conducted at the Autonomous University of Barcelona, measured the Emotional Intelligence of 133 students using the Spanish version of the Trait Meta-Mood Scale – TMMS-24 developed by Salovey et al. (1995) and adapted by Fernández-Berrocal, Extremera and Ramos (2004). The results of this research showed that there are no significant differences in the EI for those who have smoked cannabis only in order to try it and those who have never tried, but there are when concerning to regular consumers. Thus, regular cannabis consumers score lower in the emotional reparation, but it has no notable differences in the attention to the own feelings and the emotional clarity scales.

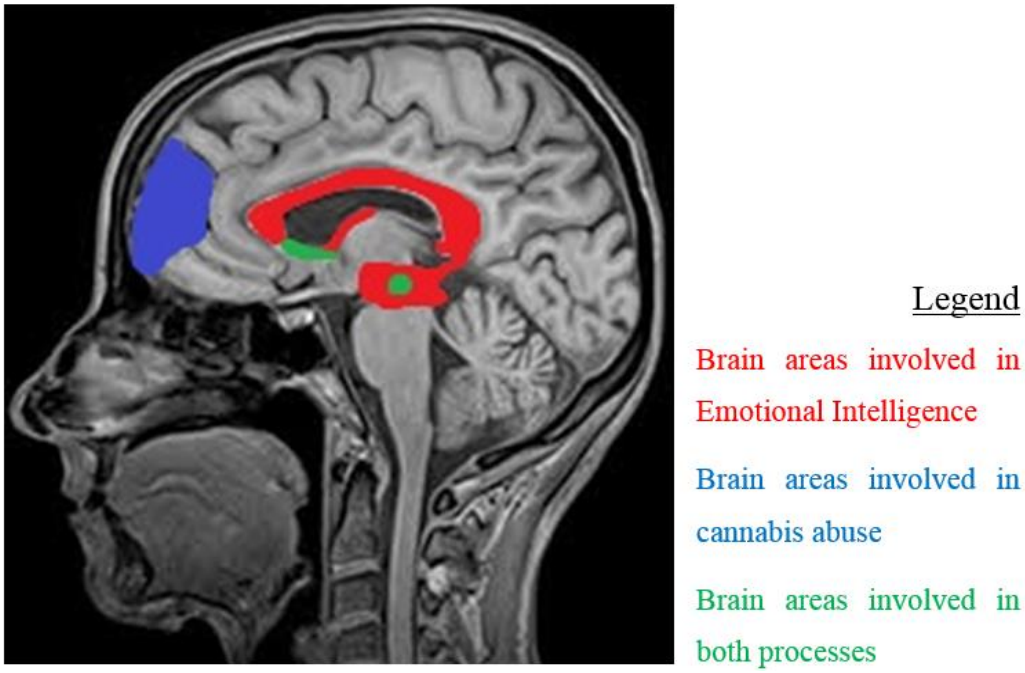
Some of the most resorted hypothesis appeal that adolescents with a higher EI own a better mental ability to detect and reject negative peer pressure (Trinidad and Johnson, 2002).

Even so, this work does not base its hypotheses on a causal relationship between levels of EI and cannabis use and/or abuse, but depart of the idea that both representations result from a functional deficit in the same brain regions.

As it can be seen in *figure 1*, there are several common areas between the emplacement of cannabinoid receptors and the limbic system, often named emotional system, as the hippocampus, the cerebral amygdala, the thalamus, the hypothalamus, and two of the areas of the mesolimbic-dopaminergic pathway as the tegmental ventral area and the accumbens nuclei are.

This is not a mere coincidence given that dopamine, neurotransmitter present in the pharmacokinetic regulation of all addictions, also regulates emotions and make human beings able to feel pleasant and relaxed, being the responsible of the cerebral enforcement mechanisms, and controlling consequently the emotional responses and the ability to desire (Burgdorf, and Panksepp, 2006).

Figure 1. Brain areas involved in Emotional Intelligence and cannabis abuse



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Regarding to the relationship between drug use and antinormative behaviour, a large amount of scientific literature has been carried out, especially in youth population. Thus, studies as the ones carried out by Otero (1997), Muñoz-Rivas et al. (2002) or Peña Fernández (2010) determined that there exists a positive correlation between antinormative conduct and drug use.

As for the direction of the relationship, i.e., regarding whether substance use leads to criminal behaviour or criminal behaviour leads to illegal drugs intake, there seems to exists a consensus among researchers that drug consumption and criminal behaviour have similar patterns, suggesting a relationship, but there have not been

proved a causal relationship (Mulvey, Schubert and Chassin, 2010). Even so, one of the most supported approaches is the psychopharmacological explanation, according to which the neuronal consequences of drug use would entail a reduction of inhibition and, thus improve criminal acts (White, Tice, Loeber and Stouthamer-Loeber, 2002; Goldstein, 1985), which would support the main hypothesis presented in this work.

Finally, on the to the relationship between EI and disruptive behaviour, Azeem, Hassan and Masroor (2014) proved a statistical significant negative correlation between both variables in young males. Those results were also obtained by Tomczak (2010), who showed correlations for the different EI measurements.

The present study is thus one of the first to link EI and disruptive behaviour, and the first to link cannabis with both variables.

II.- Analysis design

The current work is presented as an explicative research with a nomothetic, synchronic and retrospective design. It is based in a quantitative exploration of primary data collected form a quasi-experimental investigation which takes as a basis a deductive strategy focused in a hypothesis contrast.

The relationship between the studied variables are summarized in *figure 2*, which illustrates as well the hypotheses and methodological questions detailed below.

a) Objectives

Once introduced the principal studied relationships between EI, cannabis intake and disruptive behaviour, the main research objective is to examine the connections between cannabis use and abuse, emotional intelligence and antinormative behaviours. It is carried on from the following specific objectives:

- To analyse the relationship between cannabis use and Emotional Intelligence.
- To analyse the relationship between cannabis use and disruptive behaviour.
- To analyse the relationship between disruptive behaviour and Emotional Intelligence.
- To analyse the influence of sociodemographic variables in the model.

b) Research hypotheses

H_1: EI negatively correlates with cannabis use and its variance will be above the one accounted for the control variables.

As Trinidad and Johnson (2002) obtained in its research, EI is expected to be negatively correlated with drug consumption, in this case, cannabis, with a Pearson correlation between r = - 0,16 and r = - 0,19.

Even that, if the main cause of this correlation is, as this research hypothesizes, a brain dysfunction, EI will only correlate with long term consumption and not with punctual use. In this line, results are expected to assemble to the research carried out by Limonero, Tomás-Sábado and Castro (2006), whose investigation showed that there are no significant differences in the EI for those who have smoked cannabis only in order to try it and those who have never tried.

H_2: **EI negatively correlates with disruptive behaviour and its variance will be above the one accounted for the control variables.**

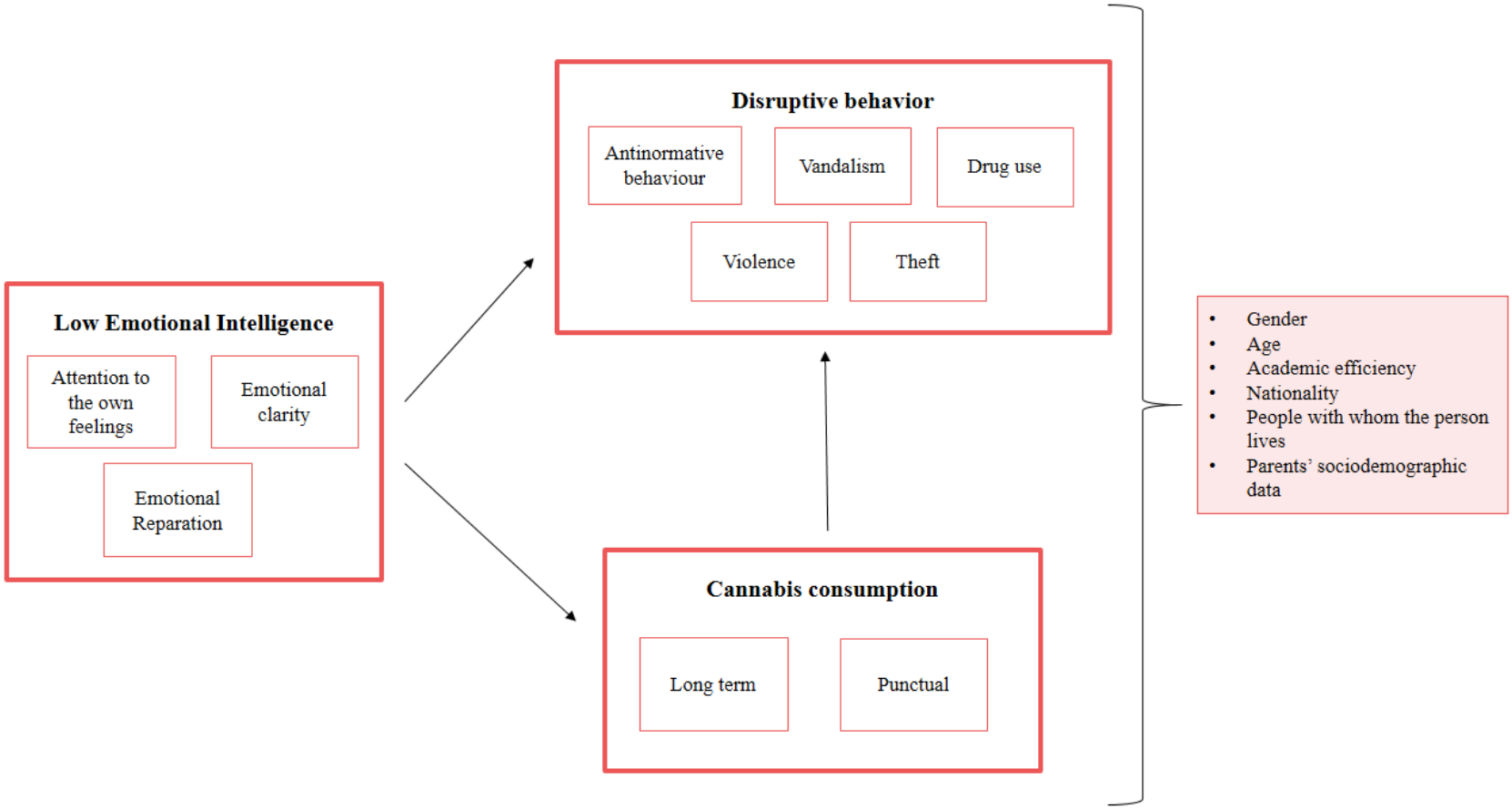
In this case, the results are expected to be similar to the ones obtained by Azeem, Hassan and Masroor (2014), who found a negative correlation between delinquency and Emotional Intelligence in young males with a Pearson correlation of r = - 0,502.

H_3: **Cannabis use positively correlates with disruptive behaviour and its variance will be above the one accounted for the control variables.**

As for the relationship between cannabis use and disruptive behaviour, it is expected to obtain a similar positive correlation between those two items as the one achieved by Muñoz-Ribas et al. (2002), who found that those young adults with a higher consumption of cannabis showed also a higher degree of antisocial behaviour (r = 0,12 for the most normative adolescents and r = 0,79 for the most disruptive ones; p <0.001).

As also showed in Muñoz-Ribas et al. (2002) research, this results are expected to be repeated on the rest of drugs of abuse (r = 0,03 and r = 0,21; p <0.001 for morphine derivatives; r = 0,03 and r = 0,27; p <0.001 for psychostimulants; r = 0,03 and r = 0,15; p <0.001 for synthetic drugs; and r = 0,006 and r = 0,08; p <0.01 for cocaine).

Figure 2. Analysis model



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III.- Methodology

a) Sample and procedure

In order to carry out the present study, at first it has been done a literature review to see existing studies on the subject, from which it has been observed that there are no studies linking Emotional Intelligence, cannabis use and antinormative behaviour.

Thus, with the purpose of achieve this study, it has been done in-person surveys (see annex 1). This method allows a great speed in its application and a reduction of time spent on field work. The administered survey is composed by already validated instruments which are explained below.

The sample of this research is composed by 158 Criminology students from the Autonomous University of Barcelona from 1st to 4th year, sample selected given its proximity with researcher. The participation in the study was anonymous and voluntary, and it relied on the approval of the assigned teachers.

Statistical analysis

In order to analyse the obtained data, it has been carried out a first bivariate analysis by using T-Test, ANOVA tests, chi-square analysis and analysis using Pearson's P correlations, depending on the nature of the variables whose correlation has been analysed. Then, multivariable analysis through a step-by-step lineal and logistical regression has been made.

In this line, cannabis consumption, measured by the Spanish version of the CPQ (Fernandez-Artamendi et al., 2012) and the Spanish version of the CAST (Cuenca-Royo et al., 2012) can be treated as dependent and as independent variables, while EI, measured by the Spanish version of the TMMS (Fernández-Berrocal, Extremera and Ramos, 2004), is always treated as an independent variable, and antinormative behaviour, measured by the SRD is always treated as a dependent variable. Furthermore, the age of the respondent, its grades and gender, the data of the different drugs' consumption and whom it lives with and its mother and father's age, nationality, job and educational level are always treated as control variables.

b) Analysed data

The administered questionnaire consists of several parts, which are described in the following lines:

Sociodemographic variables

The sociodemographic variables chosen to act as control variables in the research are age, nationality, the people with whom the person lives, academic efficiency measured from the average scholar marks of the individual given the technical impossibility to perform an IQ test, gender articulated from the socio-cultural dimension and not from the biological one given that there have been observed several epidemiological effects that might come derived from culture, the assigned gender roles and the historical view of drug use in both genders, and, finally, the socio-demographic data of the parents.

The manner of those sociodemographic variables is based on National Survey on Drug Use in Secondary Education Students (ESTUDES by its initials in Spanish) in its 2012 version[3], survey included in the National Drug Plan of the Government of Spain (Ministerio de Sanidad, Servicios Sociales e Igualdad. Gobierno de España, 2014).

This survey, which has been administered biannually since 1996 by the Spanish Ministry of Health, Social Services and Equality, reveals trends in drug use among Spanish scholars and the extracted questions will be used as control variables for the current study (Ministerio de Sanidad, Servicios Sociales e Igualdad. Gobierno de España, 2014).

[3] The complete questionnaire can be found at the following link: http://www.pnsd.msssi.gob.es/profesionales/sistemasInformacion/sistemaInformacion/pdf/10__ESTUDES_2012_CuestionarioAlumnos.pdf

Trait Meta-Mood Scale – TMMS-24 (Salovey et al., 1995), Spanish version by Fernández-Berrocal, Extremera and Ramos (2004)

The Trait Meta-Mood Scale (from now, TMMS) in an example of self-report questionnaire developed first by Salovey, Mayer, Goldman, Turvey and Palfai (1995), and adapted to the Spanish context by Fernandez-Berrocal, Extrmera and Ramos (2004). This version conserves the original structure and is the most used of self-report questionnaire in psychology to measure EI in Spain and Latin-America. (Fernández-Berrocal and Extremera, 2006)

While the original instrument was integrated by 48, the Spanish version is integrated by 24 measuring three of the four Mayer and Salovey's (1997) EI Model dimensions: attention to the own feelings, emotional clarity and emotional reparation. The first one refers to the degree of attention people ponder they pay to their personal feelings, the second one raises how people consider they perceive others' feelings, and the last one denotes the capacity of the individual to manage the aforementioned feelings. Thus, this inventory measures what Salovey, Stroud, Woolery and Epel (2002) and Salovey, Woolery and Mayer (2001) called the perceived EI.

In order to evaluate those dimensions, the TMMS asks the subjects to estimate their level of agreement with each one of the presented items in a likert scale whose values go from 1 (total agreement) to 5 (total disagreement).

About the psychometric properties in general population, the Spanish version of the TMMS has a Cronbach Alpha coefficient above 0,85 for all three factors, and a test-retest reliability correlations of r = 0,60 for the attention to the own feelings scale, r = 0,70 for the emotional clarity scale and r = 0,83 for the emotional reparation, which is consider to be adequate. Thus, the three scales correlate properly and in they are consistent with the classical items (Fernández-Berrocal, Extremera and Ramos (2004: 753) and the psychometric properties are very similar to the original version, where the Cronbach Alpha was 0,86 for the attention to the own feelings scale, 0,87 for the emotional clarity one and 0,82 for the emotional reparation (Salovey et al., 1995; Sánchez Núñez, 2007). When it comes to young population, the internal consistency shows Cronbach Alphas of 0,84 for the attention to the own

feelings scale, 0,82 for the emotional clarity one and 0,81for the emotional reparation (Salguero, Fernandez-Berrocal, Balluerka and Aritzeta, 2010).

Self-reported Delinquency Scale – SRD

For the present study it has been used the self-reported delinquency scale (from now, SRD) instrument based on the 60 items of the antinormative behaviour questionnaire developed by Luengo et al. (1999)

This is not an evaluative instrument, but an inventory which covers all possible disruptive behaviour that the subject has realized throughout his life. In the present study this instrument has been used in a dichotomist way given that what is sought is it to show the incidence of each item and not its prevalence. As shown in the reliability analysis applied, this instrument does not lose its psychometric characteristics when assessed dichotomously. Hence, the possible answers are yes and no, and the total score is obtained by adding all the "yes" the individual marks.

Unless the initial dimensions were the same ones stablished by Luengo et al. (1999), that is to say vandalism, violence, theft, antinormative behavior and drug use, given the object of study on this research and its psychometric characteristics, it has only been analysed the antinormative behaviour scale.

Adolescent Cannabis Problems Questionnaire – CPQ-A (Copeland, Gilmour, Gates and Swift, 2005), Spanish version by Fernandez-Artamendi et al. (2012)

This instrument analyses 27 items formulated as yes or no questions. It is adapted from the CPQ that Copeland, Gilmour, Gates and Swift developed in 2005 and seeks to detect some of the most common cannabis use problems among young adults.

Originally, the reliability test showed Cronbach Alphas between 0,72 and 0,88 for each of the factors and a test-retest correlation of 0,91 while the Spanish version, evaluated in a sample of 144 young adults between 16 and 20 years old showed a total Cronbach Alpha of 0,86 (Fernandez-Artamendi et al., 2012).

The cut-off for abuse is 4,5 points, while the cut-off for dependence is 5,5 points, which has been interpreted on the basis of this work as abuse for those with a punctuation of 5 and dependence for those with a punctuation higher than 6.

Cannabis Abuse Screening Test – CAST (Legleye, Karila, Beck and Reynaud, 2007), Spanish version by Cuenca-Royo et al. (2012)

The present questionnaire is a tool that indicates the potential risk of problems related to cannabis use and detects patterns of problematic cannabis use, not being valid to diagnose any disorder. Therefore, the objective of the CAST is to function as screening in the detection of drug use (Cuenca-Royo et al., 2012).

The instrument is scored using a five-point likert scale that ranges from 0 to 4, with 0 being never, 1 rarely, 2 occasionally, 3 often and 4 very often. The punctuation can be made of two different ways: it can be scored from 0 to 6 or from 0 to 24 (Cuenca-Royo et al., 2012).

First, in terms of the score from 0 to 6, it is made by the CAST-b. Its scoring is binary form, that means, people who responded 0 to 2 will receive a score of 0 and response of 3 or 4, will receive a score of 1. This punctuation is used to observe problematic patterns of abuse. Secondly, in terms of the score from 0 to 24, it is made by the CAST-f, being a continuous variable. (Cuenca-Royo et al., 2012).

IV.- Results

First of all, as it can be seen in *tables 1 and 2*, in this research, the different scales of the Trait Meta-Mood Scale – TMMS-24 (Salovey et al., 1995), have obtained Cronbach Alphas of 0,89 for the attention to the own feelings scale, 0,91 for the emotional clarity one and 0,85 for the emotional reparation scale for all the sample and of 0,90 for the attention to the own feelings and the emotional clarity scales and 0,84 for the emotional reparation one for consumers.

For the Self-Reported Delinquency Scale – SRD, this research has obtained Cronbach Alphas for antinormative behavior of 0,74 for all the sample and of 0,70 for consumers.

In respect to cannabis use, abuse and dependence, in this research, the Adolescent Cannabis Problems Questionnaire – CPQ-A (Copeland, Gilmour, Gates and Swift, 2005), has obtained Cronbach Alphas of 0,84 for both all the sample and only consumers. In this case, only the dependence scale has been taking into account since only 4 persons accounted for abuse, while the Cannabis Abuse Screening Test – CAST (Legleye, Karila, Beck and Reynaud, 2007), has obtained Cronbach Alphas of 0,43 for all the sample and of 0,40 for consumers for the CAST-f scale whereas CAST-b has obtained Cronbach Alphas of 0,01 for all the sample and of 0,02 for consumers. Consequently, and given the CAST-b's internal consistency, this variable is not included in the analysis.

Table 1. Characteristics of the instruments for all the sample.

		Mean	St. deviation	Cronbach Alpha
TMMS-24	Attention	26,56	6,09	0,89
	Clarity	25,39	6,52	0,91
	Repair	26,35	6,15	0,85
SRD Antinormative behaviour		4,49	2,65	0,74
CAST	CAST-f	0,15	0,56	0,43
	CAST-b	0,03	0,16	0,01
CPQ-A		2,39	2,34	0,84

(n=158)

Source: own elaborated

Table 2. Characteristics of the instruments for consumers.

		Mean	St. deviation	Cronbach Alpha
TMMS-24	Attention	26,38	6,20	0,90
	Clarity	24,81	6,33	0,90
	Repair	27,11	5,78	0,84
SRD Antinormative behaviour		5,69	2,30	0,70
CAST	CAST-f	0,30	0,75	0,40
	CAST-b	0,05	0,22	0,02
CPQ-A		3,08	3,71	0,84

(n=80)

Source: own elaborated

Regarding to sociodemographic variables, as it can be seen in *tables 3 and 4*, regarding to the sociodemographic data, 66,5% (n=105) of the sample are girls, while 33,9% (n=52) are boys. Only 3,8% (n=6) are foreigners, counting as foreigners those who weren't born in Spain. The mean age is 19,85 with a standard deviation of 1,70. According to the data, 7% (n=11) of the respondents lives with one of its parents, 12,7% (n=20) lives with one of its parents and other familiars (including siblings), 21,5% (n=11) lives with both of its parents, 36,1% (n=34) lives with both of its parents and other familiars (including siblings) and 22,2% (n=35) lives with other familiars or outside the family nucleus. On the academic grades, the mean is 7,36 with a standard deviation of 0,74.

Table 3. Categorical sociodemographic variables for all the sample.

			Absolute data	Percentage	
Gender	Girls		105	66,50%	
	Boys		52	32,90%	
Nationality	Spanish		151	95,50%	
	Foreigners		6	3,80%	
Parent's nationality	Mother	Spanish	150	94,90%	
		Foreigners	8	5,10%	
	Father	Spanish	145	91,70%	
		Foreigners	12	7,60%	
Parent's job status	Mother	Works outside home	121	76,60%	
		Unemployed, houseworkers and retirees or pensioners	31	19,60%	
	Father	Works outside home	119	75,30%	
		Unemployed, houseworkers and retirees or pensioners	29	18,40%	
Parents studies	Mother	School certificate or lower	40	25,30%	25,30%
		Compulsory secondary education	28	17,70%	43%
		Non-compulsory secondary education	46	29,10%	72,10%
		College studies	35	22,20%	94,30%
	Father	School certificate or lower	48	30,40%	30,40%
		Compulsory secondary education	29	18,40%	48,80%
		Non-compulsory secondary education	43	27,20%	76%
		College studies	23	14,60%	90,60%
Cohabits		Lives with one of the parents	11	7%	
		Lives with one of the parents and other familiars (including siblings)	20	12,70%	
		Lives with both parents	34	21,50%	
		Lives with both parents and other familiars (including siblings)	57	36,10%	
		Lives with other familiars or outside the family nucleus	35	22,20%	

(n=158)

Source: own elaborated

Table 4. Continuous sociodemographic variables for all the sample.

		Mean	Standard deviation	Minimum	Maximum	Range
Age		19,85	1,7	18	27	9
Grades		7,36	0,74	5	9	4
Parents age	**Mother**	49,26	4,07	39	63	24
	Father	52,2	5,07	42	70	28

(n=158)

Source: own elaborated

Regarding to drug intake, as it can be seen in *table 5*, 19% (n=30) of the sample have declared a punctual consumption of tobacco and 57,6% (n=91) have recognised to have consumed tobacco more than one, while the rest has acknowledged never have consumed tobacco. Only 3,2% (n=5) have admitted a punctual consumption of alcohol and 4,4% (n=7) have declared never have consumed alcohol, while the rest has acknowledged have consumed alcohol more than once. Finally, on cannabis, 13,3% (n=21) of the sample have declared a punctual consumption and 50,6% (n=80) have acknowledged have consumed more than one, while the rest has recognized never have consumed cannabis. The consumption of sedatives, cocaine, GBH or liquid ecstasy, designer drugs, amphetamines or speed, MDMA or methamphetamine, hallucinogens, heroin and volatile inhalants has been discarded due that in any case exceeds 10% of consumption among respondents.

Table 5. Consumption patterns for all the sample.

		Absolute data	Percentage
Tobacco	Never	37	23,40%
	Consumed once	30	19%
	Consumed more than once	91	57,60%
Alcohol	Never	7	4,40%
	Consumed once	5	3,20%
	Consumed more than once	146	92,40%
Cannabis	Never	57	36,10%
	Consumed once	21	13,30%
	Consumed more than once	80	50,60%

(n=158)

Source: own elaborated

As it can be seen in *table 6*, the age of start of this consumption seems to show that those who have declared more than one intake had its first intake early than those who have acknowledged have consumed more than once in all studied drugs.

Table 6. Age of start of different drugs consumption for all the sample.

		Mean age of start	Standard deviation	Minimum	Maximum	Range
Tobacco	Consumed once	16,04	1,85	13	20	7
	Consumed more than once	14,55	1,87	8	18	10
Alcohol	Consumed once	17	1,15	16	18	2
	Consumed more than once	15,61	1,51	9	20	11
Cannabis	Consumed once	17,33	2,05	7	13	20
	Consumed more than once	15,92	1,49	12	21	9

(n=158)

Source: own elaborated

Finally, on the parent's sociodemographic data, only 5,1% (n=8) of the mothers and 7,6% (n=12) of the fathers are foreigners. 76,6% (n=121) of the mothers and 75,3% (n=119) of the fathers works outside home, while the rest are unemployed, houseworkers, retirees or pensioners. Taking into account its studies, in the case of the mothers, 25,3% (n=40) have the school certificate or lower, 17,7% (n=28) have accomplish the compulsory secondary education, 29,1% (n=46) have accomplish non-compulsory secondary education and 22,2% (n=35) have college studies. In

the case of the fathers, 30,4% (n=48) have the school certificate or lower, 18,4% (n=29) have accomplish the compulsory secondary education, 27,2% (n=43) have accomplish non-compulsory secondary education and 14,6% (n=23) have college studies. The mean age of the is 49,26 with a standard deviation of 4,07 for the mothers and 52,20 with a standard deviation of 5,07 for the fathers.

For what respects to the 80 individuals who have declared have consumed cannabis more than once, as it can be seen in *tables 7 and 8*, regarding to the sociodemographic data, 62,5% (n=50) of the sample are girls, while 37,5% (n=30) are boys. Nationality and parent's nationality haven't been considered given the low rate of foreigners of the sample. The mean age is 19,93 with a standard deviation of 1,55. According to the data, 5% (n=7) of the respondents lives with one of its parents, 12,5% (n=10) lives with one of its parents and other familiars (including siblings), 22,5% (n=18) lives with both of its parents, 35% (n=28) lives with both of its parents and other familiars (including siblings) and 25% (n=20) lives with other familiars or outside the family nucleus. On the academic grades, the mean is 7,33 with a standard deviation of 0,71.

Table 7. Categorical sociodemographic variables for consumers.

			Absolute data	Percentage	
Gender	Girls		50	62,50%	
	Boys		30	37,50%	
Parent's job status	Mother	Works outside home	63	78,70%	
		Unemployed, houseworkers and retirees or pensioners	17	21,30%	
	Father	Works outside home	58	72,50%	
		Unemployed, houseworkers and retirees or pensioners	22	27,50%	
Parents studies	Mother	School certificate or lower	19	23,80%	23,80%
		Compulsory secondary education	15	18,80%	42,60%
		Non-compulsory secondary education	22	27,50%	70,10%
		College studies	20	25,00%	95,10%
	Father	School certificate or lower	22	27,50%	27,50%
		Compulsory secondary education	12	15,00%	42,50%
		Non-compulsory secondary education	27	33,80%	76,30%
		College studies	12	15,00%	91,30%
Cohabits		Lives with one of the parents	4	5%	
		Lives with one of the parents and other familiars (including siblings)	10	12,50%	
		Lives with both parents	18	22,50%	
		Lives with both parents and other familiars (including siblings)	28	35,00%	
		Lives with other familiars or outside the family nucleus	20	25,00%	

(n=80)

Source: own elaborated

Table 8. Continuous sociodemographic variables for consumers.

		Mean	Standard deviation	Minimum	Maximum	Range
Age		19,93	1,55	18	25	7
Grades		7,33	0,71	6	9	3
Parents age	Mother	49,51	4,07	40	63	23
	Father	52,72	5,39	43	70	27

(n=80)

Source: own elaborated

Regarding to drug intake, as it can be seen in *table 9* 14% (n=11) of the cannabis' consumers have declared a punctual consumption of tobacco and 82,8% (n=67) have recognised to have consumed tobacco more than one, while the rest has acknowledged never have consumed tobacco. It is noticeable that any cannabis' consumer has declared neither a punctual consumption of alcohol nor never have consumed alcohol, but all 80 have declared have consumed alcohol more than once. Again, the consumption of sedatives, cocaine, GBH or liquid ecstasy, designer drugs, amphetamines or speed, MDMA or methamphetamine, hallucinogens, heroin and volatile inhalants has been discarded due that in any case exceeds 10% of consumption among respondents.

Table 9. Consumption patterns for cannabis consumers.

		Absolute data	Percentage
Tobacco	Never	2	2,50%
	Consumed once	11	14%
	Consumed more than once	67	83,80%
Alcohol	Never	0	0,00%
	Consumed once	0	0,00%
	Consumed more than once	80	100,00%

(n=80)

Source: own elaborated

Finally, on the parent's sociodemographic data, 78,7% (n=63) of the mothers and 72,5% (n=58) of the fathers works outside home, while the rest are unemployed, houseworkers, retirees or pensioners. Taking into account its studies, in the case of the mothers, 23,8% (n=19) have the school certificate or lower, 18,8% (n=15) have accomplish the compulsory secondary education, 27,5% (n=22) have accomplish non-compulsory secondary education and 25% (n=20) have college studies. In the case of the fathers, 27,5% (n=22) have the school certificate or lower, 15% (n=12) have accomplish the compulsory secondary education, 33,8% (n=27) have accomplish non-compulsory secondary education and 15% (n=12) have college studies. As it can be seen in *table 8, t*he mean age of the is 49,51 with a standard deviation of 4,07 for the mothers and 52,72 with a standard deviation of 5,39 for the fathers.

As it can be seen, the tendencies for both consumers and non-consumers are very similar.

Taking into account the different proposed hypotheses and accounting for the most significant variables ($\alpha < 0,05$), the results for all the sample are the followings:

When taking into account all the sample, as it can be seen in *tables 10, 11 and 12*, the most significant bivariate correlations are the ones stablished between antinormative behaviour and the emotional reparation's EI scale ($p= - 0,27$; $\alpha = 0,01$), the age of start on tobacco and cannabis use ($p= - 0,45$; $\alpha = 0,01$ and $p= - 0,37$; $\alpha = 0,01$, respectively), and the positive relation with cannabis self-reported consumption and CPQ's scale on cannabis abuse ($\alpha = 0,01$ for both). Antinormative behaviour also shows a significant relationship with father's job ($\alpha = 0,03$), indicating that those whose father do not work outside home punctuates higher in this item. Notice that father's job can be seen as a socioeconomic measure.

Table 10. CPQ Dependence scale (DV) bivariate correlations with categorical variables (CV) for all the sample.

		CPQ Dependence scale		
		Frequency		Asymp. Sig. (2-sided)
		Yes	No	
CONTROL VARIABLES				
Gender	Girl	19	86	0,17
	Boy	5	47	
Mother's job	Works outside home	18	103	0,86
	Unemployed (...)	5	26	
Father's job	Works outside home	17	102	0,39
	Unemployed (...)	6	23	
Mother's educational level	School certificate or lower	4	36	0,78
	Compulsory secondary education	5	23	
	Non-compulsory secondary education	7	29	
	College studies	6	29	
Father's educational level	School certificate or lower	7	41	0,64
	Compulsory secondary education	3	26	
	Non-compulsory secondary education	5	38	
	College studies	5	18	
Tobacco consumption	Never	6	31	0,93
	Consumed once	5	25	
	Consumed more than once	13	78	
Cohabit	Lives with one of the parents	0	11	0,52
	Lives with one of the parents and other familiars (including siblings)	3	17	
	Lives with both parents	6	28	
	Lives with both parents and other familiars (including siblings)	11	46	
	Lives with other familiars or outside the family nucleus	4	31	

** $\alpha < 0,01$; * $\alpha < 0,05$ (n=158)

Source: own elaborated

Table 11. CAST-f and SRD antinormative behaviour's scale (DV) bivariate correlations with continuous variables (IV – CV) for all the sample.

		CAST-f		SRD Antinormative behaviour	
		Pearson's P	Sig. (2-tailored)	Pearson's P	Sig. (2-tailored)
INDEPENDENT VARIABLES					
CAST-f		-	-	0,37**	0,01
TMMS	Attention	-0,07	0,39	-0,09	0,25
	Clarity	-0,39	0,62	-0,10	0,21
	Repair	0,08	0,31	0,08	0,33
CONTOL VARIABLES					
Age		-0,01	0,90	0,07	0,39
Mother's age		0,07	0,42	0,02	0,85
Father's age		0,15	0,06	0,07	0,38
Grades		-0,07	0,36	-0,11	0,17
Age of start tobacco consumption		-0,17	0,07	-0,45**	0,01
Age of start alcohol consumption		-0,02	0,77	-0,02	0,79
Age of start cannabis consumption		-0,27**	0,01	-0,37**	0,01

** α < 0,01; * α < 0,05 (n=158)

Source: own elaborated

Table 12. SRD antinormative behaviour's scale (DV) bivariate correlations with categorical variables (IV – CV) for all the sample.

		SRD Antinormative behaviour	
		Mean	Sig. (2-tailored)
CONTROL VARIABLES			
CPQ Dependence scale	Yes	5,79**	0,01
	No	4,26**	
CONTROL VARIABLES			
Gender	Girl	4,24	0,08
	Boy	5,02	
Mother's job	Works outside home	4,33	0,12
	Unemployed (...)	5,16	
Father's job	Works outside home	4,22*	0,03
	Unemployed (...)	5,38*	

** α < 0,01; * α < 0,05 (n=158)

Source: own elaborated

Also, according to the relationship between EI and cannabis use and/or abuse, as it can be seen in *table 13*, even when there is no significant relation, it can be observed a downward trend in the attention to the own feelings and the emotional clarity scales in those who report having used cannabis more than once. It is noteworthy that those who report having used cannabis more than once mark higher than the rest on the emotional reparation scale, which contradicts Limonero, Tomás-Sábado and Castro's (2006) results.

Also cannabis consumption, indicated by the CAST-f scale, correlates negatively with the age of start on cannabis consumption (p= - 0,27; α = 0,01), indicating that those who start earlier on cannabis intake are more likely on becoming regular consumers.

Table 13. Cannabis consumption (DV) bivariate correlations with Emotional Intelligence scales (IV).

		Cannabis consumption		
		Mean		Sig. (2-tailored)
		Never or only once	Consumed more	
INDEPENDENT VARIABLES				
TMMS	Attention	26,76	26,38	0,696
	Clarity	25,99	24,81	0,259
	Repair	25,58	27,11	0,117

** α < 0,01; * α < 0,05 (n=158)

Source: own elaborated

Once having analysed these bivariate relationships, the inquiry is which are the variables with greater explanatory weight for both cannabis consumption and dependence and antinormative behaviour on a normal sample. To analyse this question, it has been carried out a multivariate analysis taking into account the most significant variables, among others of the research's interest.

First of all, on the study of cannabis consumption, they have been performed two analyses: one to explain the variability of consumption itself, and a second to explain the variability on dependence. It has also been carried out an analysis on the explanatory variables for antinormative behaviour.

As it can be seen in *tables 14, 15 and 16*, the most explicative variable for cannabis consumption is the age of start of it 1 (α = 0,05 in the final model), while for what it concerns to cannabis dependence there is an interrelation with antinormative behaviour (α = 0,01 in the final model), even though since the present research is not a longitudinal study, it is impossible to assess the direction of this relationship, i.e. if cannabis leads to antinormative behavior or vice versa, which is configured

as one of the main limits of the present investigation. Even so, this result supports the initial hypothesis of this study.

Antinormative behavior is also found to be explained by the age of start of tobacco consumption (α = 0,01).

Table 14. Logistic regression between cannabis consumption (DV) and other variables (IV) for all the sample.

		Model 1		Model 2		Model 3	
		(B)	Sig.	(B)	Sig.	(B)	Sig.
Gender		0,40	0,57	0,33	0,64	0,22	0,76
Age		0,24	0,32	0,25	0,34	0,22	0,40
Age of start on tobacco consumption		0,23	0,16	0,23	0,17	0,33	0,07
Age of start on alcohol consumption		0,02	0,95	0,02	0,95	0,06	0,85
Age of start on cannabis consumption		- 0,58 *	0,02	- 0,55 *	0,04	- 0,52 *	0,05
TMMS	Attention	-	-	- 0,01	0,86	0,01	0,89
	Clarity	-	-	- 0,03	0,60	- 0,03	0,68
	Repair	-	-	0,12	0,08	0,11	0,09
SRD Antinormative behaviour		-	-	-	-	0,24	0,13
		Cox & Snell R Square: 0,08		Cox & Snell R Square: 0,12		Cox & Snell R Square: 0,14	

** α < 0,01; * α < 0,05 (n=158)

Source: own elaborated

Table 15. Logistic regression between cannabis dependence (DV) and other variables (IV) for all the sample.

		Model 1		Model 2		Model 3	
		(B)	Sig.	(B)	Sig.	(B)	Sig.
Gender		- 1,09	0,16	- 0,94	0,24	- 1,27	0,15
Age		0,20	0,32	0,35	0,13	0,24	0,33
Age of start on tobacco consumption		0,03	0,89	0,07	0,73	0,29	0,19
Age of start on alcohol consumption		0,42	0,21	0,30	0,39	0,47	0,22
Age of start on cannabis consumption		- 0,29	0,28	- 0,32	0,26	- 0,21	0,52
TMMS	Attention	-	-	0,040	0,49	0,07	0,28
	Clarity	-	-	- 0,13	0,06	- 0,11	0,13
	Repair	-	-	- 0,02	0,80	- 0,04	0,54
SRD Antinormative behaviour		-	-	-	-	0,47 **	0,01
		Cox & Snell R Square: 0,05		Cox & Snell R Square: 0,11		Cox & Snell R Square: 0,19	

** α < 0,01; * α < 0,05 (n=158)

Source: own elaborated

Table 16. Lineal regression between antinormative behaviour (DV) and other variables (IV) for all the sample.

		Model 1		Model 2		Model 3	
		(B)	Sig.	(B)	Sig.	(B)	Sig.
Gender		- 0,53	0,50	- 0,51	0,41	- 0,58	0,29
Age		0,11	0,39	0,21	0,30	0,25	0,19
Father's job		1,13	0,57	0,90	0,22	0,40	0,56
TMMS	Attention	-	-	- 0,07	0,16	- 0,07	0,09
	Clarity	-	-	- 0,07	0,28	- 0,05	0,34
	Repair	-	-	0,03	0,60	0,01	0,91
CPQ Dependence						1,72 **	0,01
Cannabis consumption						0,82	0,24
Age of start on tobacco consumption		-	-	-	-	- 0,44 **	0,01
Age of start on alcohol consumption		-	-	-	-	- 0,37	0,19
Age of start on cannabis consumption		-	-	-	-	0,05	0,82
		R Square: 0,07		R Square: 0,11		R Square: 0,40	

** α < 0,01; * α < 0,05 (n=158)

Relating to the consumers' sample, as it can be seen in *tables 17, 18 and 19*, the most significant bivariate correlations are the ones stablished between antinormative behaviour and the age of start on tobacco and cannabis use (p= - 0,45; α = 0,01 for both), and its positive relation with the CPQ's scale on cannabis abuse (α = 0,05). Antinormative behaviour also shows in this sample a significant relationship with father's job (α = 0,02), indicating that those whose father do not work outside home punctuates higher in this item.

Table 17. Cannabis consumption (DV) bivariate correlations with Emotional Intelligence scales (IV).

		Cannabis consumption		
		Mean		Sig. (2-tailored)
		Never or only once	Consumed more	
INDEPENDENT VARIABLES				
TMMS	Attention	26,76	26,38	0,696
	Clarity	25,99	24,81	0,259
	Repair	25,58	27,11	0,117

** α < 0,01; * α < 0,05 (n=158)

Source: own elaborated

Table 18. CPQ dependence scale (DV) bivariate correlations with categorical variables (CV) for consumers.

		CPQ Dependence scale		
		Frequency		Asymp. Sig. (2-sided)
		Yes	No	
CONTROL VARIABLES				
Gender	Girl	3	27	0,17
	Boy	11	39	
Mother's job	Works outside home	11	49	0,95
	Unemployed (...)	3	14	
Father's job	Works outside home	9	49	0,38
	Unemployed (...)	4	12	
Mother's educational level	School certificate or lower	2	17	0,74
	Compulsory secondary	2	13	
	Non-compulsory secondary	5	17	
	College studies	3	17	
Father's educational level	School certificate or lower	5	17	0,60
	Compulsory secondary	1	11	
	Non-compulsory secondary	4	23	
	College studies	1	11	
Tobacco consumption	Never	0	2	0,80
	Consumed once	2	9	
	Consumed more than once	12	55	
Cohabit	Lives with one of the parents	0	4	0,56
	Lives with one of the parents	3	7	
	Lives with both parents	4	14	
	Lives with both parents and	5	23	
	Lives with other familiars or	2	18	

** α < 0,01; * α < 0,05 (n=80)

Source: own elaborated

Table 19. CAST-f and SRD antinormative behaviour's scale (DV) bivariate correlations with continuous variables (IV – CV) for consumers.

		CAST-f		SRD Antinormative behaviour	
		Pearson's P	Sig. (2-tailored)	Pearson's P	Sig. (2-tailored)
INDEPENDENT VARIABLES					
CAST-f		-	-	0,37	0,01
TMMS	Attention	-0,09	0,44	-0,12	0,30
	Clarity	-0,02	0,84	-0,01	0,93
	Repair	0,07	0,52	0,04	0,73
CONTOL VARIABLES					
Age		-0,04	0,76	0,65	0,52
Mother's age		0,07	0,54	-1,41	0,16
Father's age		0,17	0,14	-2,23	0,02
Grades		-0,09	0,43	-0,01	0,91
Age of start tobacco consumption		-0,19	0,10	-0,45 **	0,01
Age of start alcohol consumption		-0,15	0,19	-0,40 **	0,01
Age of start cannabis consumption		- 0,28 *	0,01	-0,45 **	0,01

** α < 0,01; * α < 0,05 (n=80)

Source: own elaborated

Regarding to cannabis consumption, it is noticeable that on consumers, the CPQ's dependence scale correlates with the EI's emotional clarity scale with a mean of 21,79 for those accounting on cannabis dependence, and of 25,45 for those not accounting on cannabis dependence (α = 0,05). There also exists a negative correlation between the CAST-f scale and age of start on cannabis consumption in this sample (p= - 0,28; α = 0,01).

Again, it has been carried out a multivariate analysis taking into account the most significant variables, among others of the research's interest in order to know is which are the variables with greater explanatory weight for both cannabis consumption and dependence and antinormative behaviour, this time on a cannabis consumers' sample.

This time, on the study of cannabis consumption, it has only been performed the analysis to the variability on dependence given that there is not variability on the consumption itself. Again, it has also been carried out an analysis on the explanatory variables for antinormative behaviour.

As it can be seen in *tables 20 and 21*, the most explicative variable for cannabis dependence for consumers do not differ from the explicative variable for cannabis dependence for all the sample, being the most significant correlation the one stablished with the antinormative behaviour if it considers the signification at $\alpha < 0,1$ ($\alpha = 0,06$). About the antinormative behaviour, besides its partial correlation with cannabis dependence, again if it considers the signification at $\alpha < 0,1$, age might become an explanatory variable ($\alpha = 0,08$).

Table 20. Logistic regression between cannabis dependence (DV) and other variables (IV) for consumers.

		Model 1		Model 2		Model 3	
		(B)	Sig.	(B)	Sig.	(B)	Sig.
Gender		- 1,03	0,21	- 0,71	0,43	- 0,81	0,39
Age		0,20	0,34	0,28	0,26	0,18	0,49
Age of start on tobacco consumption		- 0,17	0,56	- 0,17	0,57	- 0,05	0,87
Age of start on alcohol consumption		0,65	0,11	0,65	0,15	0,79	0,11
Age of start on cannabis consumption		- 0,32	0,34	- 0,46	0,19	- 0,31	0,42
TMMS	Attention	-	-	0,05	0,46	0,07	0,33
	Clarity	-	-	- 0,12	0,11	- 0,11	0,15
	Repair	-	-	- 0,06	0,66	- 0,7	0,33
SRD Antinormative behaviour		-	-	-	-	0,36	0,06
		Cox & Snell R Square: 0,07		Cox & Snell R Square: 0,15		Cox & Snell R Square: 0,20	

** $\alpha < 0,01$; * $\alpha < 0,05$ (n=80)

Source: own elaborated

Table 21. Lineal regression between antinormative behaviour (DV) and other variables (IV) for consumers.

		Model 1		Model 2		Model 3	
		(B)	Sig.	(B)	Sig.	(B)	Sig.
Gender		- 0,05	0,94	- 0,01	0,99	- 0,54	0,41
Age		0,18	0,42	0,27	0,26	0,37	0,08
Father's job		1,59	0,06	1,42	0,22	0,06	0,94
TMMS	Attention	-	-	- 0,08	0,10	- 0,07	0,16
	Clarity	-	-	- 0,03	0,17	- 0,05	0,39
	Repair	-	-	- 0,01	0,95	0,01	0,92
CPQ Dependence						1,41	0,06
Age of start on tobacco consumption		-	-	-	-	- 0,24	0,40
Age of start on alcohol consumption		-	-	-	-	- 0,38	0,33
Age of start on cannabis consumption		-	-	-	-	- 0,40	0,20
		R Square: 0,09		R Square: 0,14		R Square: 0,40	

** $\alpha < 0,01$; * $\alpha < 0,05$ (n=80)

Source: own elaborated

Conclusions and discussion

Once the main objective of this research, that is to examine the connections between cannabis use and abuse, emotional intelligence and antinormative behaviours, has been reached, the following conclusions can be assumed:

Concerning to the relationship between EI and drug intake, the results here exposed, would partially confirm the results obtained by Trinidad and Johnson's (2002) extrapolating in this case their results on tobacco and alcohol intake to cannabis consumption. Therefore, even and not be set as the main explanatory variable it can be found a trend of negative relationship between EI and drug use.

Thus, the present study strengths the results obtained Limonero, Tomás-Sábado and Castro (2006), who showed that there are differences in the EI between those who have smoked cannabis only in order to try it or those who have never tried, and regular consumers, even when those relations are no significant nor individually nor when added to a multi-causal model. Even so, the present study differs from the conclusion settled by Limonero, Tomás-Sábado and Castro (2006) according to which regular cannabis consumers score lower in the emotional reparation, but it has no notable differences in the attention to the own feelings and the emotional clarity scales. In this line, the obtained results in the present research seem to indicate that regular cannabis consumers score higher in the emotional reparation. It would therefore be interesting to focus future research on the relationship between drug intake and emotional repair's EI scale, since in the present study this relationship becomes positive. Thus, future research is needed to determine the motives of this direction. In this line, the present research proposes Sutherland's Differential Association Theory (Sutherland, Cressey and Luckenbill, 1947) as a possible explanation for the relationship between cannabis consumption and the ability of repair other's emotion, relationship which would be mediated by the fact that criminal behaviour is learned, not inherited or invented, and this learning is due to an interaction with others through a communication process. According to Sutherland, the key part of this learning takes place in intimate personal groups.

Extrapolating this idea to cannabis intake, it could be taken as a starting point for further research the hypothesis that the most intimate interpersonal groups exist among cannabis users, the greater capacity on emotion reparation they will have.

Regarding to the relationship between drug use and antinormative behaviour, the present study serves as reinforcement to studies such as the ones carried out by Otero (1997), Muñoz-Rivas et al. (2002) or Peña Fernández (2010), who determined that there exists a positive correlation between antinormative conduct and drug use, in this case, cannabis, but only in those who have a dependence relationship with cannabis, a result that is important to consider for future research. As for the direction of this relationship, it would be interesting to carry out large longitudinal studies to establish the same.

In this line, it has to be studied more deeply the issue of the statistical and/or causal relationship given that, even when it seems there is a high correlation, casualty cannot be assumed. With the aim of control this spuriousness, reciprocity or mere coincidence, control variables should be very carefully measured on this longitudinal study.

It should also be noted that, while the antinormative behaviour is postulated as the most influential variable on cannabis dependence, it has no explanatory weight when we refer to consumption to without dependence. The most explanatory variable in this case turns to be the age of onset of cannabis intake.

In this line, it should be studied the relationship between cannabis consumption and antinormative behaviour from an instrumental hypothesis, guessing that antinormative behaviour could be seen as way to obtain the drug when there is a dependence involved. Thus the psychopharmacological hypothesis conjectured at the beginning of this research would be rejected.

As a final point, on the to the relationship between EI and disruptive behaviour it is not proved with this study that there is a statistical significant negative correlation between both variables, as Azeem, Hassan and Masroor (2014) concluded.

Once exposed the results, it should be noted that there are no differences in the explanatory variables of cannabis intake and dependence and antinormative behaviour between those who apply as regular consumers and the general sample.

According to those results, hypothesis 1 (EI negatively correlates with cannabis use and its variance will be above the one accounted for the control variables) and hypothesis 2 (EI negatively correlates with disruptive behaviour and its variance will be above the one accounted for the control variables) remain partially verified while hypothesis 3 (Cannabis use positively correlates with disruptive behaviour and its variance will be above the one accounted for the control variables) is not proved within this research.

Finally, with respect to the limitations of this research, the main one is the excessive normativity of the sample. This can be attributed to the bias made by the election of the sample itself given it is a university sample taken from a Law School and which, for its academic and professional guidance, are very close and sensitized with the concepts of antinormative behaviour and drug intake. Another explanation of this normativity could be what is known as social desirability that is, when one of the response alternatives are seen as more socially desirable or just more desirable than others, what makes some individuals choose them independently of its real opinion (Edwards, 1990).

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ANNEX 1. QUESTIONNAIRE

Universitat Autònoma de Barcelona

A cumplimentar por el encuestador
Cuestionario nº: _____ Fecha: _____

CUESTIONARIO SOBRE HABITOS DE CONSUMO DE DROGAS

El presente cuestionario forma parte de una encuesta para conocer los patrones de consumo del cannabis y otras conductas y actitudes sobre el consumo de drogas, elaborada en el marco del Trabajo de Fin de Grado. Para ello, nos gustaría que leyeses detenidamente y contestases a las preguntas que te formulan.

El cuestionario es anónimo. No incluye tu nombre ni datos que permitan identificarte, por lo que te animamos a que seas sincero/a. Tu cuestionario se mezclará con los de otros estudiantes, de forma que ni el profesorado ni tus padres, ni ninguna otra persona podrán conocer nunca cuáles han sido tus respuestas. La información que facilites se combinará con la de otros estudiantes para obtener estadísticas de cara a contrastar las hipótesis planteadas en el estudio. Si deseas recibir más información sobre estas, no dudes en preguntar a la persona que te ha administrado la encuesta una vez finalizada la cumplimentación de la misma o en enviar un e-mail a tfgcannabis@gmail.com.

Para que tenga éxito es importante que tus respuestas sean sinceras. Aparte de ser confidencial, tu colaboración en la encuesta es totalmente voluntaria, así pues, si sientes que no puede contestar sinceramente alguna pregunta, simplemente déjala en blanco.

Esto no es ni un test ni un examen; no hay respuestas correctas o incorrectas. Si en alguna pregunta no encuentras la respuesta que se ajuste exactamente a lo que piensas o haces, marca aquello que más se aproxime.

El tiempo aproximado de cumplimentación de la encuesta es de 15 minutos. Si tienes alguna duda, no dudes en preguntarla.

Gracias por la colaboración

- □ Otros Familiares
- □ Con tu pareja (marido, mujer, novio/a, compañero/a, etc.)
- □ Otras personas no familiares
- □ Vives en un centro educativo o Institución
- □ Vives sólo/sola

Edad a día de hoy de tu madre (dos dígitos): _____

Edad a día de hoy de tu padre (dos dígitos): _____

Selecciona la opción que más se adecúe a tus padres:

	Madre	Padre
Nació en Cataluña		
Nació fuera de Cataluña, pero dentro de España		
Nació fuera de España		

En caso que alguno de los dos o los dos naciesen fuera de España, especifica el país:

Madre: _____

Padre: _____

¿Cuál es la situación laboral de tus padres?

	Madre	Padre
Realiza las labores del hogar		
Trabaja fuera de casa		
Está en paro		
Es pensionista o está jubilada o jubilado		
No lo sabes		

¿Cuál fue el nivel de estudios más alto que completaron tus padres?

	Madre	Padre
Sin estudios o estudios primarios sin terminar		
Primarios completos, 6º EGB completo, certificado escolar		
8º de EGB, Graduado Escolar, Bachillerato elemental, Formación profesional de primer grado, 4 años o cursos de secundaria		
BUP, Bachillerato Superior, COU, Preu, Formación profesional de segundo grado, 5 o más años o cursos de secundaria		
Estudios universitarios (ingeniería técnica, magisterio, diplomatura, licenciatura, doctorado)		
No lo sabes		

II. Datos sobre los sentimientos y las emociones de la persona

A continuación, indica el grado de acuerdo o desacuerdo con respecto a las siguientes afirmaciones. Señale con una "X" la respuesta que más se aproxime a sus preferencias según el siguiente baremo:

1: Nada de acuerdo 2: Algo de acuerdo

3: Bastante de acuerdo 4: Muy de acuerdo

5: Totalmente de acuerdo

	1	2	3	4	5
Presto mucha atención a los sentimientos					
Normalmente me preocupo mucho por lo que siento					
Normalmente dedico tiempo a pensar en mis emociones					
Pienso que merece la pena prestar atención a mis emociones y estado de ánimo					
Dejo que mis sentimientos afecten a mis pensamientos					
Pienso en mi estado de ánimo constantemente					
A menudo pienso en mis sentimientos					
Presto mucha atención a cómo me siento					
Tengo claros mis sentimientos					
Frecuentemente puedo definir mis sentimientos					
Casi siempre sé cómo me siento					
Normalmente conozco mis sentimientos sobre las personas					
A menudo me doy cuenta de mis sentimientos en diferentes situaciones					
Siempre puedo decir cómo me siento					
A veces puedo decir cuáles son mis emociones					
Puedo llegar a comprender mis sentimientos					
Aunque a veces me siento triste, suelo tener una visión optimista					
Aunque me sienta mal, procuro pensar en cosas agradables					
Cuando estoy triste, pienso en todos los placeres de la vida					
Intento tener pensamientos positivos aunque me sienta mal					
Si doy demasiadas vueltas a las cosas, complicándolas, trato de calmarme					
Me preocupo por tener un buen estado de ánimo					
Tengo mucha energía cuando me siento feliz					
Cuando estoy enfadado intento cambiar mi estado de ánimo					

III. Datos sobre los actos de la persona encuestada

¿Has hecho alguna de estas acciones **alguna vez en tu vida**?

	No	Sí
Viajar indebidamente sin billete o habiendo pagado una tarifa inferior		
Beber alcohol en los bares antes de los 16 años		
Conducir borracho		
Andar con gente que se mete habitualmente en peleas		
Emborracharse o marearse por beber demasiado		
Fumar tabaco antes de los 15 años		
Escaparse de casa		
Pasar la noche fuera de casa, sin permiso		
Aceptar regalos sabiendo o sospechando que son robados		
Convencer a otro de que haga algo prohibido		
Cobrar por hacer un trabajo ilegal		
Ser expulsado del colegio		
Huir de la policía		

IV. Datos sobre la relación personal con las drogas

A continuación, se te preguntará sobre tus experiencias con las drogas, tanto legales como ilegales.

¿Alguna vez has consumido alguna de las siguientes substancias?

	No	Sí, una vez para probarlo	Sí, más de una vez	¿A qué edad consumiste por primera vez?
Tabaco				
Alcohol				
Hachís o marihuana				
Tranquilizantes o sedantes y somníferos (no incluir valeriana, pasiflora ni dormidina) sin receta médica				
Cocaína				
GBH o éxtasis líquido				
Éxtasis u otras drogas de diseño				
Anfetaminas o speed				
MDMA o metanfetaminas				
Alucinógenos (LSD, "setas mágicas", ketamina)				
Heroína				
Inhalables volátiles (cola, pegamento, disolvente, nitritos, gasolina)				

¿Con qué frecuencia te ha ocurrido algo de lo que se describe a continuación **en los últimos 12 meses**?

	Nunca	Raramente	De vez en cuando	Bastante a menudo	Muy a menudo
¿Has fumado cannabis antes del mediodía?					
¿Has fumado cannabis estando solo/a?					
¿Has tenido problemas de memoria al fumar cannabis?					
¿Te han dicho los amigos o miembros de tu familia que deberías reducir el consumo de cannabis?					
¿Has intentado reducir o dejar de consumir cannabis sin conseguirlo?					
¿Has tenido algún problema debido a tu consumo de cannabis (disputa, pelea, accidente, mal resultado escolar, etc.)?					

¿**En los tres últimos meses** has realizado alguna de las siguientes acciones?

	No	Sí
¿Has fumado cannabis con más frecuencia que antes estando solo?		
¿Te ha preocupado estar con gente que no conoces cuando estabas "colocado"?		
¿Has pasado más tiempo con amigos que fuman cannabis que con otros amigos?		
¿Te han criticado tus amigos por fumar cannabis en exceso?		
¿Has contraído alguna deuda por consumir cannabis?		
¿Has empeñado alguna de tus pertenencias para comprar cannabis?		
¿Has tenido que poner excusas sobre tu gasto de dinero?		
¿Te ha preocupado la cantidad de dinero que has estado gastando en cannabis?		
¿Te han pillado mintiendo sobre el dinero que gastas?		
¿Has tenido problemas con la policía debido a tu consumo de cannabis?		
¿Te has encontrado físicamente mal tras haber fumado cannabis?		
¿Te has desmayado alguna vez después de haber fumado cannabis?		
¿Has sentido dolor en el pecho o en los pulmones tras haber estado fumando cannabis?		
¿Has tenido bronquitis o tos persistente?		
¿Te has sentido paranoico o antisocial tras haber estado fumando cannabis?		
¿Has perdido peso sin habértelo propuesto?		
¿Te has descuidado físicamente?		
¿Te has sentido deprimido durante más de una semana?		
¿Te has sentido tan deprimido como para pensar en suicidarte?		
¿Has dejado de hacer alguna actividad de la que antes disfrutabas por tu consumo de cannabis?		
¿Te has sentido con menos energía de lo habitual?		
¿Te ha resultado difícil disfrutar como siempre de tus aficiones habituales?		
¿Tu salud general ha estado peor de lo habitual?		
¿Te ha preocupado perder el contacto con amigos o familiares?		
¿Te ha preocupado la falta de motivación para hacer cosas?		
¿Te ha resultado más difícil de lo habitual concentrarte?		
¿Has estado preocupado por sentimientos de aislamiento o de desapego?		

V. Agradecimiento y voluntariado

En último lugar, agradecer a todos los encuestados su participación en el presente estudio.

Aquellos encuestados que se presten voluntarios para participar en fases posteriores de la investigación pueden dejar sus datos a continuación. Le recordamos que la confidencialidad y el anonimato son unos de los puntos más importantes de nuestra deontología profesional por lo que aun cumplimentando este apartado, los datos recopilados por la presente encuesta serán tratados respetando su anonimato y la confidencialidad de las respuestas.

Nombre y apellidos: _____

Correo electrónico: _____

Teléfono: _____

☐ De conformidad con lo establecido por la Ley Orgánica 15/1999, de 13 de diciembre, de Protección de Datos de Carácter Personal, doy mi consentimiento para el tratamiento de los datos personales aportados a través de mi petición.

Sus datos serán incluidos en un fichero totalmente confidencial y utilizados única y exclusivamente de cara a fases posteriores de la investigación. Le informamos que podrá ejercer los derechos de acceso, rectificación, cancelación y oposición establecidos en dicha Ley remitiendo un mensaje a la dirección de correo electrónico "tfgcannabis@gmail.com".

ANNEX 2. TABLES

Table 1. Characteristics of the instruments for all the sample.

		Mean	St. deviation	Cronbach Alpha
TMMS-24	Attention	26,56	6,09	0,89
	Clarity	25,39	6,52	0,91
	Repair	26,35	6,15	0,85
SRD Antinormative behaviour		4,49	2,65	0,74
CAST	CAST-f	0,15	0,56	0,43
	CAST-b	0,03	0,16	0,01
CPQ-A		2,39	2,34	0,84

(n=158)

Source: own elaborated

Table 2. Characteristics of the instruments for consumers.

		Mean	St. deviation	Cronbach Alpha
TMMS-24	Attention	26,38	6,20	0,90
	Clarity	24,81	6,33	0,90
	Repair	27,11	5,78	0,84
SRD Antinormative behaviour		5,69	2,30	0,70
CAST	CAST-f	0,30	0,75	0,40
	CAST-b	0,05	0,22	0,02
CPQ-A		3,08	3,71	0,84

(n=80)

Source: own elaborated

Table 3. Categorical sociodemographic variables for all the sample.

			Absolute data	Percentage	
Gender	Girls		105	66,50%	
	Boys		52	32,90%	
Nationality	Spanish		151	95,50%	
	Foreigners		6	3,80%	
Parent's nationality	Mother	Spanish	150	94,90%	
		Foreigners	8	5,10%	
	Father	Spanish	145	91,70%	
		Foreigners	12	7,60%	
Parent's job status	Mother	Works outside home	121	76,60%	
		Unemployed, houseworkers and retirees or pensioners	31	19,60%	
	Father	Works outside home	119	75,30%	
		Unemployed, houseworkers and retirees or pensioners	29	18,40%	
Parents studies	Mother	School certificate or lower	40	25,30%	25,30%
		Compulsory secondary education	28	17,70%	43%
		Non-compulsory secondary education	46	29,10%	72,10%
		College studies	35	22,20%	94,30%
	Father	School certificate or lower	48	30,40%	30,40%
		Compulsory secondary education	29	18,40%	48,80%
		Non-compulsory secondary education	43	27,20%	76%
		College studies	23	14,60%	90,60%
Cohabits		Lives with one of the parents	11	7%	
		Lives with one of the parents and other familiars (including siblings)	20	12,70%	
		Lives with both parents	34	21,50%	
		Lives with both parents and other familiars (including siblings)	57	36,10%	
		Lives with other familiars or outside the family nucleus	35	22,20%	

(n=158)

Source: own elaborated

Table 4. Continuous sociodemographic variables for all the sample.

		Mean	Standard deviation	Minimum	Maximum	Range
Age		19,85	1,7	18	27	9
Grades		7,36	0,74	5	9	4
Parents age	Mother	49,26	4,07	39	63	24
	Father	52,2	5,07	42	70	28

(n=158)

Source: own elaborated

Table 5. Consumption patterns for all the sample.

		Absolute data	Percentage
Tobacco	Never	37	23,40%
	Consumed once	30	19%
	Consumed more than once	91	57,60%
Alcohol	Never	7	4,40%
	Consumed once	5	3,20%
	Consumed more than once	146	92,40%
Cannabis	Never	57	36,10%
	Consumed once	21	13,30%
	Consumed more than once	80	50,60%

(n=158)

Source: own elaborated

Table 6. Age of start of different drugs consumption for all the sample.

		Mean age of start	Standard deviation	Minimum	Maximum	Range
Tobacco	Consumed once	16,04	1,85	13	20	7
	Consumed more than once	14,55	1,87	8	18	10
Alcohol	Consumed once	17	1,15	16	18	2
	Consumed more than once	15,61	1,51	9	20	11
Cannabis	Consumed once	17,33	2,05	7	13	20
	Consumed more than once	15,92	1,49	12	21	9

(n=158)

Source: own elaborated

Table 7. Categorical sociodemographic variables for consumers.

			Absolute data	Percentage	
Gender	Girls		50	62,50%	
	Boys		30	37,50%	
Parent's job status	Mother	Works outside home	63	78,70%	
		Unemployed, houseworkers and retirees or pensioners	17	21,30%	
	Father	Works outside home	58	72,50%	
		Unemployed, houseworkers and retirees or pensioners	22	27,50%	
Parents studies	Mother	School certificate or lower	19	23,80%	23,80%
		Compulsory secondary education	15	18,80%	42,60%
		Non-compulsory secondary education	22	27,50%	70,10%
		College studies	20	25,00%	95,10%
	Father	School certificate or lower	22	27,50%	27,50%
		Compulsory secondary education	12	15,00%	42,50%
		Non-compulsory secondary education	27	33,80%	76,30%
		College studies	12	15,00%	91,30%
Cohabits		Lives with one of the parents	4	5%	
		Lives with one of the parents and other familiars (including siblings)	10	12,50%	
		Lives with both parents	18	22,50%	
		Lives with both parents and other familiars (including siblings)	28	35,00%	
		Lives with other familiars or outside the family nucleus	20	25,00%	

(n=80)

Source: own elaborated

Table 8. Continuous sociodemographic variables for consumers.

		Mean	Standard deviation	Minimum	Maximum	Range
Age		19,93	1,55	18	25	7
Grades		7,33	0,71	6	9	3
Parents age	Mother	49,51	4,07	40	63	23
	Father	52,72	5,39	43	70	27

(n=80)

Source: own elaborated

Table 9. Consumption patterns for cannabis consumers.

		Absolute data	Percentage
Tobacco	Never	2	2,50%
	Consumed once	11	14%
	Consumed more than once	67	83,80%
Alcohol	Never	0	0,00%
	Consumed once	0	0,00%
	Consumed more than once	80	100,00%

(n=80)

Source: own elaborated

Table 10. CPQ Dependence scale (DV) bivariate correlations with categorical variables (CV) for all the sample.

		CPQ Dependence scale		
		Frequency		Asymp. Sig. (2-sided)
		Yes	No	
CONTROL VARIABLES				
Gender	Girl	19	86	0,17
	Boy	5	47	
Mother's job	Works outside home	18	103	0,86
	Unemployed (…)	5	26	
Father's job	Works outside home	17	102	0,39
	Unemployed (…)	6	23	
Mother's educational level	School certificate or lower	4	36	0,78
	Compulsory secondary education	5	23	
	Non-compulsory secondary education	7	29	
	College studies	6	29	
Father's educational level	School certificate or lower	7	41	0,64
	Compulsory secondary education	3	26	
	Non-compulsory secondary education	5	38	
	College studies	5	18	
Tobacco consumption	Never	6	31	0,93
	Consumed once	5	25	
	Consumed more than once	13	78	
Cohabit	Lives with one of the parents	0	11	0,52
	Lives with one of the parents and other familiars (including siblings)	3	17	
	Lives with both parents	6	28	
	Lives with both parents and other familiars (including siblings)	11	46	
	Lives with other familiars or outside the family nucleus	4	31	

** $\alpha < 0,01$; * $\alpha < 0,05$ (n=158)

Source: own elaborated

Table 11. CAST-f and SRD antinormative behaviour's scale (DV) bivariate correlations with continuous variables (IV – CV) for all the sample.

		CAST-f		SRD Antinormative behaviour	
		Pearson's P	Sig. (2-tailored)	Pearson's P	Sig. (2-tailored)
INDEPENDENT VARIABLES					
CAST-f		-	-	0,37**	0,01
TMMS	Attention	-0,07	0,39	-0,09	0,25
	Clarity	-0,39	0,62	-0,10	0,21
	Repair	0,08	0,31	0,08	0,33
CONTOL VARIABLES					
Age		-0,01	0,90	0,07	0,39
Mother's age		0,07	0,42	0,02	0,85
Father's age		0,15	0,06	0,07	0,38
Grades		-0,07	0,36	-0,11	0,17
Age of start tobacco consumption		-0,17	0,07	-0,45**	0,01
Age of start alcohol consumption		-0,02	0,77	-0,02	0,79
Age of start cannabis consumption		-0,27**	0,01	-0,37**	0,01

** $\alpha < 0,01$; * $\alpha < 0,05$ (n=158)

Source: own elaborated

Table 12. SRD antinormative behaviour's scale (DV) bivariate correlations with categorical variables (IV – CV) for all the sample.

		SRD Antinormative behaviour	
		Mean	Sig. (2-tailored)
CONTROL VARIABLES			
CPQ Dependence scale	Yes	5,79**	0,01
	No	4,26**	
CONTROL VARIABLES			
Gender	Girl	4,24	0,08
	Boy	5,02	
Mother's job	Works outside home	4,33	0,12
	Unemployed (...)	5,16	
Father's job	Works outside home	4,22*	0,03
	Unemployed (...)	5,38*	

** $\alpha < 0,01$; * $\alpha < 0,05$ (n=158)

Source: own elaborated

Table 13. Cannabis consumption (DV) bivariate correlations with Emotional Intelligence scales (IV).

		Cannabis consumption		
		Mean		Sig. (2-tailored)
		Never or only once	Consumed more	
INDEPENDENT VARIABLES				
TMMS	Attention	26,76	26,38	0,696
	Clarity	25,99	24,81	0,259
	Repair	25,58	27,11	0,117

** α < 0,01; * α < 0,05 (n=158)

Source: own elaborated

Table 14. Logistic regression between cannabis consumption (DV) and other variables (IV) for all the sample.

		Model 1		Model 2		Model 3	
		(B)	Sig.	(B)	Sig.	(B)	Sig.
Gender		0,40	0,57	0,33	0,64	0,22	0,76
Age		0,24	0,32	0,25	0,34	0,22	0,40
Age of start on tobacco consumption		0,23	0,16	0,23	0,17	0,33	0,07
Age of start on alcohol consumption		0,02	0,95	0,02	0,95	0,06	0,85
Age of start on cannabis consumption		- 0,58 *	0,02	- 0,55 *	0,04	- 0,52 *	0,05
TMMS	Attention	-	-	- 0,01	0,86	0,01	0,89
	Clarity	-	-	- 0,03	0,60	- 0,03	0,68
	Repair	-	-	0,12	0,08	0,11	0,09
SRD Antinormative behaviour		-	-	-	-	0,24	0,13
		Cox & Snell R Square: 0,08		Cox & Snell R Square: 0,12		Cox & Snell R Square: 0,14	

** α < 0,01; * α < 0,05 (n=158)

Source: own elaborated

Table 15. Logistic regression between cannabis dependence (DV) and other variables (IV) for all the sample.

		Model 1		Model 2		Model 3	
		(B)	Sig.	(B)	Sig.	(B)	Sig.
Gender		- 1,09	0,16	- 0,94	0,24	- 1,27	0,15
Age		0,20	0,32	0,35	0,13	0,24	0,33
Age of start on tobacco consumption		0,03	0,89	0,07	0,73	0,29	0,19
Age of start on alcohol consumption		0,42	0,21	0,30	0,39	0,47	0,22
Age of start on cannabis consumption		- 0,29	0,28	- 0,32	0,26	- 0,21	0,52
TMMS	Attention	-	-	0,040	0,49	0,07	0,28
	Clarity	-	-	- 0,13	0,06	- 0,11	0,13
	Repair	-	-	- 0,02	0,80	- 0,04	0,54
SRD Antinormative behaviour		-	-	-	-	0,47 **	0,01
		Cox & Snell R Square: 0,05		Cox & Snell R Square: 0,11		Cox & Snell R Square: 0,19	

** $\alpha < 0,01$; * $\alpha < 0,05$ (n=158)

Source: own elaborated

Table 16. Lineal regression between antinormative behaviour (DV) and other variables (IV) for all the sample.

		Model 1		Model 2		Model 3	
		(B)	Sig.	(B)	Sig.	(B)	Sig.
Gender		- 0,53	0,50	- 0,51	0,41	- 0,58	0,29
Age		0,11	0,39	0,21	0,30	0,25	0,19
Father's job		1,13	0,57	0,90	0,22	0,40	0,56
TMMS	Attention	-	-	- 0,07	0,16	- 0,07	0,09
	Clarity	-	-	- 0,07	0,28	- 0,05	0,34
	Repair	-	-	0,03	0,60	0,01	0,91
CPQ Dependence						1,72 **	0,01
Cannabis consumption						0,82	0,24
Age of start on tobacco consumption		-	-	-	-	- 0,44 **	0,01
Age of start on alcohol consumption		-	-	-	-	- 0,37	0,19
Age of start on cannabis consumption		-	-	-	-	0,05	0,82
		R Square: 0,07		R Square: 0,11		R Square: 0,40	

** $\alpha < 0,01$; * $\alpha < 0,05$ (n=158)

Table 17. Cannabis consumption (DV) bivariate correlations with Emotional Intelligence scales (IV).

		Cannabis consumption		
		Mean		Sig. (2-tailored)
		Never or only once	Consumed more	
INDEPENDENT VARIABLES				
TMMS	Attention	26,76	26,38	0,696
	Clarity	25,99	24,81	0,259
	Repair	25,58	27,11	0,117

** α < 0,01; * α < 0,05 (n=158)

Source: own elaborated

Table 18. CPQ dependence scale (DV) bivariate correlations with categorical variables (CV) for consumers.

		CPQ Dependence scale		
		Frequency		Asymp. Sig. (2-sided)
		Yes	No	
CONTROL VARIABLES				
Gender	Girl	3	27	0,17
	Boy	11	39	
Mother's job	Works outside home	11	49	0,95
	Unemployed (...)	3	14	
Father's job	Works outside home	9	49	0,38
	Unemployed (...)	4	12	
Mother's educational level	School certificate or lower	2	17	0,74
	Compulsory secondary	2	13	
	Non-compulsory secondary	5	17	
	College studies	3	17	
Father's educational level	School certificate or lower	5	17	0,60
	Compulsory secondary	1	11	
	Non-compulsory secondary	4	23	
	College studies	1	11	
Tobacco consumption	Never	0	2	0,80
	Consumed once	2	9	
	Consumed more than once	12	55	
Cohabit	Lives with one of the parents	0	4	0,56
	Lives with one of the parents	3	7	
	Lives with both parents	4	14	
	Lives with both parents and	5	23	
	Lives with other familiars or	2	18	

** α < 0,01; * α < 0,05 (n=80)

Source: own elaborated

Table 19. CAST-f and SRD antinormative behaviour's scale (DV) bivariate correlations with continuous variables (IV – CV) for consumers.

		CAST-f		SRD Antinormative behaviour	
		Pearson's P	Sig. (2-tailored)	Pearson's P	Sig. (2-tailored)
INDEPENDENT VARIABLES					
CAST-f		-	-	0,37	0,01
TMMS	**Attention**	-0,09	0,44	-0,12	0,30
	Clarity	-0,02	0,84	-0,01	0,93
	Repair	0,07	0,52	0,04	0,73
CONTOL VARIABLES					
Age		-0,04	0,76	0,65	0,52
Mother's age		0,07	0,54	-1,41	0,16
Father's age		0,17	0,14	-2,23	0,02
Grades		-0,09	0,43	-0,01	0,91
Age of start tobacco consumption		-0,19	0,10	-0,45 **	0,01
Age of start alcohol consumption		-0,15	0,19	-0,40 **	0,01
Age of start cannabis consumption		- 0,28 *	0,01	-0,45 **	0,01

** $\alpha < 0,01$; * $\alpha < 0,05$ (n=80)

Source: own elaborated

Table 20. Logistic regression between cannabis dependence (DV) and other variables (IV) for consumers.

		Model 1		Model 2		Model 3	
		(B)	Sig.	(B)	Sig.	(B)	Sig.
Gender		- 1,03	0,21	- 0,71	0,43	- 0,81	0,39
Age		0,20	0,34	0,28	0,26	0,18	0,49
Age of start on tobacco consumption		- 0,17	0,56	- 0,17	0,57	- 0,05	0,87
Age of start on alcohol consumption		0,65	0,11	0,65	0,15	0,79	0,11
Age of start on cannabis consumption		- 0,32	0,34	- 0,46	0,19	- 0,31	0,42
TMMS	Attention	-	-	0,05	0,46	0,07	0,33
	Clarity	-	-	- 0,12	0,11	- 0,11	0,15
	Repair	-	-	- 0,06	0,66	- 0,7	0,33
SRD Antinormative behaviour		-	-	-	-	0,36	0,06
		Cox & Snell R Square: 0,07		Cox & Snell R Square: 0,15		Cox & Snell R Square: 0,20	

** $\alpha < 0,01$; * $\alpha < 0,05$ (n=80)

Source: own elaborated

Table 21. Lineal regression between antinormative behaviour (DV) and other variables (IV) for consumers.

		Model 1		Model 2		Model 3	
		(B)	Sig.	(B)	Sig.	(B)	Sig.
Gender		- 0,05	0,94	- 0,01	0,99	- 0,54	0,41
Age		0,18	0,42	0,27	0,26	0,37	0,08
Father's job		1,59	0,06	1,42	0,22	0,06	0,94
TMMS	Attention	-	-	- 0,08	0,10	- 0,07	0,16
	Clarity	-	-	- 0,03	0,17	- 0,05	0,39
	Repair	-	-	- 0,01	0,95	0,01	0,92
CPQ Dependence						1,41	0,06
Age of start on tobacco consumption		-	-	-	-	- 0,24	0,40
Age of start on alcohol consumption		-	-	-	-	- 0,38	0,33
Age of start on cannabis consumption		-	-	-	-	- 0,40	0,20
		R Square: 0,09		R Square: 0,14		R Square: 0,40	

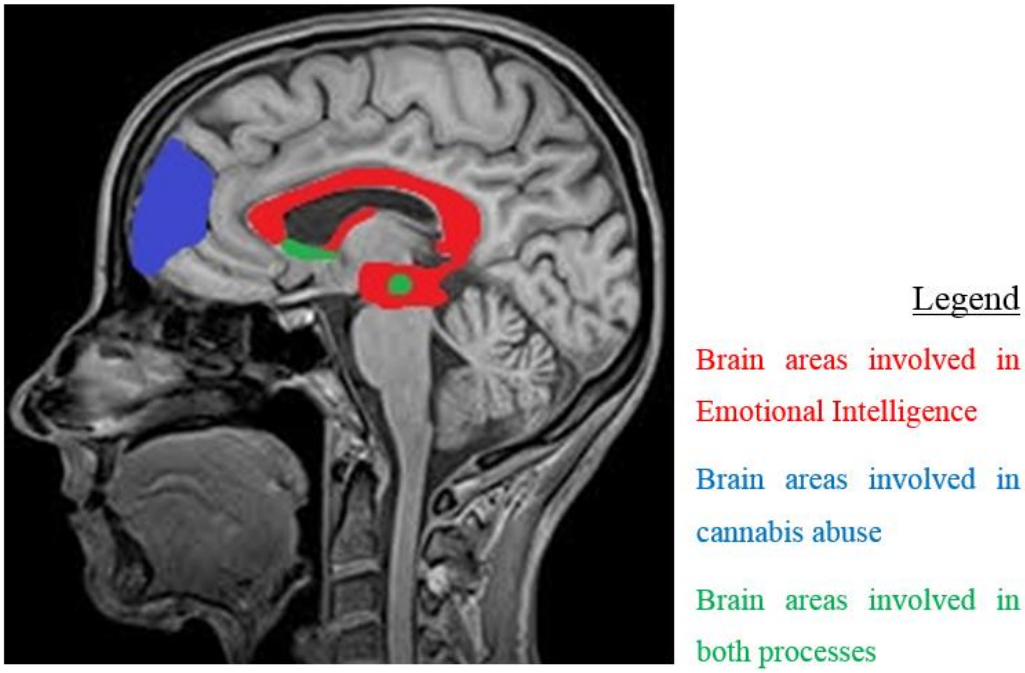
** $\alpha < 0,01$; * $\alpha < 0,05$ (n=80)

Source: own elaborated

ANNEX 3. FIGURES

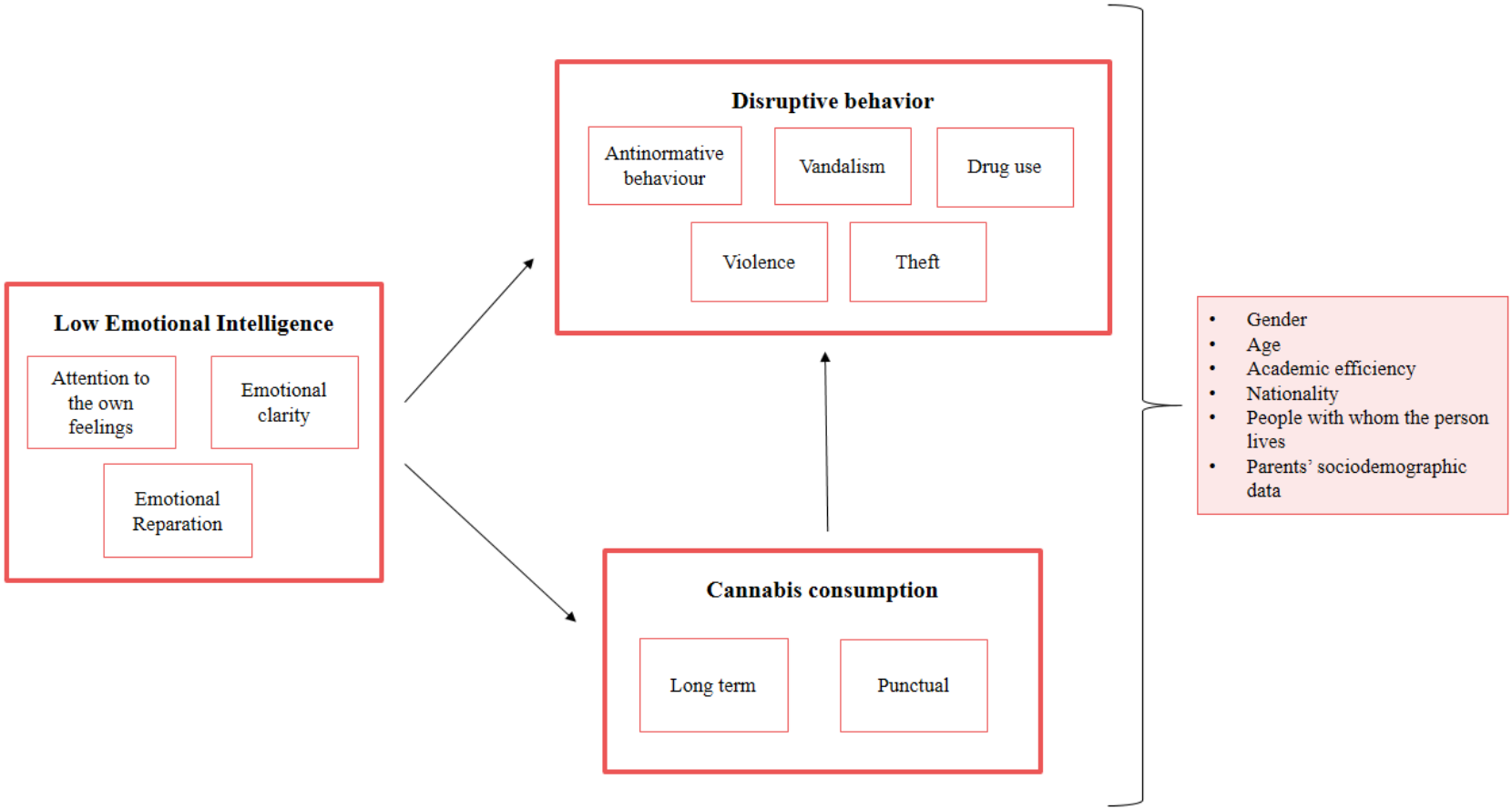
Figure 1. Brain areas involved in Emotional Inte

lligence and cannabis abuse



Source: Own elaborated

Figure 2. Analysis model



Source: Own elaborated